T. JOHN INSTITUTE OF TECHNOLOGY

#86/1, GOTTTIGERE POST, BANNERGATTA ROAD, BENGALURU – 560083.

MANDATORY DISCLOSURES

As on 31st MARCH 2022

Submitted to

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Indira Gandhi Sports Complex, I.P. Estate
New Delhi – 110 002

1. **Name of the Institution**

   T. JOHN INSTITUTE OF TECHNOLOGY
   #86/1, GOTTTIGERE POST, BANNERGATTA ROAD, BENGALURU – 560083.
   Ph: 080 – 49030555,
   Email: tjitprincipal@tjohngroup.com
   website: www.tjohncollege.com

2. **Name and address of the Trust/ Society/ Company and the Trustees**

   MAROUGEN EDUCTION FOUNDATION
   #47/1, Cambell Road, Austin Town, Bengaluru – 560047
   Ph: 080 – 25597817
   Email: info@tjohngroup.com

3. **Name and Address of the Vice Chancellor/ Principal/Director**

   Dr. P SURESH VENUGOPAL
   T. JOHN INSTITUTE OF TECHNOLOGY
   #86/1, GOTTTIGERE POST, BANNERGATTA ROAD, BENGALURU – 560083.
   Ph: 080 – 49030555,
   Email: tjitprincipal@tjohngroup.com

4. **Name of the affiliating University**

   VISVESVARAYA ECHNOLOGICAL UNIVERSITY,
   Jnana Sangama, Mache, Belagavi - 590018

5. **Governance**

   ■ Members of the Board and their brief background

SL NO.	**Name of the GC Member**	**Designation**	**GC Designation**
1	Dr. Thomas P. John	Chairman, T. John Group of Institutions	CHAIRMAN
2	Mr. Roy M. Raju	Adminstrator, T. John Group of Institutions	MEMBER
3	Dr. Kempa Raju T. D.	Campus Director, T. John Group of Institutions	MEMBER
4	Dr. P. Suresh Venugopal	Principal, T. John Institute of Technology	MEMBER SECRETARY
5	Dr. Mohan Babu T. N.	Principal, BMSIT, Bangalore	VTU NOMINEE
6	Dr. H. P. Srinivasa	Vice Principal, T. John Institute of Technology	MEMBER
7	Mr. Anand Swami	Asst. Prof. & HOD/ECE & TPO, T. John Institute of Technology	MEMBER
8	Mr. Madhusudhana Rao T. D.	Regional Manager, IBM	MEMBER
9	Naveen G.	Alumni Member (CSE 2006-2010)	MEMBER

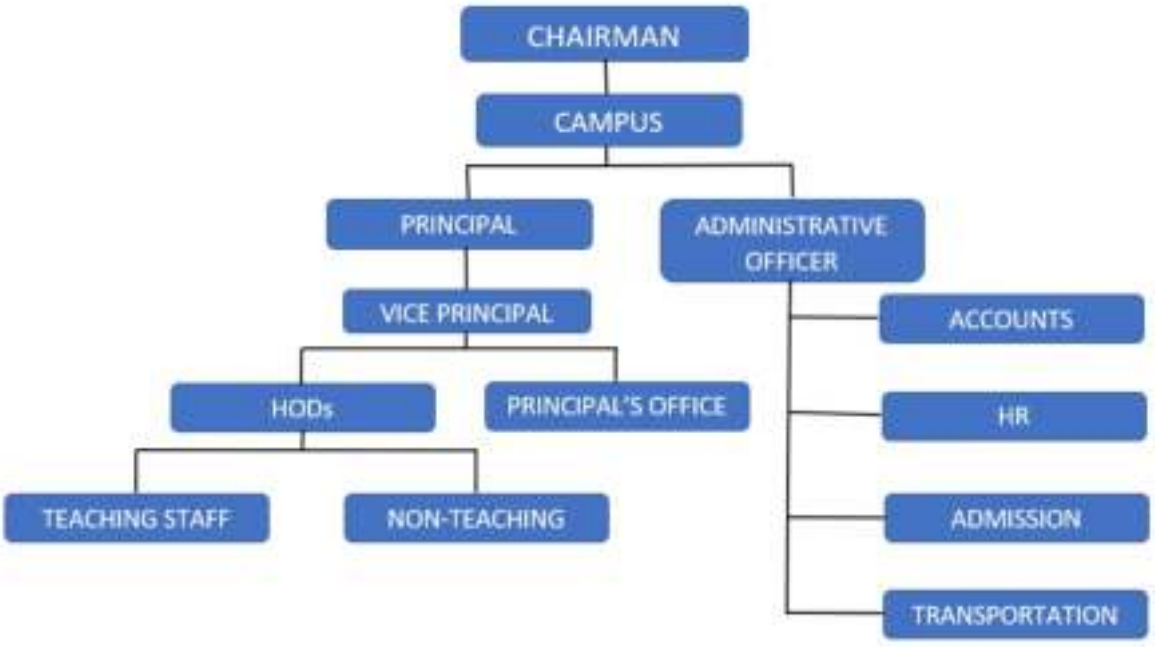
   ■ Members of Academic Advisory Body

SL NO.	Name of the Committee Members	Committee Designation
1	Dr. Suresh P. Venugopal, Principal, TJIT	Convenor
2	Dr. Srinivasa H. P Vice Principal, TJIT	Coordinator
3	Dr. Adharsh T K - Assoc.Prof,,CSE TJIT	Academics & IQAC Coordinator
4	Dr. John T. Mesia, Assoc.Prof,,CSE TJIT	R & D Cell Coordinator
5	Dr. Manjunath. V Assoc.Prof., ECE, TJIT	IEDC Coordinator
6	Mr. Anand Swamy A.S HOD, ECE, TJIT	Member
7	Ms. Suma. R - HOD, CSE TJIT	Member
8	Dr. Suganthi. J. HOD., ISE, TJIT	Member
9	Dr. Sujit Kumar HOD, ME. TJIT	Member
10	Ms. Sumam S. B HOD, CV, TJIT	Member
11	Ms. Dechamma K.K HOD., Mathematics TJIT	Member
12	Ms. Latha. V HOD, Chemistry, TJI	Member
13	Dr. P. Meenakumari Assoc.Prof, ISE, TJIT	Member
14	Ms. Anu Titto Office Admin,TJIT	Member
15	Ms. J. Jenifer, Principal Secretary, TJIT	Member

- Frequently of the Board Meeting and Academic Advisory Body

  Half Yearly

- Organizational chart and processes



- Nature and Extent of involvement of Faculty and students in academic affairs / improvements:

  In every department there exists a Department Advisory Board. Faculty members and Students are members of such bodies along with other stake holders. These bodies provide overall direction of the respective departments in terms of meeting the mission of the department.

  Faculty members are part of various committees which directly supports academic activities for the improvement of the system.

  Mentor system has also been initiated with various staff members and coordinators involved in this activity. Student's problems both internal and external are heard and the mentors render whatever assistance that is possible.

  Every year parents meeting is being arranged and the position the students are discussed. Ln order to foster heathy and positive environment for growth, several committees like canteen committee, sports committee, cultural committee, Magazine committee, Hostel committee, NSS, Transport committee etc have been set up. Many students and senior staff members activity participate in these committees fostering improved student – staff relationships. Improvements pointed out by these groups are incorporated, wherever feasible.

- Mechanism/ Norms and Procedure for democratic/ good Governance

  The Board of Management constituted with representation from the government, university, industry and the management are entrusted with the day-to-day affairs of the college like budget, appointments, purchase of equipment's, appointment of various committees like equipment and purchase committee, building committee, selection committee, admission committee etc.

  The Principal is the member secretary of the Board of Management and will be executing the decision of Board of Management through building committee, admission committee, selection committee etc. He along with the Vice-Principal will also be conducting the meeting of HODs to develop a good atmosphere for academic studies. This includes planning, budgeting, procurement of equipment's and furniture, learning toots, conduction of classes, tests, examination duty etc.

  Under each HOD of the department, the different departmental councils are constituted. They in turn recommend the number and type of seminar to Be conducted, research work to be undertaken, the workload, management, syllabus completion, conduction of test and examination, construction work and help in the efficient and smooth running of the department.

  Based on the HODs recommendation, the budget allocation, teaching materials, staff requirements, financial requirements, promotions etc are collated by the Principal and placed before the Board of Management for their approval.

- Student Feedback on Institutional Governance/ Faculty performance

  Semester wise Student Feedback on Faculty performance

- Grievance Redressal mechanism for Faculty, staff and students

  Matters relating to salary, promotions etc are referred by the departmental HoDs based on their assessment of the faculty/staff member. The recommendations are forwarded to the Principal. If can be solved at Principal's level, immediate action is taken. In case it is a policy matter it will be referred to the Board of Management. Matters relating to food, hostel, transportation, sports, cultural activities, magazine etc are referred to the relevant committee. ln case of major problem, it is referred to the Principal for further action.

- Establishment of Anti Ragging Committee

SL NO.	**Name of the Committee Members**	**Committee Designation**
1	Dr. Suresh P. Venugopal, Principal, TJIT	Convenor
2	Mr. Rahul P John, Asst. Prof.- M.E, TJIT	Coordinator
3	Ms. Drakshyini M N, Assoc. Prof.- E.C.E, TJIT	Member
4	Ms. Suma. R - HOD, CSE TJIT	Member
5	Ms. Manjusha N. M. J., ISE, TJIT	Member
6	Ms. Sumam S. B HOD, CV, TJIT	Member
7	Mr. R Vijay Kumar, Sub-Inspector, Hulimavu Police Station	Member
8	Mr. Shranick, S6- M.E, TJIT	Member
9	Ms. Swetha K, S6- E.C.E, TJIT	Member
10	Mr. Manjunath N, S6- CV, TJIT	Member

- Establishment of Online Grievance Redressal Mechanism

  Through Website - https://www.tjohncollege.com/tjitgrievance.php

- Establishment of Grievance Redressal Committee in the Institution and Appointment of OMBUDSMAN by the University

SL NO.	**Name of the Committee Members**	**Committee Designation**
1	Dr. Suresh P. Venugopal, Principal, TJIT	Convenor
2	Dr. Srinivasa H. P Vice Principal, TJIT	Coordinator
3	Mr. Anand Swamy A.S HOD, ECE, TJIT	Member
4	Ms. Suma. R - HOD, CSE TJIT	Member
5	Ms. Manjusha N. M. J., ISE, TJIT	Member
6	Dr. Sujit Kumar HOD, ME. TJIT	Member
7	Ms. Sumam S. B HOD, CV, TJIT	Member
8	Ms. Dechamma K.K HOD., Mathematics TJIT	Member
9	Ms. Latha. V HOD, Chemistry, TJI	Member
10	Dr. P. Meenakumari Assoc.Prof, ISE, TJIT	Member
11	Mr, Jintendra S, S7 ME	Member
12	Ms. Pooja Chavhan S8, CSE, TJIT	Member

- Establishment of Internal Complaint Committee (ICC)

SL NO.	Name of the Committee Members	Committee Designation
1	Dr. P. Suresh Venugopal, Principal, TJIT	Convener
2	Ms. Suma R, HOD- CSE, TJIT	Coordinator
3	Ms. Divya G. S. Asst. Prof, ISE, TJIT	Member
4	Ms. Raji Asst. Prof, Mathematics TJIT	Member
5	Mr. Nanjunda Shastry, Foremen- M.E, TJIT	Member
6	Ms. Anu Titto, Office Admin, TJIT	Member
7	Ms. Aparna Shukla, CSE S7	Member
8	Ms. Bhuvana B. ECE, S7	Member
9	Mr. Shubam ISE S7	Member

- Establishment of Committee for SC/ST

SL NO.	Name of the Committee Members	Committee Designation
1	Dr. P. Suresh Venugopal, Principal, TJIT	Convener
2	Ms. Suma R, HOD- CSE, TJIT	Coordinator
3	Mr. Anand Swamy A. S – HOD ECE, TJIT	Member
4	Dr. P. Meenakumari- Assoc.Prof.- ISE, TJIT	Member
5	Mr. Chowda Reddy N. Asst. Prof – Physics, TJIT	Member
6	Ms. Navyasree R, S5 – ISE, TJIT	Member
7	Mr. Yuvaraja A. C. S5 - ECE, TJIT	Member
8	Mr. Abhishek B S5 – ME, TJIT	Member
9	Ms. Neha K. T – S5-CSE,TJIT	Member
10	Mr. Shivanand – S7 CV- TJIT	Member

- Internal Quality Assurance Cell

1	Dr. Adharsh T K - Assoc.Prof,„CSE TJIT	Coordinator
2	Dr. P. Meenakumari Assoc.Prof, ISE, TJIT	Member
3	Ms. Nisha Joy Asst..Prof, ECE, TJIT	Member
4.	Ms. Shilpa Toffin Assit. Prof. CV, TJIT	Member
5.	Mr. Narashimha murthy Prof. ME. TJIT	Member
6.	Mr. B G Vijay Assit.Prof, Mathematics TJIT	Member
7.	Ms. Soniya Dass - Assit.Prof,„CSE TJIT	Member

6. **Programmes**

- Name of Programmes approved by AICTE : ENGINERING AND TECHNOLOGY

- Name of Programmes Accredited by NBA : NIL

- Status of Accreditation of the Courses

  - Total number of Courses : NIL
  - No. of Courses for which applied for Accreditation : NIL
  - Status of Accreditation – Preliminary/ Applied for SAR and results awaited/ Applied for SAR and visits completed/ Results of the visits awaited/ Rejected/ Approved for .

. .Courses (specify the number of courses)

PRELIMINARY - PREPARATION OF SAR

- For each Programme the following details are to be given(Preferably in Tabular form):

Name	No of seats	Duration	Cut off marks/rank of admission during the last three years	Fee	Placement	Facilities Campus placement in last three years with min sal, max sal and avg salary
Computer Science & Engg	120	4	PUC/12th - 45% (SC/ST/OBC – 40%)	1,25,000	Available	100%
Electronics & Communication Engg	30	4		1,25,000	Available	90%
Information Science & Engg	30	4		1,25,000	Available	100%
Mechanical Engineering	30	4		1,25,000	Available	80%
Civil Engineering	30	4		1,25,000	Available	80%

- Name and duration of Programme(s)having Twinning and Collaboration with Foreign University(s) and being run in the same Campus along with status of their AICTE approval. If there is Foreign Collaboration, give the following details:
  NIL
- For each Programme Collaborated provide the following:
  NOT APPLICABLE

7. **Faculty**

- Course/Branch wise list Faculty members:

Department	Name of Faculty	Permanent/Adjunct Faculty
ECE	Dr. P Suresh Venugopal	Permanent
ECE	Mr. Anand Swamy A. S.	Permanent
ECE	Ms. Drakshayini M. N.	Permanent
ECE	Dr. Manjunatha V.	Permanent
ECE	Mr. Praveen P. N.	Permanent
ECE	Ms. Sukanya Prasad T.	Permanent
ECE	Ms. Subeekrishna M. P.	Permanent
ECE	Ms. Nisha Joy	Permanent
ECE	Ms. J. Aarthy Suganthi Kani	Permanent

Department	Name of Faculty	Permanent/Adjunct Faculty
ISE	Dr. J. Suganthi	Permanent
ISE	Dr. P. Meena Kumari	Permanent
ISE	Ms. G. S. Divya	Permanent
ISE	Ms. Manjusha N. Mahamune	Permanent
CE	Mr.Karthick M O	Permanent
CE	Mr.Ravi Chandra S	Permanent
CE	Mrs.Sumam S B	Permanent
CE	Mrs.Shilpa H Tofin	Permanent
CE	Mr.Bhargav S Reddy	Permanent
CSE	Dr. H. P. Srinivasa	Permanent
CSE	Ms. Suma R.	Permanent
CSE	Dr. John T Mesia Dhas	Permanent
CSE	Dr. Adarsh T. K.	Permanent
CSE	Dr. E. Praynlin	Permanent
CSE	Ms. Bhavya N. Javagal	Permanent
CSE	Mr. Prashant Koparde	Permanent
CSE	Ms. Aishwarya V.	Permanent
CSE	Ms. Sumy Joseph	Permanent
CSE	Ms. Nikhita V. P.	Permanent
CSE	Mr. Vivek P. S.	Permanent
CSE	Mr. Mahesh B.	Permanent
CSE	Ms. Sonia Das	Permanent
CSE	Ms. Bhavya B.	Permanent
ME	Dr. S.G Sujithkumar	Permanent
ME	Mr. Narasimha Murthy C	Permanent
BSH	Dechamma	Permanent
BSH	Vijay B. G.	Permanent
BSH	J. Raji	Permanent
BSH	Latha V	Permanent
BSH	R. Lakshmi	Permanent
BSH	Ashwini P R	Permanent

- Permanent Faculty: Student Ratio

  1:20

- Number of Faculty employed and left during the last three years

Year	No.of Faculties joined	No. of Faculties Resigned
2021-22	15	17
2020-21	22	17
2019-20	8	9

8. **Profile of Vice Chancellor/ Director/ Principal/Faculty**

♦ PRINCIPAL

Dr. P. SURESH VENUGOPAL
ME, Ph. D [MIE, MIEEE, LMISTE, LMIETE, MIAENG, LMIRED]
20 Years of experience in Academic, Research & Academic Administrative roles.
tjitprincipal@tjohngroup.com

Dr. P. Suresh Venugopal holds Doctor of Philosophy (PhD) in Biomedical Image Processing and Master of Engineering (M.E.) in Applied Electronics from Anna University, Chennai. Apart from the vast teaching experience, Dr. P. Suresh Venugopal is a Mind Trainer employing TA & NLP, Soft Skill Trainer, Educational Counsellor & Motivational Speaker. In parallel to the academic and administrative journey, Dr. P. Suresh Venugopal is an established entrepreneur holding the post of CTO (Chief Technical Officer) of the Start-Up AMSTERTECH, an IoT based waste management company started by the Students under NASSCOM, Bangalore.

Areas of Interest:

- Microprocessors and Microcontrollers, Analog Communication, Digital Communication, VHDL Programming, Digital Image Processing, Biomedical Information Processing, MATLAB Programming, LabVIEW Programming, Artificial Neural Networks, Biomedical Imaging Techniques, Pattern Recognition, Soft computing, Digital Design, Embedded Systems & ASIC / VLSI Design.

Technical Papers and Articles:

- Suresh P. and Dr. Bommanna K Raja, “Functional MRI BOLD interpretation of Brain functions using Independent Component Analysis”. Asian Journal of Information Technology (AJIT), ISSN: 1682-3915, vol. 15, no. 10 (2016), pp. 1607-1620.
- Suresh P. and Dr. Bommanna K Raja, “De-Noising Methods forfMRI Time Series Sequences with Rician Noise Model”. International Journal of Applied Engineering Research (IJAER), ISSN 0973-4562, Volume 10, Number 9 (2015), pp. 23555-23572 published by Research India Publications.
- Suresh P. and Dr. Bommanna K Raja,“A Review on Analysis and Quantification of Specific Learning Disability (SLD) with fMRI using Image Processing Techniques”.

International Journal of Computer Application (IJCA), vol. 5, no. 2 (2011), pp: 24–29, 2011. Published by Foundation of Computer Science.

- Suresh P. and Dr. Bommanna K Raja. "A Review on Analysis and Quantification of Specific Learning Disability (SLD) with fMRI using Image Processing Techniques". Proc. of the International Conference on VLSI, Communication and Instrumentation [ICVCI-2011]:197-202, April 7th – 9th, 2011, SAINTGITS College of Engg, Kottayam, INDIA.
- Suresh P."Study on Importance of Recognizing Diverse Learning Styles in Effective Teaching Process". Proc. of21st Annual State Convention, Indian Society for Technical Education [ISTE], Kerala Section: 133-137, Nov 20, 2010, St. Josephs College of Engineering and Technology, Palai, Kerala, India.
- Suresh P. and Dr. Bommanna K Raja, "A Review on Analysis and Quantification of Specific Learning Disability with Image Processing Techniques". Proc. of National Conference on System Design and Information Processing [SDIP-2010]: 5-13, 18th Feb, 2010, Excel College of Engineering for Women, Pallakapalayam, Erode, Tamilnadu, India.
- P. Suresh and K. Bommanaraja, Study on Ultrasound Kidney Images using Spectral Components. Proc. Of Second National Conference on Innovations in Information and Communication Technology (NCIICT 2006): 311-313, July 7- 8, 2006, PSG College of Technology, Coimbatore, Tamilnadu, India.
- "A Review on Analysis and Quantification of Specific Learning Disability (SLD) with fMRI using Image Processing Techniques". International Conference on VLSI, Communication and Instrumentation [ICVCI-2011], April 7th – 9th, 2011, SAINTGITS College of Engineering, Kottayam, Kerala, India.
- "Study on Importance of Recognizing Diverse Learning Styles in Effective Teaching Process". 21st Annual State Convention, Indian Society for Technical Education [ISTE], Kerala Section, Nov 20, 2010, St. Josephs College of Engineering and Technology, Palai, Kerala, India.
- "A Review on Analysis and Quantification of Specific Learning Disability with Image Processing Techniques". National Conference on System Design and Information Processing [SDIP-2010], 18th Feb, 2010, Excel College of Engineering for Women, Pallakapalayam, Erode, Tamilnadu, India.
- "Study on Ultrasound Kidney Images using Spectral Components". Second National Conference on Innovations in Information and Communication Technology (NCIICT 2006), July 7- 8, 2006, PSG College of Technology, Coimbatore, Tamilnadu, India.
- "Study on Ultrasound Kidney Images using Spectral Components".National Conference on Recent Trends in Computing Applications [NCRTCA-2006], 3rd May, 2006, Sree Venkateswara College of Engineering, Pennalur, Sriperumbudur, Tamilnadu, India.
- Suresh P., "How to give a paper presentation?", College Magazine – 2011, Published by College Union, Royal College of Engineering and Technology, Chiramanangad PO, Kunnamkulam, Thrissur, Kerala, India.
- Suresh P., "Don't Forget", College Magazine – 2010, Published by College Union, Royal College of Engineering and Technology, Chiramanangad PO, Kunnamkulam, Thrissur, Kerala, India.
- Suresh P., "Psychology", College Magazine – 2009, Published by College Union, MEA Engineering College, Perinthalmanna, Malappuram, Kerala, India.

- Suresh P., "Resume Preparation", College Magazine – 2008, Published by College Union, MEA Engineering College, Perinthalmanna, Malappuram, Kerala, India.
- Suresh P., "Hindustani Music", College Magazine – 2007, Published by College Union, MEA Engineering College, Perinthalmanna, Malappuram, Kerala, India.

FDPs/Seminars / Workshops / Training Programs / Conventions:

- Resource Person for the Topic "GO – GREEN" conducted as association program by ANSAR B. ed. College, Perumpilavu during 2012.
- Key note address on the topic "Art of Self Employability" at Association Program by Department of Electronics Engineering, Government Polytechnic College, Kottakkal, Malappuram, Kerala, India.
- Resource Person on the topic "Art of Exam Preparation"for SSLC Students conducted by SIO Karuvarakundu, Malappuram, Kerala, India..
- Key note address on "General Engineering Education Concerns" at Association program conducted by Department of Electronics and Communication Engineering, Thejus Engineering College, Vellarkkad, Kunnamkulam, Thrissur, Kerala, India in 2011.
- Invited Expert Panel Member of the Interview board for the post of Broadcast Engineer on July 15, 2010, conducted by Corporate office, Madhyamam Broadcasting Limited, Mavoor Road, Calicut, Kerala, India.
- Resource person on the topic "Attitude Building" at Arts and Science College, Perinthalmanna, Malappuram, Kerala, India.
- Invited Lecturer on the topic "Introduction to VHDL and Verilog" at Seethi Sahib Memorial Polytechnic College, Tirur, Malappuram, Kerala, India.
- Participated in 4-days Online Course on "Examination Reforms" conducted during 29 April to 2 May 2020 organized by AICTE
- Participated in a workshop titled "Microsoft's Global Azure Boot Camp" organized by Department of Computer Science and Engineering on April 25, 2015 at Eranad Knowledge City Technical Campus, Cherukulam, Elankur PO, Manjeri, Malappuram Dt., Kerala.
- Attended the Faculty Development program "Excellence in Teaching" at Royal College of Engineering and Technology, Chiramanangad PO, Akkikkavu, Thrissur, Kerala, India from 23rd to 26th April 2012.
- Attended 22nd Annual Convention of ISTE Kerala Section on Nov 19, 2011 at Vidya Academy of Science and Technology, Thalakkottukara, Thrissur, Kerala, India.
- Participated in "Hands-on Workshop on LabVIEW" conducted by Department of Electronics & Communication and Cranes Software International Limited on Nov 02 – 03, 2011 at Royal College of Engineering technology, Chiramanangad PO, Kunnamkulam, Thrissur, Kerala, India.
- Participated in the International Interdisciplinary Research Seminar on "Publishing Research Paper – Issues & Concerns" during 1st International Conference in South Asia on "Global Manufacturing Systems & Management" [ICGMSM – 2011], Aug 03, 2011, Coimbatore Institute of Technology, Coimbatore, Tamilnadu, India.
- Participated in the Workshop on "Application of LabVIEW" conducted by National Instruments at International Conference on VLSI, Communication and Instrumentation [ICVCI-2011], April 07, 2011, SAINTGITS College of Engineering, Kottayam, Kerala, India.
- Attended 21st Annual Convention of ISTE Kerala Section on Nov 20, 2010 at St. Josephs College of Engineering and Technology, Palai, Kottayam, Kerala, India.

- Participated in Faculty Development Program on “Enhancing Teaching Methodologies” on Dec 2010 at Royal College of Engineering and Technology, Chiramanangad PO, Kunnamkulam, Thrissur, Kerala, India.
- Participated in Training Course on “Training in Soft Skills” conducted by Allahabad Agricultural Institute Deemed University & Institute of Quality in Higher Education, May 14 – 20, 2009, All India Association for Christian Higher Education [AIACHE], Aluva, Kerala, India.

Core competencies:

- Designing result enhancement strategies.
- Implementing training /coaching programs for the Students to move towards higher studies, better placements and entrepreneurship.
- Framing strategies to enhance the Teaching - Learning Process.
- Ensuring cordial relationship among Students, Staff Members, Parents and Alumni Members.
- Ensuring the thoughts of Society & Environment inside the Campus through various Clubs like National Service Scheme (NSS), Nature Club etc.

♦ VICE PRINCIPAL

Dr. H. P SRINIVASA
B.E., M. Tech., Ph. D
Total Years of Teaching Experience: 19 Years & Industry Experience: 2 Years

Currently working as Vice Principal at T. John Institute of Technology. Previously I was working as Associate Professor in the Department of Computer Science & Engineering. I have been enjoying every bit of my academic life in various capacities from Lecturer to Associate Professor and Head of Department. I have handled classes for UG and PG students across various branches of computer science. I have guided around 30 number of U.G & PG students' projects. I have conducted/Participated in about 14 number of Conferences / Workshops for students. Previously, I have also served as I/C HOD of Computer Science / Information Science & Engineering Departments

I have received my Ph.D. in Faculty of Computer and Information Science from Visvesvaraya Technological University, Belagavi, and Masters in CSE from VTU and B.E.in CSE from Bangalore University.

My primary area of interest is in the field of Wireless Networks for Energy Efficient Routing and conserve Energy during communication. My areas of Specialization are Cloud Computing, Machine Learning, and e-Learning.

Areas of Expertise (Subjects Handled):

Database Management Systems, Data Communications, Computer Networks, System Software, Compiler Design, Unix Shell/System Programming, and Web Technologies.

Publications:

- "A Predictive Finest Path Selection Algorithm to Enhance QoS in MANETs" International Journal of Engineering Trends and Technology 69.11(2021):89-94 (Scopus Indexed)
- "A Node Ranking Based Cooperative Route Discovery Routing Protocol for achieving QoS", International Journal of Grid and Distributed Computing, Vol. 13, No. 1, (2020), pp. 1306 – 1315 (Web of Science)
- "Energy Efficient Co-operative Routing Mechanism for Mobile Ad-Hoc Networks",

International Journal of Future Generation Communication and Networking, ISSN: 2233-7857, Volume-13, No 1, April 2020, page No. 1528-1538. (Web of Science)

- "An Intelligent Neighbour Node Cooperative Routing Protocol for Ad Hoc Networks", International Journal of Advanced Science and Technology Vol. 28, No. 13, (Oct 2019), pp. 119-129 (Scopus Indexed).
- "Multistage Energy Efficient Cooperative Routing Technique for Wireless Ad-Hoc Networks", International Journal of Recent Technology and Engineering, ISSN: 2277-3878, Volume-8, Issue-3, Sept 2019, page No. 5034-5038. (Scopus Indexed).

Books:

- Co-Authored a Book entitled "Machine Learning Techniques for Air Quality Analysis" published by LAMBERT Academic Publishing in the month of December 2021.

Workshops / Trainings:

- Attended Five Days FDP on Advanced Excel and Visualization organized by EICT Cell, IIT Kanpur in Jan 2021.
- Attended FDP on Python Programming with Data Structures organized by EICT Cell, IIT Kanpur in Jan 2021.
- Attended FDP on Mobile Application Development held at Sri Sairam College of Engineering, Bengaluru
- Attended One week workshop on Outcome Based Education and NBA Accreditation held at Jyothy Institute of Technology, Bengaluru.
- Attended workshop on NAAC for Higher Education Institutes at VTU Regional Office organized by Visvesvaraya Technological University, Belagavi
- Attended One week FDP on Data Science at JSS Academy of Technical Education, Bengaluru
- Attended One week FDP on Data Warehousing and Mining at T. John Institute of Technology, Bengaluru
- Attended FDP on Information Security Management from EMC2 held at MSRIT, Bengaluru
- Completed training program in Oracle 10g Administration Workshop-I from Oracle Technology Park, Bangalore.

♦ DEPARTMENT OF CIVIL ENGINEERING

SUMAM S B
B.E, M.E (Water resources Engineering)
7 Years of Academic Experience
sumam@tjohngroup.com

I joined T John Institute of Institute of Technology in April 2021, after having taught Civil engineering students for several years. I have an in-depth understanding of the theoretical aspects and practical application of the field of Water Resources Engineering and its academic delivery. During my tenure with the experience in education, I have developed my skills of being able to deliver the extensive subject matter in the field of Civil Engineering in a simple yet meticulous manner and works towards promoting positive behavior among the staff and students.

Areas of expertise (Subjects handled):

- Fluid Mechanics
- Elements of Civil Engineering and Engineering Mechanics
- Applied Hydraulics
- Irrigation and Hydraulic Structures: Design and Drawing
- Hydrology and Irrigation Engineering
- Ground Water Hydraulics

FDP & Conferences attended:

- Attended National Workshop on “BHUVAN- ISRO Geoportal” conducted by NRSC (National Remote Sensing Centre), ISRO (Indian Space Research Organization) on 17th March 2012 at Bangalore University.

- Attended National Workshop on "Water Resources and Environmental Engineering" conducted under TEQIP-II from 3rd to 7th February 2014 at Nitte Meenakshi Institute of Technology, Bangalore.
- Attended Faculty Development Program on "Irrigation Design and Drawing" on 12th April 2014 at Acharya Institute of Technology, Bangalore
- Attended Faculty Development Program on "Application of Statistical Tools in Management Research using SPSS" on 7th March 2014 at Sambhram Institute of Technology, Bangalore.
- Attended Faculty Development Program in Entrepreneurship from 14th to 18th July 2015 at Sai Vidya Institute of Technology, Bangalore.
- Attended five days workshop on "Significance of Hydrology in Civil Engineering practice" from 25th to 29th July 2016 at M.S.Ramaiah Institute of Technology, Bangalore.
- Attended two day Faculty Refresher Program on Contemporary Classroom Management Techniques held during 30th and 31st Jan 2017 by Sai Vidya Institute of Technology, Bangalore.
- Co-ordinated and attended one week National Level Workshop on Topical Transcends in Civil Engineering (TTCE-2017) held at Sai Vidya Institute of Technology, Bangalore.

Publications:

- A technical paper entitled "Regional Frequency Analysis of rainfall Data Using L-Moments" in ICE-WWISH 2013, a TEQIP-II sponsored International Conference and exhibition held at University Visweswaraya College of Engineering from 25th to 27th July 2013.
- A paper in a two day National Conference on "Recent Advances in Civil Engineering" held on 21st and 22nd April 2016 at S.J.C. Institute of Technology, Chikballapur.
- Presented a paper entitled "Runoff Estimation for Somvarpet Taluk by using GIS and SCS- CN Method" in National Conference on "Recent Advances in Civil Engineering" held on 10th May 2018 at S.J.C. Institute of Technology, Chikballapur.
- Presented paper entitled "A case study to locate and analyse conflict points and deficiencies in KR Puram Junction and street involving in traffic conjestion and accidents, audit on remedial measures to increase the serviceability" at an International Conference on Topical Transcends in science, Technology and Management held at Sai Vidya Institute of Technology on 17th and 18th August 2018.

Certifications:

- NPTEL Certification on "Concrete Technology" from IIT, Madras from July to Oct 2016.
- Course on "Basics of Remote Sensing, Geographical Information System & Global Navigation Satellite System" conducted by Indian Institute of Remote Sensing, ISRO during August 22nd to November 18th 2016.
- Course on "Basics of Remote Sensing, Geographical Information System & Global Navigation Satellite System" conducted by Indian Institute of Remote Sensing, ISRO during August 21st to December 04th 2017.
- NPTEL Certification on "Introduction to Fluid Mechanics" from IIT, Kharagpur from Jan to April 2017.

Mr. Karthick M. O.
M. Tech (Computer Aided Structural Engineering) , B. E (Civil Engg.)
Karthick@tjohngroup.com

A Professional Teacher and motivator and an adaptable professional who specializes in Computer Aided Skills, Flipped Classroom technology, Academic and Research.

Areas of professional expertise:

- AutoCAD 2D, Staad Pro, ETABS, and QGIS (Basic)
- Flipped Classroom for Blended Education
  M S Project, CYPE (Basic), ANSYS (Basic)
- Writing and Verbal Communication
- Multitasking and Managing Projects
- Researching and Preparing Documentation
- Problem Solving in a Team Environment
- Event Planning

Awards and Recognition's:

- The Indian Green Building Council (IGBC) awarded the title "IGBC Accredited Faculty" on 04th June-2021 for Demonstrating the Knowledge on Green Building and Built Environment in association with Confederation of Indian Industry (CII).

WORKSHOP'S:

- Participated in workshop conducted by VTU on "New model curriculum for PG course (M.Tech) CBCS -Detailed syllabus (2018-19) as per outcome based education OBE including course outcome (CO) and Bloom's Taxonomy under TEQIP -1.3" on 06/8/2018 held at BNMIT Bengaluru.
- Participated in online Workshop on "Geoinformatics and Web technologies" conducted by Banasthali Vidyapith in association with ATAL Academy (AICTE) from 18th May to 22nd May-2021.
- Participated in online Workshop on "Green Building and Built Environment" conducted by Indian Green Building Council (IGBC) in association with ATAL Academy (AICTE) from 31th May to 04th June-2021.

- Participated in online Workshop on “Environmental Geotechnology” conducted by NIT, Goa in association with ATAL Academy (AICTE) from 21st to 25th June-2021.

CONFERENCE:

- Attended the International conference on "Forensic civil engineering" Held in NIMHANS Convectional center, Bengaluru on Aug 2013.
- Attended and Presented a Paper in the National Conference "Next Frontiers in Civil Engineering" at MUMBAI Conducted by IIT BOMBAY From 30th Nov - 01st Dec 2018.
- Attended and Presented a Research Paper in the National Conference "Recent Trends in Architecture & Civil Engineering Towards Energy Efficient and Sustainable Development 2019" at NIT Trichy from 10th - 12th Jan 2019.
- Attended and Published Research paper in Virtual International conference on “Recent Development on Materials, Reliability, Safety and Environmental Issues-2021” from June 25- 27, 2021 Conducted by NIT, Jalandhar - Punjab.
- Participated in the Virtual Conference on “Innovative and Sustainable Civil Engineering Practices 2021” (ICISCEP 2021) during 26-27 August,2021 Conducted by Department of Civil Engineering, RIET , Kerala

JOURNAL’S published:

- “Experimental Investigation on “Workability and Mechanical Properties of Self-Compacting Geopolymer Concrete made with Eco Friendly Materials” Arun B R, Srishaila J M, Nagaraja P S, Karthick M O & Vivek R Das. Page Number 515, ISBN 978-93-5346-040-2.
- “Experimental investigations of low Velocity Impact behavior of Self Compacting Concrete with low Fibers reinforced based cement composites” Srishaila Jagalur Mahalingasharma, Karthick M O, Prakash Parasivamurthy, Vivek Ram Das.
- “Analysis and Design of Multi-storeyed Building of Different Plan Configurations using ETABS” Karthick M O, Salonica Jenifer, Sandesh, Vinay reddy, Srikanth- e-ISSN: 2395-0056 P-ISSN 23950072.

Massive Open Online Course (MOOC):

- Participated in “Basic 3D animation using Blender for Education” and successfully completed and Certified with grade A, held during 16th March to 11th July 2018 conducted by IITBx.
- Participated in “Design of learner-centric MOOC” and successfully completed and secured 76
- Participated and Certified in “Fundamental of 3D visualization” and secured 93
- Received Elite Certificate in the course “Remote Sensing and Digital Image Processing of satellite Data” conducted by NPTEL in collaboration with IIT Roorkee Funded by MHRD.
- Received Elite Certificate in the course “Reinforced Concrete Bridges” conducted by NPTEL in collaboration with IIT Kharagpur Funded by MHRD.
- Received Elite Certificate in the course “Advance Concrete Technology” conducted by NPTEL in collaboration with IIT Madras Funded by MHRD.
- Successfully completed the course on “Resource Management in Rain fed Drylands" (Five week online course) conducted by IIT Kanpur in association with Common Wealth of Learning, Canada.

- Successfully completed the course "Life Skills for Engineer (Level – 1& 2)" (Sixteen week online course) conducted by IIT Kanpur in association with Common Wealth of Learning, Canada.
- Successfully completed the course with Distinction in the course “Using Open Educational Resources for Online Learning (Four week online course) (Feb-March-2021) conducted by The Pacific Centre for Flexible and Open Learning for Development (PACFOLD) and the Commonwealth of Learning (COL), Canada.
- Successfully completed the course “Academic Counselling for ODL Learners” (Four week online course) (April-May-2021) conducted by Odisha State open University(OSOU) with Commonwealth Educational Media Centre for Asia (CEMCA).
- Successfully completed the course “Blended Learning Practice” (Four week online course) (April-May-2021) conducted by Athabasca University, Canada with Commonwealth of Learning (COL).
- Successfully completed the course “Introduction to Sustainable Development in Business” (Four week online course) (April-2021) conducted by Open University of Mauritius with Commonwealth of Learning (COL).

Faculty Development Program’s:

- Education from 3rd May to 23rd July 2018.
- Certified in AICTE approved FDP (FDP101X) on Foundation Program in ICT for Education from 8th March to 12th April 2018.
- Four days Faculty Development Programme on “Analysis and Design of RC Structures Using CYPE and ETABS”, held at RYM Engineering Collage, Ballari. From 30th July to 2nd August 2018.
- Certified in AICTE approved FDP on “Remote Sensing and Digital Image Processing of satellite Data” conducted by NPTEL in collaboration with IIT Roorkee Funded by MHRD.
- Certified in AICTE approved FDP on “Reinforced Concrete Bridges” conducted by NPTEL in collaboration with IIT Kharagpur Funded by MHRD.
- Certified in AICTE approved FDP on “Advance Concrete Technology” conducted by NPTEL in collaboration with IIT Madras Funded by MHRD.
- Attended Online one week Faculty Development Program (FDP) on “Online Learning and Assessment System” Organized by IE(I) Kalaburagi Local Centre, Kalaburagi from 18.06.2020 to 22.06.2020.
- Participated APSSDC online Faculty Development Program on “Building Information and Modelling (BIM) using Revit Architecture” organized by KL University from 24-29th May 2021.
- Participated in a National Level One Week Online Faculty Development Programme on “Multi Technology” organized by the Department of Computer Science & Engineering of GMR Institute of Technology, Rajam in association with Brainovision Solutions India Pvt. Ltd., National Youth Council of India and Computer Society of India from June 28, 2021 to July 03, 2021.

Short Term Training Program’s (STTP’s):

- Participated in one week online Training Programme on “NBA Accreditation” from 17th -21st June 2019 conducted by NITTR, Kolkata.

- Participated in one week online Training Programme on “Rural Development through Technical Institutions” from 29th July – 02nd August 2019 conducted by NITTR, Kolkata.
- Participated in one week online Training Programme on “Learning Management System” from 31st May to 4th June 2021 conducted by NITTR, Chennai.
- Participated in one week online Training Programme on “Free and Open Source Software in Civil Engineering” Conducted by NITTR, Chennai.
- Participated in Modular Training Programme on “E-content Development and Learning System Management” from 14th - 30th June 2021 conducted by NITTR, Chennai.

Annual Refresher Programme in Teaching (By MHRD) -2019:

- Successfully completed and Certified in Online Course on "Latest Trends in Pedagogy and Assessment" conducted by MHRD, in association with National Testing Agency and SWAYAM.
- Successfully completed and Certified in Online Course on "Civil Infrastructure for Smart City Development" conducted by MHRD, in association with National Testing Agency and SWAYAM.

Seminar/Webinar:

- Attended a Technical Seminar on “Real World Learning” conducted on 20th and 21st September 2019 by Association of Consulting Civil Engineers and Architects, Ballari.
- Attended a webinar “Anandotsava 2K21” on International Day of Happiness Conducted by T. John Institute of Technology, Bengaluru on 20th March 2021.
- Attended a Webinar on “Yoga Mudras for Well Being” on International Day of Yoga Conducted by NITTR, Chennai on 21st June – 2021.
- Attended International Webinar entitled, “Strengthening Your Understanding of Research Journals“(Reading, Referencing and Publishing)” organised by K. J. Somaiya College of Science and Commerce in collaboration with ELSEVIER on 10th July, 2021.
- Attended a Webinar on “Well Being through Energy” Conducted by NITTR, Chennai on 01-09-2021.
- Participated in Webinar entitled, “Entrepreneurship Skill Development & Start-ups on Geospatial Applications” organized by Centre for Remote Sensing and GIS (CRSGIS) & Crescent Innovation and Incubation Council (CIIC), B.S.Abdur Rahman Crescent Institute of Science and Technology, Chennai on 12.10.2021.

Professional Responsibilities held:

- Internal Assessment Coordinator.
- Member of Departmental Mentoring Committee.
- Member- Disciplinary Committee.
- Co-coordinator NBA Committee.
- Coordinator PG and UG Project work and Seminar.
- Coordinator Innovation and Entrepreneurship Development Cell.
- Department Level NPTEL Coordinator.

- Publicity and Social Media Coordinator at Department Level.

Professional Body Membership's:

- Life Member (282831) of International Association of Engineers (IAENG).
- Associate Member (AM2021048847) of Institute of Research Engineers and Doctors (IRED).
- Life Member (PM03976258) of Institute for Engineering Research and Publication (IFERP).
- Associate Member of International Society for Development and Sustainability, Japan (ISDS).

RAVI CHANDRA S
B.E. (Civil Engineering) M.Tech (Construction Technology)
6 Years of Academic Experience
ravichandra@tjohngroup.com

I Have a Very Good Zeal Towards Teaching Profession and my Passion Runs Very High When It Comes to Teaching Profession. Along with Teaching, I Am Always Ready to Motivate the Students, mentoring them Frequently and Bringing the Best Out of Them.

I did My Master's Degree in Construction Technology, Bangalore. I also have an Experience of Two Years in Construction Industry Which is Now Helping me to Share the Industry Knowledge with My Students during the Theory Classes.

My areas of Specialization are Project Management Through Microsoft Project and Primavera 8.0, Advanced Techniques and Materials In Construction, Software Applications, Building Materials.

Areas of expertise (subjects handled):
Construction Management, Mechanization in Construction, Elements of Civil Engineering and Engineering Mechanics.

Publications:

- "Experimental study of Hybrid Fiber Reinforced Self Compacting Concrete subjected to elevated temperatures" in International journal for science and advance research in technology
- "Evaluating the Strength Behavior of Concrete by using Coir fiber and Alccofine as partial replacement of cement" in international journal of current research.
- "Stability analysis of Slopes and Seismic analysis of Earthen Dams during Earthquake using Geo Studio" in International journal of trend in Research and Development.
- "An Experimental Investigation of Steel Fibre Reinforced Concrete" in International journal of trend in Research and Development.

- Strength Properties of Hybrid Fiber Reinforced SCC for Different Ratio" in International Research Journal of Engineering and Technology.
- "Comparison of CPM & PERT Scheduling Techniques for Construction of Apartment" in International journal of trend in Research and Development.
- "Study of Strength and Mechanical Properties of Filler Slabs" in International Research Journal of Engineering and Technology.

FDP & Conferences attended::

- "Decentralization of Central Sewage Treatment Plant" in One Day International Conference on RECENT TRENDS IN ENVIRONMENTAL ENGINEERING which was held in APS College of Engineering.

BHARGAV S
(PhD)
7 Years of Academic Experience
bhargavs@tjohngroup.com/ bhargavred91@gmail.com

Research scholar at BMSCE, Bangalore. I have completed my Comprehensive Viva- Voce and Course work. I have joined T. John College in October 2021, after having taught degree students for several years. I have an in-depth understanding of the theoretical aspects and practical application of the field of civil engineering and its academic delivery. During my tenure with the experience in education, I honed and developed my skills of being able to deliver the extensive subject matter in the field of civil engineering in a simple yet meticulous manner and works towards promoting positive behavior among the staff and students.

Areas of expertise (subjects handled):

- Reinforced Cement Concrete
- Estimation and Costing
- Design and Drawing of Reinforced Concrete Structures
- Pre Stressed Concrete
- Analysis of Indeterminate Structures
- Analysis of Determinate Structures

FDP & Conferences attended:

- Organised "National Conference on Emerging Multidisciplinary Trends in Biotechnology Engineering: A Future Perspective" to be held at Acharya Institute of Technology, Bangalore, on 23rd and 24th August 2019.
- “Faculty development programme” organized by International Academy for competency Enhancement-2016(3 days)
- “Advance surveying using total station and GPS” Sir MV institute of engineering skills (3 days)
- Tools academy for career excellence- cement & concrete-2015(2 days)
- Advances in geotechnical engineering practice- 2016(1 day)

- “Retrofitting of lifeline structures”, Ramaiah University of Applied sciences, june 2019
- “Finite element Analysis software from indian space research organization (ISRO) (1 day)

Publications:

- A journal paper on" Strengthening of Two Way RC Slab using Polypropylene Fabric" Bhargav S; Dr. H. N. Jagannatha Reddy IJIRMPS | Volume 6, Issue 4, 2018 ISSN: 2349-7300

Certifications:

- ISTE, Indian Society for Technical Education-Life membership.
- ASTR, Association for Structural Rehabilitation of Structures-Life Membership
- Autodesk certified with software programme on AutoCADD & REVIT.

SHILPA H TOFIN
MTech in structures, Persuing PhD in UVCE
3 Years of Academic Experience
shilpa.tofin@gmail.com

I am very responsible and enthusiastic in teaching. Very helpful and friendly can easily reachable. Accompanying classes with Role play activities to understand the concept easily. Encouraging the student to achieve their goals and move towards their fortune.

I am persuing Doctorate from Bangalore University, Karnataka. I am keen researcher and my research papers have been published international journals

The objective of my research work is to build the use of fibre reinforced concrete on hybrid structures under impact loading.

- To design hybrid model by combining the subsets to form an aggregate subset.
- To develop a hybrid feature selection model and ensemble modelto analyze the classifier performance.

My area of Specialization is Structural engineering
Areas of expertise (subjects handled):

- Strength of Materials
- Design of steel structures
- Design of RCC Structures
- Elements of civil Engineering.

Publications:

- Effect of Soft Storey on Regular and Irregular RCC Structure with Different Bracings under Seismic conditions e-ISSN: 2395-0056 Volume: 04 Issue: 08 | Aug -2017 www.irjet.net p-ISSN: 2395-0072
- EFFECT OF BRACING SYSTEMS ON STOREY HEIGHT BY USING RESPONSE SPECTRUM ANALYSIS ,e-ISSN: 2395 -0056 Volume: 03 Issue: 07 | July-2016 www.irjet.net p-ISSN: 2395-0072

► “PUSHOVER ANALYSIS OF RC BUILDING BY CONSIDERING THE EFFECT OF INFILLWALL TO CHECK THE NON LINEAR BEHAVIOR” Equivalent wind Static Load Analysis on Tall Structures. IJSRD - International Journal for Scientific Research & Development| Vol. 3, Issue 03, 2015 | ISSN (online): 2321- 0613

♦ DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Mrs. Suma R
B.E, M.Tech(CSE)
19 Years of Teaching Experience
tjitcsehod@tjohngroup.com/sumar@tjohngroup.com

Infusing interest in acquiring knowledge through effective teaching, laying down foundation for learning fundamental concept of the subjects. My vision is to strive and develop a learning center in the field of Computer Science and Engineering and prepare the students to become talented and committed professionals with discipline and sincerity in serving the society. Ms. Suma R obtained B.E from BMSCE, Bangalore University, M.Tech from JNNCE, Visvesvaraya Technological University(VTU) and has a vast teaching experience of 19 Years. Currently pursuing Ph. D under VTU, in the field of Mobile Adhoc Networks. Have published papers in various National and International Journals and have guided around 20 UG and 12 PG projects

Areas of expertise (subjects handled):

- Computer Networks, Computer Graphics, Analysis and Design of Algorithms, Advanced Computer Architecture, Data Science, Wireless Networks.

FDP & Conferences attended:

- Attended FDP on Latex, organized by Gopalan college of Engineering and Management in association with IIT Bombay on April 2020.
- Attended FDP on Artificial Intelligence and Machine Learning in SMVITM on October 2021.

- Attended FDP on Augmented Reality and Virtual Reality in the month August 2021 at NMIT.

Paper Publications:

- Title of the Topic "L1-Regulated Feature Selection and Deep Learning Based Classification for Intrusion Detection System in MANET" Volume 10, Issue 2, August 2020, ISSN:2321-0605 Journal: International Journal of Latest Transactions in Engineering and Science. (IJLTES)
- Title of the Topic "Integration of particle swarm optimization with adaptive K-Nearest Neighbor for Energy-Efficient Clustering in MANET" Journal: International Journal of Advanced Research, Ideas and Innovations in Technology (IJARIIT) Volume 6, Issue 6, ISSN:2454-132X, Page No:233-240, December 2020.

Dr. John T Mesia Dhas
M.E., M.B.A., Ph. D, (P.D.F)
10 Years of Teaching Experience 2 Years of Industry Experience
johnmesia@tjohngroup.com

I have Done My Ph.D from Vel Tech university, India in 2019 and pursuing PDF with Lincoln University, Malaysia. My objective is to be associated with your company so I can enhance my skills and abilities at the same time increasing the organization productive and reputation.

I do cope well under pressure and I am able to work alone or with a team and I'm goal driven that is what brings me here.

Awards:

- Rashtrapathy (President) Scout Award - November 1996.
- Rajyapuraskar (Governor) Scout Award – November 1995

Areas of expertise (subjects handled):

- C, C++, Java 9, Python 3, R, Software Engineering, Internet of Things, Artificial Intelligence, Soft Computing, Machine Learning, Data Science.

SAS (Statistical Analysis System) Certifications:

- SAS Courses
  - SAS Programming 1: Essentials
  - Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression
  - SAS® Programming for R Users
  - SAS® Platform Administration: Getting Started
  - Writing a Custom Task for SAS® Studio
  - Managing and using the SAS® Customer Intelligence Common Data Model
- SAS Badges

- SAS Programming 1: Essentials
- Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression
- SAS Platform Administration: Getting Started
- Correlation and Regression
- Quality Methods
- Exploratory Data Analysis
- SAS Programming for R Users
- Managing and using the SAS® Customer Intelligence Common Data Model
- Decision Making with Data

Faculty Development Program (FDP):

- Outcome Based Education (OBE) & NBA Accreditation Process (25 hours) The FDP conducted by AICTE Training and Learning (ATAL) was successfully completed from 20-09-2021 to 24-09-2021 at National Polytechnic, Pen
- Architecture and Technologies for 5G (25 Hours) The FDP conducted by AICTE Training and Learning (ATAL) was successfully completed from 28-06-2021 to 02-07-2021 at National Institute of Technology, Patna.
- Soft Computing (30 Hours) The FDP conducted by AICTE Training and Learning (ATAL) was successfully completed from 16-08-2021 to 20-08-2021 at Indian Institute of Technology, Varanasi
- Artificial Intelligence and Deep Learning (60 Hours) The FDP conducting by APSSDC (Andhra Pradesh State Skill Development Corporation) in collaboration with 360DigiTMG from 01-07-2020 to 28-07-2020.
- Cyber Security (25 Hours) The FDP conducted by AICTE Training and Learning (ATAL) was successfully completed from 25-05-2020 to 29-05-2020 at Punjab Engineering College (Deemed to be University).
- Internet of Things (IoT) using Amazon AWS (30 Hours) The FDP conducted by Finland Labs in association with National Social Summit, IIT Roorkee was successfully completed from 01-06- 2020 to 05-06-2020.
- State-of-the-Art Technologies in ICT (10 Hours) The FDP conducted by Dr. MGR Deemed University; Chennai was successfully completed from 22-06-2020 to 26-06-2020.
- PHP and MySQL (12 Hours) The FDP conducted by Syed Ammal Engineering College, Ramanathapuram in association with Spoken Tutorial Project, IIT Bombay funded by National Mission on Education through ICT, MHRD, Govt of India was successfully completed from 01-07-2020 to 06-07-2020.
- Challenges in Cybercrime & Enforcement of Cybersecurity (14 Hours) The FDP conducted by Dr. MGR Deemed University; Chennai was successfully completed from 06-07-2020 to 12-07-2020.

Patent:

- "The Smart Factory Controlling System" is granted for 8 years on 18 May 2021 by the Common Wealth of Australia.
- "Internet of Things (IoT) Network Architecture System Based Application Method" is published on 25-9-2020 in the Government Gessate.

Books Published:

- Title: Modern Metrics (MM): The Functional Size Estimator for Modern Software ISBN: 978-93-5408-510-9 YOP: Aug 2020
- Title: PYTHON 3.7.1 Vol - I ISBN: 978-93-5416-045-5 YOP: Aug 2020
- Title: C LOGIC PROGRAMMING ISBN: 978-93-5416-366-1 YOP: Sep 2020
- Title: SERVICE ORIENTED ARCHITECTURE ISBN: 978-93-5416-496-5 YOP: Jan 2021
- Title: SOFTWARE SIZING APPROACHES ISBN: 978-93-5437-820-1 YOP: Jan 2021
- Title: DBMS PRACTICAL PROGRAMS ISBN: 978-93-5437-572-9 YOP: Jan 2021
- Title: ANDROID APPLICATIONS DEVELOPMENT PRACTICAL APPROACH ISBN: 978-93-5445-403-5 YOP: Feb 2021

Workshop:

- "Seminar on Applications of Artificial Intelligence" at MIT Alumni Association, Chennai on 8-3-2019.
- "Hands on Training Program on MACHINE LEARNING BASICS using PYTHON" at MIT, Chennai on 19-9-2018 and 20-9-2018.

Conferences:

- Indian Science Congress
  - Participated 98th Indian Science Congress at SRM University, Chennai on 3rd January 2011.
- International Conference
  - Published a research paper in Elsevier Web Conference, International Conference on Tropical Trends in Science, Technology and Management (ICTTSTM-2020) –at Sai Vidya Institute of Technology, Bengaluru, India on 12th July 2020 which is entitled "Modern Metrics (MM)".
  - Published a research paper in ICMTA-2020, International Conference on Mathematical Techniques and Applications (ICMTA) at SRM Institute of Science and Technology, Chennai, India on 31st January 2020 which is entitled "An Analogy based intelligent requirement Engineering System".
  - Published a research paper in IEEE Conference, International Conference on Electrical Electronics Computers Communication Mechanical and Computing (EECCMC) at Priyadarshini Engineering College, Vaniyambadi, India on 29th January 2018 which is entitled "A Study on the Functional Requirements in Function Point (FP) based Size Estimation on Modern Software".
  - Published a paper at Dr. M.G.R. University Chennai on 13th April 2012 which is entitled "Size and Flexibility Matrices for E-Learning System".
- National Conference
  - Published a paper in a National Conference at Jaya Engineering College, which is entitled "A sizing Approach for E-business Applications" on 30th September 2011.
  - Published a paper in a National Conference at Rajarajeshwari Engineering College, which is entitled "The proposal of a new estimator for E-Learning system" on 1st April 2010.
- Special Lecture
  - A special Lecture delivered on "Machine Learning and Deep Learning in Modern AI Systems" at RVSP CET, Chennai on 15-03-2019.

- A special Lecture delivered on “WiFi & WiMax Technologies” at RVSP CET, Chennai on 09-02-2013.

Research Articles:

- International Journals
  - Journal of Natural Remedies (JNR) – SCOPUS Indexed Published a research article that is entitled “Secured Energy Efficiency of a Cloud- Based Storing and Sharing Big Data” on August 2020.
  - International Journal of Psychosocial Rehabilitation (IJPR) – SCOPUS Indexed Published a research article that is entitled “Detect the Phishing Online News by Learning Methods Using Classification Techniques” on June 2020.
  - Test Engineering and Management – SCOPUS Indexed Published a research article that is entitled “Modern Metrics (MM): Function Point based Size Estimation Technique for Modern Software” on May 2020.
  - Journal of Web Engineering (JWE) – SCOPUS and SCIE Indexed, Anna University Annexure Published a research article that is entitled “Modern Metrics (MM): Size Estimation of Modern Software and its Metrics Analysis” on July 2018.
  - International Journal of Pure and Applied Mathematics(IJPAM) – SCOPUS Indexed Published a research article that is entitled “A Study on Indo-Saracenic Architectural Heritage” on July 2018.
  - International Journal of Pure and Applied Mathematics(IJPAM) – SCOPUS Indexed Published a research article that is entitled “Importance of Software Sizing in Software Project Management: A Study” on February 2018.
  - International Journal of Control Theory and Applications(IJCTA) - SCOPUS Indexed - Published a research article that is entitled “An Agile Based Web Development Model for Cost Effective Website Design” on January 2018.
  - International Journal of Applied Engineering Research (IJAER)- SCOPUS Indexed Published a research article that is entitled “E-Commerce System Size using User based Function Points” on September 2017.
  - Indian Journal of Science and Technology (IndJST) Web of Science (Thomson Reuters – Zoological Records) Published a research article that is entitled “Requirement Engineering Model for Web Applications” on March 2017.
  - Indian Journal of Science and Technology (IndJST) – SCOPUS Indexed, Web of Science(Thomson Reuters – Zoological Records) – Anna University Annexure-II Published a research article that is entitled “Risks Associated to Size Estimation of E-Commerce System using Function Point based Estimation Techniques” on February 2016.
  - International Journal of Applied Engineering Research (IJAER)- SCOPUS Indexed – Anna University Annexure-II Published a research article that is entitled “Relative Analysis of Sizing Methods in the Sense of E-Commerce Systems” on October 2015.
  - International Journal of Computational Engineering Research (IJCER), National Conference on Architecture, Software Systems and Green Computing -2014 (NCASG2014)- Special Issue
  - Published a research article that is entitled “Limitations of Function Point Analysis in E-Learning System Estimation”.
  - International Journal of Emerging Trends and Technology in Computer Science (IJETTCS), National Conference on Architecture, Software Systems and Green

Computing -2013 (NCASG2013)- Special Issue Published a research article that is entitled “A Sizing Approach for E- Learning System”.

- International Review on Computers and Software (I.RE.CO.S.) – SCOPUS Indexed Published a research article that is entitled “ELSE – E-Learning System Estimator” on November 2012.
- Coimbatore Institute of Information Technology (CiiT) Published an article that is entitled “Size and Flexibility Metrics for E- Learning System” in July 2012.

- National News Paper
  - Published an article which is entitled “The role of computers in the field of Medical Research” in Daily Tanthi’s Computer Jhalam on 31-10-2005.

Dr. Adarsh T K
B.E., M.E, Ph. D
16 Years of Teaching Experience
adarshtk@tjohngroup.com

Currently I am working as Assistant Professor in the Department of Computer Science & Engineering at TJIT. I have Fifteen years of experience in teaching and research. I have published more than Ten papers in various international journal indexed in Scopus and SCI. I have been doing my research work in the area of Internet of Things at SRMIST Chennai. I have received RULA Best Researcher Awards in 2018. During my tenure I was in the jury of FINASTRA international Hackathon, Smart India Hackathon and serve as academic auditor at Kerala Technological University. I was an active member for IETE, IAENG. I have been in advisory board for "Wincept technologies" start-up companies.

Area of Interest:

- IoT, WSN

PROFESSIONAL MEMEBERSHIP:

- IETE
- IAENG

PUBLICATIONS:

- "Selfish Replica Allocation Technique used for data accessibility in MANET" International Journal Of Innovative Research & Development, Vol2 Issue7 July2013 ISSN: 2278 – 0211
- "DCQS: High Performance Query Scheduling for Wireless Sensor Network" International conference IJK college of engineering2014
- "Novel Semi-Supervised Machine Learning Technique for Real-Time Network Traffic Classifications" International Journal of Computer Science & Engineering Technology (IJCSET) ISSN2229-3345

- "Unknown Flow Detection Based on K-means++ and Naïve-Bayes Predictions" International Journal of Scientific Research in Computer Science Applications and Management Studies ISSN 2319 – 1953
- "TRASH Wi-Fi: Wi-Fi generation after detection of waste" International Conference on Electronics, Communication and Aerospace Technology ICECA 2017 978-1-5090-5686-6/17/$31.00 ©2017 IEEE
- "Pill Care- The Smart Pill Box with Remind, Authenticate and Confirmation Function" International conference on Emerging Trends and Innovations in Engineering and Technological Research ISBN No 978-1-5386-5743-0
- "A classical approach for health monitoring on IoT: From architecture, security & application "Publish in International Journal of Innovative Technology and Exploring Engineering - ISSN: 2278-3075, Volume-8, Issue-11S, September 2019
- "Security & privacy in IoT Data Provenance" Publish in International Journal of Engineering and Technology- ISSN: 2319-8613, Vol 10 No 3 Jun-Jul 2018
- Blockchain-based Health Monitoring System; Functioning with IoT and WBAN's International Journal of Advanced Science and Technology Vol. 29, No. 7s, (2020), pp. 5114-5119ISSN: 2005-4238 IJAST
- "Privacy and Security Framework for Health Care Systems in IoT: Originating at Architecture through Application" Journal of Ambient Intelligence and Humanized Computing, 3Jan2021, DOI:10.1007/s12652-020-02676-7

BOOK PUBLISHED:

- "Step by Step Approach for Indian Patent" (ISBN: 978-81-946124-3-8)
- "IoT Security, Privacy and Vulnerabilities" Chapter, Book Title Internet of Things - New Trends, Challenges and Hurdles

JOURNAL REVIWER:

- International Journal for Research Under Literal Access (IJRULA)

AWARDS/ACHIEVEMENT:

- Received an international RULA award for BEST RESEACHER in 2018
- Jury member at Finastra Global Hackathon
- SIH finalist at Vel tech Chennai. Team EKCian, 2019
- CSI in-app project contest at Trivandrum 2018

FDP:

- AICT-NITTR: "Students Counseling and Carrier Guidance "23/03/2009 to 28/03/2009 at Toc-H Ernakulum
- Mission 10X 25/01/2010 to 30/01/2010 at AWH College Of engineering
- Spoken Tutorial Organized by FOSS center, ISTE and Center for continuing Education, Amal Jyothi Engineering College
- Paradigm shift in assessment and evaluation practices for Engineering Graduates-AICTE and Amal jyothi, 7th to 12th Dec 2020
- OBE for Technical Institution- Rajagri, 16th to 21st Nov 2020
- LaTeX test organized at AISSMS College of Engineering, 4th may 2020

- Workshop on Emerging Technology in IoT at Marwadi University Rajkot on 24/4/2021
- FDP on Mobile Application Development at Sri Sairam College of Engineering on 17th may to 25th may 2021
- National Conference on Implementation of NEP2020

Mr. Prashant Koparde
M.Tech
7 Years of Teaching Experience 3 Years of Industry Experience
prashantkoparde@tjohngroup.com

I have completed my M. Tech in Information Technology from VTU in 2011. My objective is to be an integral part of a competitive work environment, which would help me grow, both on the intellectual and personal front, while contributing to the growth and success of the organization.

Areas of Expertise (Subjects Handled):

- Microprocessors & Microcontrollers, Digital Electronics, Artificial Intelligence & Machine Learning, Digital Electronics, System Simulation and Modelling, C Programming and Embedded Systems etc.

FDP & Conferences Attended:

- Attended 5 day Faculty Enablement Program conducted by Infosys in June, 2013.
- 3 Day FDP on Hadoop conducted by Infosys as part of Campus Connect Program. Organised by Jain University Bengaluru in February 2014.
- Hands on workshop on Arduino in January 2015 in AMC Engineering College Bengaluru
- FDP on Deep Learning, conducted by CIT, Gubbi in 2018.
- Presented paper in International Conference ICPCN 2016 organized by AMC Engineering College, Bengaluru.
- Received the Faculty Bronze Partner award from Infosys Campus Connect in 2017

Ms. Bhavya N Javagal
B.E,M.Tech.
8 Years of Teaching Experience
bhavya@tjohngroup.com

I have done my B.E and M.Tech in Computer Science and Engineering from VTU, Belgavi Karnataka. I Completed my M.Tech in 2014, I have passion towards teaching and imparting knowledge to the students. I am a Team player who likes to learn new thing everyday. My primary interest is in Big Data and Cloud Computing.

I like to motivates the students to achieve the higher goals and reach greater heights. I published paper in many National and International Journals.

Area of Expertise (Subject Handled):

- C-Programming, Data Structures, Automata Theory, Computer Graphics, Cyptography and Network Security,Web Technology, Information and Network Security, Storage Area Network, Cloud Computing, Big Data Analytics, Data Mining

FDP and Conferences Attended:

- Pioneering AI Technology held on “22-06-2020 to 26-06-2020” Organized by Dayanand Sagar University.
- Cyber Security and Emerging Technology on “11-07-2020” by Dayanand Sagar University.
- Writing Effective Research paper on “30-05-2020” conducted by Sir M. Visvesvaraya Institute of Technology.
- Current Trends in Machine Learning held on”06-07-2020 to 10-07-2020” organized by Dayanand Sagar University.
- Attended workshop on Latex on “01-07-2020” conducted by AMCEC.
- Robot Operating System on “15-07-2020” by East Point College of Engineering.
- ICT Tools on “16-07-2020” by Sree Vidyanikethan Engineering College.

- Introduction to Data Science& Machine Learning on”22-06-2020” by New Horizon College.

Sumy Joseph
M.Tech (Software Engineering)
6.5 Years of Academic Experience
sumyjoseph@tjohngroup.com

I have done my M.tech in Software Engineering, I am very much committed towards teaching profession and always enthusiastic in students for their professional and personal development.

Areas of Expertise (Subjects Handled):

- C, Data Mining, Operating Systems, Software Engineering, Application Development using Python, Mobile Application Development.

FDP and Conference Attended:

- Attended various online workshops on MAD Lab, Research Methodology and Cyber Security.
- 3 Months Certification course on Automation Testing (Selenium with Java) from AY Tech Institute of Technology, Trivandrum, Kerala
- 2 Months online Certification course on Digital Marketing and Social Media Marketing from Career tech institute, BTM,Bangalore.
- Attended 1 week machine learning and IoT workshop conducted by Atria institute of technology
- Attended Common lounge Natural language processing and machine learning course
- Attended 2 weeks natural language processing workshop conducted by Atria institute of technology
- Participated in a two week ISTE workshop on COMPUTER PROGRAMMING conducted by IIT Bombay.

NIKITHA V P
M. E.
13 Years of Teaching Experience
nikitha@tjohngroup.com

I have done my M. E. from Vinayaka Mission's university in 2008. My objective is to help students to acquire knowledge, shape their character and model their behavior.

Areas of expertise (subjects handled):

- Analog Integrated circuits, Electronic Circuits, Digital Electronics, Microprocessors, Microcontrollers and Embedded systems.

Trainings Conducted:

- Faculty development program on "LaTeX" conducted by Computer Science Department, Royal College of Engineering & Technology on 23/5/2017.
- Internship program on "Electronic circuit simulation, development and documentation using LaTeX organized by department of Electronics & Communication Engineering in association with IE(I) students chapter RCET, from 25th to 29th June 2018 at Royal College of Engineering & Technology.
- Workshop on "Document preparation using LaTeX" organized by Department of Electrical & Electronics Engineering in association with IE(I) students chapter, RCET from 11th to 13th July 2018 at Royal College of Engineering & Technology.
- Faculty development program in "Document preparation using LaTeX" organized by Department of Electronics & Communication Engineering in association with ISTE, RCET on 19th & 20th July 2018 at Royal College of Engineering & Technology.
- Internship program on " Electronic circuit simulation, Microprograming, PCB fabrication and documentation using LaTeX organized by department of Electronics & Communication Engineering in association with IE(I) students chapter RCET, from 9th to 13th July 2018 at Royal College of Engineering & Technology.
- Workshop on "LaTeX" organized by Department of Civil Engineering in association with IE(I) students chapter, RCET from 30th to 31st July 2018 at Royal College of Engineering & Technology.

FDP & Conferences attended:

- Workshop on "High Impact Teaching Skills" by Dale Carnegie & Associates. Inc Trainer & Wipro – 4th and 5th January 2010 at Royal College of Engineering & Technology.
- Teaching as fulfilling profession – 15th January 2011 at Royal College of Engineering & Technology.
- Hands – on workshop on LabVIEW – 2nd & 3rd November 2011 at Royal College of Engineering & Technology.
- Two –week ISTE workshop on "Introduction to Research Methodologies".
- Scientific Computing using Python Programming – 22nd November 2012 at Royal College of Engineering & Technology.
- Hands on workshop on DSP Processors – 27th November 2012 at Royal College of Engineering & Technology.
- ISTE – SRM Short term Training Programme on "Emerging Technologies in Electronics"– 17th to 22nd June 2013 at Thejus Engineering College.
- μVision KEIL IDE & ARM Microcontrollers – 26th & 27th September 2014 at Vidya Academy of Science & Technology.
- Document preparation using Latex – from 28/10/2015 to 4/11/2015 at College of Engineering Trivandrum.
- MATLAB – from 5th to 9th December 2017 at College of Engineering Trivandrum.
- Webinar on "Intelligent Automation and Robotics – A future perspective" organized by Royal College of Engineering and Technology on 2/7/2020.
- Webinar in Mathematics organized by The Research & Postgraduate Department of Mathematics on the topic "Introduction to Fractional Calculus" by the Department of Mathematics, St Mary's College, Thrissur on 03 August 2020.
- Webinar series on "Virtual class room" organized by Department of Basic Science and Humanities, Christ college of Engineering, Iringalakkuda from 23/7/2020 to 25/7/2020.
- Webinar on "Enhancing Effectiveness of online learning" on 17th June 2020 jointly organized by Amal Jyothi College of Engineering, Kottayam and Marian College, Kuttikkanam.
- Webinar titled "Basics of Communication and Networks" Conducted by the Department of Electronics and Communication Engineering, KCG College of Technology, Chennai on 15th June 2020.
- National FDP on Pedagogy to "Panic-gogy" – Technology to recover back from 11th June 2020 to 13th June 2020 jointly organized by Amal Jyothi College of Engineering, Kottayam, Mar Baselios Institute of Technology and Science, Kothamangalam and Marian College, Kuttikkanam.
- Webinar on "Biomedical Applications of Fiber Bragg Grating Sensors" organized by SRM Institute of Science and Technology on 18th May, 2020.
- Webinar series on "Celebrating women in Mathematics" organized by Secret Heart College, Chalakkudy on 12th and 13th May 2020.

VIVEK P S
11 Years of Experience in Teaching
vivekps@tjohngroup.com

I have completed M.Tech from the Dept. of Electrical Engineering , Indian Institute of Technology Madras in 2014. My Objective is to take up a challenging career and grow with honesty, loyalty, good relationship and best performance. To translate my experience, knowledge, skills and abilities into value for an organization.

Areas of Expertise: Semiconductor devices, Analog circuits and systems, Integrated Optics and photonic systems, Analog and digital communication, Microwave Communication systems, Computer Organization

FDP s and Conferences Attended:

- Attended the QIP Short term Course on Optical Fiber /Wireless communication and networks held at IIT Delhi-Bharti School during Dec17-19 ,2016
- Attended AICTE sponsored short term course on "MOSFETs and Beyond" to be held during july 2017 at IIT Madras
- Attended “SUMMER FACULTY RESEARCH FELLOW PROGRAMME-2020” (Online) at IIT Delhi during 02 June 2020 and15th July 2020.
- Presented a proposal on “Design and analyses of high speed photonic interconnects and devices in SOI platform” inJanuary 2020 at REVA University Bengaluru , India
- Presented during an invited lecture on “ Silicon Photonics for future Technologies” in March 2020 at Majlis Arts andScience College Valanchery
- "Application Of Extended Matrix Pencil Method In Dual Directive Beam former" - Fayisa.P, Vivek.P.S,Manoj.M.K International Research Journal of Engineering and Technology (IRJET), Volume: 03 Issue: 07 | July-2016

Mr. Mahesh Basavaraj
M.Tech
2+ years of Teaching Experience 7 years of experience in Industry
maheshb@tjohngroup.com

To work in a position as a lecturer that permits me to offer knowledge transfer, provide guidance and practical help to students. I want to utilize my skills and experience so that I can be resourceful and can be of value addition to the institute.

I do cope well under pressure and I am able to work alone or with a team and I'm goal driven that is what brings me here.

Areas of expertise (subjects handled):

- C Programming, C++, Data structure, Java, SQL ,Information and network security, web programming

Conferences attended:

- ICInPro 2019 : The Fifteenth International Conference on Information Processing (ICInPro 2019) -online

Dr. E.PRAYNLIN
M.E., Ph.D.
7 Years of Teaching Experience 3 Years of Research Experience
praynlin@tjohngroup.com

Currently I am working as Associate professor in the Department of Computer Science and Engineering at TJIT. Detail-oriented and competent 'Matlab Programmer' with more than 3 years of experience in designing user interface, optimizing graphical output. Possess sound understanding of Machine Learning, Artificial Intelligence as well as Deep Learning used for multiple projects like Image Processing, Data interpretation, Data forecasting etc. Having the Ability to work with the team and possess strong mathematical skills.

Areas of expertise (subjects handled):

- POST GRADUATE
  - CP 9264- Distributed Computing (2011-2012) Odd Semester
  - CS 9251 - Mobile Communication (2011-2012) Even Semester
  - SE 9213 - Object oriented Software Engineering(2012-2013) Odd Semester
  - CS 9262 – Software Quality Assurance (2014-2015) Odd Semester
  - AP 7101 – VLSI Signal Processing (2014-2015) Even Semester
  - AP 7007 – Fiber Optic Sensor (2016-17) Even Semester
  - AP 5003 – VLSI Design Techniques (2017-18) (2018-2019) Even Semester
  - CU 5292 – Electronics Interference & Compatibility (2018-2019) Odd semester
  - AP 5101 – Sensors Actuators and Interface Electronics (2020 -21) Even Semester
- UNDER GRADUATE
  - PTCS 2252 - Microprocessor and Micro controllers (2012-2013) Odd Semester
  - PTCS 2028 - Unix Internals(2012-2013) Even Semester
  - PTCS 2304 - System software(2013-2014) Odd Semester
  - PTCS 2253 - Computer Organization & Architecture(2013-2014) Even Semester

- PTEE 2203 - Electron Devices and Circuits (2014-2015) Odd Semester
- EC 2354 – VLSI Design (2014-2015) Even Semester
- EC 2402 – Optical Communication & Networking (2015-2016) Odd Semester
- EC 2042 – Embedded & Realtime system (2015-2016) Even Semester
- EC 6701 – RF & Microwave Engineering (2016-17, 2017-18 ,2019-20) Odd Semester
- EC 6702 – Optical Communication & Networking (2016-17) Odd Semester
- ME 6702 – Mechatronics (2017-18) (2020-21) Odd Semester
- GE 6075 – Professional Ethics in Engineering (2016-17, 2017-18) Even Sem
- EC 6503 – Transmission Lines & Waveguides (2018-2019) Odd semester
- MG 6851 – Principles of Management (2018-2019) (2020 -21) Even semester
- EC 6004 – Satellite Communication (2019-20) Odd semester
- EC 8491 – Communication Theory (2019-20) Even semester
- EC 8652 – Wireless Communication (2019-20) Even semester
- GE 8071 – Disaster Management (2020 -21) Odd Semester

Faculty Development Program (FDP):

- One week AICTE sponsored Short term course on Smart Sensors and Systems: From Simple Sensing to Internet of Things (IoT) & Cyber Physical Systems (CPS) by Department of Electronics Engineering, IIT(BHU), Varanasi during October 2018.
- One week faculty development programme on Design and Analysis of Algorithm by Centre for faculty development, Anna University, Chennai at SCAD College of Engineering & Technology during November 2017
- One week faculty development programme Compiler Design by Centre for faculty development, Anna University, Chennai at SCAD College of Engineering & Technology during December 2015
- One week faculty development programme on Hands on training in cloud computing, LAN Trainer and Campus wide networking conducted by Government College of Engineering, Tirunelveli during July 2013.
- Two week faculty development programme on Optimization Intelligent and control for Grid connected Renewable Distributed Generation Sponsored by AICTE conducted by Government College of Engineering, Tirunelveli during May 2013.

Workshop:

- Two day e-seminar on Steps 2 Research organized by Department of Computer Science, Department of Computer Applications Amal Jyothi College of Engineering, during September 2014.
- One day seminar on writing Effective Research Paper(s) and Thesis, Conducted by Department of Computer Science and Engineering, K.S.R. College of Engineering (Autonomous), Tiruchengode during July 2014.
- One day seminar on Research paper, dissertation and project proposal preparation,conducted by Bharathidasan institute of Technology, Anna University, Tiruchirappalli during February 2014.
- One day workshop on Effective writing of Research papers using LaTeX conducted by sardar Raja college of Engineering during December 2013.
- Two day workshop on Latest Technologies in Engineering Education Conducted by Government college of Engineering, Tirunelveli during July 2013.

- One day workshop on Emerging Research trends in software Engineering conducted by VIT Chennai on April 2013
- Two day workshop on Genetic Algorithm and Particle swarm optimization: Hands on training using Matlab conducted by Anna university Regional office, Coimbatore during October 2012.
- One day Workshop on Insight into Matlab conducted by National Engineering College, Kovilpatti during September 2012.
- Two day Workshop on Application of soft computing in Data Mining Conducted by Kongu Engineering College, Erode during January 2012.
- One week workshop on Nano technology in Engineering Application conducted by Government college of Engineering, Tirunelveli during November 2011.
- One day Workshop on Make Research Simple conducted by Arunachala college of Engineering for women, Kanyakumari District during August 2011.
- Two day Workshop on soft computing: Techniques and its application in Electrical engineering conducted by National Engineering College, Kovilpatti during August 2011.
- One week In plant training in BSNL, Kanyakumari during June 2008.
- One week In plant training in Keltron equipment complex, Trivandrum during December 2007.

Conferences:

- International Conference
  - S.Jefrin Packia mispah, Dr.E.Praynlin, "Solar Photovoltaic output Energy Forecasting using Linear Regression and artificial Neural Network" International conference on science technology Engineering & Mathematics Probing Artificial Intelligence Techniques And Research in IOT [PATRIOT] [ICONSTEM-19] held at JEPPIAAR Engineering College Chennai, during March 2019.
  - Nalini, Dr.E.Praynlin, "Weighted pseudo random pattern generation for power droop reduction" International conference on Emerging Trends in Engineering & Technology [ICETET'18] held at Pandian saraswathi yadav engineering college, during march 2017.
  - J.Ida Jensona, Dr.E.Praynlin, "Solar Radiation Forecasting Using Artificial Neural Network" International conference on Innovations in Power and Advanced Computing Technologies (i-PACT2017) held at VIT Vellore, during April 2017, Proceedings published in IEEE Xplore Digital Library. ISBN 978-1-5090-5682-8
  - B.Jency Paulin, Dr.E.Praynlin, "Solar Photovoltaic Output Power Forecasting Using Artificial Neural Network" International Conference on Research Vogues in Information & Communication Technologies held at DMI Engineering College, during 10 March 2016. . ISBN 978-81- 924031-3-7 (Got BEST PAPER Award)
  - B.Marikumar, Dr.P.Latha, E.Praynlin, "Software Effort Estimation using Genetic Algorithm" International conference on advanced computer science and Information Technology (ACSIT 2014) held at VELS University, during 28-29 March 2014. ISBN 978-81-924031-3-7
  - E.Praynlin, Dr.P.Latha, "Comparative study on training algorithm of ANN in the application of software effort estimation" International conference on Intelligent computing (ICCI 2013), held at Sethu Institute of Technology, during 25-26 April 2013. ISBN 978-93-80686-29-5 (Got BEST PAPER Award)

- E.Praynlin, Dr.P.Latha, “Estimating Development Effort of software project using ANFIS” International conference on recent trends on computational methods, communication and control (ICON3C 2012)held at Government college of Engineering, Tirunelveli, during April 2012, Proceedings published in International Journal of computer application. ISBN 973-93-80867-35-8

- National Conference
  - E.Praynlin, S.K.Pillai, “Software Cost Estimation Using Artificial Neural Network”, Proceedings of IACSIT sponsored National conference on Research Issues in computer science and Engineering held at RMK Engineering college, Chennai during 1-2 Mar 2011. ISBN 978-81-920889- 0-7

- Special Lecture
  - Presented a lecture on ‘Artificial Intelligence’ to ECE students of Stella Marys College of Engineering, Nagercoil on 26-08-2019
  - Presented a lecture and Chaired a session on National Conference on Engineering Application held at Universal college of Engineering & Technology, Vallioor on 28- 03-2017
  - Presented a lecture and Chaired a session on International Conference on Recent Advances and Trends (INCREAT’16) held at Pankajakasthuri college of Engineering & Technology, Thiruvananthapuram, Kerala.
  - Presented a lecture on “Neural Networks and its application” in St.Xaviers College, Palayamkottai on 09-12-2013.
  - Presented a Pre conformation seminar on “Neural Network on Software Effort Estimation” on 13-08-2013 in computer science department, Government college of Engineering Tirunelveli

Research Articles:

- International Journals
  - E.Praynlin, “Using Meta-cognitive Sequential Learning Neuro fuzzy Inference system to Estimate software Development Effort” Journal of Ambient Intelligence and Humanized computing, Vol.12, No.9, PP.8763- 8776. November 2020 (IF 4.59) [SCI]
  - X.Ascar Davix, E.Praynlin, D.JUDSON , “VGG-16 CNN Approach for vehicle license plate localization” Advances and application in mathematical Sciences (Article in press)
  - S.Jefrin Packia Mispah, Dr.E.Praynlin, "Solar Photovoltaic Output Energy Forecasting using Linear Regression and Artificial Neural Network “, ICTACT Journal on Microelectronics, Vol.06, No.01, PP.886-892, April 2020.
  - G.Vashni prasanna, Dr.E.Praynlin, "Prediction of Solar Panel Rotation By Using Optimized Convolution Network “, Journal of Interdisciplinary Cycle Research, Vol.12, No.3, PP.490-498, March 2020. (UGC-CARE)
  - E.Praynlin, Dr.P.Latha, “Performance analysis of FCM based ANFIS and ELMAN neural network in software effort estimation”, International Arab journal for Information Technology, Vol.15, No.4, PP.94-102, January 2018. (IF 0.742) [SCI]
  - E.Praynlin, “Solar PV panel output power forecasting using Probabilistic Neural Network”, Journal of Interdisciplinary cycle research, Vol.11, No.12, PP.94-102, December 2019. (UGC-CARE)

- J.Ida Jensona, Dr.E.Praynlin, “Lossless Colour Image Compression Using RCT Technique and Hierarchical Prediction”, International Journal of scientific and Engineering Research, Vol.8, No.2, PP.38-41, February 2017.
- B.Jency Paulin, Dr.E.Praynlin, “Solar Photovoltaic Output Power Forecasting Using Back Propagation Neural Network”, ICTACT Journal on Soft Computing, Vol.6, No.2, January 2016.
- E.Praynlin, Dr.P.Latha, “Software Development Effort Estimation using ANFIS” INFORMATION, Vol.17, No.4, PP.1325-1338, April 2014. (IF 0.22)
- E,Praynlin, Dr.P.Latha, “Software Effort Estimation model using Radial Basis Function Network” World Academy of Science Engineering and Technology, Vol.8, No.1, PP.248-253, January 2014. (IF 0.12)
- E.Praynlin, Dr.P.Latha, “Minimal Resource Allocation Network (MRAN) Based software Effort Estimation” International Review on Computer and software, Vol.8, No.9, PP. 2068-2074, October 2013. (IF 0.22)
- E.Praynlin, Dr.P.Latha, “Performance Analysis of software effort estimation models using neural Network”, International Journal of Information Technology and Computer Science, Vol.5, No.9, PP.101-107, August 2013. (IF 0.07)
- E.Praynlin, Dr.P.Latha, “Software cost estimation models using ELMAN Neural network”, International Journal of Information science and computing, Vol.7, No.1, pp.60-65, January 2013.

Sonia Das
B.E., M.TECH
soniadas@tjohngroup.com

Currently I am working as Assistant Professor in the Department of Computer Science & Engineering at TJIT. I have published two papers in international conferences on Computing Methodologies and on recent trends in Science and Technology. I have been doing my research work in the area of Internet of Things.

Area of Interest:

- IoT, Web Technology, Java

MEMEBERSHIP:

- ISTE

PUBLICATIONS:

- Published the paper "IOT based case study: Applications and Challenges" in the 5th International Conference on Computing Methodologies and Communication on 8-10 April 2021.
- Published the paper "Women safety using IOT- A Survey" in the International Conference on recent trends in Science and Technology on 17-18 June 2020
- Presented the paper "Implementation of women's self security system using IOT based device" in the International conference on Robotics, Intelligent Automation and Control technologies on 23-25 September 2021.

WORKSHOP:

- Workshop on Web Application Development using C# and SQL Server held on 28th and 29th October 2017 at Rajeev Institute of Technology, Hassan.
- Workshop on Machine Learning by Geekslab Technologies, Conducted on 25th - 28th 2019.

INTERNSHIP:

- Completed Design and Development of IOT applications Internship at Debilian Technologies Pvt. Ltd Bangalore.
- Completed Python ML Internship at Dlithe Pvt. Ltd Bangalore

♦ DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ANAND SWAMY A. S
Head of the Department Electronics and Communication Department
Training and Placement Officer, T John Institute of Technology Bengaluru- 560083
12+ Years of Academic Experience
tjitecehod@tjohngroup.com/ tjitplacement@tjohngroup.com

Anand Swamy A. S received Bachelor of Engineering in 2006 from Visvesvaraya Technological University and Master of Engineering in 2010 From U.V.C.E, Bangalore University and submitted the Ph.D. Thesis under the Visvesvaraya Technological University. Has more than 12 years experience in the Teaching Profession in T. John Institute of Technology, including two year experience as the HOD of Electronics and Communication department and three year experience as the Training and Placement Officer of T. John Institute of Technology. Presented and published several papers in International National Journals in the field of Image Processing. Presently working on the Compression of the High Dynamic Range Image. Dedicated to serve the Student fraternity with the depth of knowledge.

Area of expertise:

- Signal Processing, Digital Signal Processing, Image Processing, Information Theory Coding, Embedded Systems, Microcontrollers, Microprocessors.

Paper Publications:

- Anand Swamy A S, Shylashree N, "HDR Image Compression by Multi-Scale down Sampling of Intensity Levels, International Journal of Image and Graphics. Vol. 21, No. 2 (2021) 2150048 (30 pages), 2021 Mar 15:2150048. DOI:10.1142/S0219467821500480 SCI Journal: Scopus indexed and Web of Science indexed.

- Anand Swamy A S, Lalith Rahul, “CCN based Efficient Self-Driven Car”, International Journal of Scientific Research in Engineering and Management. Volume 05 Issue: 08, Aug- 2021.
- Presented paper entitled “Implementation of FFT Cordic Processor for Extraction and Verification of Image features” in the National Conference on Frontiers and Advances in Information Science and Technology-FAIST13, RRCE.
- Presented paper entitled “ HDR Tone Mapping by Multi-Scale Decomposition” in the National Conference, 2014, TJIT
- Presented paper entitled “Zone Based Robust and Scalable Geographic Multicast Routing Protocol For Manet” in the National Conference, 2014, TJIT.
- Presented and published “An Enhanced Edge Detection Algorithm: Distributed Canny Edge Method" in ICESMART 2015, TJIT, and IJERT JOURNAL.
- Presented and published “Partial Transmit Sequence (PTS) Technique To Reduce
- The Peak to Average Power Ratio (Papr) In OFDM System” and” Survey Paper on Perpetrator Identification and Acknowledgement on Road Accidents “in ICESMART 2016, TJIT, IJERT JOURNAL.
- Presented and published “Survey paper on Integrated library system using biometric scanner and distributed information access based on RFID” in NCCIP 2017,TJIT,IJERT JOURNAL
- Presented paper entitled “Edge Preserving filters for HDR image multi scale decomposition – A Survey” in the 5th International Conference on Microelectronics Computing and Communication systems, JULY 2020.

Awards and Achievements:

- Gate qualified in the year 2006
- Have awarded with the IInd prize in 43rd ISTE National Annual Convention for the guiding the Best M.Tech thesis in Electrical and Electronics Engineering titled “Implementation of FFT Cordic Processor for Extraction and Verification of Image features”
- Students under my guidance have received the funds from Karnataka State Council for Science and Technology for the project “HDR and CNN based efficient Self Driven Autonomous Car during 44th series of Student Project Programme.
- Have been awarded with Best Dialogue writer Award in Ayush TV Short Movie Festival 2018 for the Short Movie “Amrutavrusti” written and directed by myself.
- Have won award for the Short Movie “Amrutavrusti” in Kalburgi Film Festival in 2018.
- Have been nominated among Top 5 Directors in Ayush TV Short Movie Festival 2018 in the programme “Naaleya Nirdeshakaru”.
- Received KSCST funding for the student project “CCN based Efficient Self-Driven Car” in 2021.

Projects:

- Real time temperature monitoring system using PIC Microcontroller during final year B.E.
- "Implementation of UART using Verilog" during 1st year M.E.
- "Implementation of the Advanced Encryption Standard- Rijndael Algorithm on FPGA" during final year M.E.

Conference and workshops:

- Have completed course on “Internal audit in ISO 9001:2008 held on 11th Jan 2011
- Participated in Practical Workshop on “How to Develop Device Drivers” organized by ISM conducted on 11th Dec 2010.
- Participated in one day workshop on “Wireless Communication- Past, Present and Future” on 05th Feb 2010 conducted at GSSS Institute of Engg and Technology.
- Participated in one week workshop on "Signal And Image Processing - A Practical Approach" held at Jyothi Institute of Technology from 18th -23rd Jan 2016

DRAKSHAYINI M. N
B.E., M. Tech., (Ph.D.)
Associate Professor
18 Years of Academic Experience
drakshayini@tjohngroup.com

Ms. Drakshayini M. N began her employment at T. John Institute of Technology in July 2008, being very passionate about the teaching profession, dedicated to serving the Student Community through delivering knowledge and motivating the students to achieve academic excellence. Ms. Drakshayini M. N has completed Bachelors' in Engineering in Electronics and Communication Engineering from Dr. AIT, Bangalore, M. Tech in Electronics from Sir. MVIT, Bangalore, and pursuing Ph. D. in Digital Communication under VTU. Have organized a National conference, VGST sponsored FDP, and invited talk. Effectively guided many Under Graduate and Master level projects that lead to technical publications in reputed International and National Journals.

Paper Publications:

- Presented paper entitled "Smart DS-CDMA Receiver Based on Feed Forward Neural Network" in International Conference on Advances in Parallel Computing Technologies and Applications (ICAPTA 2022) Organised by T. John Institute of Technology, Bangalore, Karnataka. In Association with KAS Innovative India, Chennai. IOS Press, Scopus Indexed, January 2022.
- Published paper entitled "Integrated Antenna for the Digital Audio Broadcasting and Digital Video Broadcasting by Orthogonal Frequency Division Multiplexing" , in International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-11, September 2019.
- Published paper entitled "Unified Digital Audio And Digital Video Broadcasting System Using Orthogonal Frequency Division Multiplexing (OFDM) System", in GARI Publisher | Digital Technology | Volume: 04 | Issue: 03 Article ID: IN/GARI/ICET/2018/108 | Pages: 12-22 (10) ISSN 2424-6492 | ISBN 978-955-7153-00-1, June 2018.

- Published paper entitled “Performance Evaluation of Various Wireless Standards DAB, DVB, WiMax and IEEE802.11a,b,g,n using OFDM system”, in IJSET (ISSN (O): 2348-4098 , ISSN (P): 2395-4752), May 2017
- Published paper entitled “An Efficient Orthogonal Frequency Division Multiplexing (OFDM) System and Performance Analysis of Digital Audio Broadcasting (DAB) System”, IJCA New York, USA (Volume 148–No.8, ISBN: 973–93– 80894 –16-6), August 2016
- Presented paper entitled “Unified Digital Audio and Digital Video Broadcasting System Using Orthogonal Frequency Division Multiplexing (OFDM) System”, in International Conference on Engineering and Technology Galle face hotel, Colombo, Sri Lanka, May 2018.
- Presented paper entitled “Performance Evaluation of Various Wireless Standards DAB, DVB, WiMax and IEEE802.11a,b,g,n using OFDM system” , in National Conference on Communication and Image Processing (NCCIP- 2017) National Conference by TJIT, Bangalore, May 2017.
- Presented paper entitled “A Review on Reconfigurable Orthogonal Frequency Division Multiplexing (OFDM) System for Wireless Communication”, in IEEE International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT) 978- 1-5090-2399-8/16, 2016 IEEE, Julu 2016.
- Presented paper entitled “Implementation Issues in OFDM”, National Conference on Communication and Image Processing (NCCIP) TJIT, Bangalore, August 2013.

Certification:

- Have completed course and examination on “Internal audit in ISO 9001:2008 held on 2 - 5th March 2012.
- Completed the online course on “Deep Learning” from Coursera with a Score 84.86
- Have completed course on Quality Management Systems (QMS) Requirements Training Course (ISO 9001:2015) from BSI Training Academy held on 15th Nov 2021.
- Have completed course on “ Inculcating Universal Human Values in Technical Education” organized by AICTE held on 27th Sept to 1st Oct 2021.

Awards and Recognition:

- Awarded gold medal for the best academic performance in M. Tech from Sir. MVIT, Bangalore
- Have received incentives for obtaining 100
- Have received a token of appreciation and incentives for successful completion of surveillance ISO audit, May 2011.
- Have completed an online course in Deep learning, certified with a score of 84
- Have received an award from District Commissioner, Mandya for securing the second topper in the 10th standard examination.

Membership:

- ISTE Life Member

Nisha Joy Thomas
B. Tech (ECE), M. Tech (Digital Communication & Networking)
8.5 Years of Academic Experience
nishajoy@tjohngroup.com

I am a hardworking and passionate educator in the field of Electronics and Communication Engineering. I have completed B. Tech in Electronics and Communication Engineering from Cochin University of Science and Technology, Kerala. M. Tech in Digital Communication and Networking from VTU, Belgaum. Have organized and coordinated several department level and college level events, workshops, guest lectures, project expo etc. Effectively guided many Undergraduate projects.

My areas of interests are Electronics Devices Laboratory, Arduino projects with IOT, PSPICE, ARM processor laboratory, Power Electronics.

Areas of expertise (subjects handled):

- Basic Electronics, Embedded Systems, Advanced Computer Networks, Basic Electrical Engineering, Computer Communication Networks, Digital Switching Systems, Power Electronics and Instrumentation, Electromagnetic Waves, Control Systems

Publication:

- Presented a technical paper titled "Analysis & Detection of Diseases in Tomato and Potato Plants using Image Processing" at the National Conference on Communication and Image Processing (NCCIP-2019) held on 25th -26th May 2019, published in the International Journal of Science, Engineering and Technology.
- Presented a technical paper titled "A Comparative Study on Wavelet Based Image Denoising" at ICESMART 2016, published in the International Journal of Research in Engineering and Technology.

- Presented a technical paper titled “Efficient Noise Removal in Images using Adaptive Matched Partial BWT” at ICESMART 2015, published in the International Journal of Engineering Research & Technology (IJERT).

FDP & Conferences attended:

- 3 days FDP on Microcontroller and Embedded systems Laboratory FDP, Dayananda Sagar Academy of Technology and Management, Bangalore.
- 2 days FDP on Research Methodology at KSSEM, Bangalore
- 5 days FDP on Wireless Sensor Networks and NS2 at SJBIT, Bangalore
- 4 days FDP on Telemedicine and Biomedical Signal Processing and Data Analytics for Indian Health care Applications by Teslon Technologies, Pvt. Ltd., Bangalore.
- Pioneering AI Technology- A Case Study Approach.5 days Online Workshop, Dayananda Sagar University
- Online Course on Basic Networking with Node MCU and IOT(Udemy-2hrs).
- Webinar on Chatbots and use cases by AMC Engineering College, Bangalore
- Online course on How to become an online Teacher by Amity University.
- Webinar on Technical paper writing and patenting by AMC Engineering College, Bangalore.
- Online Course on Arduino UNO (Udemy-15hrs).

Sukanya Prasad T
BE(ECE),ME(Communication Systems)
10 years 6months of academic experience
sukanyavanaja@gmail.com

I intend to pursue a long-term career in the field of communication in an organized sector, where I could use my knowledge in Electronics and software to the best of my ability and that would give an opportunity for me to learn, be responsible, independent and goal oriented in my way of working.

Areas of interest (Subjects Handled):

- Fibre Optics ,Analog & Digital Communication ,Mobile Communication & Satellite Communication, Principles of Communication Systems, Analog Electronic Circuits, Linear Integrated Circuits, Bio-medical Instrumentation

COMPUTER LITERACY:

- Language : C, C++,Python
- Operating Systems : Windows, DOS.
- Databases : MS-Access.
- Others : Machine Learning ,Data Science &Analysis, MS-Office

FDP, Workshop and Conferences Attended:

- Attended 5 days ATAL Academy FDP on Application of IoT in Aerospace Engineering at VTU.
- Attended 5 days ATAL Academy FDP on IoT Application in Renewable Energy at NSS College of Engineering
- Participated in workshops on Vlabs at Dayanand Sagar University, NBA in ISTE convention at APSCE, Raspberry-Pi at AMCEC, Bangalore.
- Participated in one day workshop on Research Methodology at AMCEC, Bangalore.
- Presented papers on VLSI, Comm. & Computer Network VCCN-3& VCCN-4 at AMCEC ,Bangalore.

- Presented a paper on challenges and opportunities in value based technical education & accreditation at 17th ISTE state level faculty convention held at KSIT,Bengaluru.
- Participated in International conference held at Noorul Islam College of Engg,TN.
- Presented a paper on a multi beam power and angle adaptive transmitter in an indoor channel at national level conference held at MET 's School of Engineering,Mala,Kerala.
- Participated in electronics workshop at MEPCO Engineering College,Sivakasi.
- Presented a paper on Network Security & Cyber Crimes at Indian Engg College, Tirunelveli and at Velammal Engineering College, Chennai.
- Attended National Level Technical Symposium conducted by various colleges.

Certifications:

- Certification course from Nptel on Principles of Communication Systems
- Cleared Visharad Uttararth under Dakshin Bharat Hindi Prachar Sabha.

Membership:

- Life time Membership in ISTE.
- Student Membership in IEEE during the year 2000-2003,2009-2010.
- Member of NSS during the year 1999-2003 & attended camps based on National Leprosy Eradication Programme.

Mr. PRAVEEN P N
B.E (EIE), M.E (Applied Electronics), (Ph. D EIE)
Assistant Professor, ECE
11 Years of Academic and 5 Years of Industry Experience
praveenpn@tjohngroup.com

Myself Praveen P Nambissan having 15 years of experience and now working as Assistant Professor in the department of ECE at T. John Institute of Technology, Bangalore. My primary area of interest is in Applied Electronics and Energy Analytics with special emphasis on Renewable Energy. I am a committed professional with teaching as passion and completed my Master of Engineering in Applied Electronics and Bachelor of Engineering in Electronics and Instrumentation from Anna University, Tamil Nadu. Now the focus is on research in Renewable energy with the application of electronics and computational concepts, at NICHE, Tamilnadu.

Prior to joining this institution, I was working with MEA Engineering College, Kerala in the same capacity, since 2012 and before I was serving as Senior Engineer in various Industries, both in India and abroad. I am an authorized Observer at National Testing agency (NTA), Ministry of Education, India and Student Learning Assessment (SLA) Project panel member at AICTE, Delhi.

Areas of expertise (subjects handled):

- Basic electrical and electronics, Electronic devices, Power electronics, Analog electronics Microprocessors and microcontrollers, Measurements and Instrumentation, Industrial electronics, Power drives, Information theory and coding, VLSI, Advanced MOSFET circuits and design, Electrical machines and drives, Electrical circuits, Power plant instrumentation.

Publications:

- "An Advanced Solar Tracking System with Less Tracking Error through CHOA", "Design Engineering (Toronto)" ISSN: 0011-9342 (Scopus Indexed).
- "A review on solar tracking mechanism with optimized energy consumption and

less tracking error", published in "International Journal of Advances in Engineering and Management" (IJAEM) ISSN: 2395-5252

FDP, Courses & Conferences attended:

- Attended STTP "Recent trends in Energy Management and audit", organized by AICTE from 02nd November to 19th December in four phases.
- Attended Course on "MOSFET and beyond" organized Indian Institute Technology(IIT), Chennai in 2017.
- Attended course on "PLC" organized by TATA.
- Attended course on "Instrumentation and Control system" by TATA
- Attended Course on "Satellite photogrammetry" organized Indian Institute of Remote Sensing (IIRS), Dehradun in 2019.
- Attended Webinar "Renewable energy grid integration: Challenges and issues" organized by IEEE in 2020.
- Attended Webinar "Getting started with technology fusion" organized by IEEE in 2020.
- Attended webinar "Insights of Data science and analytics" organized by IEEE in 2020.
- Paper presentation done in International conference on advancements in engineering, management, science and technology in the year 2021.
- Attended workshop on "Arduino applications – An Industrial perspective", from MEA engineering college in the year 2019.
- Attended workshop on "how to do a good Research", Anna university, Chennai 2019.
- Attended workshop on "Modernization in teaching pedagogy" organized by ICFAI.

Mrs. J. Aarthy Suganthi Kani
B.E., M. Tech.
5 Years 11 months of Academic Experience
aarthys@tjohngroup.com

I hold my Bachelors in Engineering in Electronics and Communication Engineering from Anna University, Chennai and Masters in VLSI Design from Karunya University, Coimbatore. I have 5+ years of teaching experience along with paper publication in reputed International and National Journals. My passion towards teaching has extended

the wings in guiding students to build good projects and encouraging students in publish papers in National and International Level Conference and Journals.

Area of Expertise (Subjects handled): :

- Low Power VLSI, Verilog HDL, ARM Microcontroller, Embedded Systems, Digital System Design.

Publications:

- "Automatic image mosaicing: seamless image stitching based on haar wavelet 2d integration method by minimizing false edges", International Journal for Engineering and Management Science, March 2019.
- "An IOT based Patient Health Monitoring System", International Journal of Science, Engineering and Technology,2019.
- "Wireless Glove for Hand Gesture Acknowledgment: Sign Language to Discourse Change Framework in Territorial Dialect", Juniper Publishers: Robotics & Automation Engineering Journal, June 2018.
- "Peak Cancellation Crest Factor Reduction Technique for OFDM Signals", International Journal of Research in Engineering and Technology, April 2015.

Projects Handled:

- Person Identification and authentication using LORA module.
- Automatic Seat Belt Control System.
- Moisture to water generation based on Peltier Effect.
- Wireless Glove for Hand gesture acknowledgement.
- Power Reduction by Selective Triggering.
- Power Optimization using Bit Swapping Algorithm.
- Person Identification and Authentication Using RFID.

FDP attended:

- FDP on "Microcontrollers & embedded systems laboratory" from 6-10th February 2020 organized by Department of information science & engineering & computer science & engineering at DSATM, Bangalore.
- Five days FDP on "IOT and Wireless Sensor Networks", from 27th July – 31st July 2020 organized by Department of Electronics and Communication Engineering conducted by Brindavan College of Engineering, Bangalore.
- Five days FDP on "Contemporary Research in EC and Computer Science", from 6th July – 10th July 2020 organized by Department of Electronics and Communication Engineering conducted by VTU, Centre for Postgraduate Studies, Bangalore

Online Courses:

- Udemy Certification completed on Arduino: Getting Started on 23rd June 2020.
- Successfully completed online course on "How to become an Online Teacher" on 2nd April 2020 from Amity University.

SUBEEKRISHNA M P
B. Tech(EEE), M.Tech (Power Systems),(Ph.D.)
11 years and 8 months Academic Experience
subeekrishna@tjohngroup.com

I am versatile, detail-minded, dependable, and self-motivated expertise having excellent knowledge of the subject with more than 11 years of solid professional teaching and research experience. Also, a dynamic instructor and thought leader focussed on providing students with rigorous and challenging education, along with confidence, tools, and skills required to build and advance towards a framework of success.

Academic Education:

- Bachelor of Technology in Electrical and Electronics Engineering I SCMS School of Engineering and Technology, Ernakulum, Kerala
- Master of Technology in Power Systems I Government Engineering College, Thrissur, Kerala
- Pursuing Ph.D.(Part-time) in Power Systems from Amrita Viswa Vidyapeetham, Coimbatore, Tamilnadu

Additional Qualification (40 Courses):

- Certificate Program in "Electric Utilities Fundamentals and Future" from University of Colorado, Denver, United States
- Certificate Program in “Introduction to Machine Learning” from Duke University, North Carolina, United States
- Certificate Program in “Electric Power Systems” from University at Buffalo & The State University of New York, United States
- Certificate Program in “Renewable Energy and Green Building Entrepreneurship” from Duke University, North Carolina, United States
- Certificate Program in “Energy – The Enterprise” from University at Buffalo & The State University of New York, United States
- Certificate Program in “Electricity Industry Operation and Markets” from Duke University, North Carolina, United States

- Certificate Program in “Solar Energy” from the State University of New York, United States
- Certificate Program in “The Science of Well Being” from the Yale University, United States
- Certificate Program in “Internet of Things and Embedded Systems’ from the University of California, Irvine, United States
- Certificate Program in “Machine Learning Foundation - A Case Study Approach” from the University of Washington, United States
- Certificate Program in “Electric Vehicles and Mobility" from Ecoles des ParisTech and Groupe Renault Foundation, France
- Certificate Program in "Introduction to Smart Grid" conducted by Indian Institute of Technology (IIT Roorkee)
- Certificate Program in "Introduction to Machine Learning" conducted by Indian Institute of Technology (IIT Madras)
- Certificate Program in “Programming with MATLAB” from the Vanderbilt University, Tennessee, United States
- Certificate Program in “Innovation Through Design” from the University of Sydney, Australia
- Certificate Program in “Foundations of Mindfulness” from the Rice University, Texas, United States
- Certificate Program in ‘Introduction to Cloud Identity’ authorized by Google Cloud
- Certificate Program in ‘The Arts and Science of Relationships: Understanding Human Needs’ from University of Toronto
- Certificate Program in ‘The Science of Success: What Researchers Know that You Should Know’ from University of Michigan
- Certificate Program in ‘COVID-19 Contact Tracing’ from John Hopkins University
- Certificate Program in ‘Code Yourself! An Introduction to Programming’ from University of Edinburgh and Universidad ORT Uruguay
- Certificate Program in ‘Communication Strategies for a Virtual Age’ from University of Toronto
- Certificate Program in ‘Teamwork Skills: Communicating Effectively in Groups’ from University of Colorado Boulder
- Certificate Program in ‘Introduction to Personal Branding’ from University of Virginia
- Certificate Program in ‘Exploring Emerging Technologies for Lifelong Learning and Success’ from The State University of New York
- Certificate Program in ‘A Life of Happiness and Fulfilment’ from the Indian School of Business
- Certificate Program in ‘Positive Psychology’ from The University of North Carolina at Chapel Hill
- Certificate Program in ‘Psychological First Aid’ from Johns Hopkins University
- Certificate Program in ‘Getting Started with AWS Machine Learning’ authorized by Amazon Web Services
- Certificate Program in ‘Electrical Systems: Panel Boards, Frequency Drives, and Transformers’ through LinkedIn Learning
- Certificate Program in ‘Electronics Foundations: Fundamentals’ through LinkedIn Learning

- Certificate Program in 'PowerPoint for Teachers: Creating Interactive Lessons' through LinkedIn Learning
- Certificate Program in 'Machine Learning with Python: Foundations' through LinkedIn Learning
- Certificate Program in 'Electrical Systems: Reading Drawings and Schematics' through LinkedIn Learning
- Certificate Program in 'Learning BATTERY 4' through LinkedIn Learning
- Certificate Program in 'Applied AI for IT Operations' through LinkedIn Learning
- Certificate Program in 'Learning Cloud Computing: Core Concepts' through LinkedIn Learning
- Certificate Program in 'Cybersecurity Foundations' through LinkedIn Learning
- Certificate Program in 'Python for Engineers and Scientists' through LinkedIn Learning

Publications (14 Research Papers) :

- International Journal:
  - 'Design and Computational Analysis of Daylight Integrated Energy Efficient Lighting Scheme' , International Journal of Earth Sciences and Engineering ISSN 0974-5904, Vol. 10, No. 01 SPL, March 2017, pp. 12-17(Scopus Indexed)
  - 'Comparative Study of PID and Fractional Order PID Controllers for Industrial Applications' (International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Special Issue – 2019)
- Conference Publication:
  - 'D-Statcom Converter Topologies: State of Art and Future Trends' National Conference on recent advances in Engineering & Technology in nCoretech 2016, LBS College of Engineering & Technology,November 2016
  - 'D-Statcom Neutral Current Compensation Techniques: A Review 'National Conference on recent advances in Engineering & Technology in nCoretech 2016, LBS College of Engineering & Technology, November 2016
  - 'Neutral Current Compensation Techniques in D-Statcom for 3-Phase 4 Wire System' National Conference held at Sree Nayarayana Guru College of Engineering,December 2016
  - 'A Comprehensive Review of D-Statcom Converter Topology' National Conference held at Sree Narayana Guru College of Engineering, December 2016
  - 'A Switched-Capacitor based High-Boost Converter for PV applications', International Conference on Recent Scientific Research in Engineering and Technology, March 2019
  - 'Comparative Study of PID and Fractional Order PID Controllers for Industrial Applications' National conference on Recent Trends in Information, Communication and Computing Technology held at KSR College of Engineering, Thiruchengode on 10th March 2019
  - 'A Switched-Capacitor based High-Boost Converter for PV applications', IEEE International Conference on Innovations in Information and Communication Technology, April 2019
  - 'Four Switch Switched Boost Inverter for Distributed Power Generation', ICCES 2020 International Conference on Computing, Communications and Energy Systems held on Feb 2020

- ‘Maximum Constant Boost Control of Four Switch Switched Boost Inverter’, ICFCR co-sponsored by AICTE and IEEE International Conference on Futuristic Technologies in Control System and Renewable Energy held on September 2020
- ‘Design and Development of a Multi-Purpose Agricultural Robot’, ICAPTA 2022 organized by T John Institute of Technology Bangalore in association with KAS Innovative India Chennai on January 2022
- ‘Automated Sewage Cleaning System and Water Pollution Analyzer ’, ICAPTA 2022 organized by T John Institute of Technology Bangalore in association with KAS Innovative India Chennai on January 2022
- ‘Design and Fabrication of an Articulated Ornithopter’, ICAPTA 2022 organized by T John Institute of Technology Bangalore in association with KAS Innovative India Chennai on January 2022

FDP/STTP/Workshops:

- Organized:
  - Organized a 5 Day Faculty Development Programme on "Electric Vehicles - Inside the Box" held at MEA Engineering College, Perinthalmanna from 08-06-2020 to 12- 06-2020
  - Organized a 2 Day Workshop on ’Robotics and Artificial Intelligence’ held at MEA Engineering College, Perinthalmanna on 15th &16th March 2019
  - Organized a Workshop on ’Domestic Maintenance Engineer’ held at MEA Engineering College, Perinthalmanna on 24th November 2018
  - Organized a 3 Day National Level Workshop on ’Computer Aided Design of Electrical Systems’ held at MEA Engineering College, Perinthalmanna from16-02- 2018 to 18-02-2018
  - Organized Tech Talk Series at T John Institute of Technology Bengaluru on 12-11- 2021
  - Organized Tech Talk Series at T John Institute of Technology Bengaluru on 21-12- 2021
- Participated:
  - Participated in Faculty Development Programme on ‘Innovative Approaches in Power Electronics Drives and Control’ conducted at Rajagiri School of Engineering and Technology, Ernakulam
  - Participated in “Faculty Development Programme on ‘Research Methodologies’ held at Amal Jyothi Engineering College, Kottayam
  - Participated in Faculty Development Programme on ‘Teaching Methodology’ held at Sri Vellappally Natesan College of Engineering, Alappuzha
  - Participated in Faculty Development Programme conducted by ICT Academy, Kerala held at Sri Vellappally Natesan College of Engineering, Alappuzha on 10/6/15 to 12/6/15
  - Participated in Faculty Development Programme on ’Power Systems Lab’ conducted by Amrita Viswa Vidyapeetham, Coimbatore from 06/07/2015 to 08/07/2015
  - Participated in three days Faculty Development Programme on ’Teaching and Learning Process’ conducted at MEA Engineering College, Perinthalmanna on 18/07/2017 to 20/07/2017
  - Participated in CSIR Sponsored two days’ national seminar on ’Investigation on Decentralized Energy Generation and DC Micro Grid for Future Power Needs’ on 4/8/17 to 5/8/17 at Kongu Engineering College, Erode

- Participated in National Level Faculty Development Programme on 'Design and Development of Feedback Controllers for Power Electronics Converter Based Systems' on 23/11/17 to 25/11/2017 at Karpagam College of Engineering, Coimbatore
- Participated in National Level Workshop on 'Computer Aided Design of Electrical Systems' held at MEA Engineering College Perinthalmanna from 16-02-2018 to 18- 02-2018
- Participated in a workshop on 'Research Methodology' conducted on 28-2-2018 at MEA Engineering College, Perinthalmanna
- Participated in Tequip-III sponsored 6 days' hands on training on 'Mathematical Modelling and Data Analysis using R and SPSS' from 12-12-2019 to 17-12-2019 at Coimbatore Institute of Technology, Coimbatore.
- Participated in Two Week Faculty Development Programme on 'Art and Skill for Effective Teaching' organized by Saveetha Engineering College, Chennai from 25/05/2020 to 06/06/2020
- Participated in the Webinar on 'Electric Vehicle- Design' conducted by the Department of EEE, Sri Ramakrishna Institute of Technology, Coimbatore
- Participated in the Webinar on 'Higher and Technical Virtual Education Conclave - West India 2020' on 19/06/2020 organised by ELETS Technomedia and Digital Learning Magazine
- Participated in the Webinar on 'Pedagogical Aspects of Electromagnetics' on 25/05/2020 organized by the Department of EEE, Sree Narayana Institute of Technology, Adoor
- 'Participated in the Webinar on 'Electrical Engineering - Career and Prospects' organized by the Department of EEE, LBS College of Engineering, Kasargod
- Participated in 5 Day Faculty Development Programme on 'Introduction to PLECS Tool for Power Electronics Applications' organized by V R Siddharta Engineering College, Andhra Pradesh IN association with PLEXIM Switzerland and sponsored by AICTE from 02/07/2020 to 06/07/2020
- Participated in the Webinar on 'Higher Education Opportunities Abroad' organized by the Department of EEE, LBS College of Engineering, Kasaragod
- Participated in the Webinar on 'New Trends in Lightning Design' organized by Jyothi Engineering College, Thrissur in association with IEEE on 04/07/2020
- Participated in the 2 Day Webinar on 'Redefining and Reassessing Value Proposition in Technical Education in a Post-Pandemic Era' organized by Rajagiri School of Engineering Technology, Ernakulam from 15/07/2020 to 16/07/2020
- Participated in 5 Day Faculty Development Programme on 'System Modelling and Control Methods' organized by SCMS School of Engineering, Ernakulam from 13/07/2020 to 17/07/2020
- Participated in 5 Day Faculty Development Programme on 'Emerging Trends in Electrical Engineering: A Research Perspective' organized by LBS College of Engineering, Kasargod from 27/07/2020 to 31/07/2020
- Participated in the Webinar on 'Accelerating Creative Career' on 06/08/2020 organized by ELETS and Digital Learning Magazine
- Participated in the Webinar on 'COVID -19: Higher Education Challenges and Responses' organized by Pallavi Engineering College, Hyderabad on 09-08-2020
- Participated in the Webinar on 'Grid friendly Photovoltaic Systems' hosted by IEEE PES SBC Saintgits College of Engineering, Kottayam on 8th August 2020

- Participated in 3 Day Faculty Development Programme on 'Research Areas in Energy Audit and Conservation' organized by VIT, Chennai from 24/08/2020 to 26/08/2020
- Participated in the Webinar on 'Global Renewable Power Generation Scenario and Challenges in Microgrids' held at NIT Silchar organized by NIT Silchar on 21/09/2020
- Participated in 5 Day Faculty Development Programme on 'Recent Advancement in Communication and Networking' organized by Government Engineering College, Idukki during 28/09/2020 to 03/10/2020
- Participated in one-week workshop on 'Advanced Technologies in Electrical and Electronic Systems' organized by department of Electrical and Electronics Engineering in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 03rd to 7th January 2022.

- Reviewer
  - International Journal of Electrical Power and Energy Systems (Elsevier)

Membership:

- Life Member in Indian Society for Technical Education (LM 74193)
- Professional Member of International Economics Development and Research Center (90081470)
- Professional Member of Institute for Engineering Research & Publication (PM06712583)

Dr. Manjunatha V
B.E, M.Tech, Ph.D.
28 years of teaching experience
manjunathav@tjohngroup.com

I have completed my doctoral studies in Image Compression and M.Tech in VLSI design and Embedded System from VTU. I started as a lecturer with a passion for teaching and research and currently have 28 years of teaching experience. I am passionate and dedicated towards my work and have always strived for the academic success of students. I have published papers in various journals and have worked as a guest lecturer for IC mask design conducted by Intel company.

Achievements:

- Worked as ISTE chapter Secretary and organized various workshops and seminars for the benefit of students.
- Worked as a guest lecturer for “IC Mask Design” conducted by Intel company.
- As a chief coordinator of the Industry Institute partnership cell (funded by AICTE, New Delhi), Organized various Technical Programs for the benefit of students and staff.
- Worked as EDUSAT programme coordinator sponsored by Directorate of Technical Education, Govt. of Karnataka.

Area of expertise (Subjects handled):

- Embedded C
- VLSI Design
- Microcontroller
- ARM Controller
- Digital Communication
- VHDL

Paper Publications:

- Manjunatha.V “FPGA Implementation of lifting based DWT image Compression” International Conference on multidisciplinary Research, (ISSN 2231-5063, page-101, December 2015)
- Manjunatha.V, “Lossless image compression using enhanced wavelet transform” International Journal of Research in Computer Application and Robotics, (Vol.4 Issue 8, Pg.: 25-31, ISSN 2320-7345 August 2016)
- Manjunatha.V “A robust low power approach for image denoising” conference on New challenges against constitutional law in 21st century, (page 211-223, ISBN 978-81-924359-6-1)

Membership:

- ISTE life member (LM 42602)

♦ DEPARTMENT OF INFORMATION SCIENCE ENGINEERING

Dr. J. SUGANTHI
M.E(Computer Science & Engineering),
Ph.D(Information & Communication Engineering)
18 Years of Academic Experience

I as a professional, handle the tasks of Leadership, Management of Staff & Students due considering the development of Academic & Research Standing to enhance Quality.

I have also got my Doctorate in Soft Skills from Global Peace University, USA and I pride myself as a Trainer for GATE, NET & IBPS Examinations to create an ambience that accommodates the need of any individual student while still promoting a high level of critical thought and skills for any recruitment.

As a Certified Life Coach from NLP Coaching Academy, Bangalore, I have the Passion to cultivate Positive Attitudes and Critical Thinking among Students and Skilled in Evaluating and Mentoring Students, for their Career Enhancements. In addition, I'm certified by NPTEL on Enhancing Soft Skills, IOT, and Cognitive Psychology at IIT - Kanpur.

Areas of Expertise:

- Artificial Intelligence, Automata Theory, Cognitive Psychology, NLP.

Publications & Presentations:

- Published a paper titled, "A Novel Morphological Band pass Filtering Technique for Detection of Breast Micro calcifications" in Clinics in Oncology, June 2021

- "RF-TSVM: Random Forest based Transductive Support Vector Machine for Classification and Prediction of Cancer Patterns", accepted in Journal of Physics : Conference Series, July 2021
- "A Review of CoVID-19 Detection Using Deep Learning", accepted for publication in Journal of Physics : Conference Series, July 2021
- Published a paper titled, "Modified Bat Algorithm for feature selection in Wisconsin Diagnosis Breast Cancer Dataset", in Asian Pacific Journal of Cancer Prevention, 2017.
- Published a paper titled, "An Effective Implementation of Enhanced Naive Bayes Classification to Ensemble CART and C4.5 for Detection of Cancer", in AICTE Sponsored 6th International Conference at KLN College of Information Technology, Madurai in October 2017.
- Published a paper titled, "Fuzzy based Feature Selection Scheme through Transductive SVM Technique for Cancer Pattern Classification and Prediction" in Indian Journal of Science and Technology, 2016.
- Published a paper titled, "Naive Bayes Classifier with Parallel Abduction Reasoning Ensemble PCA for Prediction Modeling" in Journal of Computational and Theoretical Nanoscience, 2016.
- Published a paper titled, "CRF based Remote Sensing Image Segmentation using Co-Sand Algorithm" in International Journal of Advanced Research in Computer Engineering & Technology, April 2016.
- Presented a paper titled "Challenges faced by Entrepreneurs" in National Conference on Entrepreneurial Resurgence & innovations at Alagappa University, Karaikudi on 19th August 2016.
- Published a Paper titled "Study on Cancer classification and prediction through fuzzy based Transductive SVM technique" in the Second National Conference on Computing and Communication at Anna University, Tirunelveli on 4th May 2015.
- Presented a Paper titled, "A new Data Mining Based Approach for Network Intrusion Detection" at Mohamed Sathak Engineering College, Kilakarai on 13th March 2014.
- Presented a Paper titled, "Data Mining Architecture in CRM based Insurance Trading" at KLN College of Information Technology, Madurai on 4th February, 2010.
- Presented a paper titled, "Elevated Packet Range in Under Water Wireless Sensor Networks" on 22nd February at Vickram College of Engineering, Enathi.
- Presented a Paper titled, "Cancer classification using FNN Methods (SOM)" in the National Conference on Emerging Trends in IT at Mohamed Sathak Engineering College, Kilakarai on 19th January 2008.

Participations:

- Faculty Development Programme on "Training in R Language" organised by PG and Research Department of Mathematics, Auxillium College Autonomous with IIT Bombay on May 2020
- National Seminar on "Discrete Mathematics and its Applications to Engineers" at Thiagarajar College of Engineering on 9th & 10th February 2017.
- Workshop on "Introduction to Ethical Hacking & Cyber Security" at Raja College of Engineering & Technology on 9th March 2017.
- Faculty Knowledge Program at ICFAI Business School on August 2017.
- Entrepreneurship Orientation Programme organized by Entrepreneurship Development Institute of India at Wales Academy, Madurai on 16th & 17th July'2016.

- Two days National Seminar on “Cancer classification using Micro Array Gene Expression Data” at Bannari Amman Institute of Technology, Sathyamangalam on 20th & 21st July 2012.
- Workshop on “Effective communicative English Teaching” at Anna University, Madurai on 25th March 2011.
- Workshop on Mathematical methods for Engineers at Velammal College of Engineering & Technology, Madurai on 1st October, 2011.
- National Seminar on “Mathematics for Advanced Research Techniques” at Ultra College of Engg, Madurai on 18th October 2011.
- One day Workshop on “Recent Techniques in Software Testing” at Anna University, Madurai on 18th November 2011.
- Round Table Conference for Training and Placement Heads at Latha Mathavan Engineering College, Madurai on 25th November 2011.

Reviewer for the Journals:

- IGI Global Publisher
- Journal of Public Health Policy and Planning
- Journal of Juvenile Psychology and Behavioural Sciences
- Journal of Intensive and Critical Care Nursing
- Journal of Public Health Policy and Planning
- Journal of Psychology and Cognition

DR. P MEENA KUMARI
M.Tech(Computer Science & Engineering)
PhD(Computer Science & Engineering)
14 years of Academic and 4 years of Administrative Experience

Dr P. Meena Kumari, Associate Professor in the Department of Information Science and Engineering, I'm Graduated from Sri Krishna Devaraya University, Anantapur, AP. I obtained M.Tech., from JNT University, Hyderabad, Telangana.I completed my Doctoral degree in October 2019 from the Department of Computer Science & Engineering from JJT University.

I am having vast experience in different reputed MCA and Engineering colleges in Telangana. Apart from Teaching I am having administrative experience also.

Area of Interest:

- Database Management System, Artificial Intelligence, Machine learning, Big Data Analytics and Software Engineering.

Papers Published:

- Meena Kumari P; "EDUCATIONAL DATA MINING AND ITS ROLE IN EDUCATIONAL FIELD"; International Journal of Computer Science and Information Technologies, 2014; 2458-2461; Vol. 5 (2)
- Priyanka P; Meena Kumari P; "AN EFFICIENT ALGORITHM FOR CLUSTERING DATA USING MAP- REDUCE"; International Journal of Computer Science and Mobile Computing, 2014; Issue.5, Vol.3; 1013- 1021
- Meena Kumari P; Dr.K.E.Balachandrudu, "REVIEW ON BUG TRAIGE TECHNIQUES AND APG FOR EFFICIENT SOFTWARE BUG TRIAGING", IJIRSET, ISSN(ONLINE): 2319-8753, ISSN(PRINT):2347- 6710 , Issue 9, Volume 6, Page No:53-58
- Meena Kumari P; Dr.K.E.Balachandrudu, "A SURVEY ON VARIOUS TECHNIQUES FOR BUG TRIAGE WITH BUG DATA REDUCTION", Journal of Emerging Technologies and Innovative Research, 2017, ISSN:2349-5162, Issue 5, Volume 6, Page No:53-58

- Meena Kumari P; Dr.K.E.Balachandrudu, , "BUG TRIAGE PROCESS WITH BUG MANAGEMENT TOOLS", Journal of Applied Science and Computations, 2019, ISSN NO:1076-5131, , Issue V, Volume VI Page No:1066-1074
- Meena Kumari P; Dr.K.E.Balachandrudu, "EXISTING BUG MANAGEMENT TOOLS", International Journal of research, 2019, ISSN NO:2236-6124, Issue V, Volume VIII, Page No:988-992
- Meena Kumari P; Dr.K.E.Balachandrudu,"DIFFERENT PROGRAMMING LANGUAGES OR CROSS PLATFORM INTEGRATING JIRA PLUG-IN WITH NETBEANS AND ECLIPSE IDE", International Journal of Management, Technology and Engineering, 2019, ISSN NO:2249-7455, Issue V, Volume IX, Page No:199-207
- P Meena Kumari; Dr.K.E.Balachandrudu, "BUG TRIAGE PROCESS FOR OPEN SOURCE SOFTWARE DEVELOPMENT PROJECTS", Universal Review, 2019, ISSN NO:2277-2723, Issue V, Volume VIII, , Page No:53-58

Conferences Attended:

- Meena Kumari P, ICPLSCMSMD 2016, "SELECTING AND INSTALLING JIRA PLUG-IN IN NETBEANS"
- Meena Kumari P, ICRAETPS 2017, "BUG REPORTS FROM GOOGLE CHROMIUM-TEMPLATE TRAINING"
- Meena Kumari P, NLCETELJSSRSMP 2017, "TYPES OF JIRA SOFTWARE AND ITS APPLICATIONS"
- Meena Kumari P, ICTEMPS-2018, EIT214, "OVERVIEW OF SOFTWARE BUG TRIAGE TOOLS AND JIRA TOOL WITH FUNCTIONALITIES"
- Meena Kumari P, NCET-ICT 2018, "EVALUATION OF JIRA SOFTWARE AND SERVER MAINTENANCE"
- Meena Kumari P, JES 2020, "REVIEW OF VARIOUS BUG TRIAGE TECHNIQUES AND APF FOR EFFICIENT SOFTWARE BUG TRIAGING"
- Meena Kumari P, JES 2020, "INCRESING ACCURACY OF PREDICTING HEART STROKE USING EFFECTIVE MACHINE LEARNING TECHNIQUES BY APPLUING PRINCIPAL COMPONENT ANALYSIS(PCA)"

FDPs Attended:

- Attended 5 days FDP on "Artificial Intelligence" from 13th to 17th April, 2020 conducted by AICTE Training and Learning Academy (ATAL).
- Attended 5 days FDP on "Data Sciences" from 4th to 8th May, 2020 conducted by AICTE Training and Learning Academy (ATAL).
- Attended one week FDP on "Big Data Tools" from 18th to 23rd May, 2020 conducted by St. martin's Engineering College, HYDERABAD
- Attended one week FDP on "PYTHON" organized by Center for Virtual Learning, Dr N.G.P Arts and Science College, Coimbatore, Tamil Nadu.
- Attended one week FDP on "PHP and MYSQL" organized by Center for Virtual Learning, Dr N.G.P Arts and Science College, Coimbatore, Tamil Nadu.
- Attended two week FDP on "Data Science with Machine Learning using Python" from 4th to 15rd June, 2020 conducted by Govt of India Recognized by "Assetplus consulting an analytics organization".
- Attended two week FDP on "Data Science with Artificial Intelligence using Python" from 22nd June to 2nd July, 2020 conducted by Govt of India Recognized by"Assetplus consulting an analytics organization".

- Attended 60 Contact Hours FDP on Data Science held from 1st July to 24th July, 2020, conducted by TASK, Govt of Telangana.
- Attended 15 days FDP on CYBER SECURITYfrom 24th Aug to 9th Sept, 2020 conducted by Jawaharlal Nehru Technological University, Hyderabad.

MS.MANJUSHA N. MAHAMUNE
Assistant Professor
M. E(Computer Engineering)

I, Mrs.Manjusha N. Mahamune, hold my Bachelors in Engineering in Computer Science and Engineering from Amaravati University, Amaravati and Masters in Computer Engineering from Amaravati University. I am very much committed towards student understanding of the subject which they can apply in their professional career. I have 16 years of teaching experience along with paper publication in reputed International and National Journals. My passion towards teaching has extended the wings in guiding students to build good projects and encouraging students in publish papers in National and International Level Conference and Journals.

Subject Area:

- Artificial intelligence and Machine Learning

MS. DIVYA G S
M Tech (Computer Science and Engineering)
3.6 years of experience

I am an Assistant professor in the department of Information Science and Engineering in this institute with a sound knowledge of subjects in Computer Science and Engineering. I am also the Placement Co-ordinator for ISE Department. I am proud to state that I have achieved 90-100% pass percentage in the subjects that I have handled. I have completed my M Tech in Computer Science and Engineering in (SJBIT) Sri Jagadguru Balagangadharanatha Institute of Technology, one of the top 10 Engineering colleges in Bangalore.

I have paper presentations at some of the national conferences during my academic years. I have presented a paper on 'Wireless Technology' at 'Tantragnana' held at G.S.S.S Institute of Engineering, Mysore in the year 2007, a paper on'Mobile Agent Security Using Digital Watermarking' in National conference held at Jain University, Bangalorein the month of February, 2012 and a paper on 'A Decentralized Low Communication Traffic Alert System Using Android' in National conference held at New Horizon College of Engineering, Bangalore in the month of May, 2013.

I have a proven track record for increasing classroom engagement through assignments and group activities. Some of the skills that I possess are maintaining record, planning a curriculum and teaching plan, classroom management, technologically sound, performance evaluation, communication skills, leadership, time management, understanding child psychology, collaboration, problem-solving, patience, organisational skills and computer skills. I have created several teaching methodologies to improve classroom participation and improve grades. I am an encouraging and motivatedperson to attend to students and aid their growth.

♦ DEPARTMENT OF MECHANICAL ENGINEERING

Mr.S.G Sujithkumar
B.E [MECH] M.E [M/C DESSIGN] Ph.D
16 Years of Industrial Experience.
12years of Academic Experience
sujithkumar@tjohngroup.com

I am a very responsible and enthusiastic in teaching. Very helpful and friendly can easily reachable. Accompanying classes with Role play activities to understand the concept easily. With an experience of 16 years as a production manager in a Processing industry is well motivated to Encourage the student to achieve their goals and move towards their fortune. Presently working as Head of the department, Department of Mechanical Engineering.

I am a Doctorate from Bangalore University, Bangalore. I am keen researcher and my research papers have been published in national and international UGC approved journals and been presented in national conferences.

My area of interest is Bio materials. To develop a bioresorbable material which is suitable for medical applications.

Areas of expertise (subjects handled):

- Finite element Methods
- Kinematics of Machines
- Dynamics of Machine
- Mechanics of Materials

- Computer aided Engineering Drawing
- Computer aided machine drawing

International Journals:

- "An Investigation on Strength of SS316L and cobalt-chromium used as cardiovascular stent materials by non – linear FEA", 1Sujith Kumar S G, 2Dr. Hanumantharaju H G, International Journal of Engineering Research and Technology, ISSN-2278-0181, Vol 2, Issue 12, Dec 2013, pg no. 1876 - 1884
- "Study of effect of Egg shell Material used as filler in hybrid Polymer Matrix Composite" 1sujith kumar S G, 2 Dr Hanumantharaju H G. Imperial journal of inter disciplinary journal.Imperial Journal of Interdisciplinary Research (IJIR) Vol-3, Issue-1, 2017 ,ISSN: 2454-1362, http://www.onlinejournal.in
- ''Investigation on Effect of Natural Fibres Reinforcement on the Strength of Vinylester based Composite Material". International Journal of Engineering & Technology Research (IJETR), Volume5, Issue 1, January-February, 2017, pp. 26-39 ISSN Online: 2347-4904, Print: 2347-8292, DOA: 17022017
- ''Effect of natural fiber reinforcement on Mechanical properties of PLA based Bioresorbable Composites" International Journal of Research and Analytical Reviews (IJRAR) Volume 5, Issue 3, July 2018, (E-ISSN 2348-1269, P- ISSN 2349-5138. UGC 43602
- ''Synthesis and Characterization of Sisal Fiber Reinforced PLA Biodegradable Composites" International Journal of Science and Research (IJSR) ISSN: 2319-7064 ResearchGate Impact Factor (2018): 0.28 | SJIF (2018)
- ''Biodegradability Test of PLA Polymer Composite with Addition of Corn Starch as Filler" Journal of Emerging Technologies and Innovative Research (ISSN: 2349-5162). Published in Volume 8 Issue 3, March-2021

Faculty development program attended:

- FDP on NX Additive manufacturing organized by CADMAXX in association with Siemens on 01.06.2020
- Webinar on GRAPHENE -The future material organized by Cambridge Institute of Technology in association with VTU on 18 may 2020
- AICTE Sponsored One Week Online Short-Term Training Program (STTP), SLOT - 3, on "Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and Their Applications for Future Challenges" from 02-11-2020 to 07-11-2020, organized by the Department of Mechanical Engineering (Mechatronics), Mahatma Gandhi Institute of Technology, Hyderabad.
- FDP on Robotics and AI organized by Dayananda sagar University Bangalore from July 23rd to July 29th 2019
- FDP on 3D printing technology in Engineering education and research from Sept 21st to October 1st 202. Organized by AMC engineering college Bangalore under the aegis of AICTE Quality improvement scheme

Mr. Narasimha Murthy C

Mr. Narasimha Murthy C graduated Mechanical Engineering in the year 2010. He pursued his M.Tech in Thermal Power Engineering and secured the Master's degree in the year 2012. He is pursuing his Doctorate in Visvesvaraya Technological University. He has been serving the teaching profession with a great devotion since 10 years, He worked as Assistant Professor in Various Engineering Colleges, He Joined T. John Institute of Technology, Bangalore as Assistant Professor in the month of August 2016. He has 6 research publications to his credit in reputed international journals. He Guided Many Academic Projects in his Profession.

Possessing excellent Administrative, Verbal Communication and Written skills along with constructive and effective teaching methods that promote a stimulating learning environment. Able to work in a managerial role or as part of team and having the proven ability to successfully work to tight schedules and deadlines.

♦ DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

Ms. DECHAMMA K. K.
M. Sc.
10.5 years of Academic Experience
dechamma@tjohngroup.com

Flexible and organized educational professional with 10.5 years of teaching expertise with an unparallel ability to explain complicated mathematical concepts in an easily understandable manner. Working as an Assistant Professor & HOD in the Department of Mathematics. I have received my M. Sc and B. Sc degree in Mathematics from Mangalore University. Currently pursuing Ph. D degree in VTU on Graph Colouring and Structures. My objective is to utilize the skills and abilities in the environment that offers professional growth while being resourceful, innovative and flexible which helps students to improve their skills.

Areas of expertise (Subjects handled):

- Engineering Mathematics.
- Graph Theory.
- Discrete Mathematical Structures.
- Linear Algebra.

FDP's and Conferences attended:

- International Conference on "Engineering, Science, Management and Advances in Research Technology" organized by T.John Institute of Technology.
- FDP on Curriculum based on AICTE Model collaboration with VTU.
- FDP on "Mathematica and Applications of Mathematics" organized by Pillai College of Engineering.

- Webinar on “Sage Math” conducted by Bangalore Institute of Technology, Bengaluru.
- FDP on “Difference Equations and their Applications” organised by KPR Institute of Engineering and Technology, Coimbatore.
- FDP on “Application of Mathematics in Engineering” organized by KPR Institute of Engineering and Technology, Coimbatore.
- FDP on “Education 4.0” organized by Sai Ram College of Engineering, Bengaluru.
- Webinar on “Vedic Mathematics, Aptitude & Logical Reasoning” conducted by Cambridge Institute of Technology.
- FDP on “Innovation in Mathematics and Usage of Modern Tools” organized by Sir. M. Visvesvaraya Institute of Technology, Bengaluru.

Mr. VIJAY B. G.
B. Sc (EMCS), M. Sc (Mathematics)
9 Years of Academic Experience
vijaybg@tjohngroup.com

I am a M. Sc graduate from Bangalore University, Karnataka. Presently I am pursuing my Ph.D in Fluid Dynamics in KSSEM College, Bangalore. I am Reliable, self-motivated, and able to work independently with the ability to meet deadlines. I as a faculty believe in quality rather than quantity. I am very much committed towards student understanding of the subject matter which they can apply in their personal life and professional career. I help the students to acquire knowledge, develop skills and a positive attitude, which will enhance their personality to face the competitive world.

Proficiency:

- Language: C, C++, Visual Basic 6.0, HTML
- Operating System: Windows 2010, 11, 13, Linux and UNIX

Achievements:

- Awarded Special Merit Prize from Department of Mathematics during the academic year 2009-2010.
- Awarded Best Student from Hopcoms Workers Welfare Association during the academic year 2009-2010.
- Awarded Best Student from Hopcoms Workers Welfare Association during the academic year 2012-2013.

Subjects Handled:

- Engineering Mathematics-I
- Engineering Mathematics-II
- Engineering Mathematics-III
- Engineering Mathematics-IV

- Additional Mathematics

FDP & Conferences:

- National Conference on “Emerging Trends in Advanced Mathematics” organized by Jyoti Nivas College Autonomous on February 6th and 7th, 2014.
- Faculty Development Programme attended on “Research Avenues in Computer Science” organized by Dayananda Sagar College on October 7th, 2014.
- Faculty Development Programme attended on “Towards A New Curriculum in Engineering Mathematics with SCILAB & MAXIMA” organized by Jyothi Institute of Technology on December 26th and 27th , 2014.
- International Conference on “Engineering, Science, Management and Advances in Research Technology” organized by T.JOHN Institute of Technology on April 29th and 30th , 2015 & May 10th 2016.
- Faculty Development Programme attended on “Vedic Mathematics and Aptitude and Logical Reasoning” organized by Cambridge Institute of Technology, Bengaluru on June 29th, 2020.
- Faculty Development Programme attended on “Conscious Mind Engineering” organized by TJohn Institute of Technology, Bengaluru on August 14th, 2020.
- Faculty Development Programme attended on “Domination in graphs and its application” organized by Sri Venkateshwara college of Engineering, Bengaluru on December 12th, 2020.
- Faculty Development Programme attended on “Entrepreneurship: A career opportunity” organized by SNS Institutes, Coimbatore on April 1st, 2021.
- Faculty Development Programme attended on “Innovation in Mathematics and Usage of Modern Tools” organized by Sir MVIT, Bengaluru from December 22th to 24th 2021.

J. RAJI
M.Sc., M.Phil.
11 years of Academic Experience
rajij@tjohngroup.com

Passionate math teacher with 11+ years of teaching experience in Engineering Colleges and holds a Bachelor of Mathematics Degree from T.B.M.L college affiliated to Bharathidasan University, M. Sc from T.B.M.L college affiliated to Bharathidasan University, M. Phil from A.D.M.C affiliated to Bharathidasan University, pursuing doctoral programme in the Bharathiar University, Coimbatore in the field of Fluid Dynamics. Highly adapt at presenting Math concepts in a way that is clear, simple and engaging. I keep updating myself withthe latest knowledge in the discipline and likes to interact with the students on contemporary issues and topics.

Areas of expertise (subjects handled):

- Numerical Methods
- Queuing Theory
- Formal Languages and Automata Theory
- Graph Theory and Combinatorics
- Discrete mathematical Structures OR Complex Analysis, Probability & Statistical Methods
- Transform Calculus, Fourier Series and Numerical techniques
- Engineering Mathematics I
- Engineering Mathematics II
- Probability & Statistics

FDP & Conferences attended:

- UGC Sponsored “National seminar on Mathematical modelling to social and managerial problems”, organized by A.D.M.College for women, on 24th and 25th September, 2004.

- Faculty Development Programme "Towards a New Curriculum in Engineering Mathematics with Scilab and Maxima", organized by JyothyInstitute of Technology, Bengaluru, on 26th and 27th December 2014.
- National conference on Applied Science and Humanities, organized by K. S. School of Engineering and Management, Bengaluru, Feb 2015.
- International Conference on Engineering, science, Management and Advances in Research Technology organized by T. John Institute ofTechnology, Bengaluru, 2016.
- International Conference on Applied Engineering, organized by Presidency university, Bengaluru, 2018
- National level webinar on "Mathematica and Applications of Mathematics". (Mathemtica) organized by Pillai College of Engineering, new Panval, 2020.
- Webinar on Sage Math organized by BIT, Bangalore, July 2020.
- Webinar on Introductory Universal Human Values, AICTE-UHV Cell,Aug 2021.
- Webinar on UHV Refresher1 (Part 1), AICTE-UHV Cell, Aug 2021.
- Webinar on how to conduct the AICTE Students Induction Program(SIP), AICTE-UHV Cell ,2021.
- Webinar on Empowering Women, Building gender Parity, Ministry of Education and UGC, 2021.

List of Publications :

- Journal Papers:
  - J.Raji, and Dr.S.R.Sudheendra.(2014) "Mathematical solutions to Transport of pollutants through unsaturated porous media with adsorption in finite domain." International Journal of combined Research and Development, Vol.2, Issue 2.
  - J.Raji, and Dr.S.R.Sudheendra.(2014) "Mathematical Modelling of Transport of pollutants in unsaturated porous media with radioactive decayand comparison with soil column experiment. "International scientific journal on science, Engineering and Technology, Volume 17, Issue 5
  - J. Raji, and Dr. S. R. Sudheendra (2015) "Mathematical Analysis in Unsaturated porous medium." International Journal of Engineering Research and Technology, Vol.3, Issue .19
  - J. Raji, and Dr. S. R. Sudheendra. (2016) "Mathematical Analysis of Solute Transport Exponentially varies with Time in Unsaturated Soil Media," International Journal of Research in Engineering and Technology, Volume5, Special Issue 04
  - J. Raji, and Dr. S. R. Sudheendra (2018) "Modelling of Effect of water content on transport of pollutant in unsaturated porous media." International Journal of Applied Engineering Research." ISSN 0973-4562,Volume 13, PP.109-114.
- Conference Papers:
  - J. Raji, and Dr. S.R. Sudheendra." Mathematical Analysis of transport in unsaturated porous media" National conference on Applied Science and Humanities, K. S. School of Engineering and Management, Bengaluru.
  - J. Raji, and Dr.S.R.Sudheendra. "Mathematical Analysis of Solute Transport Exponentially varies with Time in Unsaturated Soil Media, "International Conference on Engineering, science, Management and Advances in Research Technology, T. John Institute of Technology, Bengaluru.
  - J. Raji, and Dr. S.R. Sudheendra." An analytical solution of one- dimensional solute transport of pollutants with spatially varied retardation factor using

change of variables." International Conference on Engineering, science, Management and Advances in Research Technology, T. John Institute of Technology, Bengaluru.

LATHA V
M. Sc., (Ph. D) in Chemistry
15 Years of Academic Experience
lathaveeraju1980@gmail.com / latha@tjohngroup.com

I am a M.Sc graduate from Kuvempu University, Karnataka, & pursuing my research in Bharthiar University. I am having 15 years of experience as an Assistant Professor. I love teaching . I am passionate about teaching. It's the opportunity to teach young minds. My teaching style is primarily centred on class engagement. I adapt my teaching style in order to cater for everyone and make the material as interesting as possible. I am a positive person who has an enthusiastic outlook on life. I love my job and I get a great sense of achievement from seeing my students develop and grow as individuals.

Areas of expertise (Subjects Handled) :

- Engineering Chemistry

Publications:

- "Corrosion Characterization of Aluminium 6061/ Tib2 Metal Matrix Composites in Sodium hydroxide Medium", International Journal of Trend in Scientific Research and Development, 2018; 2(4): 2810-2814
- "Electrochemical studies of Aluminium6061/TitaniumDiboride Metal matrix Composites", Journal of Applied Science and Computations, 2018; 5(11): 398-403.
- "Potentiodynamic Polarization Studies of Aluminium 2024/ Flyash Metal Matrix Composites" CIKITUSI Journal for Multidisciplinary research, 2019; 6(1): 32-36
- "Corrosion Characterization of Aluminium 2024 Metal Matrix Composites Reinforced with Fly Ash in Potassium Chloride Medium", International Journal of Trend in Scientific Research and Development, 2018; 2(2): 707-710
- "Study on Mechanical Behaviour of Banana Fiber Reinforced Epoxy Composites", Asian Journal of Multidisciplinary Research, 2019; 5(1): 12-16
- "Tribological Behaviour of Aluminium with Varying Percentage of Copper and Tungsten Carbide" published in Proceedings of NCIIT 2019.

Paper Presentations:

- "Investigations on corrosion studies of Al6061 reinforced with TiO2 metal matrix composites in Hydrochloric acid medium" paper presented at the UGC sponsored 1st international conference on "Recent Advances in Chemical, Pharmaceutical and Biological Sciences" organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5th - 7th March 2020
- "Studies on Corrosion Characterization of Aluminium 2024 / Aluminium oxide Metal Matrix Composites in Hydrochloric Acid Medium" paper presented at the UGC sponsored 1st international conference on "Recent Advances in Chemical, Pharmaceutical and Biological Sciences" organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5th - 7th March 2020
- "Tribological Behaviour of Aluminium with varying Percentage of Copper and Tungsten Carbide" paper presented at the National Conference on Industrial and Information Technologies 2019(NCIIT 2019) conducted by Cambridge Institute of Technology North Campus, Bengaluru. On 29th & 30th April 2019.
- "Corrosion Characterization of Aluminium 2024 Metal Matrix Composites Reinforced with Fly ash in Potassium Chloride Medium" paper was presented at the National Conference on "Recent Advances in Applied Sciences (RAAS-2016)" organized by the AMC Engineering College, Bangalore on 25th April 2016.
- "Corrosion studies of Aluminim 6061- Titanium Diborate Matrix Composites" Awarded II place for Poster presentation of in the State Level Seminar ECMESS-2015 held on 12th and 13th February 2015 at St.Joseph's College (Autonomous), Bangalore-27.
- "Corrosion Characterization of Fly ash reinforced Aluminium 2024 metal matrix composites" paper was presented at the UGC sponsored state level seminar titled "Electrochemical Concepts: Materials for Energy Storage and Sensing (ECMESS2015)" conducted by St.Joseph's College (Autonomous), Lalbagh Road, Bangalore-27 on 12th and 13th February 2015.
- Attended UGC & KSTA Sponsored Two Day National Conference on Advanced Nanotechnology and its Applications (NCOANA2015), held at Maharani's Science college for women, palace road, Bangalore 0n 22nd and 23rd January 2015.
- "Weight loss corrosion studies of Al6061/quarts metal matrix composites in sea water" paper presented in the 1st national conference on advances in mechanical engineering (AIM- 14)" organized by T. John Institute of Technology, Bengaluru on 25th April, 2014.

FDP & Conferences attended:

- Attended one day workshop on "New Model Cirriculum for Firs Year BE/B.Tech – CBCS Detailed syllabus(2018-2019) as per Outcome - Based Education (OBE) format including Course Outcomes(CO) and Bloom's Taxonomy" organized by VTU, Belagavi, held on 8th May 2018.
- Attended Workshop on " Recent trends in Nanoscience and Nanotechnology" held on 2nd and 3rd May 2018 at GAT, Bangalore.
- Attended Workshop " Recent Advances in Micro and Nano Engineering Materials and Applications" conducted on 31st Jan 2018 at Dr.AIT, Bangalore.
- Attended one day workshop on Role of Chemistry in Higher Engineering Courses at Sambhram Institute of Technology on 20th Jan 2018
- Attended one week Faculty Development Programme on "Recent Advances in Basic sciences for Engineering Applications (FDP – NANO 2018) at Dayananda Sagar Academy of Technology and Management, Bangalore During 8th Jan 2018 – 10th Jan 2018

- Attended one day Faculty Development Programme on “Recent trends in Science and Mathematics (RTSM-2017)” at GSSS institute of Engineering and Technology for Women, Mysuru on 11th January 2017.
- Attended one week Faculty Development Programme on “Recent Advances in Chemistry of Materials for Engineering Applications” (RACMEA-2016) at BMS College of Engineering, Bengaluru-19 from 11th July to 15th July 2016.
- Attended National workshop on Modern Tools in Material Characterization held during 31st July to 2nd August 2015 organized by Department of Science and Humanities, Faculty of Engineering, Christ University, Mysuru Road, Bengaluru-74.

R. LAKSHMI
M. Sc., M. Phil., (Ph. D) in Chemistry
15 Years of Academic Experience
lakshmi_rajen2003@yahoo.co.in/lakshmir @tjohngroup.com

I am a M.Sc., M.Phil. graduate from Bharathidasan University and pursuing my research in Bharathiar University. I am having 15 years of experience as an Assistant Professor. I am passionate about diverse learners and love helping students discover how they learn best. I believe in effective planning of both time and lessons. Planning helps significantly reduce stress as a teacher. I believe in maintaining a positive and happy mindset. am a happy and positive person, I can take up any challenges in my work place and in my personal life. I am someone who always implements effective creative processes in the classroom and strive myself on an ability to continually develop both personally and professionally.

Areas of expertise (subjects handled) :

- Engineering

Chemistry Publications:

- "Potentiodynamic Polarization Studies of Aluminium 2024/ Flyash Metal Matrix Composites" CIKITUSI Journal for Multidisciplinary research, 2019; 6(1): 32-36.
- "Corrosion Characterization of Aluminium 2024 Metal Matrix Composites Reinforced with Fly Ash in Potassium Chloride Medium ", International Journal of Trend in Scientific Research and Development, 2018; 2(2): 707-710.
- "Study on Mechanical Behaviour of Banana Fiber Reinforced Epoxy Composites", Asian Journal of Multidisciplinary Research, 2019; 5(1): 12-16.
- "Corrosion Characterization of Aluminium 6061/ Tib2 Metal Matrix Composites in Sodium hydroxide Medium ", International Journal of Trend in Scientific Research and Development, 2018; 2(4): 2810-2814.
- "Electrochemical studies of Aluminium6061/TitaniumDiboride Metal matrix Composites", Journal of Applied Science and Computations, 2018; 5(11): 398-403.
- "Tribological Behaviour of Aluminium with Varying Percentage of Copper andTungsten Carbide " published in Proceedings of NCIIT 2019.Removal of Chromium (VI)

From Wastewater – Indian J. Environmental Protection, 2006; 26(12): 1108–1111.

- Analysis of Fluoride Level and Defluoridation in Drinking Water of Viralimalai, TamilNadu – Indian Journal of Environment and Ecoplanning, 2003; 7(2): 311–314.

Paper Presentations:

- "Studies on Corrosion Characterization of Aluminium 2024 / Aluminium oxide Metal Matrix Composites in Hydrochloric Acid Medium " paper presented at the UGC sponsored 1st international conference on "Recent Advances in Chemical, Pharmaceutical and Biological Sciences" organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5th -7th March 2020
- "Investigations on corrosion studies of Al6061 reinforced with TiO2 metal matrix composites in Hydrochloric acid medium " paper presented at the UGC sponsored 1st international conference on "Recent Advances in Chemical, Pharmaceutical and Biological Sciences" organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5th -7th March 2020
- "Tribological Behaviour of Aluminium with varying Percentage of Copper and Tungsten Carbide " paper presented at the National Conference on Industrial and Information Technologies 2019(NCIIT 2019) conducted by Cambridge Institute of Technology North Campus, Bengaluru. On 29th & 30th April 2019.
- "Corrosion Characterisation of Al6061/ TiB2 composites in sodium chloride & Sodium hydroxide medium " paper presented in two day national conference on "Chemistry for sustainable future(NCCSF-2017) " organized by SDM College, Ujire on 27 & 28 January 2017.
- "Corrosion Characterization of Aluminium 2024 Metal Matrix Composites Reinforced with Fly ash in Potassium Chloride Medium " paper was presented at the National Conference on "Recent Advances in Applied Sciences (RAAS-2016)" organized by the AMC Engineering College, Bangalore on 25th April 2016.
- "Corrosion studies of Aluminim 6061- Titanium Diborate Matrix Composites" Awarded II place for Poster presentation of in the State Level Seminar ECMESS-2015 held on 12th and 13th February 2015 at St.Joseph's College (Autonomous), Bangalore- 27.
- "Corrosion Characterization of Fly ash reinforced Aluminium 2024 metal matrix composites" paper was presented at the UGC sponsored state level seminar titled "Electrochemical Concepts: Materials for Energy Storage and Sensing (ECMESS2015)" conducted by St.Joseph's College (Autonomous), Lalbagh Road, Bangalore-27 on 12th and 13th February 2015.
- Attended UGC & KSTA Sponsored Two Day National Conference on Advanced Nanotechnology and its Applications (NCOANA2015), held at Maharani 's Science college for women, palace road, Bangalore 0n 22nd and 23rd January 2015.
- "Weight loss corrosion studies of Al6061/quarts metal matrix composites in sea water " paper presented in the 1st national conference on advances in mechanical engineering (AIM-14)" organized by T. John Institute of Technology, Bengaluru on 25th April, 2014.
- "A Study of Adsorption Capacity of Carbonized Peel of Citrus reticulata for the Removal of Chromium (VI)" – Paper Presented in a International Conference on Life Through Chemistry held at Ponnaiyah Ramajayam College, Thanjavur, Tamil Nadu.(2005)
- "Analysis of Fluoride level in Potable water jof Viralimalai union of Tiruchirappalli District and an attempt for Defluoridation using Lignite and Cocosnucifera (fibre)"

– Paper presented in a State Level Seminar on “Water Pollution & Public Health” at H. H. The Rajah’s College, Pudukkottai, Tamil Nadu.(2002)

- “Analysis of Fluoride level in drinking water and defluoridation using Lignite, Wood carbon and Veteveria zizanoide” – Paper presented in a National Symposium on Advances in Natural Products Chemistry held at St. Joseph’s College, Trichy, Tamil Nadu.(2002)
- “Studies on the Pollution of Soil by Tannery Effluents” – Paper presented in a National Seminar on “Pollution – A Threat to the Nation, ENVIRO 2K1” held at Bishop Heber College, Trichy, Tamil Nadu.(2001)

FDP & Conferences attended:

- FDP on Recent advances in Basic Science and their application for engineering from 08.01.2018 to 10.01.2018 organized by DSATM, Bangalore
- Four Days FDP on Telemedicine and Bio medical Signal processing and Data analytics from 19 th to 20th and 22 to 23rd November 2018 organized by Department of Electronics Communication engineering at T. John Institute of Technology, Bangalore.
- Five days FDP on “Recent Trends in Material Science” from 02.11.2020 to 06.11.2020 Feb 2021 organized by departme nt of Chemistry, Sapthagiri College of Engineering, Bamgalore.
- One Week Virtual Faculty Development Programme on Materials and Medicinal Chemistry- 2020 (MMC) During 10th -15th August 2020organized by Don Bosco Institute of Technology, Bangalore

Certifications: (MOOCs, Swayam, Udemy & NET) :

- NPTEL Elite Certificate of completion on Stress Management on July-Aug 2021.

ASHWINI P R
M. A., (KANNADA) B.Ed.
10 Years of Academic Experience
ashwiniprmabed@gmail.com / ashwinipr @tjohngroup.com

I am a M.A., graduate from Mysore University and B. Ed. From Bangalore University. I am having 10 years of experience as an Assistant Professor. I am an effective communicator, both in writing and verbally and I have a strong ability to plan and organise effectively; something which is crucial to the role of a competent teacher. I cope very well with pressure and can adapt my style or teaching methods, when needed, to deliver consistent results. I have an understanding of the bigger picture and the pressures that are placed on the institution.

Areas of expertise (Subjects Handled) :

- Kannada

Mr. CHOWDAREDDY N
M. Sc (Physics)
6 Years 10 Months of Teaching Experience
chowdareddy@tjohngroup.com

I have done My MSc from National Institute of Technology Karnataka (NITK) in 2013. My objective is to be associated with the Institution so I can enhance my skills and abilities at the same time increasing the organization productive and reputation.

I do cope well under pressure and I am able to work alone or with a team and I'm goal driven that is what brings me here.

Areas of expertise (subjects handled):

- Engineering Physics
- Engineering Physics Lab

FDP & Conferences attended:

- Attended a three Days workshop on "Frontiers in astronomy" sponsored by science academies during February 1-3, 2013 at National Institute of Technology Karnataka, Surathkal
- Amudha.A, Chowdareddy.N, H.D.Shashikala presented paper entitled "Oxidation resistance and microhardness of Ti6Al4V alloy by thermal treatment method" in National Conference on "Smart materials and technologies for emerging electronics" held at Mangalore Institute of Technology and Engineering, Moodabidiri on 8th and 9th March, 2013.
- Participated in three Days workshop on "Quantum Mechanics and Applications" at National Institute of Technology Karnataka, Surathkal, March 22 to 24, 2013.

- Participated in two Days' workshop on "Metallurgy for non-Metallurgist", on 22nd and 23rd February, 2014 at JSNT Technical Services Gurgaon.
- Completed 2-Days course on "Welding Awareness" on 1 and 2 March, 2014 at JSNT Technical Services Gurgaon.
- Participated in online webinar on "Conducting Polymer Nanocomposites & Its Applications" organized by Department of Physics AMC Engineering College on 15th July 2020.
- Participated in Web seminar on "3D Printing & Its Applications" held on 19th August 2020, Organised by Department of Physics BMS Institute of technology & Mgmt.
- Participated in three days "National Webinar Series" from 20/07/2020 to 22/07/2020 organised by the Department of Physics, Bapuji Institute of Engineering & Technology Davanagere.
- Participated in One week FDP on "Functional Materials for Engineering Applications" Sponsored by the Centre of Excellence in Advanced Materials research-TEQIP-III conducted from 15/02/2021 to 19/02/2021 at BMS College of Engineering Bengaluru in association with MJP Rohikhand University, Bareilly.
- Participated in the National level webinar on "National Education Policy 2020" organized by T John Institute of Technology Bengaluru on 25th March 2021.
- Participated in One week FDP on "Emerging Technologies & Applications" organized by Department of ECE, B.L.D.E.A's V P Dr. P G Halakatti College of Engineering & Technology, Vijayapura on 20-24/04/2021.
- Participated & Poster presented in "2nd Indo-Korea Virtual Conference on Development of Advanced materials for Future technology (DAMFT-2021)" during 14th & 15th May 2021 jointly organized by KAIST, Daejeon, South Korea & VIT Chennai India.
- Participated three Days "International Conference" on "Light Matter Interaction (ICLMIN-2021)" organised by Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, India during 19-21 May 2021.
- Participated five days FDP on "Technical Pedagogy for Empowering Sustainable in Higher Education" from 19th to 23rd July 2021 organised by T John College in association with IQAC.

9. **Fee**

- Details of Fee, as approved by State Fee Committee, for the Institution

  KEA - Rs. 65340/- ComedK – Rs. 106000 /- Management: Rs. 125000/-

- Time schedule for payment of Fee for the entire Programme

  Yearly

- No. of Fee waivers granted with amount and name of students

  SNQ Quota – 5% of Intake Rs. 4090/-

- Number of scholarship offered by the Institution, duration and amount

  No of Scholarships -25

- Criteria for Fee waivers/scholarship

  As per KEA and Govt. Order

- Estimated cost of Boarding and Lodging in Hostels

  Rs. 91000/-

- Any other fee please specify

  NIL

10. **Admission**

- Number of seats sanctioned with the year of approval

  Toal Intake : 240

- Number of Students admitted under various categories each year in the last three years

  No of Admissions – 2021-22 : 182
  No of Admissions – 2020-21 : 145
  No of Admissions – 2019-20 : 159

- Number of applications received during last two years for admission under Management Quota and number admitted

No of Applications Received for Management Quota (2021-22) : 140 and Admitted : 106
No of Applications Received for Management Quota (2020-21) : 125 and Admitted : 59

11. **Admission Procedure**

- Mention the admission test being followed, name and address of the Test Agency/State Admission Authorities and its URL (website)

  Karnataka CET - www.kea.kar.nic.in
  ComedK - www.comedk.org

- Number of seats allotted to different Test Qualified candidate separately (AIEEE/ CET (State conducted test/ University tests/ CMAT/ GPAT)/ Association conducted test etc.)

  Karnataka CET - 45% + 5% SNQ
  ComedK - 30%
  Management - 25%

- Calendar for admission against Management/vacant seats:

  - Last date of request for applications : 30-11-2021
  - Last date of submission of applications : 30-11-2021
  - Dates for announcing final results : 05-12-2021
  - Release of admission list (main list and waiting list shall be announced on the same day): 05-12-2021
  - Date for acceptance by the candidate (time given shall in no case be less than 15days): 31-12-2021
  - Last date for closing of admission : 31-12-2021
  - Starting of the Academic session : 14-12-2021
  - The waiting list shall be activated only on the expiry of date of main list: 31-12-2021
  - The policy of refund of the Fee, in case of withdrawal, shall be clearly notified: Full amount will be refunded after deducting administration charges

12. **Criteria and Weightages for Admission**

- Describe each criterion with its respective weightages i.e. Admission Test, marks in qualifying examination etc.

  As per KEA/COMEDK/AICTE norms

- Mention the minimum Level of acceptance, if any

  NIL

- Mention the cut-off Levels of percentage and percent ile score of the candidates in the admission test for the last three years

  As per the AICTE and KEA Norms

- Display marks scored in Test etc. and in aggregate for all candidates who were admitted

ATTACHED - APPENDIX D

13. **List of Applicants**

List of candidate whose applications have been received along with percentile/percentages core for each of the qualifying examination in separate categories for open seats. List of candidate who have applied along with percentage and percentile score for Management quota seats (merit wise)

ATTACHED - APPENDIX D

14. **Results of Admission Under Management seats/Vacant seats**

- Composition of selection team for admission under Management Quota with the brief profile of members (This information be made available in the public domain after the admission process is over)
- Score of the individual candidate admitted arranged in order or merit
- List of candidate who have been offered admission
- Waiting list of the candidate in order of merit to be operative from the last date of joining of the first list candidate
- List of the candidate who joined within the date, vacancy position in each category before operation of waiting list

ATTACHED - APPENDIX D

15. **Information of Infrastructure and Other Resources Available**

- Number of Class Rooms and size of each : 46 Nos each with 88.9 sqm
- Number of Tutorial rooms and size of each : 10 Nos each with 44 sqm
- Number of Laboratories and size of each : 60 Nos with 66 sqm
- Number of Drawing Halls with capacity of each : 01 with 132 sqm
- Number of Computer Centres with capacity of each: 01 with 150 sqm
- Central Examination Facility, Number of rooms and capacity of each: 01 with 80 sqm
- Online examination facility (Number of Nodes, Internet bandwidth, etc.) : 200 nos and 10Mbps
- Barrier Free Built Environment for disabled and elderly persons : Available
- Occupancy Certificate : Available
- Fire and Safety Certificate : Available
- Hostel Facilities : Available
- Library
  - Number of Library books/ Titles/ Journals available(Programme-wise) ENGINEERING and TECHNOLOGY - No of Books : 23000, No of Titles: 4300, Journals : 30
  - List of online National/ International Journals subscribed : VTU Consortium

- E- Library facilities : Available – 13000 No of books
- National Digital Library(NDL) subscription details : Subscribed

- Laboratory and Workshop
  - List of Major Equipment/Facilities in each Laboratory/Workshop

    ATTACHED - APPENDIX E
  - List of Experimental Setup in each Laboratory/Workshop
    ATTACHED - APPENDIX E
- Computing Facilities
  - Internet Bandwidth : 150 Mbps Leased Line (1:1 ratio)
  - Number and configuration of System : 550 Pcs
  - Total number of system connected by LAN : 550
  - Total number of system connected by WAN : 15
  - Major software packages available : 30
  - Special purpose facilities available (Conduct of online Meetings/Webinars/Workshops, etc.)
    AVAILABLE – MS Teams
  - Facilities for conduct of classes/courses in online mode (Theory & Practical)
    AVAILABLE – MS Teams
  - Innovation Cell
    AVAILABLE
  - Social Media Cell
    AVAILABLE
  - Compliance of the National Academic Depository (NAD), applicable to PGCM/ PGDM Institutions and University Departments
    NOT APPLICABLE
- List of facilities available
  - Games and Sports Facilities : AVAILABLE
  - Extra-Curricular Activities : AVAILABLE
  - Soft Skill Development Facilities : AVAILABLE
- Teaching Learning Process
  - Curricula and syllabus for each of the Programmes as approved by the University
    AVAILABLE – Visvesvaraya Technological University – https://vtu.ac.in/b-e-scheme-syllabus/
  - Academic Calendar of the University
    Visvesvaraya Technological University - https://vtu.ac.in/academic-calendar/
  - Academic Time Table with the name of the Faculty members handling the Course
    ATTACHED - APPENDIX G
  - Teaching Load of each Faculty
    AVAILABLE
  - Internal Continuous Evaluation System and place
    As per VTU - https://vtu.ac.in/be-btech/
  - Student's assessment of Faculty, System in place
    System In Place through PeopleSoft
- For each Post Graduate Courses give the following:

- Title of the Course : NOT APPLICABLE
- Curricula and Syllabi : NOT APPLICABLE
- Laboratory facilities exclusive to the Post Graduate Course : NOT APPLICABLE

- Special Purpose
  - Software, all design tools in case : CADD, ANSYS, CATIA, Mentor Graphics
  - Academic Calendar and framework : AVAILABLE

16. **Enrolment and placement details of students in the last 3years**

    ATTACHED - APPENDIX C

17. **List of Research Projects/ Consultancy Works**

    - Number of Projects carried out, funding agency, Grant received
    - Publications (if any) out of research in last three years out of masters projects
    - Industry Linkage
    - MoUs with Industries (minimum3(10))

    ATTACHED - APPENDIX F

18. **LoA and subsequent EoA till the current Academic Year**

    ATTACHED - APPENDIX A

19. **Accounted audited statement for the last three years**

    ATTACHED - APPENDIX B

20. **Best Practices adopted, if any**

    - Scholarship for Best performance students who have scored more than 80
    - Introduction of NPTEL online certification & online various disciplines notes.
    - Online feedback & test performance for student knowledge upgradation through Moodle Software.
    - Unit-wise conduction of test for better performance.
    - Online Students Feedback for faculty appraisal.
    - Introduction of ASC Timetable Software.
    - Carrier Guidance Programme by JV Global Pvt. Ltd.
    - Online provision for Scholarship and apply of ID Card.
    - Institutional information made available on website.
    - Daily meeting (huddle) conducted by Principal & Head of the departments (Rockefeller's Habits) and Club Activity.
    - Interaction by Principal with teaching and non teaching staff.
    - Walk-in to Principal's office anytime by staff/students/parents.
    - Notices/circulars from time-to-time.
    - Sending SMS & letters to parents about their wards performance.
    - Knowledge sharing within faculty members for FDP.
    - Informal get-togethers & Suggestion Box.
    - Transparent recruitment as per norms and university procedures.
    - Oracle People Soft ERP.

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाय) (A STATUTORY BODY OF THE GOVT. OF INDIA)

APPENDIX A

File No. 06/06/SOUTH-WEST/ENGG/2006
September 22, 2006

To,

The Principal Secretary,
Government of Kamataka,
Multistoried Building,
Dr. B.R. Ambedkar Veedhi,
Bangalore – 560 001

Sub: AICTE approval to Marougen Education Foundation ,17/1, Campbell Road, Austin Town, Bangalore - 560 017 for establishment of T.John Institute of Technology 86/1, Kammanahalli, Gottigere, Bannerghatta Road Bangalore - 560 083 .

Sir,

As per the Regulations notified by the Council vide F. No. 37-3/Legal/2004 dated 28th November 2005 and norms, standards, procedures and conditions prescribed by the Council from time to time and based on the recommendations of the Expert Committee and EC Sub Committee, I am directed to convey the approval of the Council to Marougen Education Foundation ,17/1, Campbell Road, Austin Town, Bangalore - 560 017 for establishment of T.John Institute of Technology 86/1, Kammanahalli, Gottigere, Bannerghatta Road Bangalore - 560 083 . for conduct of the following courses and intake.

S.No.	Name of the Course	Intake
1.	Computer Science & Engg.	60
2.	Information Technology	60
3.	Electronics & Comm. Engg.	60
4.	Telecommunication	60
	Total	240

The approval is valid for two years from the date of issue of this letter. The Society/Trust/Institution shall obtain necessary affiliation permission from the concerned affiliating University, as per the prescribed schedule of the University/ Admission Authority etc. The Applicant Society/Trust/Institution shall send information about commencement of the above courses to AICTE. Incase the Institution could not commence the above mentioned courses for whatsoever reasons during the two years period from the date of issue of this letter, the approval becomes invalid and the applicant society/trust shall have to make fresh application to AICTE for grant of fresh approval.

The approval further subject to fulfillment of following conditions.

1. That the management shall provide adequate funds for development of land and building and for providing related infrastructural, instructional and other facilities as per Council's norms and standards laid down by the Council from time to time and for meeting recurring expenditure.

इंदिरा गांधी खेल परिसर, इन्द्रप्रस्थ एस्टेट, नई दिल्ली – 110002
Indira Gandhi Sports Complex, I. P. Estate, New Delhi-110 002
दूरभाष / Phone : 23392506, 63-65-68, 71, 73 -75 फैक्स / Fax : 011-23392554
वैबसाइट / Website : www.aicte.ernet.in

16. In the event of non-compliance by the T.John Institute of Technology 86/1, Kammanahalli, Gottigere, Bannerghatta Road Bangalore - 560 083 with regard to guidelines, norms and conditions prescribed from time to time the Council shall be free to take measures for withdrawal of its approval or recognition, without consideration of any related issues and that all liabilities arising out of such withdrawal would solely be that of the T.John Institute of Technology 86/1, Kammanahalli, Gottigere, Bannerghatta Road Bangalore - 560 083 .

Yours faithfully,

(Harish C. Rai)
Adviser- UG/PG (E&T)

Copy to:

1. Director of Technical Education,
   Government of Karnataka, Palace Road,
   Bangalore – 560 001

   He is requested to kindly monitor the compliance with the conditions as laid down in this approval letter and keep the AICTE informed of the same.

2. The Registrar, concerned University.

3. The Regional Officer
   AICTE, South-West Regional Office,
   Bangalore University Campus P.K. Block,
   Palace Road, Bangalore – 560 009.

4. The Principal/Director
   T.John Institute of Technology
   86/1, Kammanahalli,
   Gottigere, Bannerghatta Road
   Bangalore - 560 083

5. The President/Chairman,
   Marougen Education Foundation
   17/1, Campbell Road,
   Austin Town
   Bangalore - 560 017

6. Guard file (AICTE).

(Harish C. Rai)
Adviser- UG/PG (E&T)

अखिल भारतीय तकनीकी शिक्षा परिषद्
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाय) (A STATUTORY BODY OF THE GOVT. OF INDIA)

Revised Letter

F.No.06/06/SOUTH-WEST/ENGG/200
August 10, 2007

To,

The Principal Secretary
Govt. of Karnataka,
Multistoried Building
Dr. B. R. Ambedkar Veedhi
Bangalore-560 001

Sub : AICTE Approval for extension / increase/ Variation in intake/ introduction of additional courses to **T.JOHN INSTITUTE OF TECHNOLOGY 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD BANGALORE - 560 083** for the year 2007-2008 – reg.

Sir,

In continuation to Council's letter referred above, the revised intake for the year 2007-2008 in respect of **T.JOHN INSTITUTE OF TECHNOLOGY 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD BANGALORE - 560 083** is as under :

Name of the Course(s)	Existing Intake	Revised Intake	Period of approval
COMPUTER SCIENCE & ENGINEERING	60	60	2007-2008
ELECTRONICS & COMMUNICATION ENGG.	60	60	
INFORMATION TECHNOLOGY	60	60	
TELECOMMUNICATION	60	60	
MBA	00	60*	
TOTAL	240	300	

The specific deficiencies for not granting the other proposed increase / variation in intake / additional courses to the institution are mentioned below :

1. The institute is not eligible for approval of bio-technology as per AICTE policy guidelines.

Note : * The approval for additional course(s) / increase in intake / variation in intake is valid for two years from the date of issue of this letter for getting affiliation with respective university and fulfilling State Government requirements of admission.

The additional intake is being granted based on the projections shown in the Detailed Project Report regarding additional built up space, faculty and other facilities for the proposed intake. It may be noted that all facilities including additional built area and appointment of faculty should be made available before the commencement of the next academic session. Random surprise inspection would be carried out to verify facilities and if the institute is found deficient in fulfillment of norms & standards of AICTE, appropriate action would be initiated by the Council.

Please note that other terms & conditions in the earlier letter of even no dated 15.05.2007 will remain unchanged.

Yours faithfully,

(Harish C. Rai)
Adviser- UG/PG (E&T)

Copy to:

The Principal,
T.JOHN INSTITUTE OF TECHNOLOGY
86/1, KAMMANAHALLI
GOTTIGERE, BANNERGHATTA ROAD
BANGALORE – 560 083

इंदिरा गांधी खेल परिसर, [illegible] -110 002
Indira Gandhi Sports Complex, I.P. Estate, New Delhi-110 002
दूरभाष / Phone: 23392506, 63 65 68, 71, 73-75 फैक्स / Fax: 011-23392554
वेबसाइट / Website: www.aicte-india.org

अखिल भारतीय तकनीकी शिक्षा परिषद्
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाए) (A STATUTORY BODY OF THE GOVT. OF INDIA)

Revised Letter

F.No.06/06/SOUTH-WEST/ENGG/2008
Date : June 30, 2008

To,

The Principal Secretary
Govt. of Karnataka,
Multistoried Building
Dr. B. R. Ambedkar Veedhi
Bangalore-560 001

Sub : AICTE Approval for extension / increase/ Variation in intake/ introduction of additional courses to T.JOHN INSTITUTE OF TECHNOLOGY, 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD, BANGALORE - 560 083 for the year 2008-2009 – reg.

Ref: Council's even no. dated 02.05.08

Sir,

In continuation to Council's letter referred above, the revised intake for the year 2008-2009 in respect of T.JOHN INSTITUTE OF TECHNOLOGY, 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD, BANGALORE - 560 083 is as under :

Name of the Course(s)	Existing Intake	Revised Intake	Period of approval
COMPUTER SCIENCE & ENGINEERING	60	60	2008-09
ELECTRONICS & COMMUNICATION ENGG.	60	120*	
INFORMATION TECHNOLOGY	60	60	
TELECOMMUNICATION	60	60	
MBA	60	60	
Total	300	360	

The specific deficiencies for not granting the other proposed increase / variation in intake / additional courses to the institution are mentioned below :

1. Ph. D qualified faculty not available for the existing course in which increase in intake is proposed.

Note : * The approval for additional course(s) / increase in intake / variation in intake is valid for two years from the date of issue of this letter for getting affiliation with respective university and fulfilling State Government requirements of admission.

The additional intake is being granted based on the projections shown in the Detailed Project Report regarding additional built up space, faculty and other facilities for the proposed intake. It may be noted that all facilities including additional built area and appointment of faculty should be made available before the commencement of the next academic session. Random surprise inspection would be carried out to verify facilities and if the institute is found deficient in fulfilment of norms & standards of AICTE, appropriate action would be initiated by the Council.

Please note that other terms & conditions in the earlier letter of even no dated 2.05.2008 will remain unchanged.

Yours faithfully,

(Hariah C. Rai)
Adviser- UG/PG (E&T)

Copy to:

1. The Principal,
T.JOHN INSTITUTE OF TECHNOLOGY,
86/1, KAMMANAHALLI GOTTIGERE,
BANNERGHATTA ROAD, BANGALORE - 560 083
2. The Regional Officer,
AICTE Southern West Regional Office,
Bangalore University Campus, P.K.Block,
Palace Road, Bangalore – 560 009
3. The Director of Tech. Education
Govt. of Karnataka,
Palace Road, Banaglore-560 001
4. The Registrar, concerned University.
(He is requested to complete the process of affiliation for facilitating admissions).
5. Guard File (UG/PG).

Principal
T. JOHN INSTITUTE OF TECHNOLOGY
Kammanahalli Gottigere
Bannerghatta Road, Bangalore-560 083

(12)

अखिल भारतीय तकनीकी शिक्षा परिषद्

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाए) (A STATUTORY BODY OF THE GOVT. OF INDIA)

Revised Letter (Increase in intake)

F.No. 06/06/SOUTH-WEST/ENGG/2006
Dt. June 26, 2009

To,

The Principal Secretary, (Tech. Education)
Government of Karnataka,
Multistoried Building,
Dr. B.R. Ambedkar Veedhi,
Bangalore – 560 001
Ph:- 080-28432837/ 28432106
Fax-080-28432837

Sub :AICTE Approval for extension / increase/ Variation in intake/ introduction of additional courses to **T.JOHN INSTITUTE OF TECHNOLOGY 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD BANGALORE - 560 083** for the year 2009-2010 – reg.

Sir,

In continuation to Council's earlier extension of approval letter the revised intake for the year 2009-2010 in respect of **T.JOHN INSTITUTE OF TECHNOLOGY 86/1, KAMMANAHALLI GOTTIGERE, BANNERGHATTA ROAD BANGALORE - 560 083** is as under:

Name of the Course(s)	Existing Intake	Revised Intake
COMPUTER SCIENCE & ENGINEERING	60	60
ELECTRONICS & COMMUNICATION ENGG.	120	120
INFORMATION TECHNOLOGY	60	60
TELECOMMUNICATION	60	60
MBA	60	60
MECHANICAL ENGG.	00	**60***
MCA	00	**60#**
Total –→	360	480

Note : * The approval for additional course(s) / increase in intake / variation in intake is valid for two years from the date of issue of this letter for getting affiliation with respective university and fulfilling State Government requirements of admission.

 # The institution is required to submit a joint FDR of Rs.15 lakhs for the above sanctioned additional course of MBA/MCA by 31st August 2009 to the concerned Regional Office.

The additional intake is being granted based on the projections shown in the Detailed Project Report regarding additional built up space, faculty and other facilities for the proposed intake. It may be noted that all facilities including additional built area and appointment of faculty should be made available before the commencement of the next academic session. Random surprise inspection would be carried out to verify facilities and if the institute is found deficient in fulfilment of norms & standards of AICTE, appropriate action would be initiated by the Council.

Please note that other terms & conditions in the earlier extension of approval letter will remain unchanged.

Yours faithfully,

(Dev Vrat Singhi)
Adviser- (E&T)

Copy to:

1. THE PRINCIPAL/DIRECTOR
T.JOHN INSTITUTE OF TECHNOLOGY
86/1, KAMMANAHALLI GOTTIGERE,
BANNERGHATTA ROAD BANGALORE - 560 083

2. The Regional officer,
AICTE Southern West Regional Office,
Banaglore University Campus, P.K.Block,
Palace Road, Bangalore – 560 009

3. The Commissioner of Tech. Educaton,
Government of Karnataka,
Palace Road, Bangalore – 560 001

4. The Registrar
Visweswaraiah Technology University,
Machechе Campus, Santebatawad Road,
Belgaum-590 014

5. Guard File (E&T)

Annexure - 18 376

All India Council for Technical Education
(A Statutory Body under Ministry of HRD,Govt of India)
7th floor, Chandralok Building, Janpath, New Delhi 110 001
Phone : 11 23724151-57 FAX : 11 23724183 www.aicte-india.org

No. : South-West Region/1-6251466/2010/EOA

August 23, 2010

To,
Principal Secretary (Hr. & Tech Education) Govt. of Karnataka, K. G.S.,
6th Floor, M.S. Building, R. N. 645, Dr. B. R. Ambedkar Road,

Sub. : Extension of approval for the academic year 2010-11.

Sir,

In terms of the Regulations notified by the Council vide F. No. 37-3/Legal/2010 and norms, standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the extension of approval of the Council to :

MAROUGEN EDUCATION FOUNDATION, T JOHN INSTITUTE OF TECHNOLOGY, #86/1, KAMMANAHALLI,GOTTIGERE,BANNERUGATTA ROAD,BANGALORE, BANGALORE, KARNATAKA, PIN : 560083

for conduct of the following courses with the intake indicated below in the academic year 2010-11:

Sr. No.	Program	Level	Shift	Course	Intake 2009-10	Intake 2010-11
1	Engg. / Tech.	UG	First Shift	TELECOMMUNICATION ENGG	60	60
2	Engg. / Tech.	UG	First Shift	MECHANICAL ENGINEERING	60	60
3	Engg. / Tech.	UG	First Shift	INFORMATION TECHNOLOGY	60	60
4	Engg. / Tech.	UG	First Shift	ELECTRONICS AND COMMUNICATION	120	120
5	Engg. / Tech.	UG	First Shift	COMPUTER SCIENCE & ENGINEERING	60	60
6	Engg. / Tech.	PG	First Shift	MCA	60	60
7	Engg. / Tech.	PG	First Shift	MBA	60	60

The above mentioned approval is subject to the condition that :

MAROUGEN EDUCATION FOUNDATION, T JOHN INSTITUTE OF TECHNOLOGY, #86/1, KAMMANAHALLI,GOTTIGERE,BANNERUGATTA ROAD,BANGALORE, BANGALORE, KARNATAKA, PIN : 560083

shall follow and adhere to the regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal and hard copy to Regional Office.

Anti Ragging :- The approval is subject to the institutions strictly complying with all the provisions made under the Anti ragging regulation notified by council vide F No. 37/Legal/AICTE/2009 dated 1-7-2009 failing which, it will be liable to any action defined under clause 9(4) of the regulation.

Yours faithfully,

Dr. S. G. Bhirud
Director

Regional Officer
South West Regional Office
All India Council for Technical Education
Bangalore-9.

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)
7th Floor, Chandralok Building, Janpath, New Delhi-110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-428206992/2011/EOA

Date: 07-09-2011 10:54:44

To,
The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2011-12

Sir/Madam,

In terms of the Regulations notified by the Council vide F.No. 37-3/Legal/2011 dated 10/12/2010 and norms, standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the extension of approval of the Council to

Regional Office	South West	Application Id	1-428206992
		Permanent Id	1-4251496
Name of the Institute	ST JOHN INSTITUTE OF TECHNOLOGY	Institute Address	#90/1, KAMMANAHALLI GOTTIGERE, BANNERUGATTA ROAD, BANGALORE,BANGALORE,BANGALORE URBAN,Karnataka,560083
Name of the Society/Trust	MARGOSEH EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560047
Institute Type	Unaided - Private		

to conduct following courses with the intake indicated below for the academic year 2011-12

Application Id: 1-428206992			Course		Affiliating Body	Intake 2010-11	Intake Approved for 11-12	NRI	PIO	Foreign Collaboration
Program	Shift	Level		Full/Part Time						
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagavi	60	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Visvesvaraya Technological University, Belagavi	120	120	No	No	No

Application Number : 1-428206992

Page 1 of 3

Note: This is a Computer generated Extension of Approval Letter. No signature is required.

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-693715411/2012/EOA

Date: 10 May 2012

To,
The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2012-13

Ref: Application of the Institution for Extension of approval for the academic year 2012-13

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2010 notified by the Council vide notification number F-No.37-3/Legal/2010 dated 10/12/2010 and amendment vide notification number F-No.37-3/Legal/2011 dated 30/09/2011 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Region Office	South-West	Application Id	1-693715411
		Permanent Id	31625468
Name of the Institute	ST JOHN INSTITUTE OF TECHNOLOGY	Institute Address	356/1, KAMMANAHALLI, JOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083
Name of the Society/Trust	MARGDEEN EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change From Women to Co-ed Approved	Not Applicable	Change of name approved	Not Applicable	Change of site approved	Not Applicable

to conduct following courses with the intake indicated below for the academic year 2012-13

Note: This is a Computer generated Extension of Approval Letter. No signature is required.

Letter Printed On:18 May 2012.

Printed By : AE3835961

Course	Shift	Level	Course	Full/Part Time	Affiliating Body	Intake	Intake Approved for NRI	Intake Approved for PIO	Intake Approved for FN	Intake Approved for Gulf Quota
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	120	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Visvesvaraya Technological University, Belagaum	120	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	60	60	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	TELECOMMUNICATION ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	60	60	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	MECHANICAL ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	60	120	No	No	No

Application Id: 1-693715411			Course		Affiliating Body					
Program	Shift	Level								
MANAGEMENT	1st Shift	POSTGRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Visvesvaraya Technological University, Belagaum	60	120	No	No	No
MCA	1st Shift	POSTGRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	Visvesvaraya Technological University, Belagaum	60	60	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POSTGRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Visvesvaraya Technological University, Belagaum	18	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POSTGRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	0	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDERGRADUATE	CIVIL ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belagaum	0	60	No	No	No

All India Council for Technical Education
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Program	Shift	Level	Course	Full/Part Time	Affiliating University	NRI Approval Status	PIO Approval Status	Foreign Collaboration Status	Approval Status
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Visvesvaraya Technological University, Belagaum	0	18	No	No	No

The above mentioned approval is subject to the condition that T JOHN INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

(Dr. K P Isaac)
Member Secretary, AICTE

Copy to:

1. The Regional Officer,
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka
2. The Director Of Technical Education,
   Karnataka
3. The Registrar,
   Visvesvaraya Technological University, Belagaum
4. The Principal / Director,
   T JOHN INSTITUTE OF TECHNOLOGY
   #86/1, KAMMANAHALLI,

Note: This is a Computer generated Extension of Approval Letter. No signature is required. Letter Printed On:16 May 2012.

Printed By : AE3535361

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)
7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-1377168183/2013/EOA

Date: 19-Mar-2013

To,
The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2013-14

Ref: Application of the Institution for Extension of approval for the academic year 2013-14

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-West	Application Id	1-1377168183
		Permanent Id	1-8251466
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	Institute Address	#66/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka,560083
Name of the Society/Trust	MAROUGEN EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

to conduct following courses with the intake indicated below for the academic year 2013-14

Note: This is a Computer generated Extension of Approval Letter. No signature is required.

Letter Printed On:4 April 2013.

Printed By : AE3635961

Application Id: 1-1377166183			Course	Full/Part Time	Affiliating Body	Intake 2012-13	Intake Approved for 13-14	NRI	PIO	Foreign Collaboration
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER NETWORKING AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	0	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Visvesvaraiah Technological University, Belgaum	0	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	No	No	No

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

Application Id: 1-1377168183			Course	Full/Part Time	Affiliating Body	Intake 2012-13	Intake Approved for 13-14	NRI	PIO	Foreign Collaboration
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	No	No	No
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	TELECOMMUNICATION ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	No	No	No
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	No	No	No
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	No	No	No

- Validity of the course details may be verified at www.aicte-india.org>departments>approvals

The above mentioned approval is subject to the condition that T JOHN INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

(Dr. Kuncheria P. Isaac)
Member Secretary, AICTE

Note: This is a Computer generated Extension of Approval Letter. No signature is required. Letter Printed On:4 April 2013.

Printed By : AE3635861

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-2017642094/2014/EOA/Corrigendum-1

Date: 10-Jun-2014

Corrigendum

To,
The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2014-15.

Ref : Application of the Institution for Extension of Approval for the Year 2014-15

EOA Issued on	F.No. South-West/1-2017642094/2014/EOA	04-Jun-2014
EOA Printed on	F.No. South-West/1-2017642094/2014/EOA	07-Jun-2014
Corrigendum 1	F.No. South-West/1-2017642094/2014/EOA/Corrigendu	10-Jun-2014

Sir/Madam,

In partial modification of the letter F.No. South-West/1-2017642094/2014/EOA and in terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-West	Application Id	1-2017642094
		Permanent Id	1-8251468
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE,BANGALORE,BANGALORE URBAN,Karnataka,560083
Name of the Society/Trust	MAROUGEN EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

Note:This is a Computer generated Corrigendum Letter for EoA. No signature is required. Letter Printed On 11 June 2014.

Printed By : ad3835961

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

to conduct following courses with the intake indicated below for the academic year 2014-15

Application Id: 1-2017642094			Course		Affiliating Body					
Program	Shift	Level		Full/Part Time		Intake 2012-13	Intake 2013-14	Intake Approved for 2014-15	NRI	PIO
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	120	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Visvesvaraiah Technological University, Belgaum	120	120	120	NA	NA
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	60	NA	NA

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

Application Id: 1-2017642094			Course	Full/Part Time	Affiliating Body	Intake 2012-13	Intake 2013-14	Intake Approved for 2014-15	NRI	PIO
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	60	60	120	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Visvesvaraiah Technological University, Belgaum	18	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER NETWORKING AND ENGINEERING	FULL TIME	Visvesvaraiah Technological University, Belgaum	0	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Visvesvaraiah Technological University, Belgaum	0	18	18	NA	NA

- Validity of the course details may be verified at www.aicte-india.org>departments>approvals

The above mentioned approval is subject to the condition that T JOHN INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-2455980857/2015/EOA Date: 07-Apr-2015

To,
The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2015-16

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-West	Application Id	1-2455980857
		Permanent Id	1-6251466
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083
Name of the Society/Trust	MAROUGEN EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Note: This is a Computer generated Letter of Approval.No signature is required. Letter Printed On:13 April 2015

Printed By : AE3835961

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

Application Id: 1-2455980857			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER NETWORKING AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA

Note: This is a Computer generated Letter of Approval.No signature is required. Letter Printed On:13 April 2015

Printed By : AE3835961

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

Application Id: 1-2455980857			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	Vesveswaraiah Technological University, Belgaum	60	60	NA	NA	NA

Note: Validity of the course details may be verified at www.aicte-india.org>departments>approvals

The above mentioned approval is subject to the condition that T JOHN INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Dr. Avinash S Pant
Actg Chairman, AICTE

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-2812138718/2016/EOA Date: 25-Apr-2016

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-West	Application Id	1-2812138718
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	Permanent Id	1-6251466
Name of the Society/Trust	MAROUGEN EDUCATION FOUNDATION	Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083
Institute Type	Unaided - Private	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2812138718			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaborarion/Twining Program Approval status*
Program	Shift	Level								
ENGINEERING AND	1st Shift	POST GRA	COMPUTER NETWORKING AND	FULL TIME	Vesveswaraiah Technological University,	18	18	NA	NA	NA

TECHNOLOGY		DUATE	ENGINEERING		Belgaum					
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Vesveswaraiah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Vesveswaraiah Technological University, Belgaum	120	120	NA	NA	NA

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

The above mentioned approval is subject to the condition that T JOHN INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

Course(s) Applied for Closure by the Institute for the AY 2016-17:

Application Id: 1-2812138718			Name of the Course	Full/Part Time	Affiliating Body	Course Closure Status
Program	Shift	Level				
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION : (Last Approved Intake 120)	FULL TIME	Vesveswaraiah Technological University, Belgaum	Pending$
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS : (Last Approved Intake 60)	FULL TIME	Vesveswaraiah Technological University, Belgaum	Pending$

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

1. **The Regional Officer,**
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka

2. **The Director Of Technical Education,**
   Karnataka

3. **The Registrar,**
   Vesveswaraiah Technological University, Belgaum

4. **The Principal / Director,**
T JOHN INSTITUTE OF TECHNOLOGY
#86/1, KAMMANAHALLI,
GOTTIGERE,
BANNERUGATTA ROAD,
BANGALORE,
BANGALORE,BANGALORE URBAN,
Karnataka,560083

5. **The Secretary / Chairman,**
MAROUGEN EDUCATION FOUNDATION
#17/1, CAMPBELL ROAD, AUSTIN TOWN,
BANGALORE,BANGALORE URBAN,
Karnataka,560042

6. **Guard File(AICTE)**

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela MargVasant Kunj, New Delhi-110067
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-West/1-3326855855/2017/EOA Date: 10-Apr-2017

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of approval for the academic year 2017-18

Ref: Application of the Institution for Extension of approval for the academic year 2017-18

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2016 notified by the Council vide notification number F.No.AB/AICTE/REG/2016 dated 30/11/2016 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-6251466	Application Id	1-3326855855
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083
Name of the Society/Trust	MAROUGEN EDUCATION FOUNDATION	Society/Trust Address	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private	Region	South-West

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable
Opted for Conversion from degree to diploma	No	Opted for Conversion from diploma to degree	No	Conversion (degree to diploma or vice-a-versa) Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2017-18

Application Id: 1-3326855855			Course	Full/Part Time	Affiliating Body	Intake Approved for 2016-17	Intake Approved for 2017-18	NRI Approval status	PIO / FN / Gulf quota/ OCI/ Approval status	Foreign Collaborarion/Twining Program Approval status*
Program	Shift	Level								
ENGINEERING AND	1st Shift	POST GRA	COMPUTER NETWORKING AND	FULL TIME	Visvesvaraya Technological University,	18	18	NA	NA	NA

TECHNOLOGY		DUATE	ENGINEERING		Belgaum					
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FULL TIME	Visvesvaraya Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Visvesvaraya Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Visvesvaraya Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Visvesvaraya Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belgaum	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Visvesvaraya Technological University, Belgaum	120	120	NA	NA	NA

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela MargVasant Kunj, New Delhi-110067
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

The above mentioned approval is subject to the condition that

T JOHN INSTITUTE OF TECHNOLOGY

shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Prof. A.P Mittal
Member Secretary, AICTE

Copy to:

1. **The Regional Officer,**
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka

2. **The Director Of Technical Education**,**
   Karnataka

3. **The Registrar**,**
   Visvesvaraya Technological University, Belgaum

4. **The Principal / Director,**
   T JOHN INSTITUTE OF TECHNOLOGY
   #86/1, KAMMANAHALLI,
   GOTTIGERE,
   BANNERUGATTA ROAD,
   BANGALORE,
   BANGALORE,BANGALORE URBAN,
   Karnataka,560083

5. **The Secretary / Chairman,**
   MAROUGEN EDUCATION FOUNDATION
   #17/1, CAMPBELL ROAD, AUSTIN TOWN,
   BANGALORE,BANGALORE URBAN,
   Karnataka,560042

6. **Guard File(AICTE)**

Note: ** - Approval letter copy will not be communicated through post/email. However, provision is made in the portal for downloading Approval letter through Authorized login credentials allotted to concerned DTE/Registrar.

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2018-19

Extension of Approval (EoA)

F.No. South-West/1-3514469092/2018/EOA Date: 10-Apr-2018

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of Approval for the Academic Year 2018-19

Ref: Application of the Institution for Extension of approval for the Academic Year 2018-19

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2016 notified by the Council vide notification number F.No.AB/AICTE/REG/2016 dated 30/11/2016 and amended on December 5, 2017 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-6251466	**Application Id**	1-3514469092
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	**Name of the Society/Trust**	MAROUGEN EDUCATION FOUNDATION
Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083	**Society/Trust Address**	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private	**Region**	South-West

Opted for Change from Women to Co-Ed and vice versa	No	**Change from Women to Co-Ed and vice versa Approved or Not**	NA
Opted for Change of Name	No	**Change of Name Approved or Not**	NA
Opted for Change of Site	No	**Change of Site Approved or Not**	NA
Opted for Conversion from Degree to Diploma or vice versa	No	**Conversion for Degree to Diploma or vice versa Approved or Not**	NA
Opted for Organization Name Change	No	**Change of Organization Name Approved or Not**	NA

To conduct following Courses with the Intake indicated below for the Academic Year 2018-19

Program	Shift	Level	Course	FT/PT+	Affiliating Body (Univ/Body)	Intake Approved for 2018-19	NRI Approval Status	PIO / FN / Gulf quota/ OCI/ Approval Status	Foreign Collaboration /Twining Program Approval Status*
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA	NA
ENGINEERING AND	1st	UNDER GRADUATE	INFORMATION SCIENCE AND	FT	Visvesvaraya Technological University, Belgaum	60	NA	NA	NA

TECHNOLOGY			ENGINEERING						
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	MECHANICAL ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	CIVIL ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA	NA

+FT –Full Time,PT-Part Time
Punitive Action against the Institute

Course(s) Applied for Closure by the Institute for the Academic Year 2018-19

Program	Shift	Level	Course	FT/PT+	Affiliating Body (Univ/Body)	Course Closure Status
ENGINEERING AND TECHNOLOGY	1st	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FT	Visvesvaraya Technological University, Belgaum	Approved
ENGINEERING AND TECHNOLOGY	1st	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	Approved
ENGINEERING AND TECHNOLOGY	1st	POST GRADUATE	DIGITAL COMMUNICATIONS AND NETWORKING	FT	Visvesvaraya Technological University, Belgaum	Approved
ENGINEERING AND TECHNOLOGY	1st	POST GRADUATE	COMPUTER NETWORKING AND ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	Approved
ENGINEERING AND TECHNOLOGY	1st	POST GRADUATE	MACHINE DESIGN	FT	Visvesvaraya Technological University, Belgaum	Approved

+FT-Full Time,PT-Part Time
$ Due to non-submission of NOC's from University / Board and / or State Government

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation: - Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Prof. A.P Mittal
Member Secretary, AICTE

Copy to:

1. The Regional Officer,
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka
2. The Director Of Technical Education**,
   Karnataka
3. The Registrar**,
   Visvesvaraya Technological University, Belgaum
4. The Principal / Director,
   T JOHN INSTITUTE OF TECHNOLOGY
   #86/1, KAMMANAHALLI,
   GOTTIGERE,
   BANNERUGATTA ROAD,
   BANGALORE,
   BANGALORE,BANGALORE URBAN,

Karnataka,560083

5. The Secretary / Chairman,
MAROUGEN EDUCATION FOUNDATION
#17/1, CAMPBELL ROAD, AUSTIN TOWN,
BANGALORE,BANGALORE URBAN,
Karnataka,560042

6. Guard File(AICTE)

Note: Validity of the Course details may be verified at http://www.aicte-india.org/

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2019-20

Extension of Approval (EoA)

F.No. South-West/1-4267233663/2019/EOA Date: 30-Apr-2019

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of Approval for the Academic Year 2019-20

Ref: Application of the Institution for Extension of approval for the Academic Year 2019-20

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2018 notified by the Council vide notification number F.No.AB/AICTE/REG/2018 dated 31/12/2018 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-6251466	**Application Id**	1-4267233663
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	**Name of the Society/Trust**	MAROUGEN EDUCATION FOUNDATION
Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083	**Society/Trust Address**	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institute Type	Unaided - Private	**Region**	South-West

Opted for Change from Women to Co-Ed and vice versa	No	**Change from Women to Co-Ed and vice versa Approved or Not**	NA
Opted for Change of Name	No	**Change of Name Approved or Not**	NA
Opted for Change of Site/Location	No	**Change of Site/Location Approved or Not**	NA
Opted for Conversion from Degree to Diploma or vice versa	No	**Conversion for Degree to Diploma or vice versa Approved or Not**	NA
Opted for Organization Name Change	No	**Change of Organization Name Approved or Not**	NA
Opted for Merger of Institution	No	**Merger of Institution Approved or Not**	NA
Opted for Introduction of New Program/Level	No	**Introduction of Program/Level Approved or Not**	NA

To conduct following Courses with the Intake indicated below for the Academic Year 2019-20

Program	Shift	Level	Course	FT/PT+	Affiliating Body (Univ/Body)	Intake Approved for 2019-20	NRI Approval Status	PIO / FN / Gulf quota/ OCI/ Approval Status
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA

ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	60	NA	NA
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	MECHANICAL ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA
ENGINEERING AND TECHNOLOGY	1st	UNDER GRADUATE	CIVIL ENGINEERING	FT	Visvesvaraya Technological University, Belgaum	120	NA	NA

+FT –Full Time,PT-Part Time

Punitive Action against the Institute

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation: - Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

It is mandatory to comply all the essential requirements as given in APH 2019-20(appendix 6)

NOTE: If the State Government / UT / DTE / DME has a reservation policy for admission in Technical Education Institutes and the same is applicable to Private & Self-financing Technical Institutions, then the State Government / UT/ DTE / DME shall ensure that 10 % of Reservation for EWS would be operational from the Academic year 2019-20 without affecting the percentage reservations of SC/ST/OBC/General . However, this would not be applicable in the case of Minority Institutions referred to the clause (1) of Article 30 of Constitution of India.

Prof. A.P Mittal
Member Secretary, AICTE

Copy to:

1. **The Director Of Technical Education**, Karnataka**

2. **The Registrar**,**
   Visvesvaraya Technological University, Belgaum

3. **The Principal / Director,**
   T John Institute Of Technology
   #86/1, Kammanahalli,
   Gottigere,
   Bannerugatta Road,
   Bangalore,
   Bangalore,Bangalore Urban,
   Karnataka,560083

4. **The Secretary / Chairman,**
   Marougen Education Foundation
   #17/1, Campbell Road, Austin Town.
   Bangalore,Bangalore Urban,
   Karnataka,560042

5. **The Regional Officer,**
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka

6. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at http://www.aicte-india.org/

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2020-21

Extension of Approval (EoA)

F.No. South-West/1-7002649272/2020/EOA Date: 09-Jun-2020

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of Approval for the Academic Year 2020-21

Ref: Application of the Institution for Extension of Approval for the Academic Year 2020-21

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2020 notified by the Council vide notification number F.No. AB/AICTE/REG/2020 dated 4th February 2020 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-6251466	**Application Id**	1-7002649272
Name of the Institute	T JOHN INSTITUTE OF TECHNOLOGY	**Name of the Society/Trust**	MAROUGEN EDUCATION FOUNDATION
Institute Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083	**Society/Trust Address**	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,,560042
Institute Type	Private-Self Financing	**Region**	South-West

To conduct following Courses with the Intake indicated below for the Academic Year 2020-21

Program	Level	Course	Affiliating Body (University /Body)	Intake Approved for 2019-20	Intake Approved for 2020-21	NRI Approval Status	PIO / FN / Gulf quota/ OCI/ Approval Status
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	Visvesvaraya Technological University, Belgaum	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	Visvesvaraya Technological University, Belgaum	120	60	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	Visvesvaraya Technological University, Belgaum	60	60	NA	NA

ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	MECHANICAL ENGINEERING	Visvesvaraya Technological University, Belgaum	120	60	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	CIVIL ENGINEERING	Visvesvaraya Technological University, Belgaum	120	60	NA	NA

It is mandatory to comply with all the essential requirements as given in APH 2020-21 (Appendix 6)

Important Instructions

1. The State Government/ UT/ Directorate of Technical Education/ Directorate of Medical Education shall ensure that 10% of reservation for Economically Weaker Section (EWS) as per the reservation policy for admission, operational from the Academic year 2020-21 is implemented without affecting the reservation percentages of SC/ ST/ OBC/ General. However, this would not be applicable in the case of Minority Institutions referred to the Clause (1) of Article 30 of Constitution of India. Such Institution shall be permitted to increase in annual permitted strength over a maximum period of two years beginning with the Academic Year 2020-21

2. The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time now amalgamated as total intake shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2020-21 for the Total Approved Intake. Further, the Institutions Deemed to be Universities/ Institutions having Accreditation/ Autonomy status shall have to maintain the Faculty: Student ratio as specified in the Approval Process Handbook. All such Institutions/ Universities shall have to create the necessary Faculty, Infrastructure and other facilities WITHIN 2 YEARS to fulfil the norms based on the Affidavit submitted to AICTE.

3. In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

4. Strict compliance of Anti-Ragging Regulation: - Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 373/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Prof.Rajive Kumar
Member Secretary, AICTE

Copy to:

1. **The Director Of Technical Education**, Karnataka**

2. **The Registrar**,**
   Visvesvaraya Technological University, Belgaum

3. **The Principal / Director,**
   T JOHN INSTITUTE OF TECHNOLOGY
   #86/1, Kammanahalli,
   Gottigere,
   Bannerugatta Road,
   Bangalore,
   Bangalore,Bangalore Urban,
   Karnataka,560083

4. **The Secretary / Chairman,**
#17/1, CAMPBELL ROAD, AUSTIN TOWN
BANGALORE,BANGALORE URBAN
,560042

5. **The Regional Officer,**
All India Council for Technical Education
Health Centre Building
Bangalore University Campus
Bangalore - 560 009, Karnataka

6. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at http://www.aicte-india.org/

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

All India Council for Technical Education

(A Statutory body under Ministry of Education, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2021-22

Extension of Approval (EoA)

F.No. South-West/1-9322541845/2021/EOA Date: 02-Jul-2021

To,

The Principal Secretary (Hr. & Tech Education)
Govt. of Karnataka, K. G.S., 6th Floor,
M.S. Building, R. N. 645,Dr. B. R. Ambedkar Road,
Bangalore-560001

Sub: Extension of Approval for the Academic Year 2021-22

Ref: Application of the Institution for Extension of Approval for the Academic Year 2021-22

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations, Notified on 4th February, 2020 and amended on 24th February 2021 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to:

Permanent Id	1-6251466	**Application Id**	1-9322541845
Name of the Institution /University	T JOHN INSTITUTE OF TECHNOLOGY	**Name of the Society/Trust**	MAROUGEN EDUCATION FOUNDATION
Institution /University Address	#86/1, KAMMANAHALLI, GOTTIGERE, BANNERUGATTA ROAD, BANGALORE, BANGALORE, BANGALORE URBAN, Karnataka, 560083	**Society/Trust Address**	#17/1, CAMPBELL ROAD, AUSTIN TOWN,BANGALORE,BANGALORE URBAN,Karnataka,560042
Institution /University Type	Private-Self Financing	**Region**	South-West

To conduct following Programs / Courses with the Intake indicated below for the Academic Year 2021-22

Program	Level	Course	Affiliating Body (University /Body)	Intake Approved for 2020-21	Intake Approved for 2021-22	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	Visvesvaraya Technological University, Belgaum	120	120	Yes	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	Visvesvaraya Technological University, Belgaum	60	30	Yes	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	Visvesvaraya Technological University, Belgaum	60	30	Yes	NA

ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	MECHANICAL ENGINEERING	Visvesvaraya Technological University, Belgaum	60	30	Yes	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	CIVIL ENGINEERING	Visvesvaraya Technological University, Belgaum	60	30	Yes	NA

It is mandatory to comply with all the essential requirements as given in APH 2021-22 (Appendix 6)

Important Instructions

1. The State Government/ UT/ Directorate of Technical Education/ Directorate of Medical Education shall ensure that 10% of reservation for Economically Weaker Section (EWS) as per the reservation policy for admission, operational from the Academic year 2019-20 is implemented without affecting the reservation percentages of SC/ ST/ OBC/ General. However, this would not be applicable in the case of Minority Institutions referred to the Clause (1) of Article 30 of Constitution of India. Such Institution shall be permitted to increase in annual permitted strength over a maximum period of two years.

2. The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time now amalgamated as total intake shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2021-22 for the Total Approved Intake. Further, the Institutions Deemed to be Universities/ Institutions having Accreditation/ Autonomy status shall have to maintain the Faculty: Student ratio as specified in the Approval Process Handbook.

3. Strict compliance of Anti-Ragging Regulation, Establishment of Committee for SC/ ST, Establishment of Internal Complaint Committee (ICC), Establishment of Online Grievance Redressal Mechanism, Barrier Free Built Environment for disabled and elderly persons, Fire and Safety Certificate should be maintained as per the provisions made in Approval Process Handbook and AICTE Regulation notified from time to time.

4. In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Prof.Rajive Kumar
Member Secretary, AICTE

Copy ** to:

1. **The Director of Technical Education**, Karnataka**

2. **The Registrar**,**
   Visvesvaraya Technological University, Belgaum

3. **The Principal / Director,**
   T JOHN INSTITUTE OF TECHNOLOGY
   #86/1, Kammanahalli,
   Gottigere,
   Bannerugatta Road,
   Bangalore,
   Bangalore,Bangalore Urban,
   Karnataka,560083

4. **The Secretary / Chairman,**
#17/1, CAMPBELL ROAD, AUSTIN TOWN
BANGALORE,BANGALORE URBAN
Karnataka,560042

5. **The Regional Officer,**
All India Council for Technical Education
Health Centre Building
Bangalore University Campus
Bangalore - 560 009, Karnataka

6. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at http://www.aicte-india.org/ .

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

This is a computer generated Statement. No signature Required

APPENDIX B

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road
Bangalore 560 083

Provisional Income & Expenditure Account as on 31st March 2021

PARTICULARS	Schdl	as at 31.03.2021
INCOME:		
Tuition Fees	I	**5,82,38,174**
Other Income		61,14,698
Total		**6,43,52,872**
EXPENDITURE:		
Student Expenses		3,09,716
Salaries and Wages		2,35,37,691
Administrative Expenses		75,25,206
Total Expenses before Depreciation	(a)	3,13,72,613
Depreciation	(b)	1,84,70,316
Total	(a+b)	**4,98,42,929**
Net Surplus/ (Deficit)		1,45,09,943

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P John
President

S.J.Vasekaran
Secretary

Place : Bangalore
Date :10/07/2021

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road
Bangalore 560 083

Balance Sheet for the year ended 31st March 2021

Particulars	Note No.	As on 31.03.2021
I Source of Funds		
1. Share holders funds		**54,06,36,095**
(a) Capital (investment by society)		17,09,45,566
(b) Reserves & Surplus		96,59,384
(b) Depriciation Reserves		36,00,31,145
2. Loan funds		-
(a) Secured loans		-
(b) Borrowings/unsecured loan		-
Total		54,06,36,095
II Application of Funds		
1. Fixed assets	[1]	51,73,45,806
2. Investments		-
3. Current assets, loans and advances		**2,32,90,289**
(A) Cash & Bank Bal, Fixed Deposit	[2]	2,32,90,289
(b) Debtors		-
© Inventories		-
(d) Prepaid expenses		-
Less: Current Liabilities and Provisions		-
Net Current assets		**2,32,90,289**
4.Miscellaneous expenditures and losses		-
Total		54,06,36,095

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P. John
President

S.J Vasudevakaran
Secretary

Place : Bangalore
Date :10/07/2021

ANNEXURE - " 1 "

DETAILS OF FIXED ASSETS FOR THE YEAR ENDING 31ST MARCH 2021:

Particulars	Rate of Depreciation	Gross Block						Total as on 31.03.2021	Depreciation						Net Block
		Assests as on 1.04.2020	Addition		Deletions	Total additions For the year	Deletion		As on 1.4.2020	Upto < 180 days	After < 180 days	Total	Deletion	Total as on 31.03.2021	W.D.V. as on 31.03.2021
			> 180 days	< 180 days											
Land - Rennegatta	0.00%	21,21,565			-	-	-	21,21,565	-	-	-	-		-	21,21,565
Building - Auditorium	10.00%	3,57,51,931			-	-	-	3,57,51,931	1,70,00,913	17,65,102	-	17,65,102		1,86,66,015	1,70,85,916
Building - TJIT (Engg.)	10.00%	29,43,20,850			-	-	-	29,43,20,850	17,84,66,225	1,15,83,263	-	1,15,83,263		19,00,71,488	10,42,49,362
Building - Hostel Block	10.00%	73,25,210			-	-	-	73,25,210	50,48,897	2,27,831	-	2,27,831		52,76,728	20,48,482
Cafeteria Equipment	10.00%	30,64,667			-	-	-	30,64,667	17,36,219	1,32,845	-	1,32,845		19,69,064	11,95,603
Compound Wall	10.00%	8,75,003			-	-	-	8,75,003	4,82,313	41,269	-	41,269		5,03,582	3,71,421
Furniture & Fixtures	10.00%	2,55,25,549			-	-	-	2,55,25,549	1,82,54,589	7,23,056	-	7,23,056		1,89,18,045	65,07,503
Interior Decoration	10.00%	2,11,59,890			-	-	-	2,11,59,890	1,19,00,258	9,25,659	-	9,25,659		1,28,25,917	83,33,973
Office Equipment & Projector	15.00%	68,31,289		-	-	-	-	68,31,289	52,23,000	2,41,243	-	2,41,243		54,64,243	13,67,046
Electrical Equipment	10.00%	81,29,650		-	-	-	-	81,29,650	52,04,110	2,92,554	-	2,92,554		54,96,664	26,32,986
Lift Equipment	15.00%	3,04,94,393		17,000	-	17,000	-	3,05,11,393	3,00,65,606	14,14,318	1,275	14,15,593		3,14,81,202	90,30,191
Generator	15.00%	8,37,960		-	-	-	-	8,37,960	57,257	67,105	-	67,105		1,44,362	4,93,598
Bus	15.00%	55,95,669		-	-	-	-	55,95,669	46,01,146	1,46,228	-	1,46,228		47,50,374	8,45,615
Elevator (Engg & Hostel Block)	15.00%	26,21,500		-	-	-	-	26,21,500	21,58,079	69,513	-	69,513		22,27,592	3,93,908
UPS	15.00%	59,72,115		1,10,015	-	1,10,015	-	60,82,130	45,03,601	2,20,277	8,251	2,28,528		47,32,129	13,50,001
Computers	60.00%	2,94,80,479		-	-	-	-	2,94,80,479	2,03,63,105	70,424	-	70,424		2,04,33,529	46,950
Computer Software	60.00%	1,26,82,379		1,28,371	-	1,28,371	-	1,31,10,750	1,28,59,134	73,947	38,511	1,12,458		1,29,71,592	1,39,158
Printer	60.00%	4,73,174		-	-	-	-	4,73,174	4,71,500	1,004	-	1,004		4,72,504	670
Books	60.00%	1,26,43,704		-	-	-	-	1,26,43,704	1,21,93,947	2,75,654	-	2,75,654		1,24,69,601	1,83,903
Solar Plant	10.00%	20,00,000			-	-	-	20,00,000	10,16,635	98,317	-	98,317		11,15,152	8,84,848
Sports Equipment	15.00%	32,077			-	-	-	32,077	17,625	2,168	-	2,168		19,793	12,284
water cooler	15.00%	24,780			-	-	-	24,780	1,859	3,438	-	3,438		5,297	19,483
Garden Equipments	15.00%	29,297			-	-	-	29,297	2,197	4,066	-	4,066		6,262	23,035
		51,70,90,429	-	2,55,386	-	2,55,386	-	51,73,45,806	34,15,68,839	1,84,22,379	48,037	1,84,70,316	-	36,00,31,145	15,73,14,661

Sukumar Nayak & Co. B.COM.,F.CA.,
.Chartered Accountant

AUDITOR'S REPORT

The Members of
Marougen Education Foundation,
Bangalore.

The Extract of audited accounts of **T. JOHN INSTITUTE OF TECHNOLOGY,** managed by MAROUGEN EDUCATION FOUNDATION society, Bangalore, as at 31st March 2020, the Income and Expenditure Account for the year ended as on that date which is in agreement with the books of accounts maintained by the said society. These financial statements are the responsibility of the Management. Our responsibility is to express an opinion on these financial statements based on our audit.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of the audit. In our opinion proper books of account have been kept by the college, managed by the Society so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view.

1.) In the case of the Balance Sheet of the state of affairs as at 31st March 2020 and

2.) In the case of the Income and Expenditure Account, of the excess of Income over Expenses for the year ended 31st March 2020.

Sukumar Nayak
Chartered Accountant
Membership No.016459
Sukumar Nayak & Co.

(Sukumar Nayak F.C.A.)
Partner
Mem. No: 016459
PAN No: ABQPN1376H

Place : Bangalore
Date :

Reg. No. 003844E, 619, Vithola, B G Road, Bangalore 560 076
email.snayak.company@gmail.com

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road

Bangalore 560 083

Income & Expenditure Account as on 31st March 2020

PARTICULARS	Schedule	as at 31.03.2020
INCOME:		
Tuition Fees		9,14,07,965
Other Income	I	1,05,59,285
Total		10,19,67,250
EXPENDITURE:		
Student Expenses		10,24,272
Salaries and Wages		4,37,36,052
Administrative Expenses		1,44,97,456
Total Expenses before Depreciation	(a)	5,92,57,780
Depreciation	(b)	1,85,70,913
Total	(a+b)	7,78,28,693
Net Surplus/ (Deficit)		2,41,38,557

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P John
President

S J Vaseekaran
Secretary

Chartered Accountant
Sukumar Nayak & Co.
(Sukumar Nayak F.C.A.)
Partner
Mem. No: 016459
PAN No: ADQPN1376H

Place: Bangalore
Date: 26/12/2020

Sukumar Nayak & Co.
Chartered Accountants
Reg. No: 323644E
Bhola,B.G. Road, B'lore - 76
nayak.company@gmail.co
PAN No: AGVF3046BC

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road
Bangalore 560 083

Balance Sheet for the year ended 31st March 2020

Particulars	Note No.	As on 31.03.2020
I Source of Funds		
1. Share holders funds		**19,40,02,160**
(a) Capital (investment by society)		19,88,52,719
(b) Reserves & Surplus		(48,50,559)
(b) Depriciation Loss		-
2. Loan funds		-
(a) Secured loans		-
(b) Borrowings/unsecured loan		-
Total		19,40,02,160
II Application of Funds		
1. Fixed assets	[1]	15,78,98,378
2. Investments		-
3. Current assets, loans and advances		**3,61,03,782**
(A). Cash & Bank	[2]	3,61,03,782
(b) Debtors		-
© Inventories		-
(d) Prepaid expenses		-
Less: Current Liabilities and Provisions		-
Net Current assets		**3,61,03,782**
4.Miscellaneous expenditures and losses		-
Total		19,40,02,160

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P. John
President

S.J.Vaseekaran
Secretary

Chartered Accountant
Sukumar Nayak & Co.
(Sukumar Nayak F.C.A.)
Partner
Mem. No: 016459
PAN No: ABQPN1376H

Sukumar Nayak & Co.
Chartered Accountants
Reg. No. 323844E
619,Vithola,B.G. Road, B'lore - 76
email.snayak.company@gmail.com
PAN No: ADVFS0456C

Place : Bangalore
Date :26/12/2020

T.JOHN INSTITUTE OF TECHNOLOGY

BANK AND CASH BALANCE	Annexure
Federal Bank TJIT 71718	3,61,03,782
Federal Bank TJIT 25839	3,00,273
UBI 24582 TJIT Grant	2,03,407
UBI 35068 TJIT	2,17,223
UBI 36163 TJIT	71,794
Fixed Deposit with Bank	3,11,085
Cash Balance	3,50,00,000
Incomes	10,19,67,250
FEES	9,14,07,965
TUITION FEE	9,14,07,965
Other Income	1,05,59,285
BUS FEE	5,02,000
Canteen Income	1,94,315
DUP ID CARD FINE	245
DUPLICATE HALL TICKET	3,700
DUPLICATE ID CARD	11,495
DUPLICATE LIB CARD	280
DUPLICATE MEALS CARD	800
Eligibility Fee	12,000
EXAM FEES	7,36,420
FEST FEES	98,650
FORM & STATIONARY	12,599
Hostel charges	20,000
Identity Card	200
Interest on FD	5,20,199
Interest Received	98,093
Job Verification	39,000
LATE REMITANCE	3,36,350
LIBRARY FINE	15,924
MAINTENANCE CHARGES	180
National Conference	5,650
NSS	10,000
Online Exam/Auditorium Charges	13,99,048
OTHER CHARGES	37,91,927
PARKING CHARGES	1,96,350
Placement Fees	1,56,295
Project	7,000
RECORD	1,58,025
REGISTRATION FEE	56,700
Revaluation Fee	7,24,625
SKETCH BOOK/SHEET	25,200
Student Misc Income	94,324
Technology Fees	10,150
TRANSFER CERTIFICATE	4,400
University Remuneration	8,29,191
VALUE ADDITION FEE	4,27,660

Student's Expenses	
Sports Expenses	10,24,272
Student Counselling charges	61,767
Student Edunl & Indust Travel Exps	66,000
Student Welfare	39,523
Uniform Charges Exp	21,938
	8,35,044
Administrative exp	
Advertisement & Promotion	1,44,97,459
AICTE Expenses	22,40,712
Annual Maintenance charges	1,40,244
Bank Commission & Charges	2,68,360
Boarding & Lodging exp	34,074
Campus maintenance	2,35,224
Canteen/Food Expenses	64,293
Computer maintenance	1,23,211
Conference Expenses	99,214
Conveyance	84,976
Electricity Charges	3,976
Exam expenses	6,84,789
Fest Expenses	1,04,754
Fire Extingusher - Expenses	3,15,597
Fuel & Petrol	43,555
Garden Maintenance	5,82,000
Graduation Day expenses	37,414
Honoranium for Guest Lecture	1,90,527
Incentive & DA to Staff	15,500
Insurance	46,135
Lab Items -Purchase	1,00,336
Laundry charges	77,569
Miscellaneous/Housekeeping Expenses	7,960
News & Periodicals	1,00,822
Office expenses	11,216
Postage & Courier charges	6,105
Printing & Stationery	39,849
Professional & consultancy charges	7,02,881
Professional Tax	11,210
Refreshment expenses	1,99,000
Refund of Tution Fees	17,104
Registration & Renewal Charges	9,82,750
Remuneration	5,590
Rent Rates & Taxes	7,75,082
Repairs & Maintenance	7,573
Repairs & Maintenance - Bldg	1,80,917
Repairs & Maintenance - Electrical	10,53,617
Repairs & Maintenance-Vehicle	3,02,963
Seminar & Faculty Development exps	70,449
Staff welfare	2,250
Student Training & Development	12,880
subscription & Journal Charges	6,89,442
TA & DA Allowances	48,603
Telephone & Internet charges	10,83,100
Transportation charges	31,020
Travelling Expenses	5,095
University Expenses	67,863
University Remuneration Paid	18,90,461
Water Charges	2,94,290
Work shop expenses	3,16,230
	68,675
Salaries and Wages	4,37,36,052
Employees Provident Fund	42,23,269
Employees State Insurance	1,89,706
Honorarium	10,500
Salaries	3,93,00,812
Visiting Faculty salary	11,745

ANNEXURE - "1"

DETAILS OF FIXED ASSETS FOR THE YEAR ENDING 31ST MARCH 2020

Particulars	Rate of Depreciation (%)	Gross Block						Total as on 31.03.2020	Depreciation						Net Block
		As on 1.04.2019	Additions		Deletions	Total additions For the year	Deletion		As on 1.4.2019	Upto + 180 days	After < 180 days	Total	Deletion	Total as on 31.03.2020	W.D.V. as on 31.03.2020
			< 180 days	> 180 days											
[illegible]	0.00%	21,21,565			-	-	-	21,21,565							21,21,565
[illegible]	40.00%	3,57,51,931			-	-	-	3,57,51,931	1,79,01,913	17,85,102	-	17,85,102		1,96,86,015	1,60,65,916
[illegible]	10.00%	29,43,20,950			-	-	-	29,43,20,950	17,84,88,225	1,15,83,265	-	1,15,83,265		19,00,71,489	10,42,49,462
[illegible]	10.00%	73,25,210			-	-	-	73,25,210	50,48,607	2,27,631	-	2,27,631		52,76,238	20,48,972
[illegible]	10.00%	30,84,657			-	-	-	30,84,657	17,36,219	1,32,645	-	1,32,645		18,68,864	11,95,793
[illegible]	10.00%	8,75,000			-	-	-	8,75,000	4,62,313	41,269	-	41,269		5,03,582	3,71,421
[illegible]	10.00%	2,55,29,548			-	-	-	2,55,29,548	1,62,54,960	7,23,056	-	7,23,056		1,69,78,015	85,51,533
[illegible]	10.00%	2,11,50,000			-	-	-	2,11,50,000	1,19,00,209	9,25,059	-	9,25,059		1,28,25,627	83,30,933
[illegible]	15.00%	63,31,283		2,48,219	-	2,48,219	-	65,79,502	52,23,030	2,41,243	19,616	2,59,860		54,82,890	10,96,648
[illegible]	15.00%	81,20,655		61,415	-	61,415	-	81,81,070	52,04,110	2,62,564	3,071	2,65,635		54,69,735	26,91,331
[illegible]	40.00%	3,64,94,787		1,74,055	-	1,74,055	-	3,66,68,842	3,03,65,000	14,14,316	13,054	14,27,372		3,18,02,961	81,75,467
[illegible]	15.00%	6,37,950		-	-	-	-	6,37,950	57,257	87,105	-	87,105		1,44,362	4,93,588
[illegible]	15.00%	55,95,569		-	-	-	-	55,95,569	46,01,148	1,49,226	-	1,49,226		47,50,374	8,45,195
[illegible]	15.00%	26,21,500		-	-	-	-	26,21,500	21,58,079	69,513	-	69,513		22,27,592	3,93,908
[illegible]	15.00%	58,72,115		1,01,824	-	1,01,824	-	59,73,939	45,03,031	2,20,277	7,837	2,27,914		47,31,515	13,42,424
[illegible]	60.00%	2,94,80,479		-	-	-	-	2,94,80,479	2,93,93,105	70,424	-	70,424		2,94,33,529	46,950
[illegible]	60.00%	1,29,82,979		-	-	-	-	1,29,82,979	1,29,59,154	73,947	-	73,947		1,30,33,091	49,888
[illegible]	60.00%	4,73,174		-	-	-	-	4,73,174	4,71,500	1,004	-	1,004		4,72,504	670
[illegible]	60.00%	1,26,43,704		3,54,187	-	3,54,187	-	1,29,97,891	1,21,83,947	2,75,854	1,06,206	3,82,110		1,25,66,057	4,31,834
[illegible]	10.00%	20,00,000		-	-	-	-	20,00,000	10,16,636	98,317	-	98,317		11,15,152	8,84,848
[illegible]	10.00%	32,077		-	-	-	-	32,077	17,625	2,168	-	2,168		19,793	12,284
[illegible]	15.00%	24,780		-	-	-	-	24,780	1,859	3,458	-	3,458		5,297	19,483
[illegible]	15.00%	34,760		-	-	-	-	29,297	2,197	4,065	-	4,065		6,262	23,035
[illegible]	15.00%	29,297													
		31,70,80,429	-	9,39,701	-	9,39,701	-	31,80,20,131	24,15,60,930	1,84,22,276	1,48,634	1,85,70,913	-	39,81,31,743	15,78,88,378

P.Srikanth Bhat, B.COM.,F.CA.,
Chartered Accountant

AUDITOR'S REPORT

The Members of
Marougen Educational Foundation,
Bangalore.

Extract of the audited the Balance Sheet of **T. JOHN INSTITUTE OF TECHNOLOGY**, managed by MAROUGEN EDUCATION FOUNDATION society, Bangalore, as at **31st March 2019**, the Income and Expenditure Account for the year ended as on that date which is in agreement with the books of accounts maintained by the said society. These financial statements are the responsibility of the Management. Our responsibility is to express an opinion on these financial statements based on our audit.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of the audit. In our opinion proper books of account have been kept by the Society so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view:

1.) In the case of the Balance Sheet of the state of affairs as at **31st March 2019** and

2.) In the case of the Income and Expenditure Account, of the excess of Income over expenses for the year ended **31st March 2019.**

P. Srikanth Bhat
Chartered Accountant
Membership No.206102
UDIN: 20206102AAAAAI9928
Date: 21-01-2020

Place : Bangalore
Date : 17/10/2019

#51,4th Cross, WIDIA Layout, Vijayanagar, BANGALORE -560 040.

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road
Bangalore 560 083

Income & Expenditure Account as on 31st March 2019

PARTICULARS	Schdl	as at 31.03.2019
INCOME:		
Tuition Fees		7,61,67,140
Other Income	I	1,38,43,146
Total		**9,00,10,286**
EXPENDITURE:		
Student Expenses		20,06,358
Salaries and Wages		4,52,77,361
Administrative Expenses		1,83,76,995
Total Expenses before Depreciation	(a)	6,56,60,714
Depreciation	(b)	2,07,18,590
Total	(a+b)	**8,63,79,304**
Net Surplus/ (Deficit)		36,30,983

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P John
President

S.J.Vaseekaran
Secretary

P.Srikanth Bhat
Chartered Accountant

Place : Bangalore
Date :17/10/2019

Marougen Education Foundation

T.JOHN INSTITUTE OF TECHNOLOGY

Gottigere Post,Bannerghatta Road
Bangalore 560 083

Balance Sheet for the year ended 31st March 2019

Particulars	Note No	As on 31.03.2019
I Source of Funds		
1. Share holders funds		**16,61,90,341**
(a) Capital (investment by society)		19,51,79,457
(b) Reserves & Surplus		(2,89,89,116)
(b) Depriciation Loss		-
2. Loan funds		**4,02,00,915**
(a) Secured loans		-
(b) Borrowings/unsecured loan		4,02,00,915
Total		20,63,91,256
II Application of Funds		
1. Fixed assets	[1]	17,55,29,590
2. Investments		-
3. Current assets, loans and advances		**3,08,61,666**
(A) Cash & Bank	[2]	3,08,61,666
(b) Debtors		-
© Inventories		-
(d) Prepaid expenses		-
Less: Current Liabilities and Provisions		-
Net Current assets		**3,08,61,666**
4.Miscellaneous expenditures and losses		-
Total		20,63,91,256

for Marougen Education Foundation
T.JOHN INSTITUTE OF TECHNOLOGY

Dr.Thomas P. John
President

S.J.Vaseekaran
Secretary

P.Srikanth Bhat
Chartered Accountant

Place : Bangalore
Date :17/10/2019

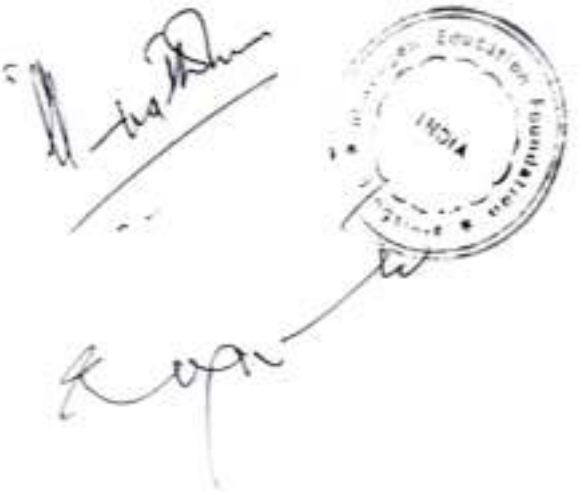
Incomes	
TUITION FEE	9,00,10,286
	7,61,67,140
Other Income	
	1,38,43,146
BONAFIDE CERTIFICATE	125
BUS FEE	7,17,000
Misc. Fees	3,63,000
CONVOCATION	13,600
DUP ID CARD FINE	500
DUPLICATE BUS PASS	200
DUPLICATE HALL TICKET	3,100
DUPLICATE ID CARD	10,225
DUPLICATE LIB CARD	650
DUPLICATE MEALS CARD	1,800
EXAM FEES	10,66,345
Faculty Development Programme	5,000
FEST FEES	19,100
FORM & STATIONARY	12,450
Graduation Day	600
Hostel charges	3,64,000
Identity Card	240
Interest on FD	8,25,533
Interest Received	57,574
Job Verification	27,000
LATE REMITANCE	2,89,070
LIBRARY FINE	15,357
MAINTENANCE CHARGES	450
National Conference	85,050
Online Exam/Auditorium Charges	15,69,962
OTHER CHARGES	54,75,260
PARKING CHARGES	1,18,110
Placement Fees	5,12,493
PROVISIONAL DEGREE CERTIFICATE	630
Record	1,77,890
REGISTRATION FEE	48,600
Research Project	8,000
RESERVATION DEPOSIT UG	1,30,000
Revaluation Fee	8,18,390
SKETCH BOOK/SHEET	36,900
sports	1,08,400
Student Misc Income	13,400
TRANSFER CERTIFICATE	2,550
University Remuneration	8,09,902
Value Addition Fee	86,090
Workshop fees	48,600

STUDENTS EXPENSE	
Sports Expenses	1,07,631
Student Counselling charges	1,28,000
Student Eduni & Indust Travel Exps	75,125
Student Welfare	76,000
Students Text Books	
Uniform Charges Exp	16,19,602
TOTAL	20,06,358

Administrative exp	
Advertisement & Promotion	12,10,000
Affiliation Fees	
AICTE Expenses	2,00,047
Annual Maintenance charges	17,400
Audit Fees	8,100
Bank Commission & Charges	48,044
Boarding & Lodging exp	19,860
Campus maintenance	2,25,700
Canteen/Food Expenses	2,56,834
College Festival exp	1,61,151
Computer maintenance	8,22,527
Conference Expenses	97,648
Conveyance	9,644
Donation Paid	5,000
Electricity Charges	
Exam expenses	36,942
Exhibition charges	6,036
Fest Expenses	91,549
Fire Extinguisher - Expenses	29,594
Fuel & Petrol	4,05,976
Garden Maintenance	3,64,105
GPS- Vehicle charges	16,520
Honorarium for Guest Lecture	3,500
Incentive & DA to Staff	64,020
Inspection charges	8,959
Insurance	67,999
Lab Items -Purchase	28,525
Legal fee	51,000
Medical expenses - Staff	2,437
News & Periodicals	7,042
Office expenses	200
Postage & Courier charges	13,938
Practical Expenses(T,IT)	81,198
Printing & Stationery	4,54,776
Refreshment expenses	34,217
Refund of Tution Fees	8,85,130
Registration & Renewal Charges	1,47,286
Remuneration	4,94,412
Rent Rates & Taxes	35,127
Repairs & Maintenance	2,62,633
Repairs & Maintenance - Bldg	8,06,642
Repairs & Maintenance - Electrical	3,50,608
Repairs & Maintenance-Vehicle	17,432
Seminar & Faculty Development exps	90,877
Software Expenses	7,02,780
Staff welfare	10,663
Stipend for Higher education	5,360
Student Expenses	86,464
Student Placement Refund	58,200
Student Training & Development	11,71,205
subscription & Journal Charges	34,344
TA & DA Allowances	9,65,250
Telephone & Internet charges	43,118
Transportation charges	66,951
Travelling Expenses	1,56,618
University Expenses	64,18,706
University Remuneration Paid	6,76,556
Water Charges	2,100
Work shop expenses	38,045
	1,83,76,995

Salaries	
Employees Provident Fund	18,35,304
Employees State Insurance	1,14,000
Salaries	4,33,28,057
	4,52,77,361

BANK AND CASH BALANCE	3,08,61,666.00
UBI 24582 TJIT Grant	2,09,989
UBI 36163 TJIT	1,97,807
Federal Bank TJIT 25839	1,14,247
UBI 35068 TJIT	1,64,623
Fixed Deposit with Bank	3,00,00,000
Cash Balance	1,75,000



APPENDIX C

TJIT Placement Summary – Batch 2016-2020

Dept	Total Students	NOC Given	Placed Students	Accepted	Placed Percentage
COMPUTER SCIENCE AND ENGINEERING	107	0	50	50	47
INFORMATION SCIENCE AND ENGINEERING	47	4	17	17	40
ELECTRONICS & COMMUNICATION ENGG	54	0	25	25	46
CIVIL ENGINEERING	45	5(PG)	16	15	38
MECHANICAL ENGINEERING	51	0	26	26	51
TOTAL	304	9	134	134	45

Average CTC	Highest CTC
2.4LPA	**5 LPA**

PLACEMENT 2020-21

Name of the Course	Number Of Companies Visited	Number Of Students Placed in IT	Number Of Students Placed in Non IT	Total Student Placed (IT+ Non IT)	Lowest Package(In Lakhs)	Highest Package(In Lakhs)
COMPUTER SCIENCE AND ENGINEERING	112	43	0	43	1	7
ELECTRONICS & COMMUNICATION ENGG	112	8	7	15	1	5
INFORMATION SCIENCE AND ENGINEERING	70	11	1	12	3	5
MECHANICAL ENGINEERING	56	0	3	3	2	3
CIVIL ENGINEERING	53	1	10	11	2	5

PLACEMENT 2021-22

Name of the Course	Number Of Companies Visited	Number Of Students Placed in IT	Number Of Students Placed in Non IT	Total Student Placed (IT+ Non IT)	Lowest Package(In Lakhs)	Highest Package(In Lakhs)
COMPUTER SCIENCE AND ENGINEERING	30	23	0	23	3.3	17.5
ELECTRONICS & COMMUNICATION ENGG	30	4	0	4	3.37	4.2
INFORMATION SCIENCE AND ENGINEERING	30	4	0	4	4.2	4.2
MECHANICAL ENGINEERING	10	0	0	0	NA	NA
CIVIL ENGINEERING	10	0	0	0	NA	NA

APPENDIX D

Visvesvaraya Technological University

Jnana Sangama, Belagavi - 590018

College Code : TJ

College Name : T. JOHN INSTITUTE OF TECHNOLOGY BENGALURU

Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
1	CS	BE-R	2021041293	ADARSH SHARMA	COMED-K	BE	Bihar
2	CS	BE-R	2021060343	AMAN BHOWMICK	COMED-K	BE	Assam
3	CS	BE-R	2021039810	KAUSHIK SARKAR	COMED-K	BE	Assam
4	CS	BE-R	2021004854	SHREYA SHARMA	COMED-K	BE	Bihar
5	CS	BE-R	2021005255	SRISHTI SAUNDARYA	COMED-K	BE	Jharkhand
6	CS	BE-R	2021016857	ALLEN SAM ANAND	KEA	BE	Karnataka
7	CS	BE-R	2021034600	ANJALI R KRISHNA	KEA	BE	Karnataka
8	CS	BE-R	2021039874	ANNAPOORNESHWARI V	KEA	BE	Karnataka
9	CS	BE-R	2021034915	ASHOK KUMAR E	KEA	BE	Karnataka
10	CS	BE-R	2021034525	BUSHRA A	KEA	BE	Karnataka
11	CS	BE-R	2021034769	CHAITHRA D A	KEA	BE	Karnataka
12	CS	BE-R	2021035192	CHIRAG GUTHI GP	KEA	BE	Karnataka
13	CS	BE-R	2021042411	DEEPTHI R	KEA	BE	Karnataka
14	CS	BE-R	2021034645	G PRIYA SATYA	KEA	BE	Karnataka
15	CS	BE-R	2021034632	GAGAN A C	KEA	BE	Karnataka
16	CS	BE-R	2021007130	HARSHA R	KEA	BE	Karnataka
17	CS	BE-R	2021040196	HARSHAD SAKHARAM VARALE	KEA	BE	Karnataka
18	CS	BE-R	2021041902	HARSHAVARDHANA B R	KEA	BE	Karnataka
19	CS	BE-R	2021057423	HARSHINI P	KEA	BE	Karnataka
20	CS	BE-R	2021061575	KEERTHI G R	KEA	BE	Karnataka
21	CS	BE-R	2021041432	KISHAN ANGYA J	KEA	BE	Karnataka
22	CS	BE-R	2021041959	LEKHANA D GOWDA	KEA	BE	Karnataka
23	CS	BE-R	2021059044	MADHU V R	KEA	BE	Karnataka
24	CS	BE-R	2021034805	MAHESHWARI	KEA	BE	Karnataka
25	CS	BE-R	2021007989	MANOHAR S	KEA	BE	Karnataka
26	CS	BE-R	2021034700	MEHUL S V	KEA	BE	Karnataka
27	CS	BE-R	2021034724	MOHAMMED WASEEM SURAKHA	KEA	BE	Karnataka
28	CS	BE-R	2021003818	MOHANA PRIYA S	KEA	BE	Karnataka
29	CS	BE-R	2021000510	NAVEEN M	KEA	BE	Karnataka
30	CS	BE-R	2021040229	NIDA FIRDOSE A	KEA	BE	Karnataka

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Visvesvaraya Technological University

Jnana Sangama, Belagavi - 590018

College Code : TJ

College Name : T. JOHN INSTITUTE OF TECHNOLOGY BENGALURU

Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
31	CS	BE-R	2021003919	NISARGA P	KEA	BE	Karnataka
32	CS	BE-R	2021034712	NITHIN B Y	KEA	BE	Karnataka
33	CS	BE-R	2021034789	O HARSHA VARDHAN REDDY	KEA	BE	Karnataka
34	CS	BE-R	2021003627	P ROJA VAISHNAVI	KEA	BE	Karnataka
35	CS	BE-R	2021007330	PALLAVI G	KEA	BE	Karnataka
36	CS	BE-R	2021062560	PAVAN A SUNKAD	KEA	BE	Karnataka
37	CS	BE-R	2021004281	POOJA G	KEA	BE	Karnataka
38	CS	BE-R	2021053262	PUNITH M C	KEA	BE	Karnataka
39	CS	BE-R	2021007169	RAKSHITHA V	KEA	BE	Karnataka
40	CS	BE-R	2021003775	RISHAB NAIR	KEA	BE	Karnataka
41	CS	BE-R	2021000749	SANIKA J P	KEA	BE	Karnataka
42	CS	BE-R	2021041208	SHALINI V	KEA	BE	Karnataka
43	CS	BE-R	2021004339	SHASHANK N	KEA	BE	Karnataka
44	CS	BE-R	2021008627	SHIVUKUMAR	KEA	BE	Karnataka
45	CS	BE-R	2021000643	SREELAKSHMI D	KEA	BE	Karnataka
46	CS	BE-R	2021007717	SRI KALYAN REDDY P	KEA	BE	Karnataka
47	CS	BE-R	2021002088	VIJAYAKUMAR A	KEA	BE	Karnataka
48	CS	BE-R	2021034617	VISHNU PRIYAN R	KEA	BE	Karnataka
49	CS	BE-R	2021004559	YESHWANTH GANNAMANENI	KEA	BE	Karnataka
50	CS	BE-R	2021034922	KUSUMANJALI S	KEA SNQ	BE	Karnataka
51	CS	BE-R	2021042121	PRAJITHGOWDA S	KEA SNQ	BE	Karnataka
52	CS	BE-R	2021005260	RAJAMMA	KEA SNQ	BE	Karnataka
53	CS	BE-R	2021009785	RAMYA S	KEA SNQ	BE	Karnataka
54	CS	BE-R	2021000580	SHASHANK M S	KEA SNQ	BE	Karnataka
55	CS	BE-R	2021006938	SUNAR MOHAMMED RIYAZ	KEA SNQ	BE	Karnataka
56	CS	BE-R	2021017775	A BENEDICT CYRIL	MANAGEMENT	BE	Karnataka
57	CS	BE-R	2021017050	A SAHANA	MANAGEMENT	BE	Karnataka
58	CS	BE-R	2021016616	AAMIR KHAN	MANAGEMENT	BE	Karnataka
59	CS	BE-R	2021018159	AMAN K	MANAGEMENT	BE	Karnataka
60	CS	BE-R	2021042846	AMBOOJ KUMAR SHARMA	MANAGEMENT	BE	Uttar Pradesh

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Principal (Seal & Signature)	Case Worker Special Officer Registrar

Visvesvaraya Technological University

Jnana Sangama, Belagavi - 590018

College Code : TJ

College Name : T. JOHN INSTITUTE OF TECHNOLOGY BENGALURU

Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
61	CS	BE-R	2021019569	ARCHANA B S	MANAGEMENT	BE	Karnataka
62	CS	BE-R	2021019944	ARJUN C M	MANAGEMENT	BE	Karnataka
63	CS	BE-R	2021025071	ASHOK KUMAR R	MANAGEMENT	BE	Karnataka
64	CS	BE-R	2021041096	ASHWITH A	MANAGEMENT	BE	Karnataka
65	CS	BE-R	2021025264	CHANDAN RAJ N	MANAGEMENT	BE	Karnataka
66	CS	BE-R	2021034890	CHANDAN S	MANAGEMENT	BE	Karnataka
67	CS	BE-R	2021035320	DHARNISH M	MANAGEMENT	BE	Karnataka
68	CS	BE-R	2021029225	DIVYA M	MANAGEMENT	BE	Karnataka
69	CS	BE-R	2021053696	GADDAM KARTHIK	MANAGEMENT	BE	Andhra Pradesh
70	CS	BE-R	2021042298	GOUTAM MAHANA	MANAGEMENT	BE	Odisha
71	CS	BE-R	2021035115	HARSH SINGH	MANAGEMENT	BE	Haryana
72	CS	BE-R	2021034571	JEEVAN D	MANAGEMENT	BE	Karnataka
73	CS	BE-R	2021040745	KHUSHI KUMARI	MANAGEMENT	BE	Bihar
74	CS	BE-R	2021040822	KRITHIKA M	MANAGEMENT	BE	Karnataka
75	CS	BE-R	2021046199	KUNAL PATWARI	MANAGEMENT	BE	Madhya Pradesh
76	CS	BE-R	2021042712	KUNWAR DIVAS SINGH	MANAGEMENT	BE	Uttar Pradesh
77	CS	BE-R	2021041363	M MADAN	MANAGEMENT	BE	Karnataka
78	CS	BE-R	2021059980	MAHANANDA M S	MANAGEMENT	BE	Karnataka
79	CS	BE-R	2021059618	MANDHIRA M R	MANAGEMENT	BE	Karnataka
80	CS	BE-R	2021034871	MANISH H R	MANAGEMENT	BE	Karnataka
81	CS	BE-R	2021034881	MANOJ KUMAR C	MANAGEMENT	BE	Karnataka
82	CS	BE-R	2021034737	MARY PUNITHA A	MANAGEMENT	BE	Karnataka
83	CS	BE-R	2021062994	MOHAMED AJMAL	MANAGEMENT	BE	Kerala
84	CS	BE-R	2021053395	MOHAMMED ARSHAN	MANAGEMENT	BE	Karnataka
85	CS	BE-R	2021061095	MOHAMMED SHABEEB K	MANAGEMENT	BE	Kerala
86	CS	BE-R	2021040046	MOULIYA S	MANAGEMENT	BE	Karnataka
87	CS	BE-R	2021043798	MUHAMMED MUSTHAFA TM	MANAGEMENT	BE	Kerala
88	CS	BE-R	2021002670	NAMITH M	MANAGEMENT	BE	Karnataka
89	CS	BE-R	2021034902	NAVYA R	MANAGEMENT	BE	Karnataka
90	CS	BE-R	2021062318	NIRMAAN REDDY S	MANAGEMENT	BE	Karnataka

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Visvesvaraya Technological University

Jnana Sangama, Belagavi - 590018

College Code : TJ

College Name : T. JOHN INSTITUTE OF TECHNOLOGY BENGALURU

Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
91	CS	BE-R	2021042124	NISARGA R	MANAGEMENT	BE	Karnataka
92	CS	BE-R	2021049013	NITESH KUMAR JHA	MANAGEMENT	BE	Bihar
93	CS	BE-R	2021006845	NIVEDH JIRESH	MANAGEMENT	BE	Kerala
94	CS	BE-R	2021063447	NOOR HUDA	MANAGEMENT	BE	Karnataka
95	CS	BE-R	2021004567	PAWAR NAINA MANGESH	MANAGEMENT	BE	Karnataka
96	CS	BE-R	2021004095	PIYUSH RAJ	MANAGEMENT	BE	Bihar
97	CS	BE-R	2021006339	POONGOTHAI A	MANAGEMENT	BE	Karnataka
98	CS	BE-R	2021000485	PRAJWAL P R	MANAGEMENT	BE	Karnataka
99	CS	BE-R	2021063974	RAKSHITHA T C	MANAGEMENT	BE	Karnataka
100	CS	BE-R	2021010110	RAVISHANKAR S	MANAGEMENT	BE	Karnataka
101	CS	BE-R	2021005098	REMSHIYA KAUSER	MANAGEMENT	BE	Karnataka
102	CS	BE-R	2021009603	RISHI GANESH T	MANAGEMENT	BE	Karnataka
103	CS	BE-R	2021007619	RISHIKA KUMARI	MANAGEMENT	BE	Karnataka
104	CS	BE-R	2021044384	RITHIK KUMAR MB	MANAGEMENT	BE	Karnataka
105	CS	BE-R	2021008354	SAFWAAN SHARIEFF	MANAGEMENT	BE	Karnataka
106	CS	BE-R	2021040371	SAMIYA MANHA	MANAGEMENT	BE	Karnataka
107	CS	BE-R	2021051998	SANJAY P	MANAGEMENT	BE	Karnataka
108	CS	BE-R	2021009170	SANTHOSH P	MANAGEMENT	BE	Karnataka
109	CS	BE-R	2021002335	SHEKHAR K	MANAGEMENT	BE	Karnataka
110	CS	BE-R	2021034546	SHIVA SHANKARAN S	MANAGEMENT	BE	Karnataka
111	CS	BE-R	2021047922	SHRUTHI MISHRA	MANAGEMENT	BE	Karnataka
112	CS	BE-R	2021048295	SIDDHARTH MENON	MANAGEMENT	BE	Kerala
113	CS	BE-R	2021010069	SNEHA PRIYA Y	MANAGEMENT	BE	Karnataka
114	CS	BE-R	2021002868	SREELATHA C	MANAGEMENT	BE	Karnataka
115	CS	BE-R	2021047756	SUBITH S JOHN	MANAGEMENT	BE	Karnataka
116	CS	BE-R	2021004912	SUDESHNA SURBHI	MANAGEMENT	BE	Bihar
117	CS	BE-R	2021005102	SUJITHA PALANADAN VELAYUDHAN	MANAGEMENT	BE	Kerala
118	CS	BE-R	2021000471	SWETHA C	MANAGEMENT	BE	Karnataka
119	CS	BE-R	2021002242	V BHOOMIKA	MANAGEMENT	BE	Karnataka
120	CS	BE-R	2021004156	VAIBHAV KUMAAR M	MANAGEMENT	BE	Karnataka

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Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
121	CS	BE-R	2021006394	VARUN R	MANAGEMENT	BE	Karnataka
122	CS	BE-R	2021006703	VEERAMALLA REDDY NITISH	MANAGEMENT	BE	Andhra Pradesh
123	CS	BE-R	2021063083	VENKATESH M	MANAGEMENT	BE	Karnataka
124	CS	BE-R	2021007957	VINOD ERAPPA BIDARI	MANAGEMENT	BE	Karnataka
125	CS	BE-R	2021002410	YUVA RAKSHITHA G	MANAGEMENT	BE	Karnataka

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Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
1	CS	BE-L	2021038940	INDUJA S G	MANAGEMENT	BE	Tamil Nadu
2	CS	BE-L	2021040408	PRATISTHA	MANAGEMENT	BE	Bihar
3	CS	BE-L	2021045893	SHADMIN BAKHTAWAR NAAZ	MANAGEMENT	BE	Karnataka

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Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
1	EC	BE-R	2021037296	NIRANJAN K V	COMED-K	BE	Karnataka
2	EC	BE-R	2021063103	B SAI SHRUTI	KEA	BE	Karnataka
3	EC	BE-R	2021013383	MOHAMMED SUFYAAN	KEA	BE	Karnataka
4	EC	BE-R	2021058240	NAYANA S	KEA	BE	Karnataka
5	EC	BE-R	2021036295	NIKHIL P	KEA	BE	Karnataka
6	EC	BE-R	2021048768	ROHAN V	KEA	BE	Karnataka
7	EC	BE-R	2021036618	SAI SUDHEER K	KEA	BE	Karnataka
8	EC	BE-R	2021036948	SHREEDHAR CHANDRASHEKHAR MALAGIMANI	KEA	BE	Karnataka
9	EC	BE-R	2021036961	VISHAL KUMBAR	KEA	BE	Karnataka
10	EC	BE-R	2021037003	P YUGANDHAR REDDY	KEA SNQ	BE	Karnataka
11	EC	BE-R	2021024701	REKHA D S	KEA SNQ	BE	Karnataka
12	EC	BE-R	2021036158	ANKITH M	MANAGEMENT	BE	Karnataka
13	EC	BE-R	2021058134	BOOMIKA M S	MANAGEMENT	BE	Karnataka
14	EC	BE-R	2021037247	GOWDA SIDDESH BASAVARAJU	MANAGEMENT	BE	Karnataka
15	EC	BE-R	2021020406	HEMANG GEHLOT	MANAGEMENT	BE	Rajasthan
16	EC	BE-R	2021036597	JAGANATH S	MANAGEMENT	BE	Karnataka
17	EC	BE-R	2021037338	JANANI H	MANAGEMENT	BE	Karnataka
18	EC	BE-R	2021036365	K GOVARDHAN REDDY	MANAGEMENT	BE	Karnataka
19	EC	BE-R	2021013822	KESHAVARAM D	MANAGEMENT	BE	Karnataka
20	EC	BE-R	2021037246	M GRACE	MANAGEMENT	BE	Karnataka
21	EC	BE-R	2021022229	MOHAMED AATIF	MANAGEMENT	BE	Karnataka
22	EC	BE-R	2021036687	NAVEEN S	MANAGEMENT	BE	Karnataka
23	EC	BE-R	2021036804	NAVYA SHREE C	MANAGEMENT	BE	Karnataka
24	EC	BE-R	2021058071	PRADEEP D	MANAGEMENT	BE	Tamil Nadu
25	EC	BE-R	2021036550	SHASHANK M	MANAGEMENT	BE	Karnataka
26	EC	BE-R	2021037099	SUPRITH R	MANAGEMENT	BE	Karnataka
27	EC	BE-R	2021038070	TEJASHWINI P	MANAGEMENT	BE	Karnataka

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Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
1	IS	BE-R	2021036749	AKASH C	KEA	BE	Karnataka
2	IS	BE-R	2021038241	AKASH SAVANUR	KEA	BE	Karnataka
3	IS	BE-R	2021036515	DEEPAK J B	KEA	BE	Karnataka
4	IS	BE-R	2021036714	JAYANTH P M	KEA	BE	Karnataka
5	IS	BE-R	2021037681	MARIYAH S	KEA	BE	Karnataka
6	IS	BE-R	2021023741	NISCHITHA P	KEA	BE	Karnataka
7	IS	BE-R	2021036468	PRASHANTH M	KEA	BE	Karnataka
8	IS	BE-R	2021013116	RAJESHWARI D N	KEA	BE	Karnataka
9	IS	BE-R	2021036242	THARUN R	KEA	BE	Karnataka
10	IS	BE-R	2021024410	VIDYA SHREE K R	KEA	BE	Karnataka
11	IS	BE-R	2021036693	VANDANA L	KEA SNQ	BE	Karnataka
12	IS	BE-R	2021014472	ASFIYA BANU	MANAGEMENT	BE	Karnataka
13	IS	BE-R	2021058427	CHANDANA K	MANAGEMENT	BE	Karnataka
14	IS	BE-R	2021036024	CHETAN B R	MANAGEMENT	BE	Karnataka
15	IS	BE-R	2021014324	DILIP SAHANI	MANAGEMENT	BE	Karnataka
16	IS	BE-R	2021036865	KANIMOZHI PA	MANAGEMENT	BE	Tamil Nadu
17	IS	BE-R	2021049908	MANU H C	MANAGEMENT	BE	Karnataka
18	IS	BE-R	2021057149	MONIKA D	MANAGEMENT	BE	Karnataka
19	IS	BE-R	2021036591	MRUDULA H R	MANAGEMENT	BE	Karnataka
20	IS	BE-R	2021023889	NAVEEN S	MANAGEMENT	BE	Karnataka
21	IS	BE-R	2021024529	NOEL JOHN	MANAGEMENT	BE	Karnataka
22	IS	BE-R	2021037585	PUSHPANATHAN N	MANAGEMENT	BE	Karnataka
23	IS	BE-R	2021036579	RAKSHITHA S KULKARNI	MANAGEMENT	BE	Karnataka
24	IS	BE-R	2021013660	SHAIK MUDASSIR	MANAGEMENT	BE	Karnataka
25	IS	BE-R	2021021414	SIBIN VARGHESE MATHEW	MANAGEMENT	BE	Kerala
26	IS	BE-R	2021020846	SIDHARTH AMBADI KS	MANAGEMENT	BE	Kerala
27	IS	BE-R	2021014059	SNEHA A	MANAGEMENT	BE	Karnataka
28	IS	BE-R	2021024763	SOWJANYA H R	MANAGEMENT	BE	Karnataka
29	IS	BE-R	2021051808	UDAY KUMAR V	MANAGEMENT	BE	Karnataka
30	IS	BE-R	2021037612	VENU REDDY	MANAGEMENT	BE	Karnataka

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Slno	Branch	Join	Resume ID	Student Name	Admission Quota	Course	Nationality
1	IS	BE-L	2021043739	ADARSH A NAIK	MANAGEMENT	BE	Karnataka
2	IS	BE-L	2021045639	ALAKA P	MANAGEMENT	BE	Kerala
3	IS	BE-L	2021044529	BUGID PRAVEEN KUMAR	MANAGEMENT	BE	Karnataka
4	IS	BE-L	2021043431	MONISHA B L	MANAGEMENT	BE	Karnataka
5	IS	BE-L	2021042654	SAVITHA C	MANAGEMENT	BE	Karnataka

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College Code : TJ

College Name : T. JOHN INSTITUTE OF TECHNOLOGY BENGALURU

Student Admitted to First Year

Admitted Quota Summary

Programme	KEA	SNQ	COMED-K	Management	KRLMPCA	GOI	J&K	AICTE	PIO	Foreign	Grand Total
UG	62	9	6	105	0	0	0	0	0	0	182
Total	62	9	6	105	0	0	0	0	0	0	182

Eligibilty Wise Summary

Programme	Karnataka	Non - Karnataka	Foreign	Grand Total
UG	155	27	0	182
Total	155	27	0	182

Student Admitted to Second Year

Admitted Quota Summary

Programme	KEA	SNQ	COMED-K	Management	KRLMPCA	GOI	J&K	AICTE	PIO	Foreign	Grand Total
UG	0		0	8	0	0	0	0	0	0	8
Total	0		0	8	0	0	0	0	0	0	8

Eligibility WiseSummary

Programme	Karnataka	Non - Karnataka	Foreign	Grand Total
UG	5	3	0	8
Total	5	3	0	8

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T. John Institute of Technology

1ST YEAR STUDENTS DETAILS 2021-22

Sl .No	Name of the Student	Sex M/F	Qualifying Exam Passed	Board	Student from which State 10+2 is passed	K/NK/FN	Academic Eligibility % at 10+2….	Caste	Category	CET Rank
1	ALLEN SAM ANAND	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	56	CHRISTIAN	3BG	45080
2	ANJALI R KRISHNA	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	73	ACHARI	2AG	72073
3	ANNAPOORNESHWARI V	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	81	REDDY	3AG	61452
4	ASHOK KUMAR E	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	83	HINDU	2AG	64878
5	BUSHRA A	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	68	MUSLIM ISLAM	2BG	95521
6	CHAITHRA D A	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	82	VEERASHAIVA	2AG	64075
7	CHIRAG GUTHI G P	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	89	VOKKALIGA	3AG	108663
8	DEEPTHI R	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	87	BALIJA	2AG	48739
9	G PRIYA SATHYA	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	83	KAMMA	3AG	88793
10	GAGAN A C	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	69	UPPRA	1G	95373
11	HARSHA R	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	97	VOKKALIGA	3AG	56751
12	HARSHAD SAKHARAM VARALE	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	68	HOLER	SCG	66843
13	HARSHAVARDHAN B R	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	60	KURUHINASHETTY	2AG	70286
14	HARSHINI P	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	74	HINDU-	2AG	65743
15	KEERTHI G R	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	90	BHOVI	SCG	163512
16	KISHAN ANGYA J	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	89	SOWRASHITRA	GM	44248
17	LEKHANA D GOWDA	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	70	HINDU	3AG	46611
18	MADHU V R	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	78	BHOVI	SCG	46987
19	MAHESHWARI	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	61	GOWDA	3AG	59395
20	MANOHAR S	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	60	BHOVI	SCG	92647
21	MEHUL S V	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	83	EZHAVA	2AG	51044
22	MOHAMMED WASEEM SURAKHA	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	75	MUSLIM	2BG	49218
23	MOHANA PRIYA S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	72	MODALIYAR	GM	51836
24	NAVEEN M	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	62	BHOVI	SCG	79755
25	NIDA FIRDOSE A	F	12TH STD	CBSE	KARNATAKA	K	76	MUSLIM	GM	31540
26	NITHIN B Y	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	93	REDDY	GM	54652
27	P ROJA VAISHNAVI	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	83	ADI DRAVIDA	SCG	162817
28	PALLAVI G	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	74	BHOVI	SCG	90464
29	PAVAN A SUNKAD	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	67	WALMIKI	STG	83343
30	POOJA G	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	69	TIAGALARU	2AG	63423
31	PUNITH M C	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	83	LINGAYATH	3BG	54435
32	RAKSHITHA V	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	60	SC	SCG	92574
33	RISHAB NAIR	M	12TH STD	CBSE	KARNATAKA	K	79	NAIR	GM	46345
34	SANIKA J P	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	92	VOKKALIGA 3A	3AG	42155
35	SHALINI V	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	93	ADI DRAVIDA	SCG	103482
36	SHASHANK N	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	90	VOKKALIGA	3AG	41033
37	SHIVU KUMAR	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	95	LINGAYATH	3BG	71353
38	SREE LAKSHMI D	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	92	ADIKARNATAKA	SCG	57797
39	SRI KALYAN REDDY P	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	REDDY	GM	45537
40	VIJAYAKUMAR A	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	67	VISHWAKARMA 2A	2AG	58735
41	VISHNU PRIYAN R	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	80	YADAVA	1G	57099
42	YESHWANT GANNAMANENI	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	70	KAMMA	3AG	71343
43	O HARSHA VARDHAN REDDY	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	85	REDDY	3AG	48575
44	NISARGA P	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	91	LINGAYATH	3BG	67949
45	SUNAR MOHAMMED RIYAZ	M	PUC	CBSE	KARNATAKA	K	84	MUSLM	2BG	39770
46	KUSUMANJALI S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	93	HINDU VOKKALIGA	3AG	31738
47	PRAJITH GOWDA S	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	57	VOKKALIGA	3AG	35864
48	RAJAMMA	F	PUC	CBSE	KARNATAKA	K	82	KAMMA	3AG	29532
49	RAMYA S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	58	DAIVAGNYA VRAMIN	2AG	37620
50	SHASHANK M S	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	89	GOWDA	3AG	34873
51	A SAHANA	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	74	GOLD SMITH	GM	KEA
52	AAMIR KHAN	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	84	MUSLIM	2B	KEA
53	ARCHANA B S	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	90	HINDU	GM	KEA
54	ARJUN C M	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	72	ACHARIYA	GM	KEA
55	ASHWITH A	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	71	CHRISTIAN	3B	KEA
56	DHARNISH M	M	PUC KARNATAKA	CBSE	KARNATAKA	K	66	HINDU LIGHAYATH	GM	KEA
57	DIVYA M	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	86	TELUGU JANGAMA	GM	KEA
58	KRITHIKA M	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	63	HINDU-SC	SCG	KEA
59	MADAN M	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	70	HINDU-YADEVA	GM	KEA
60	MANDHIRA M R	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	56	HINDU	SCG	JEE
61	MANISH H R	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	70	HINDU-VOKALIGHA	OBC	KEA
62	MANOJ KUMAR C	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	69	HINDI-DEVANGA	2AG	KEA
63	MARY PUNITHA A	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	88	CHRISTIAN	3B	KEA
64	MOULYA S	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	59	HINDU- BOVI	SCG	KEA
65	NAMITH M	M	PUC KARNATAKA	CBSE	KARNATAKA	K	66	OBC	3BG	KEA

66	POONGATHI A	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	65	HINDU-VISHAKARMA	3BG	KEA
67	RAKSHITHA T C	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	95	BANAJIGA	2AG	KEA
68	SAFWAAN SHRIEFF	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	83	MUSLIM	2B	KEA
69	SHEKHAR K	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	73	HINDU RAIKAL	GM	KEA
70	SIDHARTH MENON	M	PUC KARNATAKA	CBSE	KARNATAKA	K	72	MENON	GM	KEA
71	SREELATHA C	F	PUC KARNATAKA	CBSE	KARNATAKA	K	81	SC	SCG	KEA
72	SUBITH S JOHN	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	66	CHRISTIAN	3B	KEA
73	SUJITHA PALANADAN VELAYUDHAN	F	PUC KARNATAKA	CBSE	CBSE	NK	70	HINDU	GM	TJIT
74	SWETHA C	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	71	HINDU	GM	KEA
75	V BHOOMIKA	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	72	HINDU	GM	KEA
76	VAIBHAV KUMAR M	M	PUC KARNATAKA	CBSE	CBSE	NK	80	HINDU	GM	KEA
77	VARUN R	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	73	HINDU GOLALA	GM	KEA
78	VENKATESH M	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	69	HINDU	GM	KEA
79	VINOD ERAPPA BIDARI	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	87	LINGAVANTA	GM	KEA
80	YUVA RAKSHITHA G	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	80	DEVANGA	2AG	KEA
81	A BENEDICT CYRIL	M	PUC KARNATAKA	CBSE	KARNATAKA	K	60	CHRISTIAN	GM	17
82	AMAN K	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	64	NAIR	GM	133622
83	AMBOOJ KUMAR SHARMA	M	PUC KARNATAKA	UTTAR PRADESH	UTTAR PREDESH	NK	82	HINDU	GM	5
84	ASHOK KUMAR R	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	83	HINDU	GM	75000
85	CHANDAN RAJ N	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	77	LINGAYATH	GM	102050
86	CHANDAN S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	88	LIGHAYATH	GM	130361
87	GADDAM KARTHIK	M	PUC KARNATAKA	ANDHRA PRADESH	ANDHRA PRADESH	NK	86	SALI	GM	50
88	GAUTAM MAHANA	M	PUC KARNATAKA	ODISHA	ODISHA	NK	83	HINDU	GM	9
89	HARSH SINGH	M	PUC KARNATAKA	CBSE	HARYANA	NK	59	GENARAL	GM	16
90	JEEVAN D	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	80	HINDU	GM	70469
91	KHUSHI KUMARI	F	PUC KARNATAKA	CBSE	BIHAR	NK	74	HINDU	GM	52
92	KUNAL PATWARI	M	PUC KARNATAKA	CBSE	MADHYA PRADESH	NK	58	HINDU	GM	15
93	KUNWAR DIVAS SINGH	M	PUC KARNATAKA	CBSE	UTTARAKHAND	NK	89	HINDU	GM	60
94	MAHANADA M S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	60	LIGHAYATH	GM	127341
95	MOHAMED AJMAL	M	PUC KARNATAKA	KERALA	KERALA	NK	79	ISLAM MAPPILA	2BG	7
96	MOHAMEED MUSTHAFA T M	M	PUC KARNATAKA	KERALA	KERALA	NK	67	ISLAM MAPPILA	2AG	12
97	MOHAMMED ARSHAN	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	83	ISLAM	2BG	99268
98	MOHAMMED SHABEEB KALLINGALAKATH	M	PUC KARNATAKA	KERALA	KERALA	NK	90	ISLAM MAPPILA	2BG	8
99	NAVYA R	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	59	BALAJIGA	3BG	143296
100	NIRMAAN REDDY S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	53	HINDU	GM	20
101	NISARGA R	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	59	DEVANGA	3BG	99628
102	NITHESH KUMAR JHA	M	PUC KARNATAKA	BIHAR	BIHAR	NK	63	HINDU	GM	14
103	NIVEDH JIRESH	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	78	GENARAL	GM	200000
104	NOOR HUDA	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	56	ISLAM	GM	106000
105	PIYUSH RAJ	M	PUC KARNATAKA	CBSE	BIHAR	NK	82	HINDU	GM	28
106	PRAJWAL P R	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	84	GOWDA	3BG	63000
107	REMSHIYA KAUSER	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	80	MUSLIM	2AG	137937
108	RISHI GANESH T	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	80	GOWNDER	3AG	148580
109	RISHIKA KUMARI R M	F	PUC KARNATAKA	ICSE	KARNATAKA	NK	62	HINDU	GM	175113
110	RITHIK KUMAR M B	M	PUC KARNATAKA	ICSE	KARNATAKA	K	82	HINDU	GM	4
111	SAMIYA MANHA	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	62	MUSLIM	2BG	110000
112	SANJAY P	M	PUC KARNATAKA	CBSE	TAMIL NADU	NK	70	HINDU	GM	10
113	SANTHOSH P	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	90	VANIKULA KSHATRIYA	GM	2
114	SHIVA SHANKARAN S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	87	VANNIKULA KSHAATRIYA	3BG	133509
115	SHRUTHI MISHRA	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	71	BRAHMIN	GM	11
116	SNEHA PRIYA Y	F	PUC KARNATAKA	ICSE	KARNATAKA	K	88	CHRISTIAN RC	3BG	50909
117	SUDESHNA SURBHI	F	PUC KARNATAKA	CBSE	BIHAR	NK	78	GENARAL	GM	72
118	VEERAMALLA REDDY NITISH	M	PUC KARNATAKA	ANDHRA PRADESH	ANDHRA PRADESH	NK	95	BALIJA	GM	47
119	NAINA MANGESH PAWAR	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	66	BURUDU	SCG	22
120	RAVISHANKAR S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	59	LINGYATH	2B	161929
121	B SAI SHRUTI	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	77	VYSYA	GM	77948
122	MOHAMMED SUFYAAN	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	67	MUSLIM	GM	73496
123	NAYANA S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	61	VEERASHAIVA	3BG	102225
124	NIKHIL P	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	65	BALAJIGA	2AG	64641
125	ROHAN V	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	55	VAKALIGA	3AG	66607
126	SAI SUDHEER K	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	78	EDIGA	2AG	141776
127	SHREEDHAR CHANDRASHEKHAR	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	LAMBANI SC	SCG	134420
128	VISHAL KUMBER	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	65	KUMBER	2AG	92499
129	P YUGANDHAR REDDY	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	75	REDDY	3AG	50370
130	REKHA D S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	71	BRAHMIN	GM	60083
131	GOWDA SIDDESH BASAVARAJU	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	84	GOWDA	3AG	88837
132	JAGANATH S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	84	DHOBI	2AG	166644
133	NAVEEN S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	79	BAJANTHRI	2AG	148835

134	JANANI H	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	64	AGAMUDI	2AG	109929
135	KESHAVARAM D	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	58	HINDU	2AG	174000
136	HEMANG GEHLOT	M	PUC KARNATAKA	CBSC	RAJASTAN	NK	56	HINDU	2AG	91797
137	SUPRITH R	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	55	KUNCHITIGA	3AG	132278
138	ANKITH M	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	81	VAKALIGA	3AG	108917
139	BOOMIKA M S	W	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	92	HINDU	3AG	89332
140	K GOVARDHAN REDDY	M	PUC KARNATAKA	ANDHRA PRADESH	ANDRA PRADESH	NK	84	KAPU	2AG	13
141	M GRACE	W	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	82	CHRISTIAN-ADI DRAVIDA	SCG	29
142	MOHAMED AATIF	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	71	MUSLIM	2BG	137577
143	NAVYA SHREE C	W	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	82	VAKALIGA	3AG	85116
144	PRADEEP D	M	PUC KARNATAKA	TAMIL NADU	TAMIL NADHU	NK	79	HINDU	GM	6
145	SHASHANK M	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	74	VAKALIGA	3AG	
146	TEJASHWINI P	W	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	91	VAKALIGA	3AG	8650
147	NIRANJAN K V	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	61	HINDU	III B	COMED-K
148	SRISHTI SAUNDARYA	F	PUC KARNATAKA	CBSC	JHARKHAND	NK	96	GENERAL	GM	COMED-K
149	KAUSHIK SARKAR	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	93	GENERAL	GM	COMED-K
150	ADARSH SHARMA	F	PUC KARNATAKA	ISCE	BIHAR	NK	81	GENERAL	GM	COMED-K
151	SHREYA SHARMA	F	PUC KARNATAKA	ISCE	BIHAR	NK	76	GENERAL	GM	COMED-K
152	AMAN BHOWMICK	M	PUC KARNATAKA	ASSAM	ASSAM	NK	56	GENERAL	GM	COMED-K
153	B.R CHETAN	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	78	LINGAYATH	3AG	91991
154	DILIP SAHANI	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	93	GENERAL	GM	55711
155	KANIMOZHI P.A	F	PUC KARNATAKA	TAMILNADHU	TAMILNADU	NK	86	HINDU	GM	1
156	MANU HC	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	180887	DEVANGA	GM	108000
157	NAVEEN S	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	72	ARYA VYSAYAS	GM	131000
158	NOEL JOHN	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	53	CHRISTIAN	3BG	141885
159	RAKSHITHA S KULKARINI	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	68	BRAHMIN	GM	124629
160	SHAIK MUDASSIR	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	78	MUSLIM	GM	3
161	SIBIN VARGESE MATHEW	M	PUC KARNATAKA	ISCE	KERALA	NK	83	CHRISTIAN	GM	39658
162	UDAY KUMAR V	M	PUC KARNATAKA	PUC KARNATAKA	KERALA	K	59	HINDU-	GM	18
163	SIDHARTH AMBADI K S	M	PUC KARNATAKA	KERALA	KERALA	NK	91	EZHAVA	GM	25978
164	MRUDULA H R	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	75	VOKKALINGA	GM	155864
165	SOWJANYA H R	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	89	LINGYATH	GM	90947
166	PUSHPANATHAN N	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	88	HINDU	3AG	77986
167	SNEHA A	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	85	HINDU VANIYAR	GM	47976
168	ASFIYA BANU	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	76	MUSLIM	2BG	150307
169	MONIKA D	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	76	HINDU BALAJIGA	GM	92000
170	CHANDANA K.	F	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	74	HINDU KUNCHITIGA	3AG	181625
171	VENU REDDY	M	PUC KARNATAKA	PUC KARNATAKA	KARNATAKA	K	72	REDDY	GM	156342
172	VANDANA L-(SNQ)	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	85	KUMBARA	2AG	28662
173	AKASH C	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	KAMMA	3AG	49820
174	AKASH SAVANUR	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	62	VALMIKI STG	STG	171726
175	DEEPAK J B	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	63	LINGAYATH PANCHAMASALI	3BGR	97901
176	JAYANTH P M	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	ADI DRAVIDA	SCG	102194
177	MARIYAH S	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	MUSLIM	2BG	57796
178	NISCHITHA P	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	79	THIGALA	2AG	74665G55
179	PRASHANTH M	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	74	VOKKALIGA	3AG	64224
180	RAJESHWARI D N	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	71	BANAGIGA	2AG	79441
181	THARUN R	M	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	64	KURUBA	2AG	54819
182	VIDYA SHREE K R	F	PUC KARNATAKA	KARNATAKA	KARNATAKA	K	73	VOKKALIGA	3AG	59676

APPENDIX E

T. JOHN INSTITUTE OF TECHNOLOGY

Details of Laboratories

Department of Civil Engineering

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	BASIC SURVEYING LAB	88	DUMPY LEVELS WITH STAND, THEODOLITE WITH STAND, AUTO LEVEL, TOTAL STATION, RANGING RODS, PRISMATIC COMPASS, PRISM SQUARE, TAPE AND CHAINS, PLAIN TABLE SURVEY EQUIPMENT,	1167980
2	CONCRETE AND HIGH WAY LAB	88	CTM, CRUSHING MACHINE, COMPACTING MACHINE, ABBRATION MACHINE, DUCTALITY EQUIPMENT, REBOUND HAMMER, SIEVES	1212320
3	ENVIRONMENTAL ENGINEERING LAB	88	MUFFLE FURNACE, BOD INCUBATOR, HOT AIR OVEN, NEPHELOMETER, JAR TEST APPARATUS, DISTILLATION UNIT, COD APPARATUS	1288000
4	ENGINEERING GEOLOGY LAB	88	ROCKS, MINERALS, HARDNESS KIT, MAPS, CRYSTALS MODELS, KNIFE, STREAK PLATE,	158489
5	Hydraulics& Hydraulic Machiner	88	Venturimeter, Notches, Flumes & Weirs Setup Darcy's Friction factor setup, Vertical Orifice Vane Coefficients setup Kaplan Turbine Pelton Wheel Centrifugal Pump	954176
6	BUILDIND MATERIALS AND TESTING	88	UTM, Impact testing machine, brinnel s hardness test machine, vickers hardness test machine, sieve shaker	959615
7	Computer Aided Design lab	120	Desktop monitors, CPUs, Mouse, Projector and screen	3613024
8	GEOTECH LAB	88	CORE CUTTER, PYCNOMETER, LIQUID LIMIT APPARATUS, MODIFIED PROCTOR TEST WITH RAMMER, STANDARD PROCTOR TEST WITH RAMMER, UNCONFINED COMPRESSION TEST WITH PROVING RING, TRIAXIAL TEST INCLUDING SAMPLE EXTRACTOR, CBR APPARATUS, CONSOLIDATION TEST SINGLE CELL MODEL,DIRECT SHEAR APPARATUS, VANE SHEAR APPARATUS, PERMEABILITY APPARATUS.	783640

Department of Computer Science & Engineering

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	Computer Lab 1	66	HP THIN CLIENT, 512MB FLASH, 512MB RAM, 15 TFT MONITOR POWERED BY BLADE PC SERVE	681250
2	Computer Lab 2	66	HP THIN CLIENT, 512MB FLASH, 512MB RAM, 15 TFT MONITOR POWERED BY BLADE PC SERVE	681250
3	Computer Lab 3	66	HP THIN CLIENT, 512MB FLASH, 512MB RAM, 15"TFT MONITOR POWERED BY BLADE PC SERVE	300000
4	Computer Lab 4	66	HP THIN CLIENT,512MB FLASH, 512MB RAM, 15TFT MONITOR POWERED BY BLADE PC SERVE	381250
5	Computer Lab 5	66	HP THIN CLIENT, 512MB FLASH, 512MB RAM, 15TFT MONITOR POWERED BYBLADE PC SERVE	715000
6	Computer Lab 6	66	HP Pro 3090MT Core2Duo, 2 GB RAM, 160 GB	515000
7	Computer Lab 7	66	HP Pro 3090MT Core2Duo, 2 GB RAM, 160 GB	1100000

Department of Electronics & Communication Engineering

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	VLSI LAB	132	Intel I3 processor system, Metorgraphics software	1225000
2	Digital Signal Processing Lab	66	Intel I3 processors system, Octave software, C713 DSP Kits	805000
3	Power Electronics Lab	132	TRAIC/DAIC kits, MOSFET/IGBT Kits, SCR digital Firing unit, Universal Motor, Stepper Motor, Series Inventors, Single Phase Controller, Power supply, Multi meter	364700
4	Digital Electronics Circuits	132	IC trainer Kits, IC tester machine.	279000
5	Analog Electronics Circuits	132	CRO, Power supply(single, dual), multi meters, function generator, DRB, DCB, DIB.	268000
6	Analog Communication & LIC Lab	132	DSO, Function Generator, Power supply(Single, dual), PPM,PAM,PWM trainer kits	337000
7	Advanced Digital Communication	132	Klystron power supply, Microwave setup, Antenna Set up, TDM, BPSK,QPSK, OFC Kits, DSO	561000
8	Verilog HDL lab	66	Intel I3 processor systems,Xilinux software, FPGA kit, CRO,	800000

Department of Information Science & Engineering

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	Computer lab7	66	DELL Optiplex 380 DT Core2Duo, 2 GB RAM,250GB HDD,19" MONITOR,KEYBOARD,MOUSE	515000
2	Computer lab8	66	RDP i3@3.50 GHz, 4GB RAM, 500 GB HDD,15" TFT MONITOR,KEYBOARD,MOUSE	40200
3	Computer lab9	66	Lenovo A70, Core2Duo, 2 GB RAM, 250GB HD,19" MONITOR,KEYBOARD,MOUSE	620000
4	Computer lab10	66	DELL Optiplex 380 DT Core2Duo, 2 GB RAM,250GB HDD,19" MONITOR,KEYBOARD,MOUSE	560000
5	Computer lab11	66	DELL Optiplex 380 DT Core2Duo, 2 GB RAM,250GB HDD,19" MONITOR,KEYBOARD,MOUSE	725000
6	Computer lab12	66	Lenovo A70, Core2Duo, 2 GB RAM, 250GB HD,19" MONITOR,KEYBOARD,MOUSE	725000
7	Computer lab13	66	RDP Thin Clients - Dual Core Processor, 1GB RAM,8 GB Flash, 15 LED Monitor,KEYBOARD,MOUSE	520000
8	Computer lab14	66	RDP Thin Clients - Dual Core Processor, 1GB RAM,8 GB Flash, 15 LED Monitor,KEYBOARD,MOUSE	515000

Department of Mechanical Engineering

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	WORKSHOP LAB1	200	Bench wise,Transformer,Workshop Table,Snipers,Scribers,Hammers	312639
2	WORKSHOP LAB2	200	Welding table,Snipers,Vices,Hammers,Bench wise tables Table	312639
3	CAMA LAB	66	Intel i3-E7500@2.93GHz Processor,2 GB ram,150GB hard disk	554400
4	CAMA LAB	66	Intel i3-E7500@2.93GHz Processor,2 GB ram,150GB hard disk	554400
5	MT Lab	120	Brinell hardness testing machine with specimen & accesaries Electronic Universal testing machine with tensile & compression attachement vicker hardness tester Rockwell hardness tester Bending Test attachment Shear test attachment Impact Testing Machine with accesaries Magnetic crack detector WITH specimen Muffel Furness Electronic Universal testing machine(10 ton	2004600

			cpacity,DST Project) Metallographic Trinacular microscope with specimen Wear Testing Machine Analogue Torsion testing machine	
6	F& F lab	120	Anvil block Bellow Core Hardness Tester Core split Box Foundry toolkit flaters Hammer 2lb Sledge hammer Hexagonal Block(self cored) Smithy furness Teak wood leveler Mould hardness tester Molding boxes Permeability Tester Puller Poker Pelton Wheel Cup bucket ms barrel	276480
7	Machine shop	200	Lathe machine with accesaries Shaping machine Universal Milling Machinewith attachement Surfase Grinder Bench Grinder Hydraulic Hawk Saw Drilling Machine Hydraulic Press(DST Project) Die for Hydraulic Press(DST Project)	5269090
8	Metrology Lab	88	Callibaration of pressure gauge Callibaration of thermo couple Callibaration of LVDT Callibaration of Load Cell Strain Gauge, Sine Bar Sine center V'Block 2" Surface Plate(Granite) Spirit Level Slip Gauge Magnetic Stand With Dial Indicater Tool makers microscope Autocollimator Optical Flats Micrometer with stand Three Wire set Micro Gauge Gear Theeth Micro Meter Mechanical comparator Pitch Gauge Digital micro meter Surface Rough ness tester Magnetic Stand Vernier Height Gauge Digital Vernier Universal Bevel Protractor Radius Gauge Thread plug Gauge Thread ring Gauge	962350

			Feeler Gauge Vernier calliper Bore Gauge Plain Plug Gauge Plain Ring Gauge Lathe cutting force detector Drilling force detector profile projector floating carriage micro meter	
9	EC Lab	120	Abel flash & fire point app Cleave lands app Digital bomb calori meter juncker boys gas colorimeter Four stroke single cylinder diesel engin Four stroke four cylinder Petroll engin Mechanical plani meter Pensky martins appt Port Opening Dia Red wood viscometer Say bolt Viscometer Two Stroke single cylinder petrol engine Valve timing Diagram vertical engin Variable compression ratio engine emmision test rig	1036200
10	Fluid Machinery Lab	99	Francis Turbine Impact of jets on vanes Minor Loses App Multi Stage Centrifugal Pump Notch Apparatus Orifice,ventury,Nozel measurement App Pipe Friction App Pelton Wheel Turbine Reciprocating pump Test rig Two Stage Reciprocating Air Compressior Test Rig	821484.4
11	H M T Lab	120	Thermal conductivity of metal rod Heat Transfer Through Composite Wall Emissivity Measurement Parallel Flow & Counter Flow Heat Exchanger Refrigeration Tutor Air Conditioner Tutor Conduction in Drop Wise Film Wise Forms Heat Transfer through Pin & Fin Heat Transfer through Natural Convertions Heat Transfer through Forced Convertions Stefan Bolzman Apparatus Unsteady State of Heat Transfer	411440
12	Design Lab	120	Universal Vibration Tester App Balansing of Rotating Masses Whirling of Shaft App Universal Govener App jaurnal Bearing App Roset Strain App Morised GyroScope 12" Difused Light Pollari scope Curved Beam App	424020

Department of Basic Sciences & Humanities

Sl No	Name of the Laboratory	Carpet Area	Major Equipments	Total investment till date
1	WORKSHOP PRACTICE	200	Bench wise,Transformer,Workshop Table,Snipers,Scribers,Hammers	450000
2	PHYSICS LAB 1	66	VERNIER CALIPERS, SCREW GAUGE, DIODE, DARK ROOM, NEWTONS RINGS, DIFFRACTION	400000
3	PHYSICS LAB 2	66	VERNIER CALIPERS, DRIVER, SCREW GAUGE, NEWTONS LAW, DARK ROOM, MICROSCOPE, SODIUM LIGHT, DIFFRACTION	800000
4	COMPUTER CENTRE	150	"DELL Optiplex 380 DT Core2Duo, 2 GB RAM,250GB HDD,19"" MONITOR,KEYBOARD,MOUSE "	2500000
5	CHEMISTRY LAB 1	132	CONDUCTOMETER, POTENTION METER, COLORIE METER	600000
6	CHEMISTRY LAB 2	132	PIPPETTE, ELECTRONIC BALANCE, BUERETTE, FUMING CHAMBER, DISTILLED WATER	500000

DEPARTMENT

OF

BASIC SCIENCES (FIRST YEAR)

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

Engineering Visualization

Course Code	**21EVN15/25**	CIE Marks	50
Teaching Hour/Week (L:T:P:S)	2:0:2:0	SEE Marks	50
Total Hours of Teaching - Learning	40	Total Marks	100
Credits	03	Exam Hours	03

Course Learning Objectives:

CLO1: To understand the basic principles and conventions of engineering drawing
CLO2: To use drawing as a communication mode
CLO3: To generate pictorial views using CAD software
CLO4: To understand the development of surfaces
CLO5: To visualise engineering components

Teaching-Learning (General Instructions):

- Students should be made aware of powerful engineering communication tool – Drawing.
- Simple Case studies can be suitably selected by the teacher for hands on practice to induce the feel of fruitfulness of learning.
- Appropriate Models, Power Point presentation, Charts, Videos, shall be used to enhance visualization before hands on practice.
- For application problems use very generally available actual objects. (Example: For rectangular prism / object; matchbox, carton boxes, book, etc can be used. Similarly for other shapes)
- Use any CAD software for generating orthographic and pictorial views.
- Make use of sketch book with graph sheets for manual / preparatory sketching

Module1

Introduction: ***for CIE only***

Significance of Engineering drawing, BIS Conventions of Engineering Drawing, Free hand sketching of engineering drawing, Scales.

Introduction to Computer Aided Drafting software, Co-ordinate system and reference planes HP, VP, RPP & LPP of 2D/3D environment. Selection of drawing sheet size and scale. Commands and creation of Lines, coordinate points, axes, polylines, square, rectangle, polygons, splines, circles, ellipse, text, move, copy, off-set, mirror, rotate, trim, extend, break, chamfer, fillet and curves.

Orthographic Projections of Points, Lines and Planes:

Introduction to Orthographic projections, Orthographic projections of points in all the quadrants.

Orthographic projections of lines. (Placed in First quadrant only)

Orthographic projections of planes viz triangle, square, rectangle, pentagon, hexagon and circular laminae. (Placed in First quadrant only).

Application on projections of Lines & Planes (For CIE only)

Module2

Orthographic Projection of Solids:

Orthographic projection of right regular solids (Solids Resting on HP only);

Prisms & Pyramids (triangle, square, rectangle, pentagon, hexagon), Cylinders, Cones, Cubes, &Tetrahedron. Application problems on projection of solids.

Projections of Frustum of cone, pyramid & truncated sphere (For CIE only).

Module3
Isometric Projections: Isometric scale, Isometric projection of hexahedron (cube), right regular prisms, pyramids, cylinders, cones and spheres. Isometric projection of combination of two simple solids. **Conversion of simple isometric drawings into orthographic views**. Problems on applications of Isometric projections of simple objects / engineering components. ***Introduction to drawing views using 3D environment (For CIE only).***
Module4
Development of Lateral Surfaces of Solids: Development of lateral surfaces of right regular prisms, cylinders, pyramids, and cones resting with base on HP only. Development of their frustums and truncations. Problems on applications of development of lateral surfaces like, funnels and trays. ***Problems on applications of development of lateral surfaces of transition pieces connecting circular duct and rectangular duct (For CIE Only)***
Module5
Multidisciplinary Applications & Practice *(For CIE Only):* **Free hand Sketching;** True free hand, Guided Free hand, Roads, Buildings, Utensils, Hand tools & Furniture's etc **Drawing Simple Mechanisms;** Bicycles, Tricycles, Gear trains, Ratchets, two wheeler cart & Four wheeler carts to dimensions etc **Electric Wiring and lighting diagrams;** Like, Automatic fire alarm, Call bell system, UPS system, Basic power distribution system using suitable software **Basic Building Drawing;** Like, Architectural floor plan, basic foundation drawing, steel structures- Frames, bridges, trusses using Auto CAD or suitable software, **Electronics Engineering Drawings**- Like, Simple Electronics Circuit Drawings. **Graphs & Charts**: Like, Column chart, Pie chart, Line charts, Gantt charts, etc. using Microsoft Excel or any suitable software.
Course outcomes At the end of the course the student will be able to: **CO 1.** Understand and visualize the objects with definite shape and dimensions **CO 2.** Analyze the shape and size of objects through different views **CO 3.** Develop the lateral surfaces of the object **CO 4.** Create a 3D view using CAD software. **CO 5.** Identify the interdisciplinary engineering components or systems through its graphical representation.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks) and that for SEE minimum passing mark is 35% of the maximum marks (18 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course if the student secures not less than 35% (18 Marks out of 50)in the semester-end examination(SEE), and a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together

Continuous Internal Evaluation (CIE)

- CIE shall be evaluated for max marks 100. Marks obtained shall be accounted for CIE final marks, reducing it by 50%.
- CIE component should comprise of
- Continuous evaluation of Drawing work of students as and when the Modules are covered on the basis of below detailed weightage.
- At least one closed book **Test** covering all the modules on the basis of below detailed weightage.
- Weightage for Test and Continuous evaluation shall be suitably decided by respective course coordinators.

Module	**Max. Marks Weightage**	**Evaluation Weightage in marks**	
		Computer display and print out (a)	**Preparatory sketching (b)**
Module 1	15	10	05
Module 2	20	15	05
Module 3	20	20	00
Module 4	20	20	00
Module 5	25	15	10
Total	**100**	**80**	**20**
Consideration of CIE Marks		**Total of (a) + (b) ÷ 2 = Final CIE marks**	

Semester End Examination (SEE)

- SEE shall be conducted and evaluated for maximum marks 100. Marks obtained shall be accounted for SEE final marks, reducing it by 50%
- Question paper shall be set jointly by both Internal and External Examiner and made available for each batch as per schedule. ***Questions are to be set preferably from Text Books***.
- Evaluation shall be carried jointly by both the examiners.
- Scheme of Evaluation: *To be defined by the examiners jointly and the same shall be submitted to the university along with question paper.*
- One full question shall be set from each of the Module from Modules 1,2,3,4 as per the below tabled weightage details. ***However, the student may be awarded full marks, if he/she completes solution on computer display without sketch.***

Module	Max. Marks Weightage	Evaluation Weightage in marks	
		Computer display and print out (a)	Preparatory sketching (b)
Module 1	20	15	05
Module 2	30	25	05
Module 3	25	20	05
Module 4	25	20	05
Total	**100**	**80**	**20**
Consideration of SEE Marks		**Total of (a) + (b) ÷ 2 = Final SEE marks**	

Suggested Learning Resources:

Text Books

- *Bhatt, N.D.*, *Engineering Drawing: Plane and Solid Geometry*, 53rd edition, Charotar Publishing House Pvt. Limited, 2019.
- *K. R. Gopalakrishna, & Sudhir Gopalakrishna*: Textbook Of Computer Aided Engineering Drawing, 39th Edition, Subash Stores, Bangalore, 2017
- *S. N. Lal:* Engineering Drawing with an Introduction to AutoCAD : First-angle Projection 1st Edition, Cengage, Publication, 2018
- *S.N. Lal, & T Madhusudhan*:, Engineering Visulisation, 1st Edition, Cengage, Publication
- *Luzadder Warren J., Duff John M*., Fundamentals of Engineering Drawing: with an Introduction to Interactive Computer Graphics for Design and Production, Prentice-Hall of India Pvt. Ltd., New Delhi, Eastern Economy Edition, 2005.

Reference Books

- *Parthasarathy N. S., Vela Murali*, Engineering Drawing, Oxford University Press, 2015.
- *Dhawan R. K*., A Textbook of Engineering *Drawing, 3/e*, S. Chand Publishing, 2019.
- *Venugopal K*., Engineering Drawing and Graphics, New Age International publishers, 2014.
- *Bhattacharya S. K.*, Electrical Engineering Drawing, New Age International publishers, second edition 1998, reprint 2005.
- *Chris Schroder*, Printed Circuit Board Design using AutoCAD, Newnes, 1997.
- *K S Sai Ram* Design of steel structures, , Third Edition by Pearson
- *Nainan p kurian* Design of foundation systems, Narosa publications
- *A S Pabla*, Electrical power distribution, 6th edition, Tata Mcgraw hill

I/II Semester

COMPUTER PROGRAMMING LABORATORY			
Course Code	**21CPL27/17**	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	0:0:2:0	SEE Marks	50
Total Hours of Pedagogy	--	Total Marks	100
Credits	01	Exam Hours	03

Course Objectives:

1. Explain problem statements and identify appropriate solutions
2. Demonstrate the use of IDE, C Compiler, and identify and rectify the syntax and syntactic errors during programming.
3. Development of algorithms and programs using constructs of C programming language
4. Reporting the observations

Sl. No.	**Practise Programs**
	• Calculation of Simple Interest, • Check whether the given number is even or odd • Convert string case • Check for palindrome, prime number, perfect square. • Development of linear search algorithm Etc…
	PART A – List of problems for which student should develop program and execute in the Laboratory
1	Simulation of a SimpleCalculator.
2	Compute the roots of a quadratic equation by accepting the coefficients. Print appropriate messages.
3	An electricity board charges the following rates for the use of electricity: for the first 200 units 80 paise per unit: for the next 100 units 90 paise per unit: beyond 300 units Rs 1 per unit. All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs 400, then an additional surcharge of 15% of total amount is charged. Write a program to read the name of the user, number of units consumed and print out the charges.
4	Implement Binary Search on Integers / Names.
5	Implement Matrix multiplication and validate the rules of multiplication.
6	Compute sin(x)/cos(x) using Taylor series approximation. Compare your result with the built-in library function. Print both the results with appropriate inferences.
7	Sort the given set of N numbers using Bubble sort.
8	Write functions to implement string operations such as compare, concatenate, string length. Convince the parameter passing techniques.
9	Implement structures to read, write and compute average- marks and the students scoring above and below the average marks for a class of N students.
10	Develop a program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of N real numbers.
11	Implement Recursive functions for Binary to Decimal Conversion.
	PART B – Practical Based Learning
1	A problem statement for each batch is to be generated in consultation with the co-examiner and student should develop an algorithm, program and execute the program for the given problem with appropriate outputs.

Course Outcome (Course Skill Set)

At the end of the course the student will be able to:

1. Define the problem statement and identify the need for computer programming
2. Make use of C compiler, IDE for programming, identify and correct the syntax and syntactic errors in programming
3. Develop algorithm, flowchart and write programs to solve the given problem
4. Demonstrate use of functions, recursive functions, arrays, strings, structures and pointers in problem solving.

5. Document the inference and observations made from the implementation.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course. The student has to secure not less than 35% (18 Marks out of 50) in the semester-end examination (SEE).

Continuous Internal Evaluation (CIE):

CIE marks for the practical course is **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment to be evaluated for conduction with observation sheet and record write-up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and is made known to students at the beginning of the practical session.
- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled downed to 30 marks (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct 02 tests for 100 marks, the first test shall be conducted after the 8th week of the semester and the second test shall be conducted after the 14th week of the semester.
- In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning ability. Rubrics suggested in Annexure-II of Regulation book
- The average of 02 tests is scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and average marks of two tests is the total CIE marks scored by the student.

Semester End Evaluation (SEE):

- SEE marks for the practical course is 50 Marks.
- SEE shall be conducted jointly by the two examiners of the same institute, examiners are appointed by the University
- All laboratory experiments are to be included for practical examination.
- (Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. **OR** based on the course requirement evaluation rubrics shall be decided jointly by examiners.
- Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.
- Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by examiners.
- General rubrics suggested for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)
- *Students can pick one experiment from the questions lot of PART A with equal choice to all the students in a batch. For PART B examiners should frame a question for each batch, student should develop an algorithm, program, execute and demonstrate the results with appropriate output for the given problem.*

- *Weightage of marks for PART A is 80% and for PART B is 20%.General rubrics suggested to be followed for part A and part B.*
- Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero (Not allowed for Part B).
- The duration of SEE is 03 hours

Rubrics suggested in Annexure-II of Regulation book

Suggested Learning Resources:

1. YashavanthKanetkar, Let us C, Authentic Guide to C Programming Langauge, bpb publisher, 17th Edition, 2020.
2. Herbert Schildt, C: The complete reference, Mc Graw Hill, 4th Edition, 2017
3. Programming in C , Reema Theraja

Web links and Video Lectures (e-Resources):

1. http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html
2. https://nptel.ac.in/courses/106/105/106105171/

I/II Semester

ENGINEERING PHYSICS LABORATORY			
Course Code	21PHYL16/26	CIE Marks	50
Teaching Hours/Week (L: T:P: S)	0:0:2:0	SEE Marks	50
Credits	01	Exam Hours	3 Hours

Course objectives:

1. Understand the measurement techniques and usage of instruments in physics.
2. Demonstrate competency and understanding of the basic concepts found in experimental Physics.
3. Construct andanalyse the electronic circuits.
4. Estimate the error in measurements and the ability to prepare a valid laboratory record.

List of Experiments: Any Ten Experiments to be performed

Sl.NO	Experiments
1	Determination of spring constants by Series and Parallel combination.
2	Determination of rigidity modulus of the material by the torsional pendulum.
3	Study series and parallel LCR resonance and hence calculate inductance, bandwidth, and quality factor.
4	To verify Stefan's Law
5	I-V Characteristics of Photodiode.
6	Determine acceptance angle and numerical aperture of an optical fiber.
7	Determine the wavelength of the laser source using a diffraction grating elements.
8	Determine the Fermi energy of metal (copper).
9	To find the resistivity of a semiconductor using the Four Probe method.
10	To determine the dielectric constant by charging and discharging the capacitor.
11	Determination of Magnetic field intensity along the axis of a circular coil carrying current.
12	Forced mechanical oscillations and resonance.

Course outcomes (Course Skill Set):

At the end of the course the student will be able to:

1. Understand the measuring techniques
2. Operate different instruments and be capable to analyse the experimental results.
3. Construct the circuits and theiranalysis.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 50% of the maximum marks (25 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course if the student secures not less than 35% (18 Marks out of 50)in the semester-end examination(SEE), and a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together

Continuous Internal Evaluation (CIE):

CIE marks for the practical course is **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment to be evaluated for conduction with observation sheet and record write-up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and is made known to students at the beginning of the practical session.
- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled downed to 30 marks (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct 02 tests for 100 marks, the first test shall be conducted after the 8th week of the semester and the second test shall be conducted after the 14th week of the semester.
- In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning

Semester End Evaluation (SEE Students):

SEE marks for the practical course is 50 Marks.

SEE shall be conducted jointly by the internal and external examiners appointed by the University

1. All laboratory experiments are to be included for practical examination.
2. (Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. **OR** based on the course requirement evaluation rubrics shall be decided jointly by internal and external examiners.
3. Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.
4. Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by Internal and external examiners.
5. General rubrics for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated

for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)

6. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

The duration of SEE is 03 hours

7. Rubrics suggested in **Annexure-II of Regulation book**

Suggested Learning Resources:

Reference books.

1. Engineering Lab Manual by WBUT-New Age International Publishers.
2. Applied Physics Lab Manual by Anoop Sing Yadav.

Weblinks, Video lectures, and e-resources.

https://vlab.amrita.edu/?sub=1&brch=282&sim=1512&cnt=1
https://vlab.amrita.edu/?sub=1&brch=282&sim=879&cnt=1
https://vlab.amrita.edu/index.php?sub=1&brch=189&sim=343&cnt=1
https://bop-iitk.vlabs.ac.in/basics-of-physics/List%20of%20experiments.html
https://virtuallabs.merlot.org/vl_physics.html
https://phet.colorado.edu
https://www.myphysicslab.com

24.01.2022

ENGINEERING CHEMISTRY LABORATORY			
Course Code	**21CHEL16/26**	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	0:0:2	SEE Marks	50
Credits	01	Exam Hours	3hrs

Course objectives:

CLO1	Quantitative analysis of materials by volumetric and chemical method.
CLO2	Instrumental methods for developing experimental skills in building technical competence

Sl.NO	**Instrumentation Experiments**
1	Estimation of FAS Potentiometrically using standard $K_2Cr_2O_7$ solution.
2	Estimation of Acids in acid mixture Conductometrically.
3	Determination of Viscosity coefficient of a given liquid using Ostwald's viscometer
4	Estimation of copper Colorimetrically.
5	Determination of pKa value of a given weak acid using pH meter
	Volumetric experiments
1	Estimation of Total hardness of water by EDTA complexometric method.
2	Determination of Nickel using EDTA by complexometric method
3	Determination of percentage of copper in brass using standard sodium thiosulphate solution.
4	Determination of Chemical oxygen demand of industrial waste water.
5	Estimation of percentage of iron in the given rust solution using standard Potassium Dichromate solution (External indicator method)
	Demonstration Experiments (For CIE only)
1	Estimation of Sodium & Potassium in the given sample of water using Flame Photometer.
2	Synthesis of nanomaterial by Precipitation method.

Course outcomes (Course Skill Set):

At the end of the course the student will be able to:

CO1	Determine the pKa and coefficient of Viscosity of a given organic liquid.
CO2	Estimate the amount of substance present in the given solution using Potentiometer Conductometric and Colorimetric.
CO3	Determine the total hardness and chemical oxygen demand in the given solution by volumetric analysis method
CO4	Estimate the percentage of Nickel, copper and Iron in the given analyte solution by titration method.
CO5	Demonstrate flame photometric estimation of sodium & potassium and the synthesis of nanomaterials by Precipitation method.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course. The student has to secure not less than 35% (18 Marks out of 50) in the semester-end examination(SEE).

Continuous Internal Evaluation (CIE):

CIE marks for the practical course is **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment to be evaluated for conduction with observation sheet and record write-up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and is made known to students at the beginning of the practical session.
- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled downed to 30 marks (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct 02 tests for 100 marks, the first test shall be conducted after the 8th week of the semester and the second test shall be conducted after the 14th week of the semester.
- In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning ability. Rubrics suggested in **Annexure-II of Regulation book**
- The average of 02 tests is scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and average marks of two tests is the total CIE marks scored by the student.

Suggested Learning Resources:

Text Books:

1 Vogel's A.I. A text book of quantitative analysis, 35th edition, 2012.
2 Willard, Merit, Dean and Settle, A text book of Instrumental analysis, 6th edition 2012.

Reference books:

1. G.H Jeffery, J Bassett, J Mendham and R.C. Denney Vogel's A.I. A text book of quantitative analysis, Dorling Kindersley (India) Pvt., Ltd. 35th edition, 2012.
2. Gary D Christian, Analytical Chemistry, Wiley India, 6th edition, 2015.
3. T. Pradeep, A Text book of Nanoscience and Nanotechnology, McGraw Hill Education (India) Pvt., Ltd., 1st edition, 2015

BASICELECTRICALENGINEERINGLABORATORY			
CourseCode	21ELE17/27	CIEMarks	50
TeachingHours/Week(L:T:P)	0:0:2	SEE Marks	50
Credits	01	ExamHours	03

Courseobjectives:

Afterstudyingthis course,studentsshould beableto

1) explainhowto verifyKCL andKVLforDCcircuitandmaximumpower transfertheorem.
2) explainpowerandpowerfactormeasurementofdifferenttypesoflamps.
3) explainthe measurementofimpedanceforR-Lcircuits.
4) explainthe measurement of powerconsumed ina3-phaseload.
5) explainmethodsofcontrollingalampfromdifferent places.
6) explaintheeffectof openandshortcircuits insimplecircuitsand the suitabilityofearthresistance.

Sl. NO	Experiments
1	VerificationofKCL andKVL forDCcircuits
2	Verificationofmaximumpowertheorem.
3	MeasurementofCurrent,Power,andPowerFactorofIncandescentLamp,FluorescentLamp and LEDLamp.
4	MeasurementofResistanceandInductanceofaChokecoil usingthreevoltmetermethod.
5	DeterminationofPhaseandLinequantitiesinthree-phasestaranddeltaconnectedloads.
6	Measurement of3 -phasePower usingTwoWattmeter Method.
7	Determinationofefficiencyofasingle-phasetransformerbydirectloadtest.
8	TwoWayandThree-WayControlof Lamp and Formation ofTruthTable.
9	MeasurementofEarthResistance
10	Studyof the effect of OpenandShortcircuitsinsimple circuits.

Courseoutcomes

At theendofthecoursethestudent will beableto:

CO1:verifyKCLandKVLandmaximumpower transfertheoremforDCcircuits.
CO2:comparepowerfactorsofdifferenttypesoflamps.
CO3:demonstratethemeasurementofthe impedanceofanelectricalcircuitandpowerconsumedbya3-phase load.
CO4:analyzetwo-wayand three-waycontroloflamps.
CO5:explaintheeffectsofopenandshortcircuitsinsimplecircuits.
CO6:interpretthe suitabilityofearthresistance measured.

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course. The student has to secure not less than 35% (18 Marks out of 50) in the semester-end examination (SEE). A student has to secure overall 40% of the maximum marks of the course (CIE+SEE).

Continuous Internal Evaluation (CIE):

CIE marks for the practical course is **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment to be evaluated for conduction with observation sheet and record write-

up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments designed by the faculty who is handling the laboratory session and is made known to students at the beginning of the practical session.

- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled downed to 30 marks (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct 02 tests for 100 marks, the first test shall be conducted after the 8th week of the semester and the second test shall be conducted after the 14th week of the semester.
- In each test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning ability. Rubrics suggested in **Annexure-II of Regulation book**
- The average of 02 tests is scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and average marks of two tests is the total CIE marks scored by the student.

Semester End Evaluation (SEE):

SEE marks for the practical course is 50 Marks.

SEE shall be conducted jointly by the internal and external examiners appointed by the University

All laboratory experiments are to be included for practical examination.

(Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. **OR** based on the course requirement evaluation rubrics shall be decided jointly by internal and external examiners.

Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.

Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by Internal and external examiners.

General rubrics for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)

Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

The duration of SEE is 03 hours

Rubrics suggested in **Annexure-II of Regulation book**

DEPARTMENT

OF

COMPUTER SCIENCE & ENGINEERING

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

ANALOG AND DIGITAL ELECTRONICS LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – III

Course Code	**18CSL37**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL37) will enable students to:

This laboratory course enable students to get practical experience in design, assembly and evaluation/testing of

- Analog components and circuits including Operational Amplifier, Timer, etc.
- Combinational logic circuits.
- Flip - Flops and their operations
- Counters and registers using flip-flops.
- Synchronous and Asynchronous sequential circuits.
- A/D and D/A converters

Descriptions (if any):

- Simulation packages preferred: Multisim, Modelsim, PSpice or any other relevant.
- For Part A (Analog Electronic Circuits) students must trace the wave form on Tracing sheet / Graph sheet and label trace.
- Continuous evaluation by the faculty must be carried by including performance of a student in both hardware implementation and simulation (if any) for the given circuit.
- A batch not exceeding 4 must be formed for conducting the experiment. For simulation individual student must execute the program.

Laboratory Programs:

	PART A (Analog Electronic Circuits)
1.	Design an astable multivibrator ciruit for three cases of duty cycle (50%, <50% and >50%) using NE 555 timer IC. Simulate the same for any one duty cycle.
2.	Using ua 741 Opamp, design a 1 kHz Relaxation Oscillator with 50% duty cycle. And simulate the same.
3.	Using ua 741 opamap, design a window comparate for any given UTP and LTP. And simulate the same.
	PART B (Digital Electronic Circuits)
4.	Design and implement Half adder, Full Adder, Half Subtractor, Full Subtractor using basic gates. And implement the same in HDL.
5.	Given a 4-variable logic expression, simplify it using appropriate technique and realize the simplified logic expression using 8:1 multiplexer IC. And implement the same in HDL.
6.	Realize a J-K Master / Slave Flip-Flop using NAND gates and verify its truth table. And implement the same in HDL.
7.	Design and implement code converter I)Binary to Gray (II) Gray to Binary Code using basic gates.
8.	Design and implement a mod-n (n<8) synchronous up counter using J-K Flip-Flop ICs and demonstrate its working.
9.	Design and implement an asynchronous counter using decade counter IC to count up from 0 to n (n<=9) and demonstrate on 7-segment display (using IC-7447)

Laboratory Outcomes: The student should be able to:

- Use appropriate design equations / methods to design the given circuit.
- Examine and verify the design of both analog and digital circuits using simulators.
- Make us of electronic components, ICs, instruments and tools for design and testing of circuits

for the given the appropriate inputs.

- Compile a laboratory journal which includes; aim, tool/instruments/software/components used, design equations used and designs, schematics, program listing, procedure followed, relevant theory, results as graphs and tables, interpreting and concluding the findings.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  a) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  b) For laboratories having PART A and PART B
     i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
     ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DATA STRUCTURES LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – III

Course Code	**18CSL38**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL38) will enable students to:

This laboratory course enable students to get practical experience in design, develop, implement, analyze and evaluation/testing of

- Asymptotic performance of algorithms.
- Linear data structures and their applications such as stacks, queues and lists
- Non-Linear data structures and their applications such as trees and graphs
- Sorting and searching algorithms

Descriptions (if any):

- Implement all the programs in 'C / C++' Programming Language and Linux / Windows as OS.

Programs List:

1.	Design, Develop and Implement a menu driven Program in C for the following array operations. a. Creating an array of N Integer Elements b. Display of array Elements with Suitable Headings c. Inserting an Element (ELEM) at a given valid Position (POS) d. Deleting an Element at a given valid Position (POS) e. Exit. Support the program with functions for each of the above operations.
2.	Design, Develop and Implement a Program in C for the following operations on Strings. a. Read a main String (STR), a Pattern String (PAT) and a Replace String (REP) b. Perform Pattern Matching Operation: Find and Replace all occurrences of PAT in STR with REP if PAT exists in STR. Report suitable messages in case PAT does not exist in STR Support the program with functions for each of the above operations. Don't use Built-in functions.
3.	Design, Develop and Implement a menu driven Program in C for the following operations on STACK of Integers (Array Implementation of Stack with maximum size MAX) a. Push an Element on to Stack b. Pop an Element from Stack c. Demonstrate how Stack can be used to check Palindrome d. Demonstrate Overflow and Underflow situations on Stack e. Display the status of Stack f. Exit Support the program with appropriate functions for each of the above operations
4.	Design, Develop and Implement a Program in C for converting an Infix Expression to Postfix Expression. Program should support for both parenthesized and free parenthesized expressions with the operators: +, -, *, /, % (Remainder), ^ (Power) and alphanumeric operands.
5.	Design, Develop and Implement a Program in C for the following Stack Applications a. Evaluation of Suffix expression with single digit operands and operators: +, -, *, /, %, ^ b. Solving Tower of Hanoi problem with n disks

6.	Design, Develop and Implement a menu driven Program in C for the following operations on Circular QUEUE of Characters (Array Implementation of Queue with maximum size MAX) a. Insert an Element on to Circular QUEUE b. Delete an Element from Circular QUEUE c. Demonstrate Overflow and Underflow situations on Circular QUEUE d. Display the status of Circular QUEUE e. Exit Support the program with appropriate functions for each of the above operations
7.	Design, Develop and Implement a menu driven Program in C for the following operations on Singly Linked List (SLL) of Student Data with the fields: *USN, Name, Programme, Sem, PhNo* a. Create a SLL of N Students Data by using *front insertion*. b. Display the status of SLL and count the number of nodes in it c. Perform Insertion / Deletion at End of SLL d. Perform Insertion / Deletion at Front of SLL(Demonstration of stack) e. Exit
8.	Design, Develop and Implement a menu driven Program in C for the following operations on Doubly Linked List (DLL) of Employee Data with the fields: *SSN, Name, Dept, Designation, Sal, PhNo* a. Create a DLL of N Employees Data by using *end insertion*. b. Display the status of DLL and count the number of nodes in it c. Perform Insertion and Deletion at End of DLL d. Perform Insertion and Deletion at Front of DLL e. Demonstrate how this DLL can be used as Double Ended Queue. f. Exit
9.	Design, Develop and Implement a Program in C for the following operationson Singly Circular Linked List (SCLL) with header nodes a. Represent and Evaluate a Polynomial $P(x,y,z) = 6x^2y^2z-4yz^5+3x^3yz+2xy^5z-2xyz^3$ b. Find the sum of two polynomials POLY1(x,y,z) and POLY2(x,y,z) and store the result in POLYSUM(x,y,z) Support the program with appropriate functions for each of the above operations
10.	Design, Develop and Implement a menu driven Program in C for the following operations on Binary Search Tree (BST) of Integers . a. Create a BST of N Integers: 6, 9, 5, 2, 8, 15, 24, 14, 7, 8, 5, 2 b. Traverse the BST in Inorder, Preorder and Post Order c. Search the BST for a given element (KEY) and report the appropriate message d. Exit
11.	Design, Develop and Implement a Program in C for the following operations on Graph(G) of Cities a. Create a Graph of N cities using Adjacency Matrix. b. Print all the nodes reachable from a given starting node in a digraph using DFS/BFS method
12.	Given a File of N employee records with a set K of Keys (4-digit) which uniquely determine the records in file F. Assume that file F is maintained in memory by a Hash Table (HT) of m memory locations with L as the set of memory addresses (2-digit) of locations in HT. Let the keys in K and addresses in L are Integers. Design and develop a Program in C that uses Hash function H: K $\rightarrow$L as H(K)=K mod m (remainder method), and implement hashing technique to map a given key K to the address space L. Resolve the collision (if any) using linear probing.
Laboratory Outcomes: The student should be able to:	

- Analyze and Compare various linear and non-linear data structures
- Code, debug and demonstrate the working nature of different types of data structures and their applications
- Implement, analyze and evaluate the searching and sorting algorithms
- Choose the appropriate data structure for solving real world problems

Conduct of Practical Examination:

- Experiment distribution
    - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
    - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
    c) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
    d) For laboratories having PART A and PART B
        i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
        ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DESIGN AND ANALYSIS OF ALGORITHMS LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – IV

Course Code	**18CSL47**	CIE Marks	40
Number of Contact Hours/Week	0:2:2	SEE Marks	60
Total Number of Lab Contact Hours	36	Exam Hours	03

Credits – 2

Course Learning Objectives: This course (18CSL47) will enable students to:

- Design and implement various algorithms in JAVA
- Employ various design strategies for problem solving.
- Measure and compare the performance of different algorithms.

Descriptions (if any):

- Design, develop, and implement the specified algorithms for the following problems using Java language under LINUX /Windows environment. Netbeans / Eclipse or IntellijIdea Community Edition IDE tool can be used for development and demonstration.
- **Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.**

Programs List:

1.	
a.	Create a Java class called ***Student*** with the following details as variables within it. (i) USN (ii) Name (iii) Programme (iv) Phone Write a Java program to create *nStudent* objects and print the USN, Name, Programme, and Phoneof these objects with suitable headings.
b.	Write a Java program to implement the Stack using arrays. Write Push(), Pop(), and Display() methods to demonstrate its working.
2.	
a.	Design a superclass called ***Staff*** with details as StaffId, Name, Phone, Salary. Extend this class by writing three subclasses namely ***Teaching*** (domain, publications), ***Technical*** (skills), and ***Contract*** (period). Write a Java program to read and display at least 3 *staff* objects of all three categories.
b.	Write a Java class called ***Customer*** to store their name and date_of_birth. The date_of_birth format should be dd/mm/yyyy. Write methods to read customer data as <name, dd/mm/yyyy> and display as <name, dd, mm, yyyy> using StringTokenizer class considering the delimiter character as "/".
3.	
a.	Write a Java program to read two integers *a* and*b*. Compute *a*/*b* and print, when *b* is not zero. Raise an exception when *b* is equal to zero.
b.	Write a Java program that implements a multi-thread application that has three threads. First thread generates a random integer for every 1 second; second thread computes the square of the number andprints; third thread will print the value of cube of the number.
4.	Sort a given set of ***n*** integer elements using **Quick Sort** method and compute its time complexity. Run the program for varied values of *n*> 5000 and record the time taken to sort. Plot a graph of the time taken versus ***n***on graph sheet. The elements can be read from a file or can be generated using the random number generator. Demonstrate using Java how the divide-and-conquer method works along with its time complexity analysis: worst case, average case and best case.
5.	Sort a given set of ***n*** integer elements using **Merge Sort** method and compute its time

	complexity. Run the program for varied values of *n*> 5000, and record the time taken to sort. Plot a graph of the time taken versus ***n***on graph sheet. The elements can be read from a file or can be generated using the random number generator. Demonstrate using Java how the divide-and-conquer method works along with its time complexity analysis: worst case, average case and best case.
6.	Implement in Java, the **0/1 Knapsack** problem using (a) Dynamic Programming method (b) Greedy method.
7.	From a given vertex in a weighted connected graph, find shortest paths to other vertices using **Dijkstra's algorithm**. Write the program in Java.
8.	Find Minimum Cost Spanning Tree of a given connected undirected graph using **Kruskal'salgorithm.** Use Union-Find algorithms in your program
9.	Find Minimum Cost Spanning Tree of a given connected undirected graph using **Prim's algorithm**.
10.	Write Java programs to (a) Implement All-Pairs Shortest Paths problem using **Floyd's algorithm**. (b) Implement **Travelling Sales Person problem** using Dynamic programming.
11.	Design and implement in Java to find a **subset** of a given set **S** = {Sl, S2,.....,Sn} of ***n*** positive integers whose SUM is equal to a given positive integer ***d***. For example, if S ={1, 2, 5, 6, 8} and ***d***= 9, there are two solutions {1,2,6}and {1,8}. Display a suitable message, if the given problem instance doesn't have a solution.
12.	Design and implement in Java to find all **Hamiltonian Cycles** in a connected undirected Graph G of *n* vertices using backtracking principle.

Laboratory Outcomes: The student should be able to:

- Design algorithms using appropriate design techniques (brute-force, greedy, dynamic programming, etc.)
- Implement a variety of algorithms such assorting, graph related, combinatorial, etc., in a high level language.
- Analyze and compare the performance of algorithms using language features.
- Apply and implement learned algorithm design techniques and data structuresto solve real-world problems.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  e) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  f) For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

MICROCONTROLLER AND EMBEDDED SYSTEMS LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – IV

Course Code	**18CSL48**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL48) will enable students to:

- Develop and test Program using ARM7TDMI/LPC2148
- Conduct the experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

Descriptions (if any):

Programs List:

PART A Conduct the following experiments by writing program using ARM7TDMI/LPC2148 using an evaluation board/simulator and the required software tool.

1.	Write a program to multiply two 16 bit binary numbers.
2.	Write a program to find the sum of first 10 integer numbers.
3.	Write a program to find factorial of a number.
4.	Write a program to add an array of 16 bit numbers and store the 32 bit result in internal RAM
5.	Write a program to find the square of a number (1 to 10) using look-up table.
6.	Write a program to find the largest/smallest number in an array of 32 numbers .
7.	Write a program to arrange a series of 32 bit numbers in ascending/descending order.
8.	Write a program to count the number of ones and zeros in two consecutive memory locations.

PART –B Conduct the following experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

9.	Display “Hello World” message using Internal UART.
10.	Interface and Control a DC Motor.
11.	Interface a Stepper motor and rotate it in clockwise and anti-clockwise direction.
12.	Determine Digital output for a given Analog input using Internal ADC of ARM controller.
13.	Interface a DAC and generate Triangular and Square waveforms.
14.	Interface a 4x4 keyboard and display the key code on an LCD.
15.	Demonstrate the use of an external interrupt to toggle an LED On/Off.
16.	Display the Hex digits 0 to F on a 7-segment LED interface, with an appropriate delay in between

Laboratory Outcomes: The student should be able to:

- Develop and test program using ARM7TDMI/LPC2148
- Conduct the following experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  g) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 =

100 Marks

h) For laboratories having PART A and PART B
   i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
   ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

COMPUTER NETWORK LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – V

Course Code	**18CSL57**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL57) will enable students to:

- Demonstrate operation of network and its management commands
- Simulate and demonstrate the performance of GSM and CDMA
- Implement data link layer and transport layer protocols.

Descriptions (if any):

- For the experiments below modify the topology and parameters set for the experiment and take multiple rounds of reading and analyze the results available in log files. Plot necessary graphs and conclude. Use NS2/NS3.
- **Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.**

Programs List:

	PART A
1.	Implement three nodes point – to – point network with duplex links between them. Set the queue size, vary the bandwidth and find the number of packets dropped.
2.	Implement transmission of ping messages/trace route over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion.
3.	Implement an Ethernet LAN using n nodes and set multiple traffic nodes and plot congestion window for different source / destination.
4.	Implement simple ESS and with transmitting nodes in wire-less LAN by simulation and determine the performance with respect to transmission of packets.
5.	Implement and study the performance of GSM on NS2/NS3 (Using MAC layer) or equivalent environment.
6.	Implement and study the performance of CDMA on NS2/NS3 (Using stack called Call net) or equivalent environment
	PART B (Implement the following in Java)
7.	Write a program for error detecting code using CRC-CCITT (16- bits).
8.	Write a program to find the shortest path between vertices using bellman-ford algorithm.
9.	Using TCP/IP sockets, write a client – server program to make the client send the file name and to make the server send back the contents of the requested file if present.
10.	Write a program on datagram socket for client/server to display the messages on client side, typed at the server side.
11.	Write a program for simple RSA algorithm to encrypt and decrypt the data.
12.	Write a program for congestion control using leaky bucket algorithm.

Laboratory Outcomes: The student should be able to:

- Analyze and Compare various networking protocols.
- Demonstrate the working of different concepts of networking.
- Implement, analyze and evaluate networking protocols in NS2 / NS3 and JAVA programming language

Conduct of Practical Examination:

- Experiment distribution

- For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
- For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.

- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  i) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  j) For laboratories having PART A and PART B
     i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
     ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DBMS LABORATORY WITH MINI PROJECT
(Effective from the academic year 2018 -2019)
SEMESTER – V

Course Code	**18CSL58**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL58) will enable students to:

- Foundation knowledge in database concepts, technology and practice to groom students into well-informed database application developers.
- Strong practice in SQL programming through a variety of database problems.
- Develop database applications using front-end tools and back-end DBMS.

Descriptions (if any):

PART-A: SQL Programming (Max. Exam Mks. 50)

- Design, develop, and implement the specified queries for the following problems using Oracle, MySQL, MS SQL Server, or any other DBMS under LINUX/Windows environment.
- Create Schema and insert at least 5 records for each table. Add appropriate database constraints.

PART-B: Mini Project (Max. Exam Mks. 30)

- Use Java, C#, PHP, Python, or any other similar front-end tool. All applications must be demonstrated on desktop/laptop as a stand-alone or web based application (Mobile apps on Android/IOS are not permitted.)

Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

Programs List:

PART A

1.	Consider the following schema for a Library Database: BOOK(Book_id, Title, Publisher_Name, Pub_Year) BOOK_AUTHORS(Book_id, Author_Name) PUBLISHER(Name, Address, Phone) BOOK_COPIES(Book_id, Programme_id, No-of_Copies) BOOK_LENDING(Book_id, Programme_id, Card_No, Date_Out, Due_Date) LIBRARY_PROGRAMME(Programme_id, Programme_Name, Address) Write SQL queries to 1. Retrieve details of all books in the library – id, title, name of publisher, authors, number of copies in each Programme, etc. 2. Get the particulars of borrowers who have borrowed more than 3 books, but from Jan 2017 to Jun 2017. 3. Delete a book in BOOK table. Update the contents of other tables to reflect this data manipulation operation. 4. Partition the BOOK table based on year of publication. Demonstrate its working with a simple query. **5.** Create a view of all books and its number of copies that are currently available in the Library.
2.	Consider the following schema for Order Database: SALESMAN(Salesman_id, Name, City, Commission) CUSTOMER(Customer_id, Cust_Name, City, Grade, Salesman_id) ORDERS(Ord_No, Purchase_Amt, Ord_Date, Customer_id, Salesman_id) Write SQL queries to 1. Count the customers with grades above Bangalore's average.

	2. Find the name and numbers of all salesman who had more than one customer. 3. List all the salesman and indicate those who have and don't have customers in their cities (Use UNION operation.) 4. Create a view that finds the salesman who has the customer with the highest order of a day. 5. Demonstrate the DELETE operation by removing salesman with id 1000. All his orders must also be deleted.
3.	Consider the schema for Movie Database: ACTOR(Act_id, Act_Name, Act_Gender) DIRECTOR(Dir_id, Dir_Name, Dir_Phone) MOVIES(Mov_id, Mov_Title, Mov_Year, Mov_Lang, Dir_id) MOVIE_CAST(Act_id, Mov_id, Role) RATING(Mov_id, Rev_Stars) Write SQL queries to 1. List the titles of all movies directed by 'Hitchcock'. 2. Find the movie names where one or more actors acted in two or more movies. 3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN operation). 4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title. 5. Update rating of all movies directed by 'Steven Spielberg' to 5.
4.	Consider the schema for College Database: STUDENT(USN, SName, Address, Phone, Gender) SEMSEC(SSID, Sem, Sec) CLASS(USN, SSID) COURSE(Subcode, Title, Sem, Credits) IAMARKS(USN, Subcode, SSID, Test1, Test2, Test3, FinalIA) Write SQL queries to 1. List all the student details studying in fourth semester 'C' section. 2. Compute the total number of male and female students in each semester and in each section. 3. Create a view of Test1 marks of student USN '1BI15CS101' in all Courses. 4. Calculate the FinalIA (average of best two test marks) and update the corresponding table for all students. 5. Categorize students based on the following criterion: If FinalIA = 17 to 20 then CAT = 'Outstanding' If FinalIA = 12 to 16 then CAT = 'Average' If FinalIA< 12 then CAT = 'Weak' Give these details only for 8th semester A, B, and C section students.
5.	Consider the schema for Company Database: EMPLOYEE(SSN, Name, Address, Sex, Salary, SuperSSN, DNo) DEPARTMENT(DNo, DName, MgrSSN, MgrStartDate) DLOCATION(DNo,DLoc) PROJECT(PNo, PName, PLocation, DNo) WORKS_ON(SSN, PNo, Hours) Write SQL queries to 1. Make a list of all project numbers for projects that involve an employee whose last name is 'Scott', either as a worker or as a manager of the department that controls the project. 2. Show the resulting salaries if every employee working on the 'IoT' project is

	given a 10 percent raise. 3. Find the sum of the salaries of all employees of the 'Accounts' department, as well as the maximum salary, the minimum salary, and the average salary in this department 4. Retrieve the name of each employee who works on all the projects controlledby department number 5 (use NOT EXISTS operator). 5. For each department that has more than five employees, retrieve the department number and the number of its employees who are making more than Rs. 6,00,000.
PART B: Mini Project	
•	For any problem selected
•	Make sure that the application should have five or more tables
•	Indicative areas include; health care

Laboratory Outcomes: The student should be able to:

- Create, Update and query on the database.
- Demonstrate the working of different concepts of DBMS
- Implement, analyze and evaluate the project developed for an application.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  - k) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  - l) For laboratories having PART A and PART B
    - i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    - ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

SYSTEM SOFTWARE LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – VI

Course Code	**18CSL66**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL66) will enable students to:

- To make students familiar with Lexical Analysis and Syntax Analysis phases of Compiler Design and implement programs on these phases using LEX & YACC tools and/or C/C++/Java
- To enable students to learn different types of CPU scheduling algorithms used in operating system.
- To make students able to implement memory management - page replacement and deadlock handling algorithms

Descriptions (if any):

Exercises to be prepared with minimum three files (Where ever necessary):

1. Header file.
2. Implementation file.
3. Application file where main function will be present.

The idea behind using three files is to differentiate between the developer and user sides. In the developer side, all the three files could be made visible. For the user side only header file and application files could be made visible, which means that the object code of the implementation file could be given to the user along with the interface given in the header file, hiding the source file, if required. Avoid I/O operations (printf/scanf) and use ***data input file*** where ever it is possible.

Programs List:

Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

1.	
a.	Write a LEX program to recognize valid ***arithmetic expression.*** Identifiers in the expression could be only integers and operators could be + and *. Count the identifiers & operators present and print them separately.
b.	Write YACC program to evaluate ***arithmetic expression*** involving operators: +, -, *, and /
2.	Develop, Implement and Execute a program using YACC tool to recognize all strings ending with ***b*** preceded by ***n a's*** using the grammar $a^n b$ (note: input ***n*** value)
3.	Design, develop and implement YACC/C program to construct ***Predictive / LL(1) Parsing Table*** for the grammar rules: $A \rightarrow aBa$, $B \rightarrow bB \mid \varepsilon$. Use this table to parse the sentence: ***abba$***
4.	Design, develop and implement YACC/C program to demonstrate ***Shift Reduce Parsing*** technique for the grammar rules: $E \rightarrow E+T \mid T$, $T \rightarrow T*F \mid F$, $F \rightarrow (E) \mid id$ and parse the sentence: ***id + id * id***.
5.	Design, develop and implement a C/Java program to generate the machine code using ***Triples*** for the statement ***A = -B * (C +D)*** whose intermediate code in three-address form: ***T1 = -B*** ***T2 = C + D*** ***T3 = T1 + T2*** ***A = T3***

6.	
a.	Write a LEX program to eliminate ***comment lines*** in a ***C*** program and copy the resulting program into a separate file.
b.	Write YACC program to recognize valid ***identifier, operators and keywords*** in the given text (*C program*) file.
7.	Design, develop and implement a C/C++/Java program to simulate the working of Shortest remaining time and Round Robin (RR) scheduling algorithms. Experiment with different quantum sizes for RR algorithm.
8.	Design, develop and implement a C/C++/Java program to implement Banker's algorithm. Assume suitable input required to demonstrate the results
9.	Design, develop and implement a C/C++/Java program to implement page replacement algorithms LRU and FIFO. Assume suitable input required to demonstrate the results.

Laboratory Outcomes: The student should be able to:

- Implement and demonstrate Lexer's and Parser's
- Evaluate different algorithms required for management, scheduling, allocation and communication used in operating system.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  m) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  n) For laboratories having PART A and PART B
     i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
     ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

COMPUTER GRAPHICS LABORATORY WITH MINI PROJECT
(Effective from the academic year 2018 -2019)
SEMESTER – VI

Course Code	**18CSL67**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL67) will enable students to:

- Demonstrate simple algorithms using OpenGL Graphics Primitives and attributes.
- Implementation of line drawing and clipping algorithms using OpenGL functions
- Design and implementation of algorithms Geometric transformations on both 2D and 3D objects.

Descriptions (if any): --

Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

Programs List:

PART A

Design, develop, and implement the following programs using OpenGL API

1.	Implement Brenham's line drawing algorithm for all types of slope. Refer:Text-1: Chapter 3.5 Refer:Text-2: Chapter 8
2.	Create and rotate a triangle about the origin and a fixed point. **Refer:Text-1: Chapter 5-4**
3.	Draw a colour cube and spin it using OpenGL transformation matrices. **Refer:Text-2: Modelling a Coloured Cube**
4.	Draw a color cube and allow the user to move the camera suitably to experiment with perspective viewing. **Refer:Text-2: Topic: Positioning of Camera**
5.	Clip a lines using Cohen-Sutherland algorithm **Refer:Text-1: Chapter 6.7** **Refer:Text-2: Chapter 8**
6.	To draw a simple shaded scene consisting of a tea pot on a table. Define suitably the position and properties of the light source along with the properties of the surfaces of the solid object used in the scene. **Refer:Text-2: Topic: Lighting and Shading**
7.	Design, develop and implement recursively subdivide a tetrahedron to form 3D sierpinski gasket. The number of recursive steps is to be specified by the user. **Refer: Text-2: Topic:** sierpinski gasket.
8.	Develop a menu driven program to animate a flag using Bezier Curve algorithm **Refer: Text-1: Chapter** 8-10
9.	Develop a menu driven program to fill the polygon using scan line algorithm

PART B MINI PROJECT

Student should develop mini project on the topics mentioned below or similar applications using Open GL API. Consider all types of attributes like color, thickness, styles, font, background, speed etc., while doing mini project.

(**During the practical exam: the students should demonstrate and answer Viva-Voce**)

Sample Topics:

Simulation of concepts of OS, Data structures, algorithms etc.

Laboratory Outcomes: The student should be able to:

- Apply the concepts of computer graphics

- Implement computer graphics applications using OpenGL
- Animate real world problems using OpenGL

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  - o) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  - p) For laboratories having PART A and PART B
    - i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    - ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

MOBILE APPLICATION DEVELOPMENT
(Effective from the academic year 2018 -2019)
SEMESTER – VI

Course Code	**18CSMP68**	**IA Marks**	40
Number of Contact Hours/Week	0:0:2	**Exam Marks**	60
Total Number of Contact Hours	3 Hours/Week	**Exam Hours**	03

CREDITS – 02

Laboratory Objectives: Thislaboratory (18CSMP68) will enable students to

- Learn and acquire the art of Android Programming.
- ConfigureAndroid studio to run the applications.
- Understand and implement Android's User interface functions.
- Create, modify and query on SQlite database.
- Inspect different methods of sharing data using services.

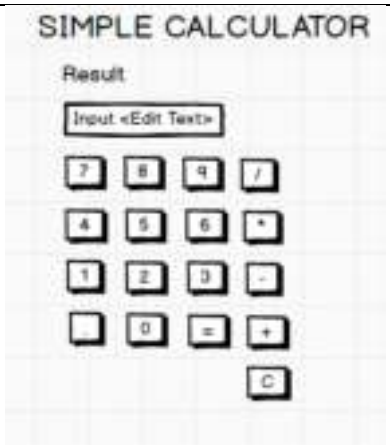
Descriptions (if any):

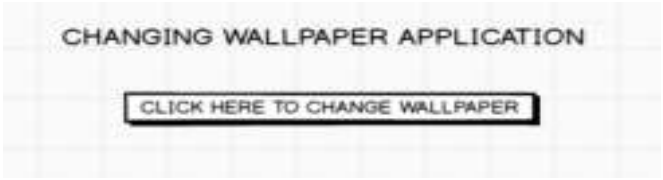
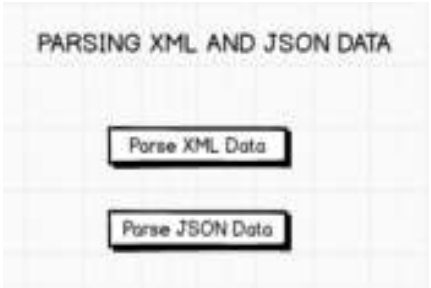
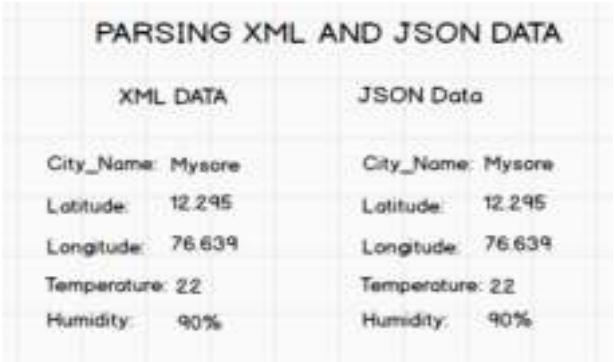
1. The installation procedure of the Android Studio/Java software must be demonstrated and carried out in groups.
2. Students should use the latest version of Android Studio/Java/ Kotlin to execute these programs. Diagrams given are for representational purposes only, students are expected to improvise on them.
3. **Part B programs should be developed as an application and are to be demonstrated as a mini project in a group by adding extra features or the students can also develop their application and demonstrate it as a mini-project. (Projects/programs are not limited to the list given in Part B).**

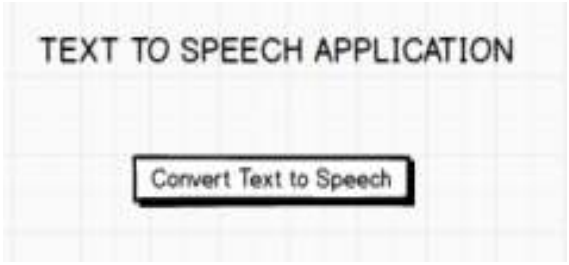
Programs List:

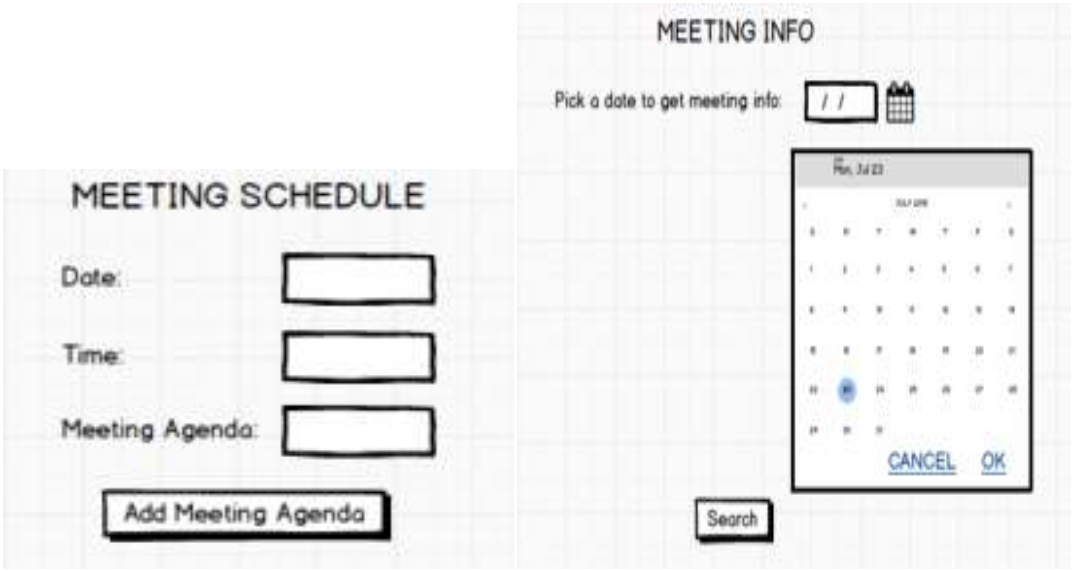
PART – A

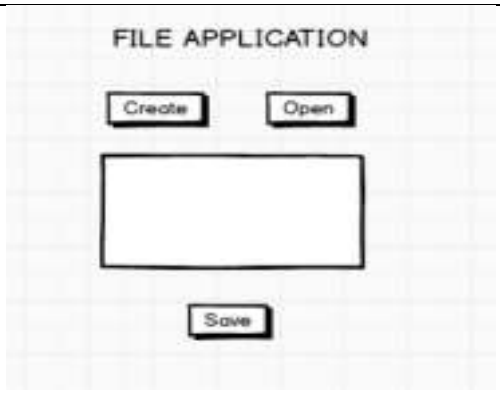
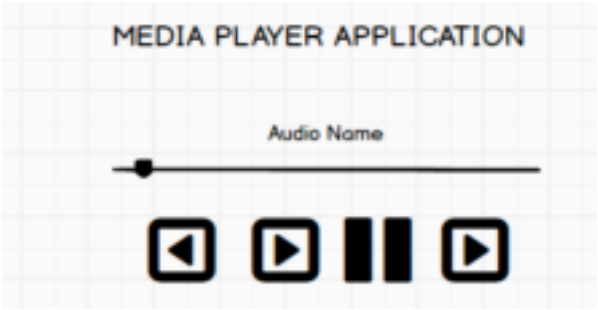
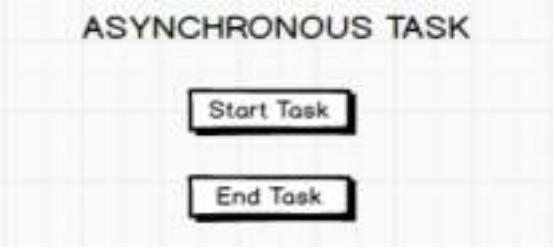
1	Create an application to design aVisiting Card. The Visiting card should havea companylogoatthe top right corner. The company name should be displayed in Capital letters, aligned to the center. Information like the name of the employee, job title, phone number, address, email, fax and the website address isto be displayed. Insert a horizontal line between the job title and the phone number.
2	Develop an Android application usingcontrols like Button, TextView, EditText for designing a calculatorhaving basic functionality like Addition, Subtraction, Multiplication,andDivision.

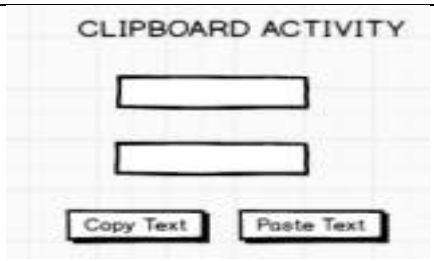
	
3	Create a SIGN Up activity with Username and Password. Validation of password should happen based on the following rules: • Password should contain uppercase and lowercase letters. • Password should contain letters and numbers. • Password should contain special characters. • Minimum length of the password (the default value is 8). On successful **SIGN UP** proceed to the next Login activity. Here the user should **SIGN IN** using the Username and Password created during signup activity. If the Username and Password are matched then navigate to the next activity whichdisplays a message saying "Successful Login" or else display a toast message saying "Login Failed".The user is given only two attempts and after thatdisplay a toast message saying "Failed Login Attempts" and disable the SIGN IN button. Use Bundle to transfer information from one activity to another.

4	Develop an application to set an image as wallpaper. On click of a button, the wallpaper image should start to change randomly every 30 seconds. 
5	Write a program to create an activity with two buttons START and STOP. On pressingoftheSTART button, the activity must start the counter by displaying the numbers from One and the counter must keep on counting until the STOP button is pressed. Display the counter value in a TextViewcontrol.
6	Create two files of XML and JSON type with values for City_Name, Latitude, Longitude, Temperature,andHumidity. Develop an application to create an activity with two buttons to parse the XML and JSON files which when clicked should display the data in their respective layouts side by side.  

7	Develop a simple application withoneEditTextso that the user can write some text in it. Create a button called “Convert Text to Speech” that converts the user input text into voice. 
8	Create an activity like a phone dialer withCALLand SAVE buttons. On pressing the CALL button, it must call the phone number and on pressing the SAVE button it must save the number to the phone contacts.
	PART - B
1	Write a program to enter Medicine Name, Date and Time of the Day as input from the user and store it in the SQLite database. Input for Time of the Day should be either Morning or Afternoon or Eveningor Night. Trigger an alarm based on the Date and Time of the Day and display the Medicine Name.

2	Develop a content provider application with an activity called “Meeting Schedule” which takes Date, Time and Meeting Agenda as input from the user and store this information into the SQLite database. Create another application with an activity called “Meeting Info” having DatePicker control, which on the selection of a date should display the Meeting Agenda information for that particular date, else it should display a toast message saying “No Meeting on this Date”. 
3	Create an application to receive an incoming SMS which is notified to the user. On clicking this SMS notification, the message content and the number should be displayed on the screen. Use appropriate emulator control to send the SMS message to your application.
4	Write a program to create an activity having a Text box, and also Save, Open and Create buttons. The user has to write some text in the Text box. On pressing the Create button the text should be saved as a text file in MkSDcard. On subsequent changes to the text, the Save button should be pressed to store the latest content to the same file. On pressing the Open button, it should display the contents from the previously stored files in the Text box. If the user tries to save the contents in the Textbox to a file without creating it, then a toast message has to be displayed saying “First Create a File”.

	
5	Create an application to demonstrate a basic media playerthat allows the user to Forward, Backward, Play and Pause an audio. Also, make use of the indicator in the seek bar to move the audio forward or backward as required. 
6	Develop an application to demonstrate the use of Asynchronous tasks in android. The asynchronous task should implement the functionality of a simple moving banner. On pressing the **Start Task** button, the banner message should scrollfrom right to left. On pressing the **Stop Task** button, the banner message should stop.Let the banner message be "Demonstration of Asynchronous Task". 
7	Develop an application that makes use of the clipboard framework for copying and pasting of the text. The activity consists of two EditText controls and two Buttons to trigger the copy and paste functionality.



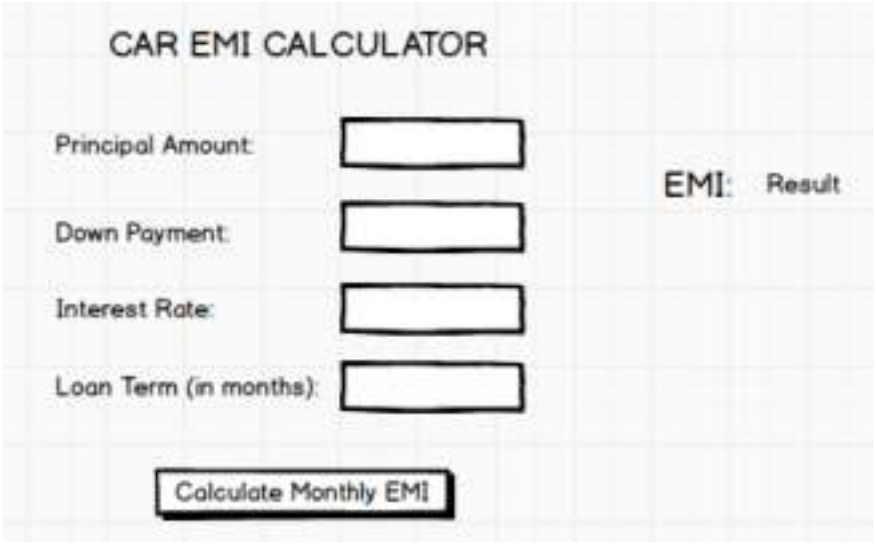
8 Create an AIDL service that calculates Car Loan EMI. The formula to calculate EMI is

$$E = P * (r(1+r)^n)/((1+r)^n-1)$$

where

E = The EMI payable on the car loan amount
P = The Car loan Principal Amount
r = The interest rate value computed on a monthly basis
n = The loan tenure in the form of months

The down payment amount has to be deducted from the principal amount paid towards buying the Car. Develop an application that makes use of this AIDL service to calculate the EMI. This application should have four EditText to read the PrincipalAmount, Down Payment, Interest Rate, Loan Term (in months) and a button named as "Calculate Monthly EMI". On click of this button, the result should be shown in a TextView. Also, calculate the EMI by varying the Loan Term and Interest Rate values.



Laboratory Outcomes: After studying theselaboratory programs, students will be able to

- Create, test and debug Android application by setting up Android development environment.
- Implement adaptive, responsive user interfaces that work across a wide range of devices.
- Infer long running tasks and background work in Android applications.
- Demonstrate methods in storing, sharing and retrieving data in Android applications.

- Infer the role of permissions and security for Android applications.

Procedure to Conduct Practical Examination

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick oneexperiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick oneexperiment from PART A and one experiment from PART B, with equalopportunity.

- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.

- Marks Distribution (Courseed to change in accordance with university regulations)
  - For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15= 100 Marks
  - For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks

    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

Text Books:

1. Google Developer Training, **"Android Developer Fundamentals Course – Concept Reference",** Google Developer Training Team, 2017. https://www.gitbook.com/book/google-developer-training/android-developer-fundamentals-course-concepts/details
   (Download pdf file from the above link)

Reference Books:

1. Erik Hellman, **"Android Programming – Pushing the Limits",** 1st Edition, Wiley India Pvt Ltd, 2014. ISBN-13: 978-8126547197
2. Dawn Griffiths and David Griffiths, **"Head First Android Development",** 1st Edition, O'Reilly SPD Publishers, 2015. ISBN-13: 978-9352131341
3. Bill Phillips, Chris Stewart and Kristin Marsicano, **"Android Programming: The Big Nerd Ranch Guide",** 3rd Edition, Big Nerd Ranch Guides, 2017. ISBN-13: 978-0134706054

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – VII

Course Code	**18CSL76**	**CIE Marks**	40
Number of Contact Hours/Week	0:0:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL76) will enable students to:

- Implement and evaluate AI and ML algorithms in and Python programming language.

Descriptions (if any):

Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

Programs List:

1.	Implement A* Search algorithm.
2.	Implement AO* Search algorithm.
3.	For a given set of training data examples stored in a .CSV file, implement and demonstrate the Candidate-Elimination algorithmto output a description of the set of all hypotheses consistent with the training examples.
4.	Write a program to demonstrate the working of the decision tree based ID3 algorithm. Use an appropriate data set for building the decision tree and apply this knowledge toclassify a new sample.
5.	Build an Artificial Neural Network by implementing the Backpropagation algorithm and test the same using appropriate data sets.
6.	Write a program to implement the naïve Bayesian classifier for a sample training data set stored as a .CSV file. Compute the accuracy of the classifier, considering few test data sets.
7.	Apply EM algorithm to cluster a set of data stored in a .CSV file. Use the same data set for clustering using k-Means algorithm. Compare the results of these two algorithms and comment on the quality of clustering. You can add Java/Python ML library classes/API in the program.
8.	Write a program to implement k-Nearest Neighbour algorithm to classify the iris data set. Print both correct and wrong predictions. Java/Python ML library classes can be used for this problem.
9.	Implement the non-parametric Locally Weighted Regressionalgorithm in order to fit data points. Select appropriate data set for your experiment and draw graphs

Laboratory Outcomes: The student should be able to:

- Implement and demonstrate AI and ML algorithms.
- Evaluate different algorithms.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
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- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  q) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  r) For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DEPARTMENT

OF

INFORMATION SCIENCE & ENGINEERING

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

ANALOG AND DIGITAL ELECTRONICS LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – III

Course Code	**18CSL37**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL37) will enable students to:

This laboratory course enable students to get practical experience in design, assembly and evaluation/testing of

- Analog components and circuits including Operational Amplifier, Timer, etc.
- Combinational logic circuits.
- Flip - Flops and their operations
- Counters and registers using flip-flops.
- Synchronous and Asynchronous sequential circuits.
- A/D and D/A converters

Descriptions (if any):

- Simulation packages preferred: Multisim, Modelsim, PSpice or any other relevant.
- For Part A (Analog Electronic Circuits) students must trace the wave form on Tracing sheet / Graph sheet and label trace.
- Continuous evaluation by the faculty must be carried by including performance of a student in both hardware implementation and simulation (if any) for the given circuit.
- A batch not exceeding 4 must be formed for conducting the experiment. For simulation individual student must execute the program.

Laboratory Programs:

	PART A (Analog Electronic Circuits)
1.	Design an astable multivibrator ciruit for three cases of duty cycle (50%, <50% and >50%) using NE 555 timer IC. Simulate the same for any one duty cycle.
2.	Using ua 741 Opamp, design a 1 kHz Relaxation Oscillator with 50% duty cycle. And simulate the same.
3.	Using ua 741 opamap, design a window comparate for any given UTP and LTP. And simulate the same.
	PART B (Digital Electronic Circuits)
4.	Design and implement Half adder, Full Adder, Half Subtractor, Full Subtractor using basic gates. And implement the same in HDL.
5.	Given a 4-variable logic expression, simplify it using appropriate technique and realize the simplified logic expression using 8:1 multiplexer IC. And implement the same in HDL.
6.	Realize a J-K Master / Slave Flip-Flop using NAND gates and verify its truth table. And implement the same in HDL.
7.	Design and implement code converter I)Binary to Gray (II) Gray to Binary Code using basic gates.
8.	Design and implement a mod-n (n<8) synchronous up counter using J-K Flip-Flop ICs and demonstrate its working.
9.	Design and implement an asynchronous counter using decade counter IC to count up from 0 to n (n<=9) and demonstrate on 7-segment display (using IC-7447)

Laboratory Outcomes: The student should be able to:

- Use appropriate design equations / methods to design the given circuit.
- Examine and verify the design of both analog and digital circuits using simulators.
- Make us of electronic components, ICs, instruments and tools for design and testing of circuits

for the given the appropriate inputs.

- Compile a laboratory journal which includes; aim, tool/instruments/software/components used, design equations used and designs, schematics, program listing, procedure followed, relevant theory, results as graphs and tables, interpreting and concluding the findings.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
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- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  a) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
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DATA STRUCTURES LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – III

Course Code	**18CSL38**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL38) will enable students to:

This laboratory course enable students to get practical experience in design, develop, implement, analyze and evaluation/testing of

- Asymptotic performance of algorithms.
- Linear data structures and their applications such as stacks, queues and lists
- Non-Linear data structures and their applications such as trees and graphs
- Sorting and searching algorithms

Descriptions (if any):

- Implement all the programs in 'C / C++' Programming Language and Linux / Windows as OS.

Programs List:

1.	Design, Develop and Implement a menu driven Program in C for the following array operations. a. Creating an array of N Integer Elements b. Display of array Elements with Suitable Headings c. Inserting an Element (ELEM) at a given valid Position (POS) d. Deleting an Element at a given valid Position (POS) e. Exit. Support the program with functions for each of the above operations.
2.	Design, Develop and Implement a Program in C for the following operations on Strings. a. Read a main String (STR), a Pattern String (PAT) and a Replace String (REP) b. Perform Pattern Matching Operation: Find and Replace all occurrences of PAT in STR with REP if PAT exists in STR. Report suitable messages in case PAT does not exist in STR Support the program with functions for each of the above operations. Don't use Built-in functions.
3.	Design, Develop and Implement a menu driven Program in C for the following operations on STACK of Integers (Array Implementation of Stack with maximum size MAX) a. Push an Element on to Stack b. Pop an Element from Stack c. Demonstrate how Stack can be used to check Palindrome d. Demonstrate Overflow and Underflow situations on Stack e. Display the status of Stack f. Exit Support the program with appropriate functions for each of the above operations
4.	Design, Develop and Implement a Program in C for converting an Infix Expression to Postfix Expression. Program should support for both parenthesized and free parenthesized expressions with the operators: +, -, *, /, % (Remainder), ^ (Power) and alphanumeric operands.
5.	Design, Develop and Implement a Program in C for the following Stack Applications a. Evaluation of Suffix expression with single digit operands and operators: +, -, *, /, %, ^ b. Solving Tower of Hanoi problem with n disks

6.	Design, Develop and Implement a menu driven Program in C for the following operations on Circular QUEUE of Characters (Array Implementation of Queue with maximum size MAX) a. Insert an Element on to Circular QUEUE b. Delete an Element from Circular QUEUE c. Demonstrate Overflow and Underflow situations on Circular QUEUE d. Display the status of Circular QUEUE e. Exit Support the program with appropriate functions for each of the above operations
7.	Design, Develop and Implement a menu driven Program in C for the following operations on Singly Linked List (SLL) of Student Data with the fields: *USN, Name, Programme, Sem, PhNo* a. Create a SLL of N Students Data by using *front insertion*. b. Display the status of SLL and count the number of nodes in it c. Perform Insertion / Deletion at End of SLL d. Perform Insertion / Deletion at Front of SLL(Demonstration of stack) e. Exit
8.	Design, Develop and Implement a menu driven Program in C for the following operations on Doubly Linked List (DLL) of Employee Data with the fields: *SSN, Name, Dept, Designation, Sal, PhNo* a. Create a DLL of N Employees Data by using *end insertion*. b. Display the status of DLL and count the number of nodes in it c. Perform Insertion and Deletion at End of DLL d. Perform Insertion and Deletion at Front of DLL e. Demonstrate how this DLL can be used as Double Ended Queue. f. Exit
9.	Design, Develop and Implement a Program in C for the following operationson Singly Circular Linked List (SCLL) with header nodes a. Represent and Evaluate a Polynomial $P(x,y,z) = 6x^2y^2z-4yz^5+3x^3yz+2xy^5z-2xyz^3$ b. Find the sum of two polynomials POLY1(x,y,z) and POLY2(x,y,z) and store the result in POLYSUM(x,y,z) Support the program with appropriate functions for each of the above operations
10.	Design, Develop and Implement a menu driven Program in C for the following operations on Binary Search Tree (BST) of Integers . a. Create a BST of N Integers: 6, 9, 5, 2, 8, 15, 24, 14, 7, 8, 5, 2 b. Traverse the BST in Inorder, Preorder and Post Order c. Search the BST for a given element (KEY) and report the appropriate message d. Exit
11.	Design, Develop and Implement a Program in C for the following operations on Graph(G) of Cities a. Create a Graph of N cities using Adjacency Matrix. b. Print all the nodes reachable from a given starting node in a digraph using DFS/BFS method
12.	Given a File of N employee records with a set K of Keys (4-digit) which uniquely determine the records in file F. Assume that file F is maintained in memory by a Hash Table (HT) of m memory locations with L as the set of memory addresses (2-digit) of locations in HT. Let the keys in K and addresses in L are Integers. Design and develop a Program in C that uses Hash function H: K $\rightarrow$L as H(K)=K mod m (remainder method), and implement hashing technique to map a given key K to the address space L. Resolve the collision (if any) using linear probing.
Laboratory Outcomes: The student should be able to:	

- Analyze and Compare various linear and non-linear data structures
- Code, debug and demonstrate the working nature of different types of data structures and their applications
- Implement, analyze and evaluate the searching and sorting algorithms
- Choose the appropriate data structure for solving real world problems

Conduct of Practical Examination:

- Experiment distribution
    - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
    - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
    c) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
    d) For laboratories having PART A and PART B
        i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
        ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DESIGN AND ANALYSIS OF ALGORITHMS LABORATORY (Effective from the academic year 2018 -2019) SEMESTER – IV			
Course Code	**18CSL47**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03
Credits – 2			

Course Learning Objectives: This course (18CSL47) will enable students to:

- Design and implement various algorithms in JAVA
- Employ various design strategies for problem solving.
- Measure and compare the performance of different algorithms.

Descriptions (if any):

- Design, develop, and implement the specified algorithms for the following problems using Java language under LINUX /Windows environment. Netbeans / Eclipse or IntellijIdea Community Edition IDE tool can be used for development and demonstration.
- **Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.**

Programs List:

1.	
a.	Create a Java class called ***Student*** with the following details as variables within it. (i) USN (ii) Name (iii) Programme (iv) Phone Write a Java program to create *nStudent* objects and print the USN, Name, Programme, and Phoneof these objects with suitable headings.
b.	Write a Java program to implement the Stack using arrays. Write Push(), Pop(), and Display() methods to demonstrate its working.
2.	
a.	Design a superclass called ***Staff*** with details as StaffId, Name, Phone, Salary. Extend this class by writing three subclasses namely ***Teaching*** (domain, publications), ***Technical*** (skills), and ***Contract*** (period). Write a Java program to read and display at least 3 *staff* objects of all three categories.
b.	Write a Java class called ***Customer*** to store their name and date_of_birth. The date_of_birth format should be dd/mm/yyyy. Write methods to read customer data as <name, dd/mm/yyyy> and display as <name, dd, mm, yyyy> using StringTokenizer class considering the delimiter character as "/".
3.	
a.	Write a Java program to read two integers *a* and*b*. Compute *a*/*b* and print, when *b* is not zero. Raise an exception when *b* is equal to zero.
b.	Write a Java program that implements a multi-thread application that has three threads. First thread generates a random integer for every 1 second; second thread computes the square of the number andprints; third thread will print the value of cube of the number.
4.	Sort a given set of ***n*** integer elements using **Quick Sort** method and compute its time complexity. Run the program for varied values of *n*> 5000 and record the time taken to sort. Plot a graph of the time taken versus ***n***on graph sheet. The elements can be read from a file or can be generated using the random number generator. Demonstrate using Java how the divide-and-conquer method works along with its time complexity analysis: worst case, average case and best case.

5.	Sort a given set of ***n*** integer elements using **Merge Sort** method and compute its time complexity. Run the program for varied values of *n*> 5000, and record the time taken to sort. Plot a graph of the time taken versus ***n***on graph sheet. The elements can be read from a file or can be generated using the random number generator. Demonstrate using Java how the divide-and-conquer method works along with its time complexity analysis: worst case, average case and best case.
6.	Implement in Java, the **0/1 Knapsack** problem using (a) Dynamic Programming method (b) Greedy method.
7.	From a given vertex in a weighted connected graph, find shortest paths to other vertices using **Dijkstra's algorithm**. Write the program in Java.
8.	Find Minimum Cost Spanning Tree of a given connected undirected graph using **Kruskal'salgorithm.** Use Union-Find algorithms in your program
9.	Find Minimum Cost Spanning Tree of a given connected undirected graph using **Prim's algorithm**.
10.	Write Java programs to (a) Implement All-Pairs Shortest Paths problem using **Floyd's algorithm**. (b) Implement **Travelling Sales Person problem** using Dynamic programming.
11.	Design and implement in Java to find a **subset** of a given set **S** = {S_1, S_2,.....,S_n} of ***n*** positive integers whose SUM is equal to a given positive integer ***d***. For example, if S ={1, 2, 5, 6, 8} and ***d***= 9, there are two solutions {1,2,6}and {1,8}. Display a suitable message, if the given problem instance doesn't have a solution.
12.	Design and implement in Java to find all **Hamiltonian Cycles** in a connected undirected Graph G of *n* vertices using backtracking principle.

Laboratory Outcomes: The student should be able to:

- Design algorithms using appropriate design techniques (brute-force, greedy, dynamic programming, etc.)
- Implement a variety of algorithms such assorting, graph related, combinatorial, etc., in a high level language.
- Analyze and compare the performance of algorithms using language features.
- Apply and implement learned algorithm design techniques and data structuresto solve real-world problems.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  e) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  f) For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

MICROCONTROLLER AND EMBEDDED SYSTEMS LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – IV

Course Code	**18CSL48**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL48) will enable students to:

- Develop and test Program using ARM7TDMI/LPC2148
- Conduct the experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

Descriptions (if any):

Programs List:

PART A Conduct the following experiments by writing program using ARM7TDMI/LPC2148 using an evaluation board/simulator and the required software tool.

1.	Write a program to multiply two 16 bit binary numbers.
2.	Write a program to find the sum of first 10 integer numbers.
3.	Write a program to find factorial of a number.
4.	Write a program to add an array of 16 bit numbers and store the 32 bit result in internal RAM
5.	Write a program to find the square of a number (1 to 10) using look-up table.
6.	Write a program to find the largest/smallest number in an array of 32 numbers .
7.	Write a program to arrange a series of 32 bit numbers in ascending/descending order.
8.	Write a program to count the number of ones and zeros in two consecutive memory locations.

PART –B Conduct the following experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

9.	Display “Hello World” message using Internal UART.
10.	Interface and Control a DC Motor.
11.	Interface a Stepper motor and rotate it in clockwise and anti-clockwise direction.
12.	Determine Digital output for a given Analog input using Internal ADC of ARM controller.
13.	Interface a DAC and generate Triangular and Square waveforms.
14.	Interface a 4x4 keyboard and display the key code on an LCD.
15.	Demonstrate the use of an external interrupt to toggle an LED On/Off.
16.	Display the Hex digits 0 to F on a 7-segment LED interface, with an appropriate delay in between

Laboratory Outcomes: The student should be able to:

- Develop and test program using ARM7TDMI/LPC2148
- Conduct the following experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  g) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 =

100 Marks

h) For laboratories having PART A and PART B
   i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
   ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

COMPUTER NETWORK LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – V

Course Code	**18CSL57**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL57) will enable students to:

- Demonstrate operation of network and its management commands
- Simulate and demonstrate the performance of GSM and CDMA
- Implement data link layer and transport layer protocols.

Descriptions (if any):

- For the experiments below modify the topology and parameters set for the experiment and take multiple rounds of reading and analyze the results available in log files. Plot necessary graphs and conclude. Use NS2/NS3.
- **Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.**

Programs List:

	PART A
1.	Implement three nodes point – to – point network with duplex links between them. Set the queue size, vary the bandwidth and find the number of packets dropped.
2.	Implement transmission of ping messages/trace route over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion.
3.	Implement an Ethernet LAN using n nodes and set multiple traffic nodes and plot congestion window for different source / destination.
4.	Implement simple ESS and with transmitting nodes in wire-less LAN by simulation and determine the performance with respect to transmission of packets.
5.	Implement and study the performance of GSM on NS2/NS3 (Using MAC layer) or equivalent environment.
6.	Implement and study the performance of CDMA on NS2/NS3 (Using stack called Call net) or equivalent environment
	PART B (Implement the following in Java)
7.	Write a program for error detecting code using CRC-CCITT (16- bits).
8.	Write a program to find the shortest path between vertices using bellman-ford algorithm.
9.	Using TCP/IP sockets, write a client – server program to make the client send the file name and to make the server send back the contents of the requested file if present.
10.	Write a program on datagram socket for client/server to display the messages on client side, typed at the server side.
11.	Write a program for simple RSA algorithm to encrypt and decrypt the data.
12.	Write a program for congestion control using leaky bucket algorithm.

Laboratory Outcomes: The student should be able to:

- Analyze and Compare various networking protocols.
- Demonstrate the working of different concepts of networking.
- Implement, analyze and evaluate networking protocols in NS2 / NS3 and JAVA programming language

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.

- For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.

- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  i) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  j) For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

DBMS LABORATORY WITH MINI PROJECT
(Effective from the academic year 2018 -2019)
SEMESTER – V

Course Code	**18CSL58**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL58) will enable students to:

- Foundation knowledge in database concepts, technology and practice to groom students into well-informed database application developers.
- Strong practice in SQL programming through a variety of database problems.
- Develop database applications using front-end tools and back-end DBMS.

Descriptions (if any):

PART-A: SQL Programming (Max. Exam Mks. 50)

- Design, develop, and implement the specified queries for the following problems using Oracle, MySQL, MS SQL Server, or any other DBMS under LINUX/Windows environment.
- Create Schema and insert at least 5 records for each table. Add appropriate database constraints.

PART-B: Mini Project (Max. Exam Mks. 30)

- Use Java, C#, PHP, Python, or any other similar front-end tool. All applications must be demonstrated on desktop/laptop as a stand-alone or web based application (Mobile apps on Android/IOS are not permitted.)

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Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

Programs List:

PART A

1.	Consider the following schema for a Library Database: BOOK(Book_id, Title, Publisher_Name, Pub_Year) BOOK_AUTHORS(Book_id, Author_Name) PUBLISHER(Name, Address, Phone) BOOK_COPIES(Book_id, Programme_id, No-of_Copies) BOOK_LENDING(Book_id, Programme_id, Card_No, Date_Out, Due_Date) LIBRARY_PROGRAMME(Programme_id, Programme_Name, Address) Write SQL queries to 1. Retrieve details of all books in the library – id, title, name of publisher, authors, number of copies in each Programme, etc. 2. Get the particulars of borrowers who have borrowed more than 3 books, but from Jan 2017 to Jun 2017. 3. Delete a book in BOOK table. Update the contents of other tables to reflect this data manipulation operation. 4. Partition the BOOK table based on year of publication. Demonstrate its working with a simple query. **5.** Create a view of all books and its number of copies that are currently available in the Library.
2.	Consider the following schema for Order Database: SALESMAN(Salesman_id, Name, City, Commission) CUSTOMER(Customer_id, Cust_Name, City, Grade, Salesman_id) ORDERS(Ord_No, Purchase_Amt, Ord_Date, Customer_id, Salesman_id) Write SQL queries to

	1. Count the customers with grades above Bangalore's average. 2. Find the name and numbers of all salesman who had more than one customer. 3. List all the salesman and indicate those who have and don't have customers in their cities (Use UNION operation.) 4. Create a view that finds the salesman who has the customer with the highest order of a day. 5. Demonstrate the DELETE operation by removing salesman with id 1000. All his orders must also be deleted.
3.	Consider the schema for Movie Database: ACTOR(Act_id, Act_Name, Act_Gender) DIRECTOR(Dir_id, Dir_Name, Dir_Phone) MOVIES(Mov_id, Mov_Title, Mov_Year, Mov_Lang, Dir_id) MOVIE_CAST(Act_id, Mov_id, Role) RATING(Mov_id, Rev_Stars) Write SQL queries to 1. List the titles of all movies directed by 'Hitchcock'. 2. Find the movie names where one or more actors acted in two or more movies. 3. List all actors who acted in a movie before 2000 and also in a movie after 2015 (use JOIN operation). 4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title. 5. Update rating of all movies directed by 'Steven Spielberg' to 5.
4.	Consider the schema for College Database: STUDENT(USN, SName, Address, Phone, Gender) SEMSEC(SSID, Sem, Sec) CLASS(USN, SSID) COURSE(Subcode, Title, Sem, Credits) IAMARKS(USN, Subcode, SSID, Test1, Test2, Test3, FinalIA) Write SQL queries to 1. List all the student details studying in fourth semester 'C' section. 2. Compute the total number of male and female students in each semester and in each section. 3. Create a view of Test1 marks of student USN '1BI15CS101' in all Courses. 4. Calculate the FinalIA (average of best two test marks) and update the corresponding table for all students. 5. Categorize students based on the following criterion: If FinalIA = 17 to 20 then CAT = 'Outstanding' If FinalIA = 12 to 16 then CAT = 'Average' If FinalIA< 12 then CAT = 'Weak' Give these details only for 8th semester A, B, and C section students.
5.	Consider the schema for Company Database: EMPLOYEE(SSN, Name, Address, Sex, Salary, SuperSSN, DNo) DEPARTMENT(DNo, DName, MgrSSN, MgrStartDate) DLOCATION(DNo,DLoc) PROJECT(PNo, PName, PLocation, DNo) WORKS_ON(SSN, PNo, Hours) Write SQL queries to 1. Make a list of all project numbers for projects that involve an employee whose last name is 'Scott', either as a worker or as a manager of the department that controls the project.

	2. Show the resulting salaries if every employee working on the 'IoT' project is given a 10 percent raise. 3. Find the sum of the salaries of all employees of the 'Accounts' department, as well as the maximum salary, the minimum salary, and the average salary in this department 4. Retrieve the name of each employee who works on all the projects controlledby department number 5 (use NOT EXISTS operator). 5. For each department that has more than five employees, retrieve the department number and the number of its employees who are making more than Rs. 6,00,000.
PART B: Mini Project	
•	For any problem selected
•	Make sure that the application should have five or more tables
•	Indicative areas include; health care

Laboratory Outcomes: The student should be able to:

- Create, Update and query on the database.
- Demonstrate the working of different concepts of DBMS
- Implement, analyze and evaluate the project developed for an application.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  - k) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
  - l) For laboratories having PART A and PART B
    - i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    - ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

SOFTWARE TESTING LABORATORY (Effective from the academic year 2018 -2019) SEMESTER – VI			
Course Code	**18ISL66**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03
Credits – 2			

Course Learning Objectives: This course (18ISL66) will enable students to:

- Analyse the requirements for the given problem statement
- Design and implement various solutions for the given problem
- Employ various design strategies for problem solving.
- Construct control flow graphs for the solution that is implemented
- Create appropriate document for the software artefact

Descriptions (if any):

Design, develop, and implement the specified algorithms for the following problems using any language of your choice under LINUX /Windows environment.

Programs List:

1.	Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Assume that the upper limit for the size of any side is 10. Derive test cases for your program based on boundary-value analysis, execute the test cases and discuss the results.
2.	Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of boundary value testing, derive different test cases, execute these test cases and discuss the test results.
3.	Design, develop, code and run the program in any suitable language to implement the NextDate function. Analyze it from the perspective of boundary value testing, derive different test cases, execute these test cases and discuss the test results.
4.	Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Assume that the upper limit for the size of any side is 10. Derive test cases for your program based on equivalence class partitioning, execute the test cases and discuss the results.
5.	Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of equivalence class testing, derive different test cases, execute these test cases and discuss the test results.
6.	Design, develop, code and run the program in any suitable language to implement the NextDate function. Analyze it from the perspective of equivalence class value testing, derive different test cases, execute these test cases and discuss the test results.
7.	Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Derive test cases for your program based on decision-table approach, execute the test cases and discuss the results.
8.	Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of decision table-based testing, derive different test cases, execute these test cases and discuss the test results.
9.	Design, develop, code and run the program in any suitable language to solve the commission

	problem. Analyze it from the perspective of dataflow testing, derive different test cases, execute these test cases and discuss the test results.
10.	Design, develop, code and run the program in any suitable language to implement the binary search algorithm. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results.
11.	Design, develop, code and run the program in any suitable language to implement the quicksort algorithm. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results.
12.	Design, develop, code and run the program in any suitable language to implement an absolute letter grading procedure, making suitable assumptions. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results

Laboratory Outcomes: The student should be able to:

- List out the requirements for the given problem
- Design and implement the solution for given problem in any programming language(C,C++,JAVA)
- Derive test cases for any given problem
- Apply the appropriate technique for the design of flow graph.
- Create appropriate document for the software artefact.

Conduct of Practical Examination:

- All laboratory experiments, excluding the first, are to be included for practical examination.
- Experiment distribution
    - For questions having only one part: Students are allowed to pick one experiment from the lot and are given equal opportunity.
    - For questions having part A and B: Students are allowed to pick one experiment from part A and one experiment from part B and are given equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure part to be made zero.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
    m) For questions having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
    n) For questions having part A and B
        i. Part A – Procedure + Execution + Viva = 4 + 21 + 5 = 30 Marks
        ii. Part B – Procedure + Execution + Viva = 10 + 49+ 11 = 70 Marks

FILE STRUCTURES LABORATORY WITH MINI PROJECT
(Effective from the academic year 2018 -2019)
SEMESTER – VI

Course Code	**18ISL67**	**CIE Marks**	40
Number of Contact Hours/Week	0:2:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CISL67) will enable students to:

- Apply the concepts of Unix IPC to implement a given function.
- Measure the performance of different file structures
- Write a program to manage operations on given file system.
- Demonstrate hashing and indexing techniques

Descriptions (if any):

Programs List:

PART A

1.	Write a program to read series of names, one per line, from standard input and write these names spelled in reverse order to the standard output using I/O redirection and pipes. Repeat the exercise using an input file specified by the user instead of the standard input and using an output file specified by the user instead of the standard output.
2.	Write a program to read and write student objects with fixed-length records and the fields delimited by "|". Implement pack ( ), unpack ( ), modify ( ) and search ( ) methods.
3.	Write a program to read and write student objects with Variable - Length records using any suitable record structure. Implement pack ( ), unpack ( ), modify ( ) and search ( ) methods.
4.	Write a program to write student objects with Variable - Length records using any suitable record structure and to read from this file a student record using RRN.
5.	Write a program to implement simple index on primary key for a file of student objects. Implement add ( ), search ( ), delete ( ) using the index.
6.	Write a program to implement index on secondary key, the name, for a file of student objects. Implement add ( ), search ( ), delete ( ) using the secondary index.
7.	Write a program to read two lists of names and then match the names in the two lists using Consequential Match based on a single loop. Output the names common to both the lists.
8.	Write a program to read k Lists of names and merge them using k-way merge algorithm with k = 8.

PART B MINI PROJECT

Student should develop mini project on the topics mentioned below or similar applications **Document processing, transaction management, indexing and hashing, buffer management, configuration management. Not limited to these.**

Laboratory Outcomes: The student should be able to:

- Implement operations related to files
- Apply the concepts of file system to produce the given application.
- Evaluate performance of various file systems on given parameters.

Conduct of Practical Examination:

- All laboratory experiments, excluding the first, are to be included for practical examination.
- Experiment distribution
  - For questions having only one part: Students are allowed to pick one experiment from the lot and are given equal opportunity.
  - For questions having part A and B: Students are allowed to pick one experiment from part A and one experiment from part B and are given equal opportunity.

- Change of experiment is allowed only once and marks allotted for procedure part to be made zero.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
    o) For questions having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks
    p) For questions having part A and B
        i. Part A – Procedure + Execution + Viva = 4 + 21 + 5 = 30 Marks
        ii. Part B – Procedure + Execution + Viva = 10 + 49+ 11 = 70 Marks

MOBILE APPLICATION DEVELOPMENT (Effective from the academic year 2018 -2019) SEMESTER – VI			
Course Code	**18CSMP68**	**IA Marks**	40
Number of Contact Hours/Week	0:0:2	**Exam Marks**	60
Total Number of Contact Hours	3 Hours/Week	**Exam Hours**	03
CREDITS – 02			

Laboratory Objectives: Thislaboratory (18CSMP68) will enable students to

- Learn and acquire the art of Android Programming.
- ConfigureAndroid studio to run the applications.
- Understand and implement Android's User interface functions.
- Create, modify and query on SQlite database.
- Inspect different methods of sharing data using services.

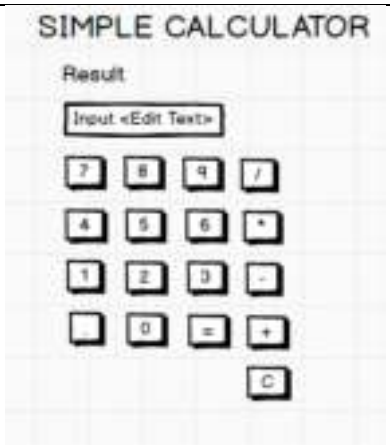
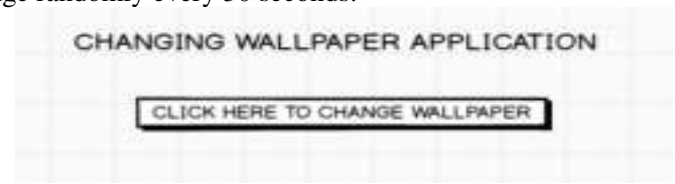
Descriptions (if any):

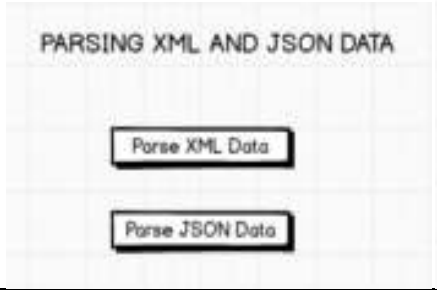
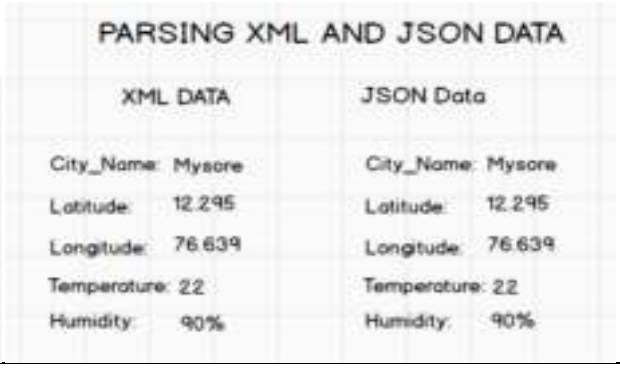
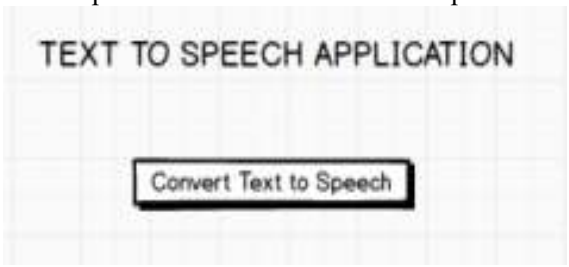
1. The installation procedure of the Android Studio/Java software must be demonstrated and carried out in groups.
2. Students should use the latest version of Android Studio/Java/ Kotlin to execute these programs. Diagrams given are for representational purposes only, students are expected to improvise on them.
3. **Part B programs should be developed as an application and are to be demonstrated as a mini project in a group by adding extra features or the students can also develop their application and demonstrate it as a mini-project. (Projects/programs are not limited to the list given in Part B).**

Programs List:

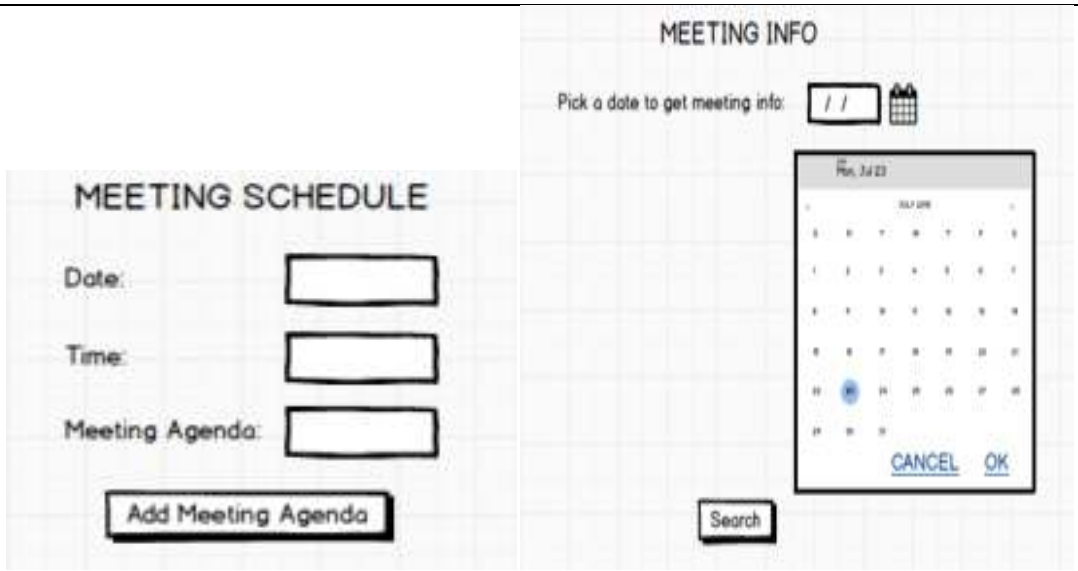
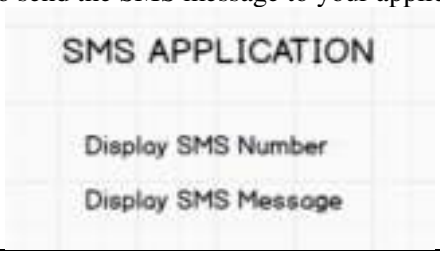
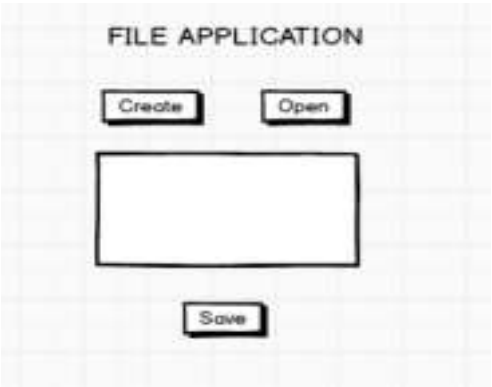
PART – A

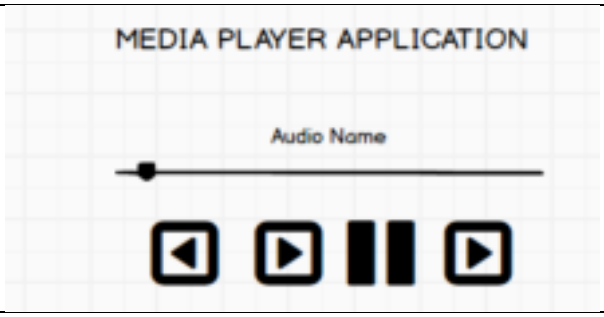
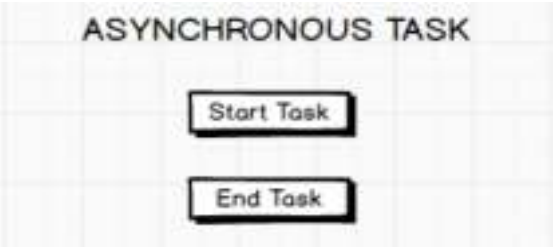
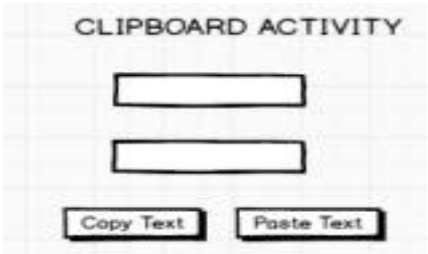
1	Create an application to design aVisiting Card. The Visiting card should havea companylogoatthe top right corner. The company name should be displayed in Capital letters, aligned to the center. Information like the name of the employee, job title, phone number, address, email, fax and the website address isto be displayed. Insert a horizontal line between the job title and the phone number.
2	Develop an Android application usingcontrols like Button, TextView, EditText for designing a calculatorhaving basic functionality like Addition, Subtraction, Multiplication,andDivision.

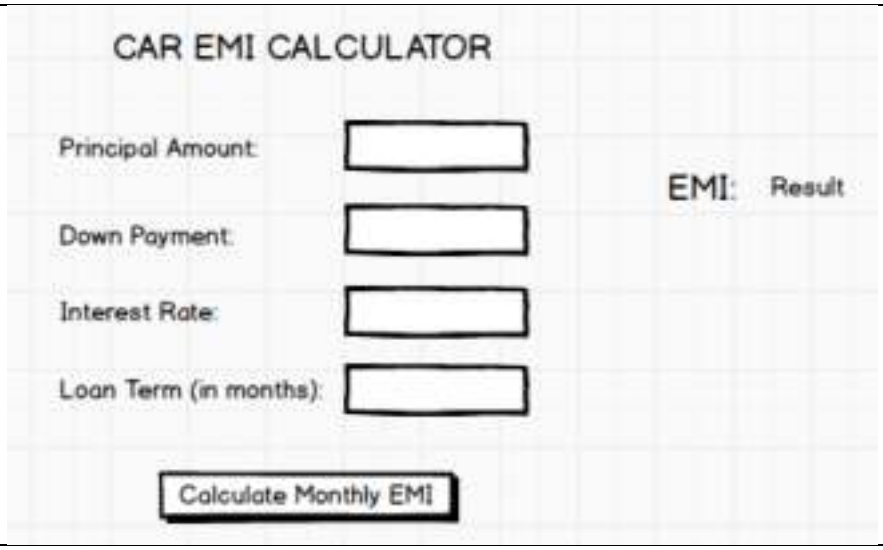
	
3	Create a SIGN Up activity with Username and Password. Validation of password should happen based on the following rules: • Password should contain uppercase and lowercase letters. • Password should contain letters and numbers. • Password should contain special characters. • Minimum length of the password (the default value is 8). On successful **SIGN UP** proceed to the next Login activity. Here the user should **SIGN IN** using the Username and Password created during signup activity. If the Username and Password are matched then navigate to the next activity whichdisplays a message saying "Successful Login" or else display a toast message saying "Login Failed".The user is given only two attempts and after thatdisplay a toast message saying "Failed Login Attempts" and disable the SIGN IN button. Use Bundle to transfer information from one activity to another.
4	Develop an application to set an image as wallpaper. On click of a button, the wallpaper image should start to change randomly every 30 seconds. 
5	Write a program to create an activity with two buttons START and STOP. On pressingoftheSTART button, the activity must start the counter by displaying the numbers from One and the counter must keep on counting until the STOP button is pressed. Display the counter

	value in a TextViewcontrol.
6	Create two files of XML and JSON type with values for City_Name, Latitude, Longitude, Temperature,andHumidity. Develop an application to create an activity with two buttons to parse the XML and JSON files which when clicked should display the data in their respective layouts side by side.  
7	Develop a simple application withoneEditTextso that the user can write some text in it. Create a button called “Convert Text to Speech” that converts the user input text into voice. 
8	Create an activity like a phone dialer withCALLand SAVE buttons. On pressing the CALL button, it must call the phone number and on pressing the SAVE button it must save the number to the phone contacts.

PART - B	
1	Write a program to enter Medicine Name, Date and Time of the Day as input from the user and store it in the SQLite database. Input for Time of the Day should be either Morning or Afternoon or Eveningor Night. Trigger an alarm based on the Date and Time of the Day and display the Medicine Name.
2	Develop a content provider application with an activity called “Meeting Schedule” which takes Date, Time and Meeting Agenda as input from the user and store this information into the SQLite database. Create another application with an activity called “Meeting Info” having DatePicker control, which on the selection of a date should display the Meeting Agenda information for that particular date, else it should display a toast message saying “No Meeting on this Date”.

	
3	Create an application to receive an incoming SMS which is notified to the user. On clicking this SMS notification, the message content and the number should be displayed on the screen. Use appropriate emulator control to send the SMS message to your application. 
4	Write a program to create an activity having a Text box, and also Save, Open and Create buttons. The user has to write some text in the Text box. On pressing the Create button the text should be saved as a text file in MkSDcard. On subsequent changes to the text, the Save button should be pressed to store the latest content to the same file. On pressing the Open button, it should display the contents from the previously stored files in the Text box. If the user tries to save the contents in the Textbox to a file without creating it, then a toast message has to be displayed saying "First Create a File". 
5	Create an application to demonstrate a basic media playerthat allows the user to Forward, Backward, Play and Pause an audio. Also, make use of the indicator in the seek bar to move the audio forward or backward as required.

	
6	Develop an application to demonstrate the use of Asynchronous tasks in android. The asynchronous task should implement the functionality of a simple moving banner. On pressing the **Start Task** button, the banner message should scrollfrom right to left. On pressing the **Stop Task** button, the banner message should stop.Let the banner message be "Demonstration of Asynchronous Task". 
7	Develop an application that makes use of the clipboard framework for copying and pasting of the text. The activity consists of two EditText controls and two Buttons to trigger the copy and paste functionality. 
8	Create an AIDL service that calculates Car Loan EMI. The formula to calculate EMI is $\mathbf{E = P * (r(1+r)^n)/((1+r)^n-1)}$ where E = The EMI payable on the car loan amount P = The Car loan Principal Amount r = The interest rate value computed on a monthly basis n = The loan tenure in the form of months The down payment amount has to be deducted from the principal amount paid towards buying the Car. Develop an application that makes use of this AIDL service to calculate the EMI. This application should have four EditText to read the PrincipalAmount, Down Payment, Interest Rate, Loan Term (in months) and a button named as "Calculate Monthly EMI". On click of this button, the result should be shown in a TextView. Also, calculate the EMI by varying the Loan Term and Interest Rate values.



Laboratory Outcomes: After studying theselaboratory programs, students will be able to

- Create, test and debug Android application by setting up Android development environment.
- Implement adaptive, responsive user interfaces that work across a wide range of devices.
- Infer long running tasks and background work in Android applications.
- Demonstrate methods in storing, sharing and retrieving data in Android applications.
- Infer the role of permissions and security for Android applications.

Procedure to Conduct Practical Examination

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick oneexperiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick oneexperiment from PART A and one experiment from PART B, with equalopportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution (Courseed to change in accordance with university regulations)
  - For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15= 100 Marks
  - For laboratories having PART A and PART B
    i. Part A – Procedure + Execution + Viva = 6 + 28 + 6 = 40 Marks
    ii. Part B – Procedure + Execution + Viva = 9 + 42 + 9 = 60 Marks

Text Books:

1. Google Developer Training, **"Android Developer Fundamentals Course – Concept Reference",** Google Developer Training Team, 2017. https://www.gitbook.com/book/google-developer-training/android-developer-fundamentals-course-concepts/details
(Download pdf file from the above link)

Reference Books:

1. Erik Hellman, **"Android Programming – Pushing the Limits",** 1st Edition, Wiley India Pvt Ltd, 2014. ISBN-13: 978-8126547197
2. Dawn Griffiths and David Griffiths, **"Head First Android Development",** 1st Edition, O'Reilly SPD Publishers, 2015. ISBN-13: 978-9352131341
3. Bill Phillips, Chris Stewart and Kristin Marsicano, **"Android Programming: The Big Nerd Ranch Guide",** 3rd Edition, Big Nerd Ranch Guides, 2017. ISBN-13: 978-0134706054

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING LABORATORY
(Effective from the academic year 2018 -2019)
SEMESTER – VII

Course Code	**18CSL76**	**CIE Marks**	40
Number of Contact Hours/Week	0:0:2	**SEE Marks**	60
Total Number of Lab Contact Hours	36	**Exam Hours**	03

Credits – 2

Course Learning Objectives: This course (18CSL76) will enable students to:

- Implement and evaluate AI and ML algorithms in and Python programming language.

Descriptions (if any):

Installation procedure of the required software must be demonstrated, carried out in groups and documented in the journal.

Programs List:

1.	Implement A* Search algorithm.
2.	Implement AO* Search algorithm.
3.	For a given set of training data examples stored in a .CSV file, implement and demonstrate the Candidate-Elimination algorithmto output a description of the set of all hypotheses consistent with the training examples.
4.	Write a program to demonstrate the working of the decision tree based ID3 algorithm. Use an appropriate data set for building the decision tree and apply this knowledge toclassify a new sample.
5.	Build an Artificial Neural Network by implementing the Backpropagation algorithm and test the same using appropriate data sets.
6.	Write a program to implement the naïve Bayesian classifier for a sample training data set stored as a .CSV file. Compute the accuracy of the classifier, considering few test data sets.
7.	Apply EM algorithm to cluster a set of data stored in a .CSV file. Use the same data set for clustering using k-Means algorithm. Compare the results of these two algorithms and comment on the quality of clustering. You can add Java/Python ML library classes/API in the program.
8.	Write a program to implement k-Nearest Neighbour algorithm to classify the iris data set. Print both correct and wrong predictions. Java/Python ML library classes can be used for this problem.
9.	Implement the non-parametric Locally Weighted Regressionalgorithm in order to fit data points. Select appropriate data set for your experiment and draw graphs

Laboratory Outcomes: The student should be able to:

- Implement and demonstrate AI and ML algorithms.
- Evaluate different algorithms.

Conduct of Practical Examination:

- Experiment distribution
  - For laboratories having only one part: Students are allowed to pick one experiment from the lot with equal opportunity.
  - For laboratories having PART A and PART B: Students are allowed to pick one experiment from PART A and one experiment from PART B, with equal opportunity.
- Change of experiment is allowed only once and marks allotted for procedure to be made zero of the changed part only.
- Marks Distribution *(Courseed to change in accoradance with university regulations)*
  q) For laboratories having only one part – Procedure + Execution + Viva-Voce: 15+70+15 = 100 Marks

DEPARTMENT

OF

ELECTRONICS & COMMUNICATION ENGINEERING

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

ELECTRONIC DEVICES AND INSTRUMENTATION LABORATORY

Course Code : **18ECL37**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This laboratory course enables students to

- Understand the circuit schematic and its working.
- Study the characteristics of different electronic devices.
- Design and test simple electronic circuits as per the specifications using discrete electronic components.
- Familiarize with EDA software which can be used for electronic circuit simulation.

PART A : Experiments using Discrete components

1. Conduct experiment to test diode clipping (single/double ended) and clamping circuits (positive/negative).
2. Half wave rectifier and Full wave rectifier with and without filter and measure the ripple factor.
3. Characteristics of Zener diode and design a Simple Zener voltage regulator determine line and load regulation.
4. Characteristics of LDR and Photo diode and turn on an LED using LDR
5. Static characteristics of SCR.
6. SCR Controlled HWR and FWR using RC triggering circuit
7. Conduct an experiment to measure temperature in terms of current/ voltage using a temperature sensor bridge.
8. Measurement of Resistance using Wheatstone and Kelvin's bridge.

PART-B : Simulation using EDA software

(EDWinXP, PSpice, MultiSim, Proteus, Circuit Lab or any equivalent tool)

1. Input and Output characteristics of BJT Common emitter configuration and evaluation of parameters.
2. Transfer and drain characteristics of a JFET and MOSFET.
3. UJT triggering circuit for Controlled Full wave Rectifier.
4. Design and simulation of Regulated power supply.

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Recognize and demonstrate functioning of semiconductor power devices.
2. Evaluate the characteristics, switching, power conversion and control by semiconductor power devices.
3. Analyze the response and plot the characteristics of transducers such as LDR, Photo diode, etc.
4. Design and test simple electronic circuits for measurement of temperature and resistance.
5. Use circuit simulation software for the implementation and characterization of electronic circuits and devices.

Conduct of Practical Examination:

- All laboratory experiments are to be considered for practical examination.
- For examination one question from **PART-A** and one question from **PART-B or** only one question from **PART-A** experiments based on the complexity, to be set.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

Text Books

1. David A Bell, "Fundamentals of Electronic Devices and Circuits Lab Manual, 5th Edition, 2009, Oxford University Press.
2. Muhammed H Rashid, "Introduction to PSpice using OrCAD for circuits and electronics", 3rd Edition, Prentice Hall, 2003.

DIGITAL SYSTEM DESIGN LABORATORY

Course Code : **18ECL38**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3, L4	Exam Hours : 03	
CREDITS – 02		

Course objectives: This laboratory course enables students to get practical experience in design, realization and verification of

- De Morgan's Theorem, SOP, POS forms
- Full/Parallel Adders, Subtractors and Magnitude Comparator
- Multiplexer using logic gates
- Demultiplexers and Decoders
- Flip-Flops, Shift registers and Counters.

NOTE:

1. Use discrete components to test and verify the logic gates.
2. The IC numbers given are suggestive; any equivalent ICs can be used.
3. For experiment No. 11 and 12 any open source or licensed simulation tool may be used.

Laboratory Experiments:

1. Verify (i) De Morgan's Theorem for 2 variables.
   (ii) The sum-of product and product-of-sum expressions using universal gates.
2. Design and implement
   (i) Half Adder & Full Adder using a) basic gates b) NAND gates
   (ii) Half subtractor & Full subtractor using a) basic gates b) NAND gates.
3. Design and implement
   (i) 4-bit Parallel Adder/Subtractor using IC 7483.
   (ii) BCD to Excess-3 code conversion and vice-versa.
4. Design and Implementation of
   (i) 1-bit Comparator.
   (ii) 5-bit Magnitude Comparator using IC 7485.
5. Realize
   (i) Adder & Subtractors using IC 74153.
   (ii) 4-variable function using IC74151(8:1MUX).

6. Realize

(i) Adder &Subtractors using IC74139.

(ii) Binary to Gray code conversion & vice-versa (74139)

7. Realize the following flip-flops using NAND Gates.

Master-Slave JK, D & T Flip-Flops.

8. Realize the following shift registers using IC7474/7495

(i) SISO (ii) SIPO (iii) PISO (iv) PIPO (v) Ring (vi) Johnson counter

9. Realize

(i) Design Mod – N Synchronous Up Counter & Down Counter using 7476 JK Flip-flop

(ii) Mod-N Counter using IC7490 / 7476

(iii) Synchronous counter using IC74192

10. Design Pseudo Random Sequence generator using 7495.

11. Design Serial Adder with Accumulator and Simulate using Simulation tool.

12. Design Binary Multiplier and Simulate using Simulation tool.

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Design, realize and verify De Morgan's Theorem, SOP, POS forms
2. Demonstrate the truth table of various expressions and combinational circuits using logic gates.
3. Design various combinational circuits such as adders, subtractors, comparators, multiplexers and demultiplexers.
4. Construct flips-flops, counters and shift registers.
5. Simulate Serial adder and Binary Multiplier.

Conduct of Practical Examination:

- All laboratory experiments are to be included for practical examination.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

MICROCONTROLLER LABORATORY

Laboratory Code : **18ECL47**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week : 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Levels : L1, L2, L3		Exam Hours : 03
CREDITS 02		

Course Learning Objectives: This laboratory course enables students to

- Understand the basics of microcontroller and its applications.
- Have in-depth knowledge of 8051 assembly language programming.
- Understand controlling the devices using C programming.
- The concepts of I/O interfacing for developing real time embedded systems.

Laboratory Experiments

I. PROGRAMMING

1. Data Transfer: Block Move, Exchange, Sorting, Finding largest element in an array.
2. Arithmetic Instructions - Addition/subtraction, multiplication and division, square, Cube – (16 bits Arithmetic operations – bit addressable).
3. Counters.
4. Boolean & Logical Instructions (Bit manipulations).
5. Conditional CALL & RETURN.
6. Code conversion: BCD – ASCII; ASCII – Decimal; Decimal - ASCII; HEX - Decimal and Decimal - HEX.
7. Programs to generate delay, Programs using serial port and on-Chip timer/counter.

II. INTERFACING

1. Interface a simple toggle switch to 8051 and write an ALP to generate an interrupt which switches on an LED (i) continuously as long as switch is on and (ii) only once for a small time when the switch is turned on.
2. Write a C program to (i) transmit and (ii) to receive a set of characters serially by interfacing 8051 to a terminal.
3. Write ALPs to generate waveforms using ADC interface.
4. Write ALP to interface an LCD display and to display a message on it.
5. Write ALP to interface a Stepper Motor to 8051 to rotate the motor.
6. Write ALP to interface ADC-0804 and convert an analog input connected to it.

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Enhance programming skills using Assembly language and C.
2. Write Assembly language programs in 8051 for solving simple problems that manipulate input data using different instructions of 8051.
3. Interface different input and output devices to 8051 and control them using Assembly language programs.
4. Interface the serial devices to 8051 and do the serial transfer using C programming.
5. Develop applications based on Microcontroller 8051.

Conduct of Practical Examination:

- All laboratory experiments are to be included for practical examination.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

ANALOG CIRCUITS LABORATORY

Laboratory Code : **18ECL48**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week : 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Levels : L1, L2, L3		Exam Hours : 03
CREDITS 02		

Course Learning Objectives: This laboratory course enables students to

- Understand the circuit configurations and connectivity of BJT and FET Amplifiers and Study of frequency response
- Design and test of analog circuits using OPAMPs
- Understand the feedback configurations of transistor and OPAMP circuits
- Use of circuit simulation for the analysis of electronic circuits.

Laboratory Experiments

PART A : Hardware Experiments

1. Design and setup the Common Source JFET/MOSFET amplifier and plot the frequency response.
2. Design and set up the BJT common emitter voltage amplifier with and without feedback and determine the gain- bandwidth product, input and output impedances.
3. Design and set-up BJT/FET i) Colpitts Oscillator and ii) Crystal Oscillator
4. Design active second order Butterworth low pass and high pass filters.
5. Design Adder, Integrator and Differentiator circuits using Op-Amp
6. Test a comparator circuit and design a Schmitt trigger for the given UTP and LTP values and obtain the hysteresis.
7. Design 4 bit R – 2R Op-Amp Digital to Analog Converter (i) using 4 bit binary input from toggle switches and (ii) by generating digital inputs using mod-16 counter.
8. Design Monostable and a stable Multivibrator using 555 Timer.

PART-B : Simulation using EDA software (EDWinXP, PSpice, MultiSim, Proteus, CircuitLab or any other equivalent tool can be used)

1. RC Phase shift oscillator and Hartley oscillator
2. Narrow Band-pass Filter and Narrow band-reject filter
3. Precision Half and full wave rectifier
4. Monostable and Astable Multivibrator using 555 Timer.

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Analyze Frequency response of JFET/MOSFET amplifier.
2. Design BJT/FETs amplifier with and without feedback and evaluate their performance characteristics.
3. Apply the knowledge gained in the design of BJT/FET circuits in Oscillators.
4. Design analog circuits using OPAMPs for different applications.
5. Simulate and analyze analog circuits that uses ICs for different electronic applications.

Conduct of Practical Examination:

- All laboratory experiments are to be included for practical examination.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

Reference Books:

1. David A Bell, "Fundamentals of Electronic Devices and Circuits Lab Manual, 5th Edition, 2009, Oxford University Press.

DIGITAL SIGNAL PROCESSING LABORATORY

Course Code : **18ECL57**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This course will enable students to

- Simulate discrete time signals and verification of sampling theorem.
- Compute the DFT for a discrete signal and verification of its properties using MATLAB.
- Find solution to the difference equations and computation of convolution and correlation along with the verification of properties.
- Compute and display the filtering operations and compare with the theoretical values.
- Implement the DSP computations on DSP hardware and verify the result.

Laboratory Experiments

Following Experiments to be done using MATLAB / SCILAB / OCTAVE or equivalent:

1. Verification of sampling theorem (use interpolation function).

2. Linear and circular convolution of two given sequences, Commutative, distributive and associative property of convolution.

3. Auto and cross correlation of two sequences and verification of their properties

4. Solving a given difference equation.

5. Computation of N point DFT of a given sequence and to plot magnitude and phase spectrum (using DFT equation and verify it by built-in routine).

6. (i) Verification of DFT properties (like Linearity and Parseval's theorem, etc.)
   (ii) DFT computation of square pulse and Sinc function etc.

7. Design and implementation of Low pass and High pass FIR filter to meet the desired specifications (using different window techniques) and test the filter with an audio file. Plot the spectrum of audio signal before and after filtering.

8. Design and implementation of a digital IIR filter (Low pass and High pass) to meet given specifications and test with an audio file. Plot the spectrum of audio signal before and after filtering.

Following Experiments to be done using DSP kit

9. Obtain the Linear convolution of two sequences.
10. Compute Circular convolution of two sequences.
11. Compute the N-point DFT of a given sequence.
12. Determine the Impulse response of first order and second order system.
13. Generation of sine wave and standard test signals

Course Outcomes:

On the completion of this laboratory course, the students will be able to:

1. Understand the concepts of analog to digital conversion of signals and frequency domain sampling of signals.
2. Model the discrete time signals and systems and verify its properties and results.
3. Implement discrete computations using DSP processor and verify the results.
4. Realize the digital filters using a simulation tool and analyze the response of the filter for an audio signal.
5. Write programs using Matlab / Scilab/Octave to illustrate DSP concepts.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
3. Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

Reference Books:

1. Vinay K Ingle, John G Proakis, Digital Signal Processing using MATLAB, Fourth Edition, Cengage India Private Limited, 2017.

HDL LABORATORY

Course Code : **18ECL58**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This course will enable students to:

- Familiarize with the CAD tool to write HDL programs.
- Understand simulation and synthesis of digital design.
- Program FPGAs/CPLDs to synthesize the digital designs.
- Interface hardware to programmable ICs through I/O ports.
- Choose either Verilog or VHDL for a given Abstraction level.

Note: Programming can be done using any compiler. Download the programs on a FPGA/CPLD board and performance testing may be done using 32 channel pattern generator and logic analyzer apart from verification by simulation with tools such as Altera/Modelsim or equivalent.

PART A

1. Write Verilog program for the following combinational design along with test bench to verify the design:
   a. 2 to 4 decoder realization using NAND gates only (structural model)
   b. 8 to 3 encoder with priority and without priority (behavioural model)
   c. 8 to 1 multiplexer using case statement and if statements
   d. 4-bit binary to gray converter using 1-bit gray to binary converter 1-bit adder and subtractor
2. Model in Verilog for a full adder and add functionality to perform logical operations of XOR, XNOR, AND and OR gates. Write test bench with appropriate input patterns to verify the modeled behaviour.
3. Verilog 32-bit ALU shown in figure below and verify the functionality of ALU by selecting appropriate test patterns. The functionality of the ALU is presented in Table 1.
   a. Write test bench to verify the functionality of the ALU considering all possible input patterns
   b. The enable signal will set the output to required functions if enabled, if disabled all the outputs are set to tri-state
   c. The acknowledge signal is set high after every operation is complete

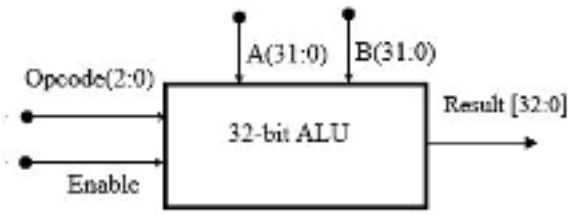


Figure 1 ALU top level block diagram

Table 1 ALU Functions

Opcode (2:0)	ALU Operation	Remarks	
000	A + B	Addition of two numbers	Both A and B are in two's complement format
001	A – B	Subtraction of two numbers	
010	A + 1	Increment Accumulator by 1	A is in two's complement format
011	A - 1	Decrement accumulator by 1	
100	A	True	Inputs can be in any format
101	A Complement	Complement	
110	A OR B	Logical OR	
111	A AND B	Logical AND	

4. Write Verilog code for SR, D and JK and verify the flip flop.
5. Write Verilog code for 4-bit BCD synchronous counter.
6. Write Verilog code for counter with given input clock and check whether it works as clock divider performing division of clock by 2, 4, 8 and 16. Verify the functionality of the code.

PART-B

Interfacing and Debugging (EDWinXP, PSpice, MultiSim, Proteus, CircuitLab or any other equivalent tool can be used)

1. Write a Verilog code to design a clock divider circuit that generates 1/2, 1/3rd and 1/4th clock from a given input clock. Port the design to FPGA and validate the functionality through oscilloscope.
2. Interface a DC motor to FPGA and write Verilog code to change its speed and direction.
3. Interface a Stepper motor to FPGA and write Verilog code to control the Stepper motor rotation which in turn may control a Robotic Arm. External switches to be used for different controls like rotate the Stepper motor (i) +N steps if Switch no.1 of a Dip switch is closed (ii) +N/2 steps if Switch no. 2 of a Dip switch is closed (iii) –N steps if Switch no. 3 of a Dip switch is closed etc.

4. Interface a DAC to FPGA and write Verilog code to generate Sine wave of frequency F KHz (eg. 200 KHz) frequency. Modify the code to down sample the frequency to F/2 KHz. Display the Original and Down sampled signals by connecting them to an oscilloscope.

5. Write Verilog code using FSM to simulate elevator operation.

6. Write Verilog code to convert an analog input of a sensor to digital form and to display the same on a suitable display like set of simple LEDs, 7-segment display digits or LCD display.

Course Outcomes: At the end of this course, students will be able to:

1. Write the Verilog/VHDL programs to simulate Combinational circuits in Dataflow, Behavioral and Gate level Abstractions.
2. Describe sequential circuits like flip flops and counters in Behavioral description and obtain simulation waveforms.
3. Use FPGA/CPLD kits for down loading Verilog codes and check output.
4. Synthesize Combinational and Sequential circuits on programmable ICs and test the hardware.
5. Interface the hardware to the programmable chips and obtain the required output

Conduct of Practical Examination:

- All laboratory experiments are to be included for practical examination.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

EMBEDDED SYSTEMS LABORATORY

Course Code : **18ECL66**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS– 02		

Course Learning Objectives: This course will enable students to:

- Understand the instruction set of ARM Cortex M3, a 32 bit microcontroller and the software tool required for programming in Assembly and C language.
- Program ARM Cortex M3 using the various instructions in assembly level language for different applications.
- Interface external devices and I/O with ARM Cortex M3.
- Develop C language programs and library functions for embedded system applications.

Laboratory Experiments

Conduct the following experiments on an ARM CORTEX M3 evaluation board to learn ALP and using evaluation version of Embedded 'C' & Keil uVision-4 tool/compiler.

PART A:

1. ALP to multiply two 16 bit binary numbers.
2. ALP to find the sum of first 10 integer numbers.
3. ALP to find the number of 0's and 1's in a 32 bit data
4. ALP to find determine whether the given 16 bit is even or odd
5. ALP to write data to RAM

PART B:

6. Display "Hello world" message using internal UART
7. Interface and Control the speed of a DC Motor.
8. Interface a Stepper motor and rotate it in clockwise and anti-clockwise direction.
9. Interface a DAC and generate Triangular and Square waveforms.
10. Interface a 4x4 keyboard and display the key code on an LCD.
11. Demonstrate the use of an external interrupt to toggle an LED On/Off.
12. Display the Hex digits 0 to F on a 7-segment LED interface, with an appropriate delay.
13. Measure Ambient temperature using a sensor and SPI ADC IC.

Course outcomes: After studying this course, students will be able to:

1. Understand the instruction set of 32 bit microcontroller ARM Cortex M3, and the software tool required for programming in Assembly and C language.
2. Develop assembly language programs using ARM Cortex M3 for different applications.
3. Interface external devices and I/O with ARM Cortex M3.
4. Develop C language programs and library functions for embedded system applications.
5. Analyze the functions of various peripherals, peripheral registers and power saving modes of ARM Cortex M3

Conduction of Practical Examination:

- One Question from PART A and one Question from PART B to be asked in the examination.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

COMMUNICATION LABORATORY

Course Code : **18ECL67**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This course will enable students to:

- Design and test the communication circuits for different analog modulation schemes.
- Design and demonstrate the digital modulation techniques
- Demonstrate and measure the wave propagation in microstrip antennas
- Characteristics of microstrip devices and measurement of its parameters.
- Understand the probability of error computations of coherent digital modulation schemes.

Laboratory Experiments

PART-A: Expt. 1 to Expt. 5 have to be performed using discrete components.

1. Amplitude Modulation and Demodulation: i) Standard AM, ii)DSBSC (LM741 and LF398 ICs can be used)
2. Frequency modulation and demodulation (IC 8038/2206 can be used)
3. Pulse sampling, flat top sampling and reconstruction
4. Time Division Multiplexing and Demultiplexing of two bandlimited signals.
5. FSK and PSK generation and detection
6. Measurement of frequency, guide wavelength, power, VSWR and attenuation in microwave test bench.
7. Obtain the Radiation Pattern and Measurement of directivity and gain of microstrip dipole and Yagi antennas.
8. Determination of
   a. Coupling and isolation characteristics of microstrip directional coupler.
   b. Resonance characteristics of microstrip ring resonator and computation of dielectric constant of the substrate.
   c. Power division and isolation of microstrip power divider.

PART-B: Simulation Experiments using SCILAB/MATLAB/Simulink or LabVIEW

1. To Simulate NRZ, RZ, half-sinusoid & raised cosine pulses and generate eye diagram for binary polar signaling.
2. Pulse code modulation and demodulation system.

3. Computations of the Probability of bit error for coherent binary ASK, FSK and PSK for an AWGN Channel and compare them with their performance curves.
4. Digital Modulation Schemes i) DPSK Transmitter and Receiver, ii) QPSK Transmitter and Receiver.

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Design and test circuits for analog modulation and demodulation schemes viz., AM, FM, etc.
2. Determine the characteristics and response of microwave waveguide.
3. Determine characteristics of microstrip antennas and devices & compute the parameters associated with it.
4. Design and test the digital and analog modulation circuits and display the waveforms.
5. Simulate the digital modulation systems and compare the error performance of basic digital modulation schemes.

Conduct of Practical Examination:

- All laboratory experiments are to be considered for practical examination.
- For examination one question from **PART-A** and one question from **PART-B or** only one question from **PART-B** experiments based on the complexity, to be set.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

COMPUTER NETWORKS LAB

Course Code : **18ECL76**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This course will enable students to:

- Choose suitable tools to model a network and understand the protocols at various OSI reference levels.
- Design a suitable network and simulate using a Network simulator tool.
- Simulate the networking concepts and protocols using C/C++ programming.
- Model the networks for different configurations and analyze the results.

Laboratory Experiments

PART-A: Simulation experiments using NS2/ NS3/ OPNET/ NCTUNS/ NetSim/QualNet or any other equivalent tool

1. Implement a point to point network with four nodes and duplex links between them. Analyze the network performance by setting the queue size and varying the bandwidth.
2. Implement a four node point to point network with links n0-n2, n1-n2 and n2-n3. Apply TCP agent between n0-n3 and UDP between n1-n3. Apply relevant applications over TCP and UDP agents changing the parameter and determine the number of packets sent by TCP/UDP.
3. Implement Ethernet LAN using n (6-10) nodes. Compare the throughput by changing the error rate and data rate.
4. Implement Ethernet LAN using n nodes and assign multiple traffic to the nodes and obtain congestion window for different sources/ destinations.
5. Implement ESS with transmission nodes in Wireless LAN and obtain the performance parameters.
6. Implementation of Link state routing algorithm.

PART-B: Implement the following in C/C++

1. Write a program for a HLDC frame to perform the following.
   i) Bit stuffing
   ii) Character stuffing.
2. Write a program for distance vector algorithm to find suitable path for transmission.
3. Implement Dijkstra's algorithm to compute the shortest routing path.

4. For the given data, use CRC-CCITT polynomial to obtain CRC code. Verify the program for the cases
   a. Without error
   b. With error
5. Implementation of Stop and Wait Protocol and Sliding Window Protocol
6. Write a program for congestion control using leaky bucket algorithm.

Course outcomes: On the completion of this laboratory course, the students will be able to:

1. Choose suitable tools to model a network.
2. Use the network simulator for learning and practice of networking algorithms.
3. Illustrate the operations of network protocols and algorithms using C programming.
4. Simulate the network with different configurations to measure the performance parameters.
5. Implement the data link and routing protocols using C programming.

Conduct of Practical Examination:

- All laboratory experiments are to be included for practical examination.
- For examination one question from software and one question from hardware or only one hardware experiments based on the complexity to be set.
- Students are allowed to pick one experiment from the lot.
- Strictly follow the instructions as printed on the cover page of answer script for breakup of marks.
- Change of experiment is allowed only once and Marks allotted to the procedure part to be made zero.

VLSI LABORATORY

Course Code : **18ECL77**	CIE Marks : 40	SEE Marks : 60
Lecture Hours/Week: 02 Hours Tutorial (Instructions) + 02 Hours Laboratory		
RBT Level : L1, L2, L3	Exam Hours : 03	
CREDITS – 02		

Course Learning Objectives: This course will enable students to:

- Design, model, simulate and verify CMOS digital circuits
- Design layouts and perform physical verification of CMOS digital circuits
- Perform ASIC design flow and understand the process of synthesis, synthesis constraints and evaluating the synthesis reports to obtain optimum gate level netlist
- Perform RTL-GDSII flow and understand the stages in ASIC design

Experiments can be conducted using any of the following or equivalent design tools: Cadence/Synopsis/Mentor Graphics/Microwind

Laboratory Experiments

Part – A

Analog Design

Use any VLSI design tools to carry out the experiments, use library files and technology files below 180 nm.

1.a) Capture the schematic of CMOS inverter with load capacitance of 0.1pF and set the widths of inverter with Wn = Wp, Wn = 2Wp, Wn = Wp/2 and length at selected technology. Carry out the following:

i. Set the input signal to a pulse with rise time, fall time of 1ns and pulse width of 10ns and time period of 20ns and plot the input voltage and output voltage of designed inverter?

ii. From the simulation results compute tpHL, tpLH and td for all three geometrical settings of width?

iii. Tabulate the results of delay and find the best geometry for minimum delay for CMOS inverter?

1. b) Draw layout of inverter with Wp/Wn = 40/20, use optimum layout methods. Verify for DRC and LVS, extract parasitic and perform post layout simulations, compare the results with pre-layout simulations. Record the observations.

2. a) Capture the schematic of 2-input CMOS NAND gate having similar delay as that of CMOS inverter computed in experiment 1. Verify the functionality of NAND gate and also find out the delay td for all four possible combinations of input vectors. Table the results. Increase the drive strength to 2X and 4X and tabulate the results.

2. b) Draw layout of NAND with Wp/Wn = 40/20, use optimum layout methods. Verify for DRC and LVS, extract parasitic and perform post layout simulations, compare the results with pre-layout simulations. Record the observations.

3. a) Capture schematic of Common Source Amplifier with PMOS Current Mirror Load and find its transient response and AC response? Measures the Unity Gain Bandwidth (UGB), amplification factor by varying transistor geometries, study the impact of variation in width to UGB.

3. b) Draw layout of common source amplifier, use optimum layout methods. Verify for DRC and LVS, extract parasitic and perform post layout simulations, compare the results with pre-layout simulations. Record the observations.

4.a) Capture schematic of two-stage operational amplifier and measure the following:

i. UGB
ii. dB bandwidth
iii. Gain margin and phase margin with and without coupling capacitance
iv. Use the op-amp in the inverting and non-inverting configuration and verify its functionality
v. Study the UGB, 3dB bandwidth, gain and power requirement in op-amp by varying the stage wise transistor geometries and record the observations.

4.b) Draw layout of two-stage operational amplifier with minimum transistor width set to 300 (in 180/90/45 nm technology), choose appropriate transistor geometries as per the results obtained in 4.a. Use optimum layout methods. Verify for DRC and LVS, extract parasitic and perform post layout simulations, compare the results with pre-layout simulations. Record the observations.

Part - B

Digital Design

Carry out the experiments using semicustom design flow or ASIC design flow, use technology library 180/90/45nm and below

Note: The experiments can also be carried out using FPGA design flow, it is required to set appropriate constraints in FPGA advanced synthesis options

1. Write verilog code for 4-bit up/down asynchronous reset counter and carry out the following:
   a. Verify the functionality using test bench
   b. Synthesize the design by setting area and timing constraint. Obtain

the gate level netlist, find the critical path and maximum frequency of operation. Record the area requirement in terms of number of cells required and properties of each cell in terms of driving strength, power and area requirement.

c. Perform the above for 32-bit up/down counter and identify the critical path, delay of critical path, and maximum frequency of operation, total number of cells required and total area.

2. Write verilog code for 4-bit adder and verify its functionality using test bench. Synthesize the design by setting proper constraints and obtain the net list. From the report generated identify critical path, maximum delay, total number of cells, power requirement and total area required. Change the constraints and obtain optimum synthesis results.
3. Write verilog code for UART and carry out the following:
   a. Perform functional verification using test bench
   b. Synthesize the design targeting suitable library and by setting area and timing constraints
   c. For various constrains set, tabulate the area, power and delay for the synthesized netlist
   d. Identify the critical path and set the constraints to obtain optimum gate level netlist with suitable constraints
4. Write verilog code for 32-bit ALU supporting four logical and four arithmetic operations, use case statement and if statement for ALU behavioral modeling.
   a. Perform functional verification using test bench
   b. Synthesize the design targeting suitable library by setting area and timing constraints
   c. For various constrains set, tabulate the area, power and delay for the synthesized netlist
   d. Identify the critical path and set the constraints to obtain optimum gate level netlist with suitable constraints

   Compare the synthesis results of ALU modeled using IF and CASE statements.
5. Write verilog code for Latch and Flip-flop, Synthesize the design and compare the synthesis report (D, SR, JK).
6. For the synthesized netlist carry out the following for any two above experiments:
   a. Floor planning (automatic), identify the placement of pads
   b. Placement and Routing, record the parameters such as no. of layers used for routing, flip method for placement of standard cells, placement of standard cells, routes of power and ground, and routing of standard cells
   c. Physical verification and record the LVS and DRC reports

d. Perform Back annotation and verify the functionality of the design
e. Generate GDSII and record the number of masks and its color composition

Course Outcomes: On the completion of this laboratory course, the students will be able to:

1. Design and simulate combinational and sequential digital circuits using Verilog HDL
2. Understand the Synthesis process of digital circuits using EDA tool.
3. Perform ASIC design flow and understand the process of synthesis, synthesis constraints and evaluating the synthesis reports to obtain optimum gate level net list
4. Design and simulate basic CMOS circuits like inverter, common source amplifier and differential amplifiers.
5. Perform RTL-GDSII flow and understand the stages in ASIC design.

DEPARTMENT
OF
CIVIL ENGINEERING

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - III

COMPUTER AIDED BUILDING PLANNING AND DRAWING			
Course Code	**18CVL37**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Total Number of Lecture/Practice Hours	02	Exam Hours	03

Course Learning Objectives: Provide students with a basic understanding

1. Achieve skill sets to prepare computer aided engineering drawings
2. Understand the details of construction of different building elements.
3. Visualize the completed form of the building and the intricacies of construction based on the engineering drawings.

Module:1

Drawing Basics: Selection of scales for various drawings, thickness of lines, dimensioning, abbreviations and conventional representations as per IS: 962.

Simple engineering drawings with CAD drawing tools : Lines, Circle, Arc, Poly line, Multiline, Polygon, Rectangle, Spline, Ellipse, Modify tools: Erase, Copy, Mirror, Offset, Array, Move, Rotate, Scale, Stretch, Lengthen, Trim, Extend, Break, Chamfer and Fillet, Using Text: Single line text, Multiline text, Spelling, Edit text, Special Features: View tools, Layers concept, Dimension tools, Hatching, Customizing toolbars, Working with multiple drawings.

Module:2

Drawings Related to Different Building Elements:

Following drawings are to be prepared for the data given using CAD Software

a) Cross section of Foundation, masonry wall, RCC columns with isolated & combined footings.
b) Different types of bonds in brick masonry.
c) Different types of staircases – Dog legged, Open well.
d) Lintel and chajja.
e) RCC slabs and beams.
f) Cross section of a pavement.
g) Septic Tank and sedimentation Tank.
h) Layout plan of Rainwater recharging and harvesting system.
i) Cross sectional details of a road for a Residential area with provision for all services.
j) Steel truss (connections Bolted).

Note: Students should sketch to dimension the above in a sketch book before doing the computer drawing.

Module -3:

Building Drawings: Principles of planning, Planning regulations and building bye-laws, factors affecting site selection, Functional planning of residential and public buildings, design aspects for different public buildings. Recommendations of NBC.

Drawing of Plan, elevation and sectional elevation including electrical, plumbing and sanitary services using CAD software for:

1. Single and double story residential building.
2. Hostel building.
3. Hospital building.
4. School building.

Submission drawing (sanction drawing) of two storied residential building with access to terrace including all details and statements as per the local bye-laws

Note:

- Students should sketch to dimension the above in a sketch book before doing the computer drawing
- One compulsory field visit/exercise to be carried out.
- Single line diagrams to be given in the examination.

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Course Outcomes: After studying this course, students will be able to

1. Prepare, read and interpret the drawings in a professional set up.
2. KnowtheproceduresofsubmissionofdrawingsandDevelopworkingandsubmissiondrawingsforbuilding.
3. Plananddesignaresidentialorpublicbuildingasperthegivenrequirements.

Question paper pattern:

- There will be four full questions with sub divisions if necessary from Module2 with each full question carrying twenty five marks. Students have to answer any two questions.
- There will be two full questions from Module 3 with each full question carrying fifty marks. Students have to answer any one question. The conduction of examination and question paper format of should be in lines of 1st year CAED drawing. It's a drawing paper but the exam will be conducted by batches in the computer labs. Question papers should be given in batches.

Textbook:

1. MG Shah, CM Kale, SY Patki, "Building drawing with an integrated approach to Built Environment Drawing" , Tata McGraw Hill Publishing co. Ltd., New Delhi
2. Gurucharan Singh, "Building Construction", Standard Publishers, & distributors, New Delhi.
3. Malik R S and Meo G S, "Civil Engineering Drawing", Asian Publishers/Computech Publications Pvt Ltd.

Reference Books:

1. Time Saver Standard by Dodge F. W., F. W. Dodge Corp.
2. IS: 962-1989 (Code of practice for architectural and building drawing).
3. National Building Code, BIS, New Delhi.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - III

BUILDING MATERIALS TESTING LABORATORY

Course Code	**18CVL38**	**CIE Marks**	**40**
Teaching Hours/Week(L:T:P)	**(0:2:2)**	**SEE Marks**	**60**
Credits	**02**	**Exam Hours**	**03**

Course Learning Objectives: The objectives of this course is to make students to learn:

1. Ability to apply knowledge of mathematics and engineering in calculating the mechanical properties of structural materials.
2. Ability to function on multi-disciplinary teams in the area of materials testing.
3. Ability to use the techniques, skills and modern engineering tools necessary for engineering.
4. Understanding of professional and ethical responsibility in the areas of material testing.
5. Ability to communicate effectively the mechanical properties of materials.

Experiments:

1. Tension test on mild steel and HYSD bars.
2. Compression test on mild steel, cast iron and wood.
3. Torsion test on mild steel circular sections.
4. Bending Test on Wood Under two point loading.
5. Shear Test on Mild steel- single and double shear.
6. Impact test on Mild Steel (Charpy & Izod).
7. Hardness tests on ferrous and non-ferrous metals- Brinell's, Rockwell and Vicker's.
8. Tests on Bricks, Tiles and Concrete Blocks.
9. Tests on Fine aggregates-Moisture content, Specific gravity, Bulk density, Sieve analysis and Bulking.
10. Tests on Coarse aggregates-Absorption, Moisture content, specific gravity, Bulk density and Sieve analysis.
11. Demonstration of Strain gauges and Strain indicators.

NOTE: All tests to be carried out as per relevant latest BIS Codes

Course Outcomes: After successful completion of the course, the students will be able to:

1. Reproduce the basic knowledge of mathematics and engineering in finding the strength in tension, compression, shear and torsion.
2. Identify, formulate and solve engineering problems of structural elements subjected to flexure.
3. Evaluate the impact of engineering solutions on the society and also will be aware of contemporary issues regarding failure of structures due to unsuitable materials.

Question paper pattern:

- Group experiments - Tension test, compression test, torsion test and bending test.
- Individual Experiments – Remaining tests.
- Two questions are to be set - One from group experiments and the other as individual experiment.
- Instructions as printed on the cover page of answer script for split up of marks to be strictly followed.
- All exercises are to be included for practical examination.

Reference Books:

1. Davis, Troxell and Hawk, “Testing of Engineering Materials”, International Student Edition – McGraw Hill Book Co. New Delhi.
2. M L Gambhir and Neha Jamwal, “Building and construction materials-Testing and quality control”, McGraw Hill education (India)Pvt. Ltd.,2014.
3. Fenner, “Mechanical Testing of Materials”, George Newnes Ltd. London.
4. Holes K A, “Experimental Strength of Materials”, English Universities Press Ltd. London.
5. Suryanarayana A K, “Testing of Metallic Materials”, Prentice Hall of India Pvt. Ltd. New Delhi.
6. Kukreja C B, Kishore K. and Ravi Chawla “Material Testing Laboratory Manual”, Standard Publishers & Distributors1996.
7. Relevant **latest IS Codes.**

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

ENGINEERING GEOLOGY LABORATORY

Course Code	**18CVL47**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students

1. To expose the students to identify the minerals and rocks based on their inherent properties and uses in civil engineering,
2. To educate the students in the interpretation of the geological maps related to civil engineering projects.
3. Students will learn the dip and strike, thickness of strata, Bore hole problems related to geological formation related to foundation, tunnels, reservoirs and mining.
4. Students will understand the Field knowledge by visiting the site like problems Faults, Folds, Joints, Unconformity etc.

Experiments

1. Physical properties of minerals: Identification of
   i. Rock Forming minerals - Quartz group, Feldspar group, Garnet group, Mica group & Talc, Chlorite, Olivine, Asbestos, Calcite, Gypsum, etc
   ii. Ore forming minerals- Magnetite, Hematite, Pyrite, Pyralusite, Graphite, Chromite, etc
2. Engineering Properties of Rocks: Identification of
   i. Igneous rocks- Types of Granites, Dolerite, Granite Porphyry, Basalt, Pumice etc
   ii. Sedimentary rocks- Sandstone, Lime stone, Shale, Laterite, Breccia etc
   iii. Metamorphic rocks- Gneiss, Slate, Schist, Marble, Quartzite etc
3. Borehole problems: Determination of subsurface behavior of rocks, their attitude related to foundation, tunnels, reservoirs and mining. Triangular and Square methods. (2 methods)
4. Dip and Strike problems. Determine Apparent dip and True dip. (2 methods)
5. Calculation of Vertical, True thickness and width of the outcrops. (3 methods)
6. Study of Toposheets and Interpretation, Extraction of Drainage Basin and its Morphometric Analysis. (3Toposheets)
7. Interpretation and drawing of sections for geological maps showing tilted beds, faults, unconformities etc. (10 Maps)
8. Interpretation of Satellite Images. (2 Satellite images)
9. Field work– To identify Minerals, Rocks, Geomorphology and Structural features with related to the Civil Engineering projects.

Course outcomes: During this course, students will develop expertise in;

1. The students able to identify the minerals, rocks and utilize them effectively in civil engineering practices.
2. The students will interpret and understand the geological conditions of the area for implementation of civil engineering projects.
3. The students will interpret subsurface information such as thickness of soil, weathered zone, depth of hard rock and saturated zone by using geophysical methods.
4. The students will learn the techniques in the interpretation of LANDSAT Imageries to find out the lineaments and other structural features for the given area.
5. The students will be able to identify the different structures in the field.

Reference Books:

1. MP Billings, Structural Geology, CBS Publishers and Distributors, New Delhi.
2. B.S. Satyanarayana Swamy, Engineering Geology Laboratory Manual, Dhanpat Rai Sons, New Delhi.
3. LRA Narayan, remote sensing and its applications, UniversityPress.
4. P.K.MUKERJEE, Textbook of Geology, WorldPress Pvt. Ltd., Kolkatta
5. JohnI Plattand John Challinor, Simple Geological Structures,ThomasMurthy&Co, London.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

FLUID MECHANICS AND HYDRAULIC MACHINES LABORATORY

Course Code	**18CVL48**	CIE Marks	40
Teaching ours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students to;

1. calibrate flow measuring devices
2. determine the force exerted by jet of water on vanes
3. measure discharge and head losses in pipes
4. understand the fluid flow pattern

Experiments:

1. Verification of Bernoulli's equation.
2. Determination of Cd for Venturimeter and Orifice meter.
3. Determination of hydraulic coefficients of small vertical orifice.
4. Determination of C_d for Rectangular and Triangular notch
5. Determination of C_d for Ogee and Broad crested weir
6. Determination of C_d for Venturiflume
7. Determination of force exerted by a jet on flat and curved vanes.
8. Determination of efficiency of Pelton wheel turbine
9. Determination of efficiency of Francis turbine
10. Determination of efficiency of Kaplan turbine
11. Determination of efficiency of centrifugal pump
12. Determination of Major Loss in Pipes
13. Determination of Minor losses in pipe due to sudden enlargement, sudden contraction and bend.

Course outcomes: During the course of study students will develop understanding of:

1. Properties of fluids and the use of various instruments for fluid flow measurement.
2. Working of hydraulic machines under various conditions of working and their characteristics.

- All experiments are to be included in the examination except demonstration exercises.
- Candidate to perform experiment assigned to him.
- Marks are to be allotted as per the split up of marks shown on the cover page of answer script.

Reference Books:

1. Sarbjit Singh , Experiments in Fluid Mechanics - PHI Pvt. Ltd.- New Delhi
2. Mohd. Kaleem Khan, "Fluid Mechanics and Machinery", Oxford University Press
3. Hydraulics and Fluid Mechanics' – Dr. P.N. Modi& D r S.M. Seth, Standard Book House- New Delhi. 2009Edition

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - V

SURVEYING PRACTICE

Course Code	**18CVL57**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students to

1. Apply the basic principles of engineering surveying and measurements
2. Followeffectivelyfieldproceduresrequiredforaprofessionalsurveyor
3. Use techniques, skills and conventional surveying instruments necessary for engineering practice.

1. a) Measurements of distances using tape along with horizontal planes and slopes, direct ranging.
   b) Setting out perpendiculars. Use of cross staff, optical square.
2. Measurements of bearings / directions using prismatic compass, setting of geometrical figures using prismatic compass.
3. Determination of distance between two inaccessible points using compass and
4. Determination of reduced levels of points using dumpy level/auto level (simple
5. Determination of reduced levels of points using dumpy level/auto level (differential leveling and inverted leveling).
6. To determine the difference in elevation between two points using Reciprocal leveling and to determine the collimation error.
7. To conduct profile leveling, cross sectioning and block leveling. Plotting profile and cross sectioning in excel. Block contour on graph paper to scale.
8. Measurement of horizontal angle by repetition and reiteration methods and Measurement of vertical angles using theodolite.
9. Determination of horizontal distance and vertical height to a base in accessible object using theodolite by single plane and double plane method.
10. To determine distance and elevation using tachometric surveying with horizontal and inclined line of sight.
11. Closed traverse surveying using Theodolite and applying corrections for error of closure by transit rule and Bowditch rule.
12. To locate the points using Radiation and Intersection method of Plane table surveying.
13. To solve three point problem in plane table using Bessel's graphical solution.
14. DemonstrationofMinorinstrumentslikeClinometer,CeylonGhattracer,Boxsextant,Hand level, Planimeter, nautical extant and Penta graph.

Course Outcomes: After a successful completion of the course, the student will be able to:

1. Apply the basic principles of engineering surveying and for linear and angular measurements.
2. Comprehendeffectivelyfieldproceduresrequiredforaprofessionalsurveyor.
3. Use techniques, skills and conventional surveying instruments necessary for engineering practice.

Question paper pattern:

- All are individual experiments.
- Instructions as printed on the cover page of answer script for split up of marks to be strictly followed.
- All exercises are to be included for practical examination.

Textbooks:

1. B.C.Punmia,"SurveyingVol.1",LaxmiPublicationspvt.Ltd.,NewDelhi– 2009.
2. Kanetkar T P and S V Kulkarni, Surveying and Levelling Part I, Pune Vidyarthi Griha Prakashan, 1988.

Reference Books:
1. S. K. Duggal, "SurveyingVol.1",Tata Mc Graw Hill Publishing Co. Ltd. New Delhi. 2009. 2. K.R.Arora, "SurveyingVol.1" Standard Book House, New Delhi.–2010.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - V

CONCRETE AND HIGHWAY MATERIALS LABORATORY

Course Code	**18CVL58**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students

1. To learn the procedure of testing concrete ingredients and properties of concrete as per standard code recommendations.
2. To learn the procedure of testing bituminous materials as per standard code recommendations.
3. To relate material characteristics to various application of construction.

Modules

Part A: Concrete Lab

1. Tests on Cement:
    a. Normal Consistency
    b. Setting time
    c. Compressive strength
    d. fineness by air permeability test
    e. specific gravity
2. Tests on Concrete:
    a. Design of concrete mix as perIS-10262
    b. Tests on fresh concrete:
        i. slump,
        ii. compaction factor and
        iii. Vee Bee test
    c. Tests on hardened concrete:
        i. compressive strength test,
        ii. split tensile strength test,
        iii. flexural strength test
    d. NDT tests by re bound hammer and pulse velocity test.
3. Tests on Self Compacting Concrete:
    a. Design of self compacting concrete, As per Is 10262:2019
    b. slump flow test,
    c. V-funnel test,
    d. J-Ring test,
    e. U Box test and
    f. L Box test

Part B: Highway materials Lab

1. Tests on Aggregates
    a. Aggregate Crushing value
    b. Los Angeles abrasion test
    c. Aggregate impact test
    d. Aggregate shape tests(combined index and angularity number)
2. Tests on Bituminous Materials
    a. Penetration test
    b. Ductility test
    c. Softening point test
    d. Specific gravity test
    e. Viscosity test by tarviscometer
    f. Bituminous Mix Design by Marshal Method (Demonstration only)
3. Tests on Soil
    a. Wet sieve analysis
    b. CBR test

Course Outcomes: During this course, students will develop expertise in

1. Able to interpret the experimental results of concrete and highway materials based on laboratory tests.
2. Determine the quality and suitability of cement.
3. Design appropriate concrete mix Using Professional codes.
4. Determine strength and quality of concrete.
5. Evaluate the strength of structural elements using NDT techniques.
6. Test the soil for its suitability as sub grade soil for pavements.

Question paper pattern:

- All are individual experiments
- Instructions as printed on the cover page of answer script for split up of marks to be strictly followed.
- All exercises are to be included for practical examination.

Reference Books:

1. M. L. Gambir, "Concrete Manual", Danpat Rai and sons, New Delhi
2. Shetty M.S, "Concrete Technology", S. Chand &Co. Ltd, New Delhi.
3. Mehta P.K, "Properties of Concrete", Tata McGraw Hill Publications, New Delhi.
4. Neville AM, "Properties of Concrete", ELBS Publications, London.
5. Relevant BIS codes.
6. S K Khanna, C E G Justo and A Veeraragavan, "Highway Materials Testing Laboratory Manual", Nem Chand Bros, Roorkee.
7. L R Kadiyali, "Highway Engineering", Khanna Publishers, New Delhi.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VI

SOFTWARE APPLICATION LABORATORY

Course Code	**18CVL66**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students to

1. Use industry standard software in a professional set up.
2. Understand the elements of finite element modeling, specification of loads and boundary condition, performing analysis and interpretation of results for final design.
3. Develop customized automation tools.

Module -1

Use of civil engineering software's:

Use of software's for:

1. Analysis of plane trusses, continuous beams, portal frames.
2. 3D analysis of multistoried frame structures.

Module -2

1. **Project Management- Exercise on Project planning and scheduling of a building project using any project management software:**

a. Understanding basic features of Project management software
b. Constructing Project: create WBS, Activities, and tasks and Computation Time using Excel spread sheet and transferring the same to Project management software.
c. Identification of Predecessor and Successor activities with constrain
d. Constructing Network diagram (AON Diagram) and analyzing for Critical path, Critical activities and Othernon Critical paths, Project duration, Floats.
e. Study on various View options available
f. Basic understanding about Resource Creation and allocation
g. Understanding about Splitting the activity, Linking multiple activity, assigning Constrains, Merging Multiple projects, Creating Baseline Project

1. **GIS applications using open source software:**

a. To create shape files for point, line and polygon features with a map as reference.
b. To create decision maps for specific purpose.

Module -3

Use of EXCEL spread sheets:

Design of singly reinforced and doubly reinforced rectangular beams, design of one way and two way slabs, computation of earthwork, Design of horizontal curve by offset method, Design of super elevation.

Course Outcomes: After studying this course, students will be able to:

use software skills in a professional set up to automate the work and thereby reduce cycle time for completion of the work

Question paper pattern:

- The question paper will have 6 questions under 3 modules.
- There will be two full questions (with a maximum of three subdivisions, if necessary) from each module.
- Each full question shall cover the topics under a module.
- Module-1: 40 Marks, Module-2: 30 Marks, Module-3: 30 Marks.
- The students shall answer three full questions, selecting one full question from each module.

Reference Books: Training manuals and User manuals and Relevant course reference books

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VI

ENVIRONMENTAL ENGINEERING LABORATORY

Course Code	**18CVL67**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students,

1. To learn different methods of water & waste water quality
2. To conduct experiments to determine the concentrations of water and waste water
3. To determine the degree and type of treatment
4. To understand the environmental significance and application in environmental engineering practice

1. Preparation chemical solutions required for analysis and sampling methodologies
2. Determination of pH, Conductivity, TDS and Turbidity.
3. Determination of Acidity and Alkalinity
4. Determination of Calcium, Magnesium and Total Hardness.
5. Determination of Dissolved Oxygen
6. Determination of BOD.
7. Determination of Chlorides
8. Determination of percentage of % of available chlorine in bleaching powder sample, Determination of Residual Chlorine and chlorine demand.
9. Determination of Solids in Sewage: i) Total Solids, ii) Suspended Solids, iii) Dissolved Solids, iv) Volatile Solids, Fixed Solids v) Settleable Solids.
10. Determination of optimum coagulant dosage using Jar test apparatus.
11. Determination Nitrates and Iron by spectrophotometer
12. Determination of COD(Demonstration)
13. Air Quality Monitoring (Demonstration)
14. Determination of Sound by Sound level meter at different locations (Demonstration)

Course Outcomes: After studying this course, students will be able to:

1. Acquire capability to conduct experiments and estimate the concentration of different parameters.
2. Compare the result with standards and discuss based on the purpose of analysis.
3. Determine type of treatment, degree of treatment for water and waste water.
4. Identify the parameter to be analyzed for the student project work in environmental stream.

Question paper pattern:

- Two experiments shall be asked from the above set of experiments.
- One experiment to be conducted and for the other student should write detailed procedure.

Reference Books:

1. IS codes-3025 series
2. Standard method for examination of water and waste water, APHA, 20th edition
3. Clair Sawyer and Perry McCarty and Gene Parkin, "Chemistry for Environmental Engineering and Science", McGraw-Hill Series in Civil and Environmental Engineering.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VI

EXTENSIVE SURVEY PROJECT

Course Code	**18CVEP68**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Total Number of Practice Hours	02	Exam Hours	03

Course Learning Objectives: This course will enable students to

1. Understand the practical applications of Surveying.
2. Use Total station and other Measurement Equipments.
3. Work in teams and learn time management, communication and presentation skills

Note:

- To be conducted between 5th & 6th Semester for a period of 2 weeks including training on total station.
- Viva voce conducted along with 6th semester exams
- An extensive project preparation training involving investigation, collection of data is to be conducted. **Use of Total Station is compulsory for minimum of TWO projects.**
- The student shall submit a project report consisting of designs and drawings.
- Drawings should be done using CAD and survey work using total station
- Students should learn data download from total station, generation of contours, block leveling, longitudinal and cross sectional diagrams, and capacity volume calculation by using relevant softwares
- The course coordinators should give exposure and simulate activities to achieve the course outcomes

1. **NEW TANK PROJECTS:** The work shall consist of;
   a. Reconnaissance survey for selection of site and conceptualization of project.
   b. Alignment of center line of the proposed bund, Longitudinal and cross sections of the center line.
   c. Detailed survey required for project execution like Capacity surveys, Details at Waste weir and sluice points, Canal alignment etc. as per requirement
   d. Design and preparation of drawing with report.
2. **WATER SUPPLY AND SANITARY PROJECT:** The work shall consist of;
   a. Reconnaissance survey for selection of site and conceptualization of project.
   b. Examination of sources of water supply, Calculation of quantity of water required based on existing and projected population.
   c. Preparation of village map by using total station.
   d. Survey work required for laying of water supply and UGD
   e. Location of sites for water tank. Selection of type of water tank to be provided. (ground level, overhead and underground)
   f. Design of all elements and preparation of drawing with report.
3. **HIGHWAY PROJECT:** The work shall consist of;
   a. Reconnaissance survey for selection of site and conceptualization of project.
   b. Preliminary and detailed investigations to align a new road (min. 1 to 1.5 km stretch) between two obligatory points. The investigations shall consist of topographic surveying of strip of land for considering alternate routes and for final alignment. Surveying by using total station.
   c. Report should justify the selected alignment with details of all geometric designs for traffic and design speed assumed.
   d. Drawing shall include key plan initial alignment, final alignment, longitudinal section along final alignment, typical cross sections of road.
4. **RESTORATION OF AN EXISTING TANK:** The work shall consist of;
   a. Reconnaissance survey for selection of site and conceptualization of project.
   b. Alignment of center line of the existing bund, Longitudinal and cross sections of the center line.
   c. Detailed survey required for project execution like Capacity surveys, Details at Waste weir and sluice points, Canal alignment etc. as per requirement
   d. Design of all elements and preparation of drawing with report.

5. **TOWN/HOUSING / LAYOUT PLANNING:** The work shall consist of;
   a. Reconnaissance survey for selection of site and conceptualization of project.
   b. Detailed survey required for project execution like contour surveys
   c. Preparation of layout plans as per regulations
   e. Centerline marking-transfer of centre lines from plan to ground
   f. Design of all elements and preparation of drawing with report as per regulations

Course outcomes: After studying this course, students will be able to:

1. Apply Surveying knowledge and tools effectively for the projects
2. Understanding Task environment, Goals, responsibilities, Task focus, working in Teams towards common goals, Organizational performance expectations, technical and behavioral competencies.
3. Application of individual effectiveness skills in team and organizational context, goal setting, time management, communication and presentation skills.
4. Professional etiquettes at workplace, meeting and general
5. Establishing trust based relationships in teams & organizational environment
6. Orientation towards conflicts in team and organizational environment, Understanding sources of conflicts, Conflict resolution styles and techniques

Reference Books:

Training manuals and User manuals
Relevant course reference books

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VII

COMPUTER AIDED DETAILING OF STRUCTURES

Course Code	**18CVL76**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students to

1. Be aware of the Scale Factors, Sections of drawings,
2. Draft the detailing of RC and Steel Structural member.

Module -1 Detailing of RCC Structures

- Beams – Simply supported, Cantilever and Continuous.
- Slab – One way, Two way and One-way continuous.
- Staircase – Doglegged
- Cantilever Retaining wall
- Counter Fort Retaining wall
- Circular Water Tank, Rectangular Water Tank.

Module -2 Detailing of Steel Structures

1. Connections – Beam to beam, Beam to Column by Bolted and Welded Connections.
2. Built-up Columns with lacings and battens
3. Column bases and Gusseted bases with bolted and welded connections.
4. Roof Truss – Welded and Bolted
5. Welded Plate girder
6. Gantry Girder

Course outcomes: After studying this course, students will be able to:

- Prepare detailed working drawings

Question paper pattern:

1. Two questions shall be asked from each Module.
2. One full question should be answered from each Module.
3. Each question carries 50 marks.

Textbooks:

1. N Krishna Raju, "Structural Design and Drawing of Reinforced Concrete and Steel", University Press
2. Krishna Murthy, "Structural Design and Drawing – Concrete Structures", CBS Publishers, New Delhi

Reference Books:

1. SP 34: Handbook on Concrete Reinforcement and Detailing, Bureau of Indian Standards.
2. IS 13920, Ductile Design And Detailing Of Reinforced Concrete Structures Subjected To Seismic Forces - Code Of Practice, Bureau of Indian Standard.

B. E. CIVIL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VII

GEOTECHNICAL ENGINEERING LABORATORY

Course Code	**18CVL77**	CIE Marks	40
Teaching Hours/Week(L:T:P)	(0:2:2)	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives: This course will enable students to;

1. To carry out laboratory tests and to identify soil as per IS codal procedures
2. To perform laboratory tests to determine index properties of soil
3. To perform tests to determine shear strength and consolidation characteristics of soils

Modules

1. Field identification of soil, Specific gravity test (pycnometer and density bottle method).Water content determination by oven drying and Pycnometer method, rapid moisture meter method.
2. Grain size analysis
   i. Sieve analysis
   ii. Hydro meter analysis
3. In-situ density tests
   i. Core-cutter method
   ii. Sand replacement method
4. Consistency limits
   i. Liquid limit test(by Casagrande's and cone penetration method)
   ii. Plastic limit test
   iii. Shrinkage limit test
5. Standard compaction test (light and heavy compaction)
6. Co-efficient of permeability test
   i. Constant head test
   ii. Variable head test
7. Shear strength tests
   i. Unconfined compression test
   ii. Direct shear test
   iii. Triaxial test (unconsolidated undrained test only)
8. Consolidation test :To determine pre consolidation pressure only(half an hour per loading-test).
9. Laboratory vane shear test
10. Demonstration of Swell pressure test, Standard penetration test and boring equipment

Course outcomes: Students will be able to conduct appropriate laboratory/field experiments and interpret the results to determine

1. Physical and index properties of the soil
2. Classify based on index properties and field identification
3. To determine OMC and MDD, plan and assess field compaction program
4. Shearstrengthandconsolidationparameterstoassessstrengthanddeformationcharacteristics
5. In-situshear strength characteristics(SPT-Demonstration)

Question paper pattern:

- All experiments are to be included in the examination except demonstration exercises.
- Candidate to perform experiment assigned to him.
- Marks are to be allotted as per the split up of marks shown on the cover page of answer script.

Reference Books:

1. Punmia B C, Soil Mechanics and Foundation Engineering-(2017),16th Edition, Laxmi Publications co., New Delhi.
2. Lambe T.W., "Soil Testing for Engineers", Wiley Eastern Ltd., New Delhi.
3. Head K.H., "Manual of Soil Laboratory Testing" Vol. I, II, III, Princeton Press
4. BowlesJ.E.,"EngineeringPropertiesofSoilandTheirMeasurements",-McGrawHillBookCo.NewYork.
5. Relevant BIS Codes of Practice: IS-2720 series

DEPARTMENT
OF
MECHANICAL ENGINEERING

LIST OF EXPERIMENTS AS PER VTU SYLLABUS

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER – III

MATERIAL TESTING LAB

Course Code	**18MEL37A/47A**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To learn the concept of the preparation of samples to perform characterization such as microstructure, volume fraction of phases and grain size.
- To understand mechanical behaviour of various engineering materials by conducting standard tests.
- To learn material failure modes and the different loads causing failure.
- To learn the concepts of improving the mechanical properties of materials by different methods like heat treatment, surface treatment etc.

Sl. No.	Experiments
	PART A
1	Preparation of specimen for Metallographic examination of different engineering materials. To report microstructures of plain carbon steel, tool steel, gray C.I, SG iron, Brass, Bronze & composites.
2	Heat treatment: Annealing, normalizing, hardening and tempering of steel. Metallographic specimens of heat treated components to be supplied and students should report microstructures of furnace cooled, water cooled, air cooled, tempered steel. Students should be able to distinguish the phase changes in a heat treated specimen compared to untreated specimen.
3	Brinell, Rockwell and Vickers's Hardness tests on untreated and heat treated specimens.
4	To study the defects of Cast and Welded components using Non-destructive tests like: a) Ultrasonic flaw detection b) Magnetic crack detection c) Dye penetration testing.
	PART B
5	Tensile, shear and compression tests of steel, aluminum and cast iron specimens using Universal Testing Machine
6	Torsion Test on steel bar.
7	Bending Test on steel and wood specimens.
8	Izod and Charpy Tests on Mild steel and C.I Specimen.
9	To study the wear characteristics of ferrous and non-ferrous materials under different parameters.
10	Tensile, shear and compression tests of steel, aluminum and cast iron specimens using Universal Testing Machine
11	Fatigue Test (demonstration only).

Course Outcomes: At the end of the course, the student will be able to:

CO1: Acquire experimentation skills in the field of material testing.

CO2: Develop theoretical understanding of the mechanical properties of materials by performing experiments.

CO3: Apply the knowledge to analyse a material failure and determine the failure inducing agent/s.

CO4: Apply the knowledge of testing methods in related areas.

CO5: Understand how to improve structure/behaviour of materials for various industrial applications.

Updated on 16.04.2020/28092020

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.

Scheme of Examination:

ONE question from part -A: 30 Marks
ONE question from part -B: 50 Marks
Viva -Voice: 20 Marks
Total: 100 Marks

Updated on 16.04.2020/28092020

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER – III

MECHANICAL MEASUREMENTS AND METROLOGY LAB

Course Code	**18MEL37B/47B**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To illustrate the theoretical concepts taught in Mechanical Measurements & Metrology through experiments.
- To illustrate the use of various measuring tools & measuring techniques.
- To understand calibration techniques of various measuring devices.

Sl. No.	Experiments
	PART A
1	Calibration of Pressure Gauge
2	Calibration of Thermocouple
3	Calibration of LVDT
4	Calibration of Load cell
5	Determination of modulus of elasticity of a mild steel specimen using straingauges.
	PART B
6	Measurements using Optical Projector / Tool makers' Microscope.
7	Measurement of angle using Sine Centre / Sine bar / bevelprotractor
8	Measurement of alignment using Autocollimator / Rollerset
9	Measurement of cutting tool for cesusing:
10	Measurements of Screw thread parameters using two wire or three-wire methods.
11	Measurements of surface roughness using Tally Surf/Mechanical Comparator
12	Measurement of gear tooth profile using gear tooth Vernier/Gear tooth micrometer
13	Calibration of Micrometer using slip gauges
14	Measurement using Optical Flats

Course Outcomes: At the end of the course, the student will be able to:

CO1: Understand Calibration of pressure gauge, thermocouple, LVDT, load cell, micrometre.

CO2: Apply concepts of Measurement of angle using Sine Centre/ Sine Bar/ Bevel Protractor, alignment using Autocollimator/ Roller set.

CO3: Demonstrate measurements using Optical Projector/Tool maker microscope, Optical flats.

CO4: Analyse tool forces using Lathe/Drill tool dynamometer.

CO5: Analyse Screw thread parameters using 2-Wire or 3-Wire method, gear tooth profile using gear tooth Vernier/Gear tooth micrometre

CO6: Understand the concepts of measurement of surface roughness.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.

Scheme of Examination:

ONE question from part -A: 30 Marks
ONE question from part -B: 50 Marks
Viva -Voice: 20 Marks
Total: 100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER – III

WORKSHOP AND MACHINE SHOP PRACTICE

Course Code	**18MEL38A/48A**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To guide students to use fitting tools to perform fitting operations.
- To provide an insight to different machine tools, accessories and attachments.
- To train students into fitting and machining operations to enrich their practical skills.
- To inculcate team qualities and expose students to shop floor activities.
- To educate students about ethical, environmental and safety standards.

	Experiments
Sl. No	**PART A**
1	Preparation of at least two fitting joint models by proficient handling and application of hand tools- V-block, marking gauge, files, hack saw drills etc.
	PART B
2	Preparation of three models on lathe involving - Plain turning, Taper turning, Step turning, Thread cutting, Facing, Knurling, Drilling, Boring, Internal Thread cutting and Eccentric turning. Exercises should include selection of cutting parameters and cutting time estimation.
	PART C
3	Cutting of V Groove/ dovetail / Rectangular groove using a shaper. Cutting of Gear Teeth using Milling Machine. Exercises should include selection of cutting parameters and cutting time estimation.
	PART D (DEMONSTRATION ONLY)
	Study & Demonstration of power tools like power drill, power hacksaw, portable hand grinding, cordless screw drivers, production air tools, wood cutter, etc., used in Mechanical Engineering.

Course Outcomes: At the end of the course, the student will be able to:

CO1: To read working drawings, understand operational symbols and execute machining operations.
CO2: Prepare fitting models according to drawings using hand tools- V-block, marking gauge, files, hack saw, drills etc.
CO3: Understand integral parts of lathe, shaping and milling machines and various accessories and attachments used.
CO4: Select cutting parameters like cutting speed, feed, depth of cut, and tooling for various machining operations.
CO5: Perform cylindrical turning operations such as plain turning, taper turning, step turning, thread Cutting, facing, knurling, internal thread cutting, eccentric turning and estimate cutting time.
CO6:Perform machining operations such as plain shaping, inclined shaping, keyway cutting, Indexing and

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Updated on 16.04.2020/28092020

Scheme of Examination:	
One Model from Part-A or Part-C:	30 Marks
One Model from Part-B:	50 Marks
Viva – Voce:	20 Marks
TOTAL:	100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER – III

FOUNDRY, FORGING AND WELDING LAB

Course Code	**18MEL38B/48B**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To provide an insight into different sand preparation and foundry equipment.
- To provide an insight into different forging tools and equipment and arc welding tools and equipment.
- To provide training to students to enhance their practical skills in welding, forging and hand moulding.

Sl. No	Experiments
	PART A
1	**Testing of Molding sand and Core sand.** **Preparation of sand specimens and conduction of the following tests:** 1. Compression, Shear and Tensile tests on Universal Sand Testing Machine. 2. Permeability test 3. Sieve Analysis to find Grain Fineness Number (GFN) of Base Sand 4. Clay content determination on Base Sand. **Welding Practice:** Use of Arc welding tools and welding equipment Preparation of welded joints using Arc Welding equipment L-Joint, T-Joint, Butt joint, V-Joint, Lap joints on M.S. flats
	PART B
2	**Foundry Practice:** **Use of foundry tools and other equipment for Preparation of molding sand mixture.** **Preparation of green sand molds kept ready for pouring in the following cases:** 1. Using two molding boxes (hand cut molds). 2. Using patterns (Single piece pattern and Split pattern). 3. Incorporating core in the mold.(Core boxes). 4. Preparation of one casting (Aluminium or cast iron-Demonstration only)
	PART C
3	**Forging Operations:** Use of forging tools and other forging equipment. • Calculation of length of the raw material required to prepare the model considering scale loss. • Preparing minimum three forged models involving upsetting, drawing and bending operations.

Course Outcomes: At the end of the course, the student will be able to:

- Demonstrate various skills in preparation of molding sand for conducting tensile, shear and compression tests using Universal sand testing machine.
- Demonstrate skills in determining permeability, clay content and Grain Fineness Number of base sands.
- Demonstrate skills in preparation of forging models involving upsetting, drawing and bending operations.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Updated on 16.04.2020/28092020

Scheme of Examination:

1. One question is to be set from Part-A : 30 marks
   (20 marks for sand testing+ 10 Marks for welding)
2. One question is to be set from either Part-B or Part-C: 50 Marks
3. Viva – Voce: 20 marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

MATERIAL TESTING LAB

Course Code	**18MEL37A/47A**	CIE Marks	40
Teaching Hours /Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To learn the concept of the preparation of samples to perform characterization such as microstructure, volume fraction of phases and grain size.
- To understand mechanical behaviour of various engineering materials by conducting standard tests.
- To learn material failure modes and the different loads causing failure.
- To learn the concepts of improving the mechanical properties of materials by different methods like heat treatment, surface treatment etc.

Sl. No.	Experiments
	PART A
1	Preparation of specimen for Metallographic examination of different engineering materials. To report microstructures of plain carbon steel, tool steel, gray C.I, SG iron, Brass, Bronze & composites.
2	Heat treatment: Annealing, normalizing, hardening and tempering of steel. Metallographic specimens of heat treated components to be supplied and students should report microstructures of furnace cooled, water cooled, air cooled, tempered steel. Students should be able to distinguish the phase changes in a heat treated specimen compared to untreated specimen.
3	Brinell, Rockwell and Vickers's Hardness tests on untreated and heat treated specimens.
4	To study the defects of Cast and Welded components using Non-destructive tests like: d) Ultrasonic flaw detection e) Magnetic crack detection f) Dye penetration testing.
	PART B
5	Tensile, shear and compression tests of steel, aluminum and cast iron specimens using Universal Testing Machine
6	Torsion Test on steel bar.
7	Bending Test on steel and wood specimens.
8	Izod and Charpy Tests on Mild steel and C.I Specimen.
9	To study the wear characteristics of ferrous and non-ferrous materials under different parameters.
10	Tensile, shear and compression tests of steel, aluminum and cast iron specimens using Universal Testing Machine
11	Fatigue Test (demonstration only).

Course Outcomes: At the end of the course the student will be able to:

CO1: Acquire experimentation skills in the field of material testing.

CO2: Develop theoretical understanding of the mechanical properties of materials by performing experiments.

CO3: Apply the knowledge to analyse a material failure and determine the failure inducing agent/s.

CO4: Apply the knowledge of testing methods in related areas.

CO5: Understand how to improve structure/behaviour of materials for various industrial applications.

Updated on 16.04.2020/28092020

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Scheme of Examination:

ONE question from part -A:	30 Marks
ONE question from part -B:	50 Marks
Viva -Voice:	20 Marks
Total:	100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

MECHANICAL MEASUREMENTS AND METROLOGY LAB

Course Code	**18MEL37B/47B**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To illustrate the theoretical concepts taught in Mechanical Measurements & Metrology through experiments.
- To illustrate the use of various measuring tools & measuring techniques.
- To understand calibration techniques of various measuring devices.

Sl. No.	Experiments
	PART A
1	Calibration of Pressure Gauge
2	Calibration of Thermocouple
3	Calibration of LVDT
4	Calibration of Load cell
5	Determination of modulus of elasticity of a mild steel specimen using strain gauges.
	PART B
6	Measurements using Optical Projector / Toolmakers' Microscope.
7	Measurement of angle using Sine Centre / Sine bar / bevel protractor
8	Measurement of alignment using Autocollimator / Roller set
9	Measurement of cutting tool forces using: Lathe tool Dynamometer Drill tool Dynamometer.
10	Measurements of Screw thread parameters using two wire or three-wire methods.
11	Measurements of surface roughness using Tally Surf/Mechanical Comparator
12	Measurement of gear tooth profile using gear tooth Vernier/Gear tooth micrometer
13	Calibration of Micrometer using slip gauges
14	Measurement using Optical Flats

Course Outcomes: At the end of the course, the student will be able to:

CO1: Understand Calibration of pressure gauge, thermocouple, LVDT, load cell, micrometer.
CO2: Apply concepts of Measurement of angle using Sine Centre/ Sine Bar/ Bevel Protractor, alignment using Autocollimator/ Roller set.
CO3: Demonstrate measurements using Optical Projector/Tool maker microscope, Optical flats.
CO4: Analyse tool forces using Lathe/Drill tool dynamometer.
CO5: Analyse Screw thread parameters using 2-Wire or 3-Wire method, gear tooth profile using gear tooth Vernier/Gear tooth micrometer
CO6: Understand the concepts of measurement of surface roughness.

Updated on 16.04.2020/28092020

Conduct of Practical Examination: 1. All laboratory experiments are to be included for practical examination. 2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners. 3. Students can pick one experiment from the questions lot prepared by the examiners.
Scheme of Examination: ONE question from part -A: 30 Marks ONE question from part -B: 50 Marks Viva -Voice: 20 Marks Total: 100 Marks

Updated on 16.04.2020/28092020

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

WORKSHOP AND MACHINE SHOP PRACTICE

Course Code	**18MEL38A/48A**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To guide students to use fitting tools to perform fitting operations.
- To provide an insight to different machine tools, accessories and attachments.
- To train students into fitting and machining operations to enrich their practical skills.
- To inculcate team qualities and expose students to shop floor activities.
- To educate students about ethical, environmental and safety standards.

Sl. No.	Experiments
	PART A
1	Preparation of at least two fitting joint models by proficient handling and application of hand tools- V-block, marking gauge, files, hack saw drills etc.
	PART B
2	Preparation of three models on lathe involving - Plain turning, Taper turning, Step turning, Thread cutting, Facing, Knurling, Drilling, Boring, Internal Thread cutting and Eccentric turning. Exercises should include selection of cutting parameters and cutting time estimation.
	PART C
3	Cutting of V Groove/ dovetail / Rectangular groove using a shaper. Cutting of Gear Teeth using Milling Machine. Exercises should include selection of cutting parameters and cutting time estimation.
	PART D (DEMONSTRATION ONLY)
	Study & Demonstration of power tools like power drill, power hacksaw, portable hand grinding, cordless screw drivers, production air tools, wood cutter, etc., used in Mechanical Engineering.

Course Outcomes: At the end of the course the student will be able to:

CO1: To read working drawings, understand operational symbols and execute machining operations.
CO2: Prepare fitting models according to drawings using hand tools- V-block, marking gauge, files, hack saw, drills etc.
CO3: Understand integral parts of lathe, shaping and milling machines and various accessories and attachments used.
CO4: Select cutting parameters like cutting speed, feed, depth of cut, and tooling for various machining operations.
CO5: Perform cylindrical turning operations such as plain turning, taper turning, step turning, thread Cutting, facing, knurling, internal thread cutting, eccentric turning and estimate cutting time.
CO6: Perform machining operations such as plain shaping, inclined shaping, keyway cutting, Indexing and Gear cutting and estimate cutting time.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Updated on 16.04.2020/28092020

Scheme of Examination:	
One Model from Part-A or Part-C:	30 Marks
One Model from Part-B:	50 Marks
Viva – Voce:	20 Marks
TOTAL:	100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - IV

FOUNDRY, FORGING AND WELDING LAB

Course Code	**18MEL38B/48B**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To provide an insight into different sand preparation and foundry equipment.
- To provide an insight into different forging tools and equipment and arc welding tools and equipment.
- To provide training to students to enhance their practical skills in welding, forging and hand moulding.

Sl. No.	Experiments
	PART A
1	**Testing of Molding sand and Core sand.** **Preparation of sand specimens and conduction of the following tests:** 1. Compression, Shear and Tensile tests on Universal Sand Testing Machine. 2. Permeability test 3. Sieve Analysis to find Grain Fineness Number (GFN) of Base Sand 4. Clay content determination on Base Sand. **Welding Practice:** Use of Arc welding tools and welding equipment Preparation of welded joints using Arc Welding equipment L-Joint, T-Joint, Butt joint, V-Joint, Lap joints on M.S. flats
	PART B
2	**Foundry Practice:** **Use of foundry tools and other equipment for Preparation of molding sand mixture.** **Preparation of green sand molds kept ready for pouring in the following cases:** 4. Using two molding boxes (hand cut molds). 5. Using patterns (Single piece pattern and Split pattern). 6. Incorporating core in the mold.(Core boxes). • Preparation of one casting (Aluminium or cast iron-Demonstration only)
	PART C
3	**Forging Operations:** Use of forging tools and other forging equipment. • Calculation of length of the raw material required to prepare the model considering scale loss. • Preparing minimum three forged models involving upsetting, drawing and bending operations.

Course Outcomes: At the end of the course the student will be able to:

- Demonstrate various skills in preparation of molding sand for conducting tensile, shear and compression tests using Universal sand testing machine.
- Demonstrate skills in determining permeability, clay content and Grain Fineness Number of base sands.
- Demonstrate skills in preparation of forging models involving upsetting, drawing and bending operations.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Updated on 16.04.2020/28092020

Scheme of Examination:

1. One question is to be set from Part-A: 30 marks. (20 marks for sand testing+ 10 Marks for welding)
2. One question is to be set from either Part-B or Part-C: 50 Marks
3. Viva – Voce: 20 marks

Course Outcomes: At the end of the course, the student will be able to:

CO1: Understand needs, functions, roles, scope and evolution of Management.

CO2: Understand importance, purpose of Planning and hierarchy of planning and also53nalyse its types.

CO3: Discuss Decision making, Organizing, Staffing, Directing and Controlling.

CO4: Select the best economic model from various available alternatives.

CO5: Understand various interest rate methods and implement the suitable one.

CO6: Estimate various depreciation values of commodities.

CO7: Prepare the project reports effectively.

Question paper pattern:

- The question paper will have ten full questions carrying equal marks.
- Each full question will be for 20 marks.
- There will be two full questions (with a maximum of four sub- questions) from each module.
- Each full question will have sub- question covering all the topics under a module.
- The students will have to answer five full questions, selecting one full question from each module.

Sl No	Title of the Book	Name of the	Name of the Publisher	Edition and
Textbook/s				
1	Mechanical estimation and costing	T.R. Banga & S.C. Sharma	Khanna Publishers	17th edition 2015
2	Engineering Economy	Riggs J.L	McGraw Hill	4th
3	Engineering Economy	Thuesen H.G	PHI	2002
4	Principles of Management	Tripathy and Reddy	Tata McGraw Hill	3rd edition 2006
Reference Books				
1	Management Fundamentals - Concepts, Application, Skill Development	Robers Lusier Thomson	Pearson Education	
2	Modern Economic Theory	Dr. K. K. Dewett& M. H. Navalur,	Chand Publications	
3	Economics: Principles of Economics	N Gregory Mankiw,	Cengage Learning	
4	Basics of Engineering Economy	Leland Blank & Anthony Tarquin	McGraw Hill Publication (India) Private Limited	

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER –V

FLUID MECHANICS AND MACHINES LAB

Course Code	**18MEL57**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- This course will provide a basic understanding of flow measurements using various types of flow measuring devices, calibration and losses associated with these devices.
- Energy conversion principles, analysis and understanding of hydraulic turbines and pumps will be discussed. Application of these concepts for these machines will be demonstrated. Performance analysis will be carried out using characteristic curves.

Sl. No.	Experiments
	PART A
1	Lab layout, calibration of instruments and standards to be discussed
2	Determination of coefficient of friction of flow in a pipe.
3	Determination of minor losses in flow through pipes.
4	Application of momentum equation for determination of coefficient of impact of jets on flat and curved blades
5	Calibration of flow measuring devices.
	PART B
6	Performance on hydraulic Turbines a. Pelton wheel b. Francis Turbine c. Kaplan Turbines
7	Performance hydraulic Pumps d. Single stage and Multi stage centrifugal pumps e. Reciprocating pump.
8	Performance test on a two stage Reciprocating Air Compressor.
9	Performance test on an Air Blower.
	PART C (OPTIONAL)
10	Visit to Hydraulic Power station/ Municipal Water Pump House and Case Studies
11	Demonstration of cut section models of Hydraulic turbines and Pumps.

Course Outcomes: At the end of the course, the student will be able to:
CO1: Perform experiments to determine the coefficient of discharge of flow measuring devices.
CO2: Conduct experiments on hydraulic turbines and pumps to draw characteristics.
CO3: Test basic performance parameters of hydraulic turbines and pumps and execute the knowledge in real life situations.
CO4: Determine the energy flow pattern through the hydraulic turbines and pumps.
CO5: Exhibit his competency towards preventive maintenance of hydraulic machines.

Conduct of Practical Examination:
1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

Scheme of Examination:

ONE question from part A: 30 Marks
ONE question from part B: 50 Marks
Viva –Voice : 20 Marks
Total : 100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER –V

ENERGY CONVERSION LABORATORY

Course Code	**18MEL58**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- This course will provide a basic understanding of fuel properties and its measurements using various types of measuring devices
- Energy conversion principles, analysis and understanding of I C Engines will be discussed. Application of these concepts for these machines will be demonstrated. Performance analysis will be carried out using characteristic curves.
- Exhaust emissions of I C Engines will be measured and compared with the standards.

Sl. No.	Experiments
	PART A
1	Lab layout, calibration of instruments and standards to be discussed
2	Determination of Flash point and Fire point of lubricating oil using Abel Pensky and Marten's (closed) / Cleveland's (Open Cup) Apparatus.
3	Determination of Calorific value of solid, liquid and gaseous fuels.
4	Determination of Viscosity of lubricating oil using Redwoods, Saybolt and Torsion Viscometers.
5	Valve Timing/port opening diagram of an I.C. Engine.
	PART B
6	Performance Tests on I.C. Engines, Calculations of IP, BP, Thermal efficiency, Volumetric efficiency, Mechanical efficiency, SFC, FP, A:F Ratio, heat balance sheet for a. Four stroke Diesel Engine b. Four stroke Petrol Engine c. Multi Cylinder Diesel/Petrol Engine, (Morse test) d. Two stroke Petrol Engine Variable Compression Ratio I.C. Engine.
7	Measurements of Exhaust Emissions of Petrol engine.
8	Measurements of Exhaust Emissions of Diesel engine.
	PART C (OPTIONAL)
9	Visit to Automobile Industry/service stations.
10	Demonstration of $p\theta$, pV plots using Computerized IC engine test rig

Course Outcomes: At the end of the course, the student will be able to:

CO1: Perform experiments to determine the properties of fuels and oils.
CO2: Conduct experiments on engines and draw characteristics.
CO3: Test basic performance parameters of I.C. Engine and implement the knowledge in industry.
CO4: Identify exhaust emission, factors affecting them and exhibit his competency towards preventive maintenance of IC engines.

Scheme of Examination:

ONE question from part A: 30 Marks
ONE question from part B: 50 Marks
Viva –Voice : 20 Marks
Total : 100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VI

COMPUTER AIDED MODELLING AND ANALYSIS LAB

Course Code	**18MEL66**	CIE Marks	40
Teaching Hours /Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To acquire basic understanding of Modeling and Analysis software
- To understand the concepts of different kinds of loading on bars, trusses and beams, and analyze the results pertaining to various parameters like stresses and deformations.
- To lean to apply the basic principles to carry out dynamic analysis to know the natural frequencies of different kind of beams.

Sl. No.	Experiments
	PART A
1	**Study of a FEA package and modeling and stress analysis of:** a. Bars of constant cross section area, tapered cross section area and stepped bar b. Trusses – (**Minimum 2 exercises of different types)** c. Beams – Simply supported, cantilever, beams with point load , UDL, beams with varying load etc. **(Minimum 6 exercises)** d. Stress analysis of a rectangular plate with a circular hole.
	PART B
2	Thermal Analysis – 1D & 2D problem with conduction and convection boundary conditions **(Minimum 4 exercises of different types)**
3	Dynamic Analysis to find: a) Natural frequency of beam with fixed – fixed end condition b) Response of beam with fixed – fixed end conditions subjected to forcing function c) Response of Bar subjected to forcing functions
	PART C(only for demo)
4	a. Demonstrate the use of graphics standards (IGES, STEP etc) to import the model from modeler to solver. b. Demonstrate one example of contact analysis to learn the procedure to carry out contact analysis. c. Demonstrate at least two different types of example to model and analyze bars or plates made from composite material.

Course Outcomes: At the end of the course, the student will be able to:

CO1: Use the modern tools to formulate the problem, create geometry, descritize, apply boundary conditions to solve problems of bars, truss, beams, and plate to find stresses with different-loading conditions.

CO2: Demonstrate the ability to obtain deflection of beams subjected to point, uniformly distributed and varying loads and use the available results to draw shear force and bending moment diagrams.

CO3: Analyze and solve 1D and 2D heat transfer conduction and convection problems with different boundary conditions.

CO4: Carry out dynamic analysis and finding natural frequencies of beams, plates, and bars for various boundary conditions and also carry out dynamic analysis with forcing functions.

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Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.

Scheme of Examination:

One Question from Part A - 40 Marks
One Question from Part B - 40 Marks
Viva-Voce - 20 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VI

HEAT TRANSFER LAB

Course Code	**18MEL67**	CIE Marks	40
Teaching Hours/Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- The primary objective of this course is to provide the fundamental knowledge necessary to understand the behavior of thermal systems.
- This course provides a detailed experimental analysis, including the application and heat transfer through solids, fluids, and vacuum.
- Convection, conduction, and radiation heat transfer in one and two dimensional steady and unsteady systems are examined.

Sl. No.	Experiments
	PART A
1	Determination of Thermal Conductivity of a Metal Rod.
2	Determination of Overall Heat Transfer Coefficient of a Composite wall.
3	Determination of Effectiveness on a Metallic fin.
4	Determination of Heat Transfer Coefficient in free Convection
5	Determination of Heat Transfer Coefficient in a Forced Convention
6	Determination of Emissivity of a Surface.
	PART B
7	Determination of Stefan Boltzmann Constant.
8	Determination of LMDT and Effectiveness in a Parallel Flow and Counter Flow Heat Exchangers.
9	Experiments on Boiling of Liquid and Condensation of Vapour.
10	Performance Test on a Vapour Compression Refrigeration.
11	Performance Test on a Vapour Compression Air – Conditioner.
12	Experiment on Transient Conduction Heat Transfer.
	PART C (OPTIONAL)
13	Analysis of steady and transient heat conduction, temperature distribution of plane wall and cylinder using Numerical approach (ANSYS/CFD package).
14	Determination of temperature distribution along a rectangular and circular fin subjected to heat loss through convection using Numerical approach (ANSYS/CFD package).

Course Outcomes: At the end of the course, the student will be able to:

CO1: Determine the thermal conductivity of a metal rod and overall heat transfer coefficient of composite slabs.

CO2: Determine convective heat transfer coefficient for free and forced convection and correlate with theoretical values.

CO3: Evaluate temperature distribution characteristics of steady and transient heat conduction through solid cylinder experimentally.

CO4: Determine surface emissivity of a test plate and Stefan Boltzmann constant

CO5: Estimate performance of a refrigerator and effectiveness of a fin and Double pipe heat exchanger

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Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.
4. Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made

Scheme of Examination:

One Question from Part A - 40 Marks

One Question from Part B - 40 Marks

Viva-Voce - 20 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VII

COMPUTRE AIDED MANUFACTURING LAB

Course Code	**18MEL76**	CIE Marks	40
Teaching Hours /Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To expose the students to the techniques of CNC programming and cutting tool path generation through CNC simulation software by using G-Codes and M-codes.
- To educate the students on the usage of CAM packages.
- To make the students understand the importance of automation in industries through exposure to FMS, Robotics, and Hydraulics and Pneumatics.

Sl. No.	Experiments
	PART - A
1	**Manual CNC part programming** using ISO Format G/M codesfor 2 turning and 2 milling parts. Selection and assignment of tools, correction of syntax and logical errors, and verification of tool pathusing CNC program verification software.
	PART - B
2	**CNC part programming using CAM packages**. Simulation of Turning, Drilling, Milling operations. 3 typical simulations to be carried out using simulation packages like: **CademCAMLab-Pro, Master-CAM.** Program generation using software. Optimize spindle power, torque utilization, and cycle time. Generation and printing of shop documents like process and cycle time sheets, tool list, and tool layouts. Cut the part in single block and auto mode and measure the virtual part on screen. **Post processingof CNC programs** for standard CNC control systems like **FANUC, SINUMERIC and MISTUBISHI.**
	PART - C
3	**(Only for Demo/Viva voce)** **FMS (Flexible Manufacturing System)**: Programming of Automatic storage and Retrieval system (ASRS) and linear shuttle conveyor Interfacing CNC lathe, milling with loading unloading arm and ASRS to be carried out on simple components. **Robot programming:** Using Teach Pendent & Offline programming to perform pick and place, stacking of objects (2 programs). **Pneumatics and Hydraulics, Electro-Pneumatics:** 3 typical experiments on Basics of these topics to be conducted.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners.

Scheme of Examination:

One question from Part A: 40 marks

One question from Part B: 40 Marks

Viva voce: 20 Marks

Total: 100 Marks

B. E. MECHANICAL ENGINEERING
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
SEMESTER - VII

DESIGN LAB

Course Code	**18MEL77**	CIE Marks	40
Teaching Hours /Week (L:T:P)	0:2:2	SEE Marks	60
Credits	02	Exam Hours	03

Course Learning Objectives:

- To understand the concepts of natural frequency, logarithmic decrement, damping and damping ratio.
- To understand the techniques of balancing of rotating masses.
- To verify the concept of the critical speed of a rotating shaft.
- To illustrate the concept of stress concentration using Photo elasticity.
- To appreciate the equilibrium speed, sensitiveness, power and effort of a Governor.
- To illustrate the principles of pressure development in an oil film of a hydrodynamic journal bearing.

Sl. No.	Experiments
	PART - A
1	Determination of natural frequency, logarithmic decrement, damping ratio and damping coefficient in a single degree of freedom vibrating systems (longitudinal and torsional).
2	Balancing of rotating masses
3	Determination of critical speed of a rotating shaft
4	Determination of equilibrium speed, sensitiveness, power and effort of Porter/Proell /Hartnel Governor.
	PART - B
5	Determination of Fringe constant of Photo-elastic material using. a) Circular disc subjected to diametral compression. b) Pure bending specimen (four-point bending.
6	Determination of stress concentration using Photo-elasticity for simple components like plate with a hole under tension or bending, circular disk with circular hole under compression, 2D Crane hook
7	Determination of Pressure distribution in Journal bearing
8	Determination of Principal Stresses and strains in a member subjected to combined loading using Strain
9	Determination of stresses in Curved beam using strain gauge.

Course Outcomes: At the end of the course, the student will be able to:

CO1: Compute the natural frequency of the free and forced vibration of single degree freedom systems, critical speed of shafts.

CO2: Carry out balancing of rotating masses.

CO3: Analyse the governor characteristics.

CO4: Determine stresses in disk, beams, plates and hook using photo elastic bench.

CO5: Determination of Pressure distribution in Journal bearing

CO6: Analyse the stress and strains using strain gauges in compression and bending test and stress distribution in curved beams.

Conduct of Practical Examination:

1. All laboratory experiments are to be included for practical examination.
2. Breakup of marks and the instructions printed on the cover page of answer script to be strictly adhered by the examiners.
3. Students can pick one experiment from the questions lot prepared by the examiners

APPENDIX F

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science campus, Bengaluru

Telephone: 080 -23600978, 23341652 || Email: spp@kscst.org.in
Website: www.kscst.iisc.ernet.in/spp.html or www.kscst.org.in/spp.html

FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE 45th SERIES OF STUDENT PROJECT PROGRAMME

(Handwritten proposals will not be accepted, please fill all the details in this MS word file, insert images / diagrams wherever necessary. Convert to pdf file, get it approved from the project guide / head of the department and principal of your institution. Keep ready the scanned pdf file of 1) Declaration and Endorsement 2) details of processing fees made and fill-up the Google Form. Send the softcopy of the project proposal including the three scanned pages and send the proposal (All information in one pdf file) by email to spp@kscst.org.in

1.	**Name of the College: T. John Institute of Technology**
2.	**Project Title: A Comparative Study on Green Building and Built Environment**
3.	**Branch: Civil Engineering**
4.	**Theme (as per KSCST poster):** **(The project proposals shall mandatorily be from one of the broad themes / areas. Visit website www.kscst.org.in/spp.html)** • **Non-conventional and / or composite building materials / structures** • **Newer techniques in Air Pollution control**
5.	**Name(s) of project guide(s):** 1. **Name: Mr. Karthick M O** **Email id: karthick@tjohngroup.com** **Contact No.: 9738163322**
6.	**Name of Team Members (Strictly not more than four students in a batch):** *(Type names in Capital Letters as provided in your college)* (Please paste the latest passport size photograph adjacent to your respective names) **Name: MANJUNATH N** **USN No.:1TJ18CV009** **Email id: Manjunath862000@gmail.com** **Mobile No:9108953535** **Name: KESHAV RAJBANSHI** **USN No.:1TJ18CV007** **Email id:Keshavrajbanshi@gmail.com** **Mobile No.:6363542087**

	Name: YERI SWAMY REDDY **USN No.:1TJ18CV015** **Email id:** **Mobile No.:9136049470** **Name: SHARAT KUMAR** **USN No.:1TJ17CV033** **Email id:sharatkumarnoola@gmail.com** **Mobile No.:8904379489**
7.	**Team Leader of the Project:** **Name: SHARAT KUMAR** **USN No.: 1TJ17CV033** **Email id: sharatkumarnoola@gmail.com** **Mobile No.: 8904379489**
8.	**Processing Fee Details (Through Online Payment only):** **(processing fee of Rs. 1000/-)** **Please furnish the payment made details provided in the last page of this proposal.** **Note:** (The student team shall furnish the details in the Google Form. It is informed to the students to 1) keep ready the project proposal and 2) make the payment made details for processing fees and 3) Enter the details in the Google Form on the same day of payment made to KSCST by NEFT / UPI payment).
9.	**Date of commencement of the Project: 01/12/2021**
10.	**Probable date of completion of the project: 01/06/2022**
11.	**Scope / Objectives of the project:** Green Building aims at Reducing energy consumption and adverse environmental impact, by using RES and energy efficiency measures in public buildings, since renewable energies represent a natural competitive advantage for MED area.
12.	**Methodology:** By referring article of "Direct blow spinning nanofiber on window screen" Materials: 1)Metal mesh sheet 2)Spun nanofiber 3)Carbon filter sheet 4)Exhaust fan

Air exhaust inside through exhaust fan

Dust particles were collected and copper windows screen called metal mesh. After trapped more than 1x1mm size, in metal mesh that air pushed on spun nano-fiber size - this is main part of air. It filters the air particles.

Carbon filter sheet is a pre filter which can trap microns. It can also absorb the bad smell and allow good air to get inside.

The solar cell which works on principle of photo-voltaic effect. The solar cell is made up of silicon which have trivalent and consisting of electrons in it. Whenever the proton (p) from sun rays it's the silicon cell it was observed by the electron (n) and forms a junction called p-n junction. Due to formation of this junction, we can produce electricity.

- Frame: It is the top most part in the solar cell which is usually made of glass to avoid soil dust and rain water droplets.
- Solar cell: As detailed mentioned in previous slide which an electronic element used to production of electricity.
- Encapsulate: It is used to provide adhesion b\w the solar cell, the top surface and the rear surface of the PV model, stable at elevated temp and high UV exposure.
- Back-sheet: It is the last layer at the bottom above the junction box which is usually black colour due to attraction property, less-visible but long-term efficiency.
- Junction Box: The PV junction box has a simple, but important role in housing all the electric bits on a solar panel and protecting them from environment.

SOLAR CELL FORMULAS

1. POWER OUTPUT: P=I*V

Where,

I=Current,

V=Voltage

2. EFFICIENCY =P(IN)/P(OUT)*100

Where,

P (IN) = Input Current,

P (OUT) =Output Current.

3. SOLAR CELL GLOBALLY FORMULA: E=A*r*H*PR

	Where, **E=Energy,** **A=Total Area,** **r=Solar Panel Yield,** **H= Avg. Solar Radiation,** **PR=Performance Ratio** **Material:** **1)Model as Per Revit software.** **2)Solar thin silica film flexible.** **3) Led light.** **Note:** In case of fabrication work in the project, an engineering drawing with dimensions / detailed design should be attached to the proposal.
13.	**Expected Outcome of the project:** This project can help in bringing out an efficient use of solar energy with the use of solar panels. This project can help in improving the indoor air quality of a building and implementing of green building components. To increase efficiency of electricity and improve good health by implementing air purifiers.
14.	**Is the project proposed relevant to the Industry / Society or Institution?** **Yes / No: Yes** **If yes, please provide details of the industry / institution and contact details:** **Indian Green Building Council (IGBC)** Survey No 64, Kothaguda Post, Dist, HITEC City, Hyderabad, Telangana 500084 (**Note:** Preference will be given to those projects relevant to the industry / institution. Hence be specific in giving detailed information). Is the industry extending support - technology / funds / use the final product, please specify? - NO
15.	**Can the product or process developed in the project be taken up for filing a Patent?** **Yes / No:** **NO**

	Prior Art search done? **Yes/No:** **NO** **Note:** If your answer is "Yes", you may contact Patent Information Centre of KSCST. For more details, email: pic@kscst.org.in
16.	**Budget details (break-up details should be given):** Note: KSCST will provide nominal grant support for carrying out the project by students if selected by the project selection committee.

Budget	Amount
a) Materials / Consumables (Please specify) 1)metal meshsheet-1500/- 2)spun nanofiber -1500/- 3)carbon filter sheet-1200/- 4)exhaust fan-700/- 5)Solar thin silica film flexible.-1700/- 6)led light.-500/- 7)wood -1400/- 8)cardboard -1000/-	9,500/-
b) Labor (Describe)	0.00/-
b) Travel (Describe) • Travel Expenses	500/-
e) Miscellaneous (Please specify)	0.00/-
Total	10,000/-

17.	**Any other technical details (Please specify):** NIL

18.	**SPP Coordinator (Identified by the college):** **Note:** To be identified by the principal of the institution. The project proposals must be submitted to KSCST through SPP coordinator designated by the principal. **Name: Mr. Siddesha T** **Email id: siddeshat@tjohngroup.com** **Contact No.: 9060768756**

Name of the Project Guide: KARTHICK.M.D
Email id: Kaarthick@tjohngroup.com
Contact No.: 9738163328

Name of the HOD: SUMAM.S.B
Email id: Tjitcehod@tjohngroup.com
Contact No.: 9826731564

Visvesvaraya Technological University
"JnanaSangama"
Belagavi: 590018
Karnataka, India.
Tele: 0831-2498225,2405454

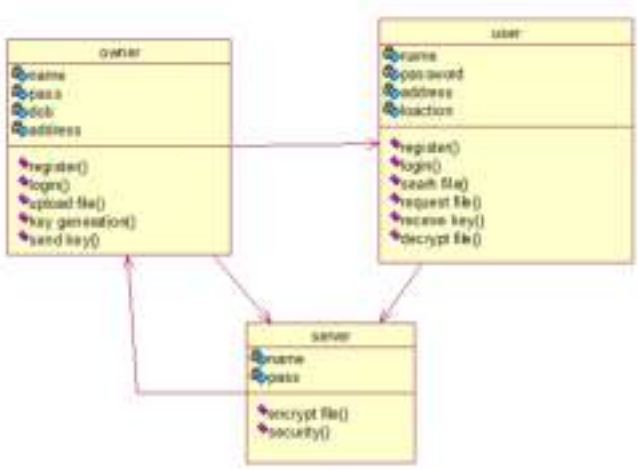
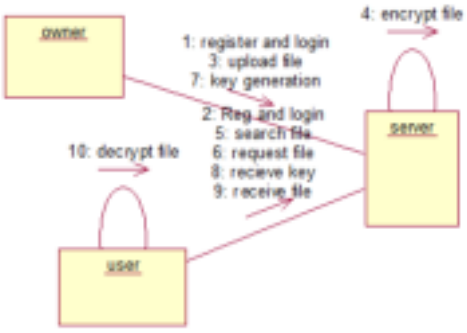
VTU Sponsored Student Project Proposal Format

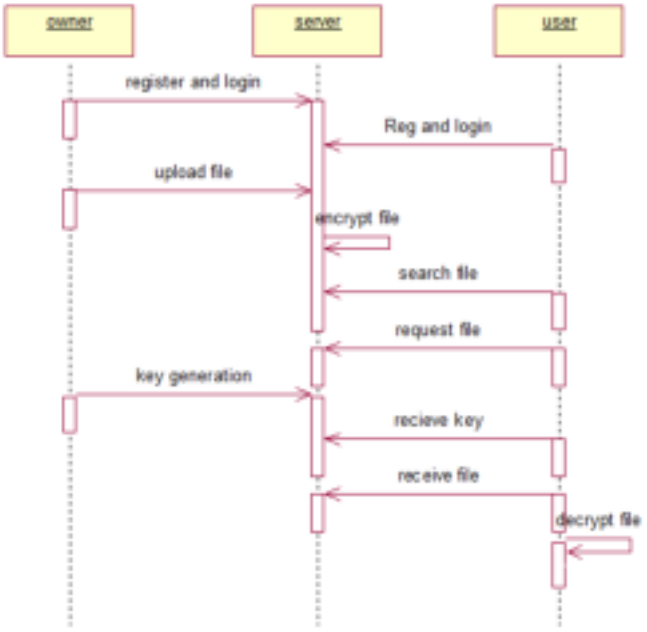
01	Academic Year:	2020-2021	
02	Semester:	8th	
03	Name of the College:	T John Institute of Technology	
04	Branch:	Computer Science and Engineering	
05	Project Title:	Blockchain-Based Collaborative Data Sharing In Multiple Cloud	
06	Project Discipline:	Computer Science	
07	Principal	Name:	Dr. P. Suresh Venugopal
		Contact No:	8075681766
		Email id:	tjitprincipal@tjohngroup.com
08	HOD	Name:	Ms. Suma R
		Contact No:	9740990590
		Email id:	tjitcsehod@tiohngroup.com
09	Project Guide	Name:	Ms. Bhavya N Javagal
		Contact No:	9035717232
		Email id:	bhavya@tjohngroup.com
10	Project Committee Coordinator (Identified by the college)	Name:	Mr. Narasimha Murthy C
		Contact No:	8884011000
		Email id:	narasimham@tjohngroup.com

<table>
<tr><td rowspan="11">11</td><td colspan="3">Name of Project group Members</td></tr>
<tr><td colspan="3">1.Group leader and Member</td></tr>
<tr><td colspan="2">Name: Naveen K P</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN: 1TJ17CS105</td></tr>
<tr><td colspan="2">Contact No: 8296472720</td></tr>
<tr><td colspan="2">Email id: BEC171541@tjohngroup.com</td></tr>
<tr><td colspan="3">2. Member</td></tr>
<tr><td colspan="2">Name: Amith Krishna K R</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN: 1TJ17CS005</td></tr>
<tr><td colspan="2">Contact No: 9821064215</td></tr>
<tr><td colspan="2">Email id: BEC171343@tjohngroup.com</td></tr>
<tr><td colspan="3">3. Member</td></tr>
<tr><td colspan="2">Name: Likhith S</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN: 1TJ17CS036</td></tr>
<tr><td colspan="2">Contact No: 8660078475</td></tr>
<tr><td colspan="2">Email id: BEC171401@tjohngroup.com</td></tr>
<tr><td rowspan="3">12</td><td rowspan="3">Processing Fee Details</td><td colspan="2">Bank Name:</td></tr>
<tr><td colspan="2">Branch:</td></tr>
<tr><td colspan="2">DD number with Date:

OR

Cheque no with Date:</td></tr>
<tr><td>13</td><td>Scope / Objectives of the project:</td><td colspan="2">• Based on existing works, we aim to design a data sharing scheme that leverage features of the block chain to implement secure and collaborative platform for data sharing.
• The consensus and trust in resource sharing, we can take advantage of the decentralized and tamper-resistant features of the blockchain, and the ability to accurately record and trust the whole chain through the blockchain can exactly meet the demand for the platform.
• Users have the opportunity to hold more data from different management organizations through the blockchain network without sizeable physical storage space and hardware support.</td></tr>
</table>

14	Methodology of work: (Including diagram, flow chart and design calculations)	The advantage of blockchain in the area is remarkable, uniquely embodied in these three aspects: • First, the distributed architecture makes shared data accessible. Users have the opportunity to hold more data from different data owner organizations through the blockchain network without sizeable physical storage space and hardware support. • Second, the cloud server provider mechanism can guarantee the authenticity and consistency of the blockchain system. Once the public agreement on the blockchain is widely recognized, all data sharing participants will voluntarily and honestly abide by the predetermined rules. • Third, when the shared information is uploading the data-by-data owner, the data is permanently stored in the blockchain, and any data provider with the corresponding authority can directly read it, thereby eliminating the process of the data owner sending duplicate data.  **Class Diagram**  **Collaboration Diagram**

		 **Sequence Diagram**
15	Expected Outcome of the Project:	• Support the collaboration between the multiple participants, • Ensure reasonable permissions for participants. • Organizations and public authorities can share more data between them, and can do it in a way that is secure, fair, lawful and respectful of the rights of those that the data concerns. • Combining data from different sources can increase the performance and value of services by orders of magnitude. It enables better research and development, and the delivery of better products. • Sharing data enables unprecedented collaboration and data-driven decision-making, informing policy and amplifying social impact.
16	Applications of the Project:	• It can be used to store critical assets in industry like Healthcare, Banking and Corporate Business. • It can be used to track change in state which is useful in supply chain management. • It can be used to provide access control to data so that only the privileged are able to access it. • It can be used in data critical applications as it is hard for malicious parties to attack and manipulate the data to their advantage.

17	Budget details with Materials required:	Budget for the project • Server and Hosting: Rs 2550. • Storage: Rs 1400. • Miscellaneous: Rs 1200. Total Budget is Rs 5150.

18	Date of Commencement of the Project:	08/01/2021
19	Probable date of completion of the Project:	30/06/2021
20	Duration of Project work:	6 months
21	Pert chart for completion of the project in said duration as per planned activities:	

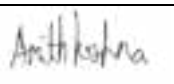
SL.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
04	Final Testing						
05	Result & Calculation/ Conclusion						
06	Preparation of Report & Submission						

DECLARATION BY THE STUDENTS

We, the project group members hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge. We undertake to inform VTU, of any changes there in the project title, students name will be intimated immediately. In case, any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it.

We are aware that the project group has to exhibit / demonstrate the project for evaluation in the VTU Regional centre and for exhibition at VTU, Belagavi. If the project group fails to attend the evaluation in Regional centre and for Exhibition in VTU Belagavi, the sponsored project amount will be returned back to VTU immediately

We also hereby, enclose the endorsement form to VTU, Belagavi.

SL.No	Name of the Student	Signature with date
01	Naveen K P	26/06/2021
02	Amith Krishna K R	 26/06/2021
03	Likhith S	26/06/2021

T. JOHN
INSTITUTE OF TECHNOLOGY
(Affiliated to VTU)
Arpproved by AICTE Govt. of India New Delhi
86/1, Gottigere P.O. Bannerghatta Road, Bangalore - 560 083, India
Mob: +91 98861 23422, Email : tjtprincipal@tjohngroup.com

ENDORSEMENT

This is to certify that

1] Naveen K P

2] Amith Krishna K R

3] Likhith S

Are bonafide students of Department in Computer Science and Engineering, of our institution. If the project proposal submitted by these students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps that the project group will exhibit / demonstrate their project in the regional centre and for exhibition at VTU, Belagavi. If the student group fails to attend the evaluation in regional centre and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
Bhavya. 06-07-2021	06/07/2021	Principal T. John Institute of Technology # 86/1, Gottigere Post, Bannerghatta Road Bengaluru - 560 083
Name: Ms. Bhavya N Javagal	Name: Ms. Sumana Head of the Department Computer Science & Engg. T. John Institute of Technology Bangalore - 560 083	Name: Dr. T. Suresh Kumar

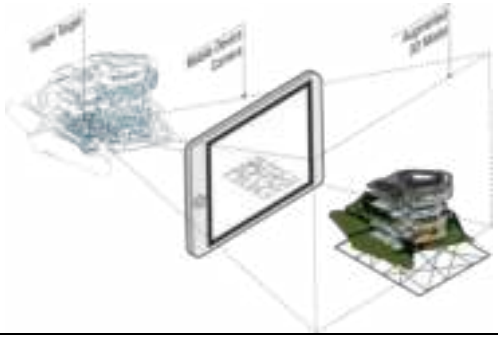
	Visvesvaraya Technological University **"JnanaSangama"** **Belagavi: 590018** **Karnataka, India.** **Tele: 0831-2498225,2405454**

VTU Sponsored Student Project Proposal Format

01	Academic Year:	2020 – 2021	
02	Semester:	VIII	
03	Name of the College:	T. John Institute of Technology	
04	Branch:	Computer Science and Engineering	
05	Project Title:	Android App to integrate virtual objects in real-world scene	
06	Project Discipline:	Augmented Reality, Artificial Intelligence	
07	Principal	Name:	Dr. P Suresh Venugopal
		Contact No:	80756 81766
		Email id	tjitprincipal@tjohngroup.com
08	HOD	Name:	Ms. Suma R
		Contact No:	9740990590
		Email id	tjitcsehod@tjohngroup.com
09	Project Guide	Name:	Mr. Prashant Koparde
		Contact No:	9986500230
		Email id	prashantkoparde@tjohngroup.com
		Contact No:	9986500230
		Email id	prashantkoparde@tjohngroup.com
10	Project Committee Coordinator (Identified by the college)	Name:	Mr. Narasimha Murthy C
		Contact No:	8884011000
		Email id	narasimham@tjohngroup.com

<table>
<tr><td rowspan="14">11</td><td colspan="2">Name of Project group Members</td></tr>
<tr><td colspan="2">1.Group leader and Member</td></tr>
<tr><td>Name: Chaaru M K</td><td rowspan="4"> </td></tr>
<tr><td>USN: 1TJ16CS021</td></tr>
<tr><td>Contact No: 9964581353</td></tr>
<tr><td>Email id: mkchaaru@yahoo.com</td></tr>
<tr><td colspan="2">2. Member</td></tr>
<tr><td>Name: Sharath Kumar C G</td><td rowspan="4"> </td></tr>
<tr><td>USN: 1TJ17CS083</td></tr>
<tr><td>Contact No: 8123808689</td></tr>
<tr><td>Email id: sharathkumarcg.99@gmail.com</td></tr>
<tr><td colspan="2">3. Member</td></tr>
<tr><td>Name: Satish Yadav</td><td rowspan="4"> </td></tr>
<tr><td>USN: 1TJ17CS081</td></tr>
<tr><td>Contact No: 8317359648</td></tr>
<tr><td>Email id: satishyadavsy01@gmail.com</td></tr>
<tr><td colspan="2">4. Member</td></tr>
<tr><td>Name: Mohammad Ishtiyaque</td><td rowspan="4"> </td></tr>
<tr><td>USN: 1TJ17CS045</td></tr>
<tr><td>Contact No: 7892021103</td></tr>
<tr><td>Email id: ishtiyaquethegeek@gmail.com</td></tr>
<tr><td rowspan="3">12</td><td rowspan="3">Processing Fee Details</td><td>Bank Name:</td></tr>
<tr><td>Branch:</td></tr>
<tr><td>DD number with Date:
OR
Cheque no with Date:</td></tr>
</table>

13	Scope / Objectives of the project:	1. Creating awareness in the society about global warming using the modern technologies like Augmented Reality. 2. To design and create 3D objects. 3. Rendering 3D objects accurately. 4. Superimposing the virtual objects over the nature around us and simulating the effects of what we're doing to the mother nature today is an effective way of convincing people.
14	Methodology of work:	**Methodology:** 1. Plane detection The rendering of the real-world scene is done through the phone's camera. A dynamic real-world scene is fed as input to the AR algorithm. The advanced algorithm finds a flat surface that can fully contain the 3D object. 2. Detecting feature points The AR platforms need to track when we move. The general technology behind this is called SIMULTANEOUS LOCALIZATION AND MAPPING (SLAM). SLAM processes require data collecting hardware like cameras, depth sensors, light sensors, gyroscopes, and accelerometers. 3. Light estimation The way ARCore algorithm uses light estimation is by scanning the camera images pixels to determine an average of incoming light which helps to decide how the best light an AR object inside of a specific environment. 4. Anchoring Anchors, also referred to as anchor points, are the points in our environment that has been detected as best suit which should always hold the respective digital object.

		AUGMENTED REALITY ARCHITECTURE 
15	Expected Outcome of the Project:	• Successful implementation of virtual objects in real-world scenario and achievement of Augmented Reality. • Henceforth successful simulation of Global Warming effects in real-world environment.
16	Applications of the Project:	Android Native application that is capable of handling complex designed 3D models and dynamic rendering of real-world image.
17	Budget details with Materials required:	Purchasing 3D Models: • Low_poly spring scene 3D: 1778 Rs. • Ram skull fbx: 1439 Rs. • Miscellaneous: 1167 Rs. Fusion3D subscription: • 2 Months: 2700 Rs. **Total Budget: 7084 Rs.**

18	Date of Commencement of the Project:	15th September 2020
19	Probable date of completion of the Project:	30th June 2021
20	Duration of Project work:	09 Months, 15 Days
21	Pert chart for completion of the project in said duration as per planned activities:	

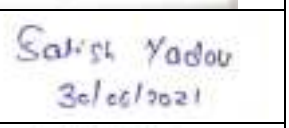
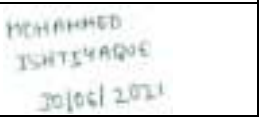
Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
04	Final Testing						
05	Result & Calculation/ Conclusion						
06	Preparation of Report & Submission						

DECLARATION BY THE STUDENTS

We, the project group members hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge. We undertake to inform VTU, of any changes there in the project title, students name will be intimated immediately. In case, any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it.

We are aware that the project group has to exhibit / demonstrate the project for evaluation in the VTU Regional centre and for exhibition at VTU, Belagavi. If the project group fails to attend the evaluation in Regional centre and for Exhibition in VTU Belagavi, the sponsored project amount will be returned back to VTU immediately

We also hereby, enclose the endorsement form to VTU, Belagavi.

SL. No	Name of the Student	Signature with date
01	CHAARU M K	
02	SHARATH KUMAR C G	
03	SATISH YADAV	
04	MOHAMMAD ISHTIYAQUE	

T.JOHN
INSTITUTE OF TECHNOLOGY
(Affiliated to VTU)
Arpproved by AICTE Govt. of India New Delhi
86/1, Gottigere P.O. Bannerghatta Road, Bangalore - 560 083, India
Mob: +91 98861 23422, Email : tjitprincipal@tjohngroup.com

ENDORSEMENT

This is to certify that

1] Chaaru M K

2] Sharath Kumar C G

3] Satish Yadav

4] Mohammad Ishtiyaque

are bonafide students of Department of Computer Science and Engineering of our institution. If the project proposal submitted by these students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory /Computer/infrastructure support in our college/Institution. Further we also take necessary steps that the project group will exhibit/ demonstrate their project in the Regional Centre and for exhibition at VTU, Belagavi. If the student group fails to attend the evaluation in Regional Centre and exhibition at VTU Belagavi. The supported project amount will be returned back to VTU immediately.

Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
06/07/2021	06/07/2021	6/7/2021
Name: Mr. Prashant Koparde	Name: Ms Suma R & Engg.	Name: Dr. Ramesh Vernekar

Head of the Department
Computer Science & Engg.
T. John Institute of Technology
Bangalore - 560 083

Principal
T. John Institute of Technology
86/1, Gottigere Post, Bannerghatta Road
Bangaluru - 560 083

	Visvesvaraya Technological University **"JnanaSangama"** **Belagavi: 590018** **Karnataka, India.** **Tele: 0831-2498225,2405454**

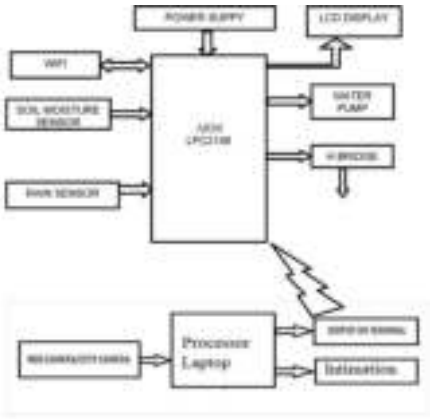
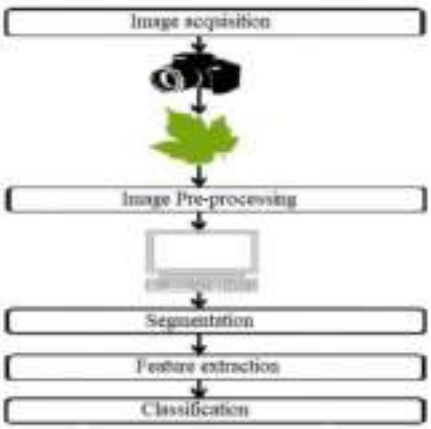
VTU Sponsored Student Project Proposal Format

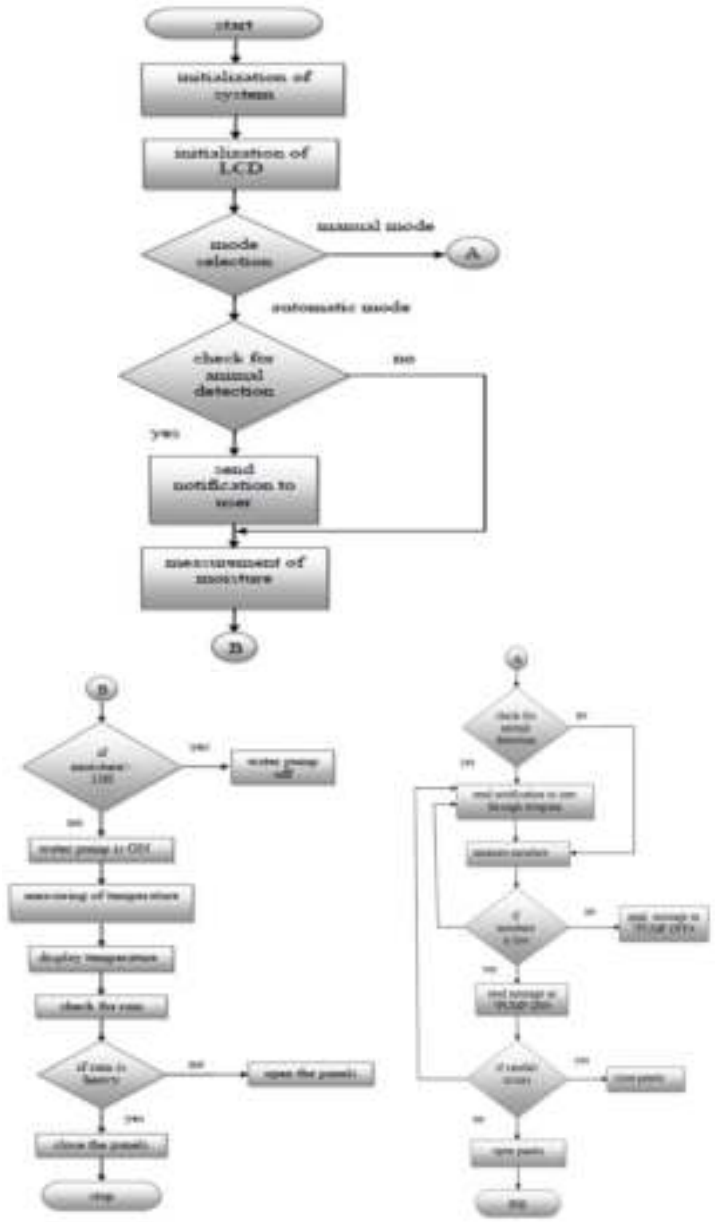
01	Academic Year:	2020-21	
02	Semester:	8	
03	Name of the College:	T John Institute of Technology	
04	Branch:	Electronics and Communication	
05	Project Title:	Smart Agriculture Crop Protection and Animal Detection	
06	Project Discipline:	Embedded System	
07	Principal	Name:	Dr. P Suresh Venugopal
		Contact No:	8075681766
		Email id	tjitprincipal@tjohngroup.com
08	HOD	Name:	Prof. Anand Swamy A. S
		Contact No:	9845020863
		Email id	ecehod@tjohngroup.com
09	Project Guide	Name:	Drakshayini M. N
		Contact No:	9448974111
		Email id	drakshayini@tjohngroup.com
10	Project Committee Coordinator (Identified by the college)	Name:	Narasimha Murthy C
		Contact No:	8884011000
		Email id	narasimham@tjohngroup.com

<table>
<tr><td rowspan="11">11</td><td colspan="2">Name of Project group Members</td></tr>
<tr><td colspan="2">1.Group leader and Member</td></tr>
<tr><td>Name: Shruthi K T
USN: 1TJ17EC049
Contact No: 7795184835
Email id: shruthid785@gmail.com</td><td> </td></tr>
<tr><td colspan="2">2. Member</td></tr>
<tr><td>Name: Shama M G
USN: 1TJ17EC046
Contact No: 9986270932
Email id: shamamg.smg@gmail.com</td><td> </td></tr>
<tr><td colspan="2">3. Member</td></tr>
<tr><td>Name: Chithra G
USN: 1TJ17EC013
Contact No: 9538640208
Email id: chithrag389@gmail.com</td><td> </td></tr>
<tr><td colspan="2"></td></tr>
<tr><td rowspan="3">12</td><td rowspan="3">Processing Fee Details</td><td>Bank Name:</td></tr>
<tr><td>Branch:</td></tr>
<tr><td>DD number with Date:

OR

Cheque no with Date:</td></tr>
<tr><td>13</td><td>Scope / Objectives of the project:</td><td>1. To create a security system for the defense of a farm. Monitor operation in auto and manual modes.
2. Detecting animals on the farm and sending the message to owner.
3. Keep the crop dry in the event of a strong downpour.</td></tr>
</table>

14	Methodology of work: (Including diagram, flow chart and design calculations)	• Pre-requisite data for the design specifications of Rain water, temperature sensor, Humidity and Infra -red sensors unit is extracted from the available reference journal publications meeting the desired specifications. • The Rain water, Humidity and Infra-red sensors units will be developed with discrete components on printed circuit board after choosing the appropriate components to match the obtained design as closely as possible. • The interfacing of microcontroller with the hardware is done for processing of signals. • The functioning of rain sensor, humidity sensor and infrared sensor is observed and recorded. • The power is supplied using renewable energy sources as solar power. Software like arm Keil, Arduino and python with open cv are used for the programming  Block diagram of the system  Animal detection process



Flow chart of the security system which works in both manual and auto mode

15	Expected Outcome of the Project:	1. Security system for the farm protection which works in both auto mode and manual mode and send notification to the owner. 2. Protecting the crops from the unpredictable rainfall, using the panels for opening and closing. 3. Detecting the animals in the field and classifying them also give the total count of animals in the field, sending message to alert the farmer.
16	Applications of the Project:	• Protection of crops. • Avoiding the animals towards agriculture fields. • Avoiding the wild animals. • Detection of rain condition. • Covering the small crops from the heavy rain. • Rain water harvesting from rain water collected from the panels • Power generation
17	Budget details with Materials required:	The overall system budget for the prototype will cost: 8000/- Material Required: • Arm Lpc2148 • Wi-Fi Esp8266 • IR Sensor • Lcd Display • Power Supply • Buzzer • Rain Sensor • Moisture Sensor • Temperature Sensor • Relay • H Bridge • Water Pump • 12 V Adapter • Solar • Foaming Sheet • Motor • Plywood sheets • Other materials

19	Date of Commencement of the Project:	01/11/2020
20	Probable date of completion of the Project:	10/07/2021
21	Duration of Project work:	9 months
22	Pert chart for completion of the project in said duration as per planned activities:	

Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
04	Final Testing						
05	Result & Calculation/ Conclusion						
06	Preparation of Report & Submission						

DECLARATION BY THE STUDENTS

We, the project group members hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge. We undertake to inform VTU, of any changes there in the project title, students name will be intimated immediately. In case, any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it.

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We also hereby, enclose the endorsement form to VTU, Belagavi.

SL.No	Name of the Student	Signature with date
01	Shruthi K T	Shruthi.K.T 30/06/2021
02	Shama M G	Shama 30/06/2021
03	Chithra G	Chithra.G 30/06/2021

T.JOHN
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86/1 Gottigere PO Bannerghatta Road Bangalore - 560 083 India
Tel: 080-40250555, 49030555 Fax:080-49030509

ENDORSEMENT

This is to certify that

1] Shruthi K T

2] Shama M G

3] Chihra G

Are bonafide students of Department in Electronics And Communication, of our institution. If the project proposal submitted by these students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps that the project group will exhibit / demonstrate their project in the Regional centre and for exhibition at VTU, Belagavi. If the student group fails to attend the evaluation in Regional centre and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
30/6/2021	Head of the Department Electronics & Communication Engg. John Institute of Technology Bangalore - 560 083	Principal John Institute of Technology Bangalore - 560 083
Name: Dr. Shanthala T M		Name: Dr. P Suresh Venugopal

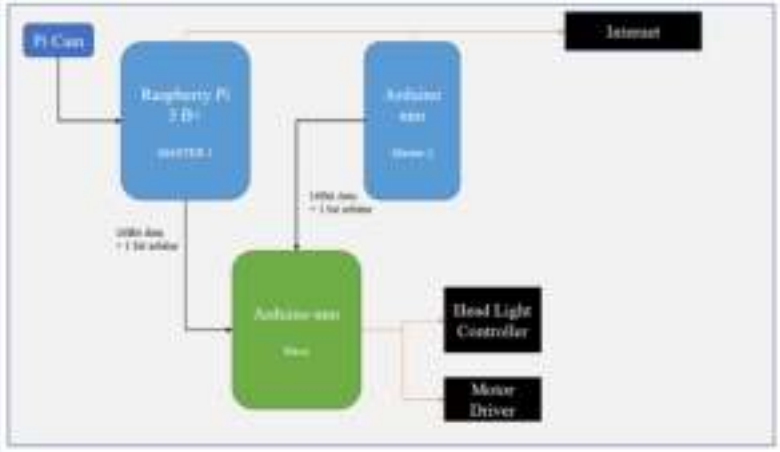
	Visvesvaraya Technological University "JnanaSangama" Belagavi: 590018 Karnataka, India. Tele: 0831-2498225 ,2405454

VTU Sponsored Student Project Proposal Format

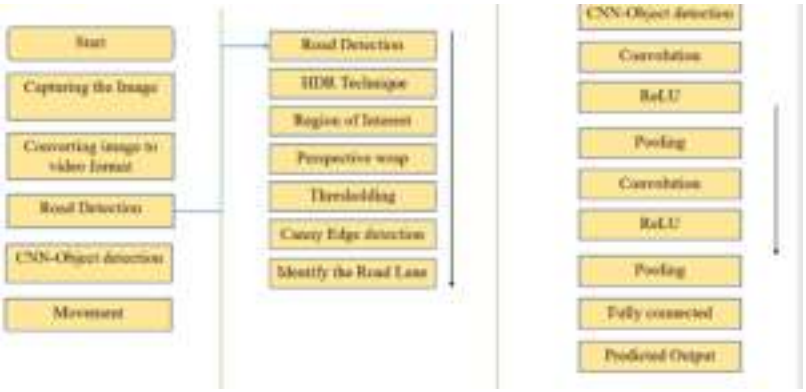
01	Academic Year:	2020-2021	
02	Semester:	8	
03	Name of the College:	T John Institute of Technology	
04	Branch:	Electronics and Communication Engineering	
05	Project Title:	HDR and CNN based Efficient Self-driving Autonomous Car.	
06	Project Discipline:	Automobile	
07	Principal	Name:	Dr. P Suresh Venugopal
		Contact No:	8075681766
		Email id:	tjitprincipal@tjohngroup.com
08	HOD	Name:	Prof. Anand Swamy A S
		Contact No:	9845020863
		Email id:	tjitecehod@tjohngroup.com
09	Project Guide	Name:	Prof. Anand Swamy A S
		Contact No:	9845020863
		Email id:	tjitecehod@tjohngroup.com
10	Project Committee coordinator (Identified by the college):	Name:	Narasimha Murthy C
		Contact No:	8884011000
		Email id:	narasimham@tjohngroup.com

<table>
<tr><td>11</td><td colspan="2">Name of project group Members</td></tr>
<tr><td></td><td colspan="2">1. Group leader and Member</td></tr>
<tr><td></td><td>Name: Lalithrahul J
USN No. 1TJ17EC057
Contact No:7892260498
Email id: lalithrahulj@gmail.com</td><td> </td></tr>
<tr><td></td><td colspan="2">2.Member</td></tr>
<tr><td></td><td>Name: Infant Ranjan R
USN No. 1TJ17EC019
Contact No:8296327945
Email id: infantranjan99@gmail.com</td><td> </td></tr>
<tr><td></td><td colspan="2">3. Member</td></tr>
<tr><td></td><td>Name: Aveline T A
USN No. 1TJ17EC008
Contact No: 9148698450
Email id: ta.aveline@gmail.com</td><td> </td></tr>
<tr><td></td><td colspan="2">4.Member</td></tr>
<tr><td></td><td>Name: Akhil Benny
USN No. 1TJ17EC055
Contact No: 9400876477
Email id: akhilgetmail@gmail.com</td><td> </td></tr>
</table>

12	Processing Fee Details	Bank name:
		Branch:
		DD number with date: OR Cheque no with date:
13	Scope / Objectives of the project:	• To Build a single board system, for better processing and efficient output response. • To capture better data using HDR techniques. • Training the vehicle to identify obstacles using much better algorithms by a wireless sensor network and machine learning techniques.

14	Methodology of work: (Including diagram, flow chart and design calculations)	Implementing a System, which processes image, wireless sensor network inputs and provides a much efficient output. This technique reduces the overall failure of the autonomous vehicle. The System consists of Two Masters to collect the data input from the environment (Path of movement) processes the data and send an encoded control signal to a slave controller. Below is the block diagram of the system.  Block diagram of the controller system. The Master 1 (Raspberry pi) deals with the Image processing and machine learning section of the system. The Master 2 (Arduino Uno) takes care of the wireless sensor network. Both the masters transmit a 16-bit encoded data consisting of the control signal and a 1-bit address bit to the slave to control the vehicles motor movement and handle the vehicles critical protocols.

The Image Processing and machine training flow is designed as below:



Flow Chart of Master 1

We have developed an algorithm to automatically adapt the image exposure according to the lighting condition on the path using the hdr technique.
The lighting conditions are mainly classified into Low light and High light condition. During the Low light the captured image's exposure will be increased to a set level and during the high light condition the exposure will be decreased, to improve the image processing efficiency.

Once the required image is obtained, we focus on the region of our interest (i.e., Road in our case). Change the perspective of the uneven image, apply thresholding and detect the edges using canny edge detection and finally find the lane.

		The Wireless sensor network flow design is as below: Flow Chart of Master 2 The Wireless sensor network consists of a combination of multiple sensors gathering the obstacles data from the surrounding of the vehicle and processes the necessary control signals and transmit to the slave controller. The Slave controller decodes the addresses from the masters and receives the control data and performs the necessary momentary actions. The slave also takes care of several protocols like adaptive head light system, cruise control.
15	Expected Outcome of the project:	The expected outcome of this project is to obtain an autonomous self-driving vehicle capable to capture multiple inputs processes them more efficiently and adaptive to different lighting conditions. Reducing the overall malfunctioning of the system and the vehicle will be able to drive autonomously on a well-maintained road.

16	Application of the project:	• Processing of multiple input data and performs required action. • Increased processing speed, as both the processing and controlling takes place on same board. • Chances of Failure is too less. • Hassel free traveling experience. • People with disabilities, like the blind, are capable of self-sufficiency, and highly automated vehicles can help them live the life they want. • These vehicles can also enhance independence for seniors. • Reduced Crashes.
17	Budget details with Materials required:	The Overall system Budget for the prototype will cost: **18000/.** Material Required: • Raspberry Pi 3 B+ (Including Storage card, protective case) • Arduino uno *2 • Node MCU • Raspberry Pi Camera • Sensors • Car Chassis (For Prototype) • Power source (5V, 2.4 A) • USB cable. • Other materials for Protype (Tracks, etc)

18	Date of commencement of the Project:	7th October 2020
19	Probable date of completion of the project:	8th July 2021
20	Duration of project work:	9 months
21	Pert chart for completion of the project in said duration as per planned activities:	

Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
04	Final Testing						
05	Result & Calculation/ Conclusion						
06	Preparation of Report & Submission						

DECLARATION BY THE STUDENTS

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We also hereby, enclose the endorsement form to VTU, Belagavi.

Sl. No	Name of the Student	Signature with date
01	Lalithrahul J	26/06/2021
02	Infant Ranjan R	26/06/2021
03	Aveline T A	26/06/2021
04	Akhil Benny	26/06/2021

T. JOHN
INSTITUTE OF TECHNOLOGY
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Approved by AICTE Govt. of India New Delhi
86/1, Gottigere P.O., Bannerghatta Road, Bangalore - 560 083. India
Tel: 080-40250555, 49030555 Fax:080-49030509

ENDORSEMENT

This is to certify that

1] Lalithrahul J

2] Infant Ranjan R

3] Aveline T A

4] Akhil Benny

Are bonafide students of Department in Electronics and Communication Engineering, of our institution. If the project proposal submitted by these students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps that the project group will exhibit / demonstrate their project in the regional centre and for exhibition at VTU, Belagavi. If the student group fails to attend the evaluation in regional centre and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

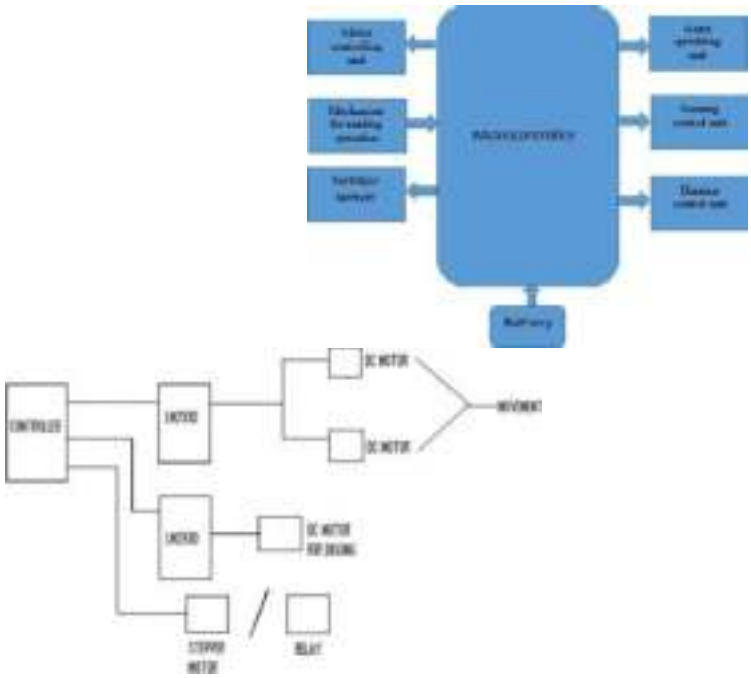
Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
30/06/2021	Head of the Department Electronics & Communication Engg T.John Institute of Technology Bangalore - 560 083	Dr. P Suresh Venugopal Principal T. John Institute of Technology # 86/1,Gottigere Post, Bannerghatta Road, Bengaluru - 560 083
Name: ANAND SWAMY A-5	Name: ANAND SWAMY A-5	Name:

Visvesvaraya Technological University
"JnanaSangama"
Belagavi: 590018
Karnataka, India.
Tele:0831-2498225,2405454

VTU Sponsored Student Project Proposal Format

01	Academic Year:	2020 - 2021	
02	Semester:	8th	
03	Name of the College:	T. John Institute of Technology	
04	Branch:	Mechanical Engineering	
05	Project Title:	Agribot	
06	Project Discipline:	Design and Fabrication	
07	Principal	Name:	Dr. P. Suresh Venugopal
		Contact No:	9845040702
		Email id	tjitprincipal@tjohngroup.com
08	HOD	Name:	Mr. Sujith Kumar S G
		Contact No:	9481932736
		Email id	tjitmehod@tjohngroup.com
09	Project Guide	Name:	Mr. Siddesha T
		Contact No:	9060768756
		Email id	siddeshat@tjohngroup.com
10	Project Co-Guide (If any)	Name:	
		Contact No:	
		Email id	
11	Project Committee Coordinator (Identified by the college)	Name:	Mr. Narasimha Murthy C
		Contact No:	8884011000
		Email id	narasimham@tjohngroup.com

<table>
<tr><td rowspan="14">12</td><td colspan="3">Name of Project group Members</td></tr>
<tr><td colspan="3">1.Group leader and Member</td></tr>
<tr><td colspan="2">Name: Akshay M
USN: 1TJ16ME008
Contact No:7411338455
Email id:akshaym91999@gmail.com</td><td> </td></tr>
<tr><td colspan="3">2. Member</td></tr>
<tr><td colspan="2">Name: Chethan M
USN:1TJ16ME016
Contact No:7760527937
Email id:dsschethan@gmail.com</td><td> </td></tr>
<tr><td colspan="3">3. Member</td></tr>
<tr><td colspan="2">Name: Darshan Kumar D
USN: 1TJ16ME018
Contact No: 9164624251
Email id:darshankumard1798@gmail.com</td><td> </td></tr>
<tr><td colspan="3">4. Member</td></tr>
<tr><td colspan="2">Name: Nandan M K
USN: 1TJ16ME086
Contact No: 7899783797
Email id:nandancoorg6@gmail.com</td><td> </td></tr>
<tr><td rowspan="3">13</td><td rowspan="3">Processing Fee Details:</td><td>Bank Name:</td></tr>
<tr><td>Branch:</td></tr>
<tr><td>DD number with Date:
OR
Cheque no with Date:</td></tr>
<tr><td>14</td><td>Scope / Objectives of the project:</td><td>• The objective of this paper is to design, development of the Agribot which is a multipurpose bot can perform all the farming operations including ploughing the soil of the field, sowing seeds in the ploughing area, watering the crops, medicine spray them.
• Work get completed in accurate manner
• It is used for agricultural purposes to do multiple task at a time.
• An autonomous robot works on open architecture principle and does a lot of work in farms so it reduces human labor</td></tr>
</table>

15	Methodology of work: (Including diagram, flow chart and design calculations)	
16	Expected Outcome of the Project:	The prototype of our project AGRIBOT has the ability to perform all the agricultural activity like, • Digging • Sowing • Seeding • Watering • fertilizer spraying and • crop cutting through android phone.
17	Applications of the Project:	• It is used for digging • It is used for sowing • It is used for seeding • It is used for watering plants • It is used for spraying fertilizers for plants • It is also used for cutting crops
18	Budget details with Materials required:	1. Arduino UNO R3 (microcontroller) = 4676*1 = 4676 RS 2. DC Motor(35000RPM 12V) = 180*6 = 1080RS 3. Servo Motor = 140*1 = 140RS 4. Relay = 100*3 = 300RS 5. H Bridge = 150*1 = 150RS 6. 4 Wheel robotic platform = 550*1 = 550RS 7. Pump = 200*1 = 200RS 8. Bluetooth H05 = 350*1 = 350RS

19	Date of Commencement of the Project:	05/11/2020
20	Probable date of completion of the Project:	05/07/2021
21	Duration of Project work:	8 months
22	Pert chart for completion of the project in said duration as per planned activities:	

Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
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06	Preparation of Report & Submission						

DECLARATION BYTHESTUDENTS

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We also hereby, enclose the endorsement form to VTU, Belagavi.

SL.No	Name of the Student	Signature with date
01	Akshay M	30/06/2021
02	Chethan M	30/06/2021
03	Darshan Kumar D	30/06/2021
04	Nandan M K	30/06/2021

T. JOHN
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86/1, Gottigere P.O., Bannerghatta Road, Bangalore - 560 083. India
Tel: 080-40250555, 49030555 Fax:080-49030509

ENDORSEMENT

This is to certify that

1] Akshay. M (1TJ16ME008)

2] Chethan. M (1TJ16ME016)

3] Darshan Kumar. D (1TJ16ME018)

4] Nandan. M. K (1TJ16ME086)

Are Bonafide Students of Department in Mechanical Engineering, of our Institution. If the project proposal submitted by these Students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory/ Computer/ Infrastructure support in our College/ Institution. Further we also take necessary steps that the project group will exhibit/ demonstrate their project in the Regional center and for exhibition at VTU, Belagavi. If the Student group fails to attend the evaluation in Regional center and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
30/06/2021	30/06/21 Head of the Department Department of Mechanical Engineering	
Name: Siddesha. T	T John Institute of Bengaluru - 56 Name: S.G SUJITHKUMAR	Name: Dr. P Suresh Venugopal Principal T. John Institute of Technology #86/1, Gottigere Post, Bannerghatta Road, Bengaluru - 560 083.

Scanned By Scanner Go

	Visvesvaraya Technological University **"JnanaSangama"** **Belagavi: 590018** **Karnataka, India.** **Tele:0831-2498225,2405454**

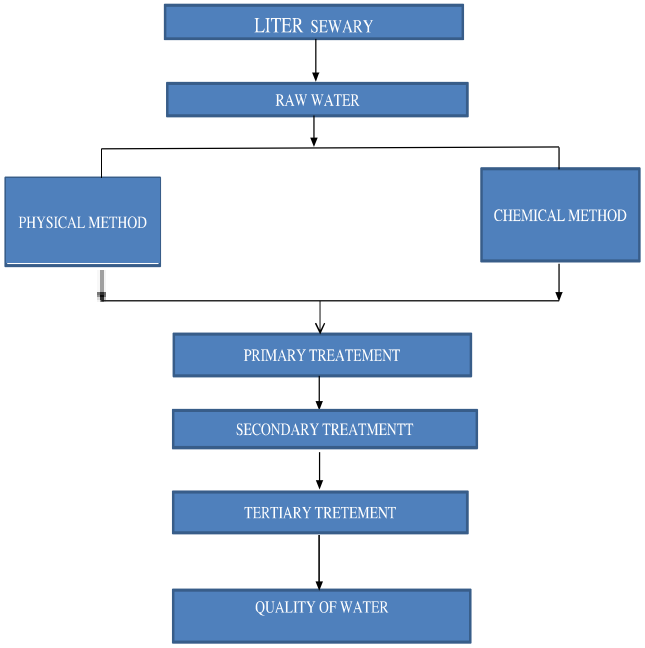
VTU Sponsored Student Project Proposal Format

01	Academic Year:	2020 - 2021	
02	Semester:	8th	
03	Name of the College:	T. John Institute Of Technology	
04	Branch:	Mechanical Engineering	
05	Project Title:	Waste Water Recycle, Reuse, Reclamation	
06	Project Discipline:	Water Resource Management	
07	Principal	Name:	Dr. P. Suresh Venugopal
		Contact No:	9845040702
		Email id	tjitprincipal@tjohngroup.com
08	HOD	Name:	Mr. Sujith Kumar. S. G
		Contact No:	9481932736
		Email id	tjitmehod@tjohngroup.com
09	Project Guide	Name:	Mr. Santosh kolli
		Contact No:	9916733672
		Email id	santoshkolli@tjohngroup.com
10	Project Co-Guide (If any)	Name:	
		Contact No:	
		Email id	
11	Project Committee Coordinator (Identified by the college)	Name:	Mr. Narasimha Murthy. C
		Contact No:	8884011000
		Email id	narasimham@tjohngroup.com

<table>
<tr><td rowspan="11">12</td><td colspan="3">Name of Project group Members</td></tr>
<tr><td colspan="3">1.Group leader and Member</td></tr>
<tr><td colspan="2">Name: Fardinand S</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN: 1TJ17ME012</td></tr>
<tr><td colspan="2">Contact No:9886595419</td></tr>
<tr><td colspan="2">Email id:fardinand419@gmail.com</td></tr>
<tr><td colspan="3">2. Member</td></tr>
<tr><td colspan="2">Name:Arun Kumar K</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN:1TJ17ME007</td></tr>
<tr><td colspan="2">Contact No:9620204597</td></tr>
<tr><td colspan="2">Email id:arunkumarkannan351@gmail.com</td></tr>
<tr><td colspan="3">3. Member</td></tr>
<tr><td colspan="2">Name:Meghana K M</td><td rowspan="4"> </td></tr>
<tr><td colspan="2">USN: 1TJ17ME018</td></tr>
<tr><td colspan="2">Contact No:8971489441</td></tr>
<tr><td colspan="2">Email id:meghanakamath555@gmail.com</td></tr>
<tr><td rowspan="3">13</td><td rowspan="3">Processing Fee Details</td><td colspan="2">Bank Name:</td></tr>
<tr><td colspan="2">Branch:</td></tr>
<tr><td colspan="2">DD number with Date:

OR

Cheque no with Date:</td></tr>
<tr><td>14</td><td>Scope / Objectives of the project:</td><td colspan="2">The objective of this Project is to design and development of the “WASTE WATER RECYCLE, REUSE, RECLAMATION” is to recycle waste water from domestic purpose of water in our daily life.</td></tr>
</table>

15	Methodology of work: (Including diagram, flow chart and design calculations)	
16	Expected Outcome of the Project:	The purpose of ('Waste Water,Reuse,Recycle,Reclamation") is to recycle water everyday after use in our daily life because fresh water is very less in our daily life.
17	Applications of the Project:	• It is used for bathing • It is used for washing • It is used for seeding • It is used for watering plants • It is used for washing car • It is also used for gardening
18	Budget details with Materials required:	1. Plastic container 7 pieces (170*7=1190)= 1190RS 2. Plastic container big 1 pieces =300RS 3. Screening bar 1 pieces =200RS 4. Plastic pipe =500RS 5. DC motor .Battery ,Propeller=400RS 6. Aquarium sand and stone 2 packet(150*2)=300RS 7. Activated Charcoal=400RS 8. .25 Hp water pump =1650RS 9. Water filter revere osmosis=3200RS 10. Post carbon filter=500RS 11. Switch(3*20)=60RS 12. Silica gum =250RS 13. Ply wood =700RS 14. Thermacol (3*35)=105RS 15. Wires =100RS 16. Gum=100RS 17. TOTAL=9955RS

19	Date of Commencement of the Project:	16/12/2020
20	Probable date of completion of the Project:	05/07/2021
21	Duration of Project work:	7 months
22	Pert chart for completion of the project in said duration as per planned activities:	

Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review						
02	Planning/ Designing						
03	Assembly/ Fabrication work						
04	Final Testing						
05	Result & Calculation/ Conclusion						
06	Preparation of Report & Submission						

DECLARATION BYTHESTUDENTS

We, the project group members hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge. We undertake to inform VTU, of any changes there in the project title, students name will be intimated immediately. In case, any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it.

We are aware that the project group has to exhibit / demonstrate the project for evaluation in the VTU Regional centre and for exhibition at VTU, Belagavi. If the project group fails to attend the evaluation in Regional centre and for Exhibition in VTU Belagavi, the sponsored project amount will be returned back to VTU immediately

We also hereby, enclose the endorsement form to VTU, Belagavi.

SL.No	Name of the Student	Signature with date
01	Arun Kumar K	30/06/2021
02	Fardinand S	30/06/2021
03	Meghana K M	30/06/2021

T. JOHN
INSTITUTE OF TECHNOLOGY
(Affiliated to VTU)
Approved by AICTE Govt. of India New Delhi
86/1, Gottigere P.O., Bannerghatta Road, Bangalore - 560 083. India
Tel: 080-40250555, 49030555 Fax 080-49030509

ENDORSEMENT

This is to certify that

1] Fardinand. S (1TJ17ME012)

2] Arun Kumar. K (1TJ17ME007)

3] Meghana K. M (1TJ17ME018)

Are Bonafide Students of Department in Mechanical Engineering, of our Institution. If the project proposal submitted by these Students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory/ Computer/ Infrastructure support in our College/ Institution. Further we also take necessary steps that the project group will exhibit/ demonstrate their project in the Regional center and for exhibition at VTU, Belagavi. If the Student group fails to attend the evaluation in Regional center and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

Signature of Project Guide with date	Signature of HOD with Seal and date	Signature of the Principal with Seal and date
30/06/2021	30/06/21 Head of the Department Department of Mechanical Engineering T.John Institute of Technology Bengaluru - 560 083	
Name: SANTOSH S. KOLLI	Name: S. G. SUJITH KUMAR	Name: Dr. P Suresh Venugopal Principal T. John Institute of Technology #86/1, Gottigere Post Bannerghatta Road, Bengaluru - 560 083.

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SEVENTH SENSE
Talent Solutions

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding made and entered on 05th of May 2021, between

Seventh Sense People Development Solutions Pvt Ltd, Bengaluru.

AND

T. John Institute of Technology, Bengaluru

Whereas

Seventh Sense People Development Solutions Pvt Ltd is engaged in the business of providing Campus Recruitment Training Program along with Placement Assistance – First Party

T John Institute of Technology, Bengaluru is engaged in providing education to the students in the capacity of an educational institution– Second Party

Seventh Sense People Development Solutions Pvt Ltd and T John Institute of Technology, Bengaluru have decided to work together for mutual benefit with respective expertise in their fields, in providing training to the students of the college. Both the parties intended to record the terms and conditions of the Memorandum of Understanding in writing.

Now this Memorandum of Understanding witnessed that in consideration of the mutual covenant contained herein, the parties have agreed as follows:

Period of Memorandum of Understanding:

This Memorandum of Understanding is valid for a period of **36 months** from the date it is signed by authorized representatives from both the parties.

Statement of mutual intention:

First Party and Second Party hereby confirm their mutual intention to work together and co-operate with each other

T. John Institute of Technology Gottigere P.O. Bengaluru -560 083 Kammanahalli

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SEVENTH SENSE
Talent Solutions

- Please find below the details of training per year

		2024 Batch		
Year	**Name of Course**	**Number of Hours**	**Pricing per hour per student for Online Training**	**Pricing per hour per student for Offline Training**
01st Year students	Communication Enhancement + Soft Skills + Technical Training	128 hours	Rs. 23.43 (Incl of GST)	Rs. 31.25 (Incl of GST)

		2023 Batch		
Year	**Name of Course**	**Number of Hours**	**Pricing per hour per student for Online Training**	**Pricing per student per year**
02nd Year students	Basic Aptitude + Personality Development + Technical Training	128 hours	Rs. 23.43 (Incl of GST)	Rs. 31.25 (Incl of GST)

		2022 Batch		
Year	**Name of Course**	**Number of Hours**	**Pricing per hour per student for Online Training**	**Pricing per student per year**
03rd Year Students	Campus Recruitment Training + Company Simulations + Technical Training	128 hours	Rs. 23.43 (Incl of GST)	Rs. 31.25 (Incl of GST)

		2021 Batch		
Year	**Name of Course**	**Number of Hours**	**Pricing per hour per student for Online Training**	**Pricing per hour per student for Offline Training**
04th Year Students	Campus Recruitment Training + Soft Skills + Technical Training	64 Hours	Rs. 23.43 (Incl of GST)	Rs. 31.25 (Incl of GST)
	Place Sense	Min 25 Job Opportunities	Rs. 1500 Per student (Incl of GST)	Rs. 1500 per student (Incl of GST)

St. John Institute of Technology
Gottigere P.O.
Bengaluru
-560 083.
Kammanahalli

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- Please note that the prices mentioned are inclusive of GST (18%).
- The full professional fees for the training should be paid as and when the training completes and an assessment is conducted, consolidated report is shared with the placement department. However, full payment is to be made in advance for the training & placement assistance extended for the Final year students.
- First Party has agreed for a price freeze i.e. no increase in the prices for 3 years (36 months) unless the Second Party opts for a new or additional service extended by the First Party.
- This MOU will be made void if there is deficiency found in the service offered by the First Party. However Second Party should produce appropriate documents to prove the same & Second Party to give 1 months' time to the First Party to rectify and improve.
- The timetable will be created as per mutual convenience of both the parties (6 hours per resource person of the First Party for everyday he/she is engaged by the Second Party.
- First Party will provide the complete report & feedback of the training & on the student's performance during the training.
- Second Party will provide Classrooms, Projectors, AV Systems & White/Black boards to conduct the training.
- First Party would assist the Second Party in the following aspects:
    - Preparing the question papers and answer keys necessary for administering the examinations on behalf of the Second Party to its students
    - Proctoring/Invigilating the entire examinations on behalf of the Second Party
    - Evaluating the examinations on behalf of the Second Party and submitting the reports on student performance to the Second Party on a timely basis
    - Providing necessary online support to the Second Party for the correct display of results and performance of its students for every examination conducted
- First Party will provide all the students with the printed book materials.
- Online learning and assessments will be provided complimentary to the Second party by the First Party
- Prior information should be given by the second party to the first party in the event of any classes being called off (At least a day in advance), else those hours will be considered for billing.

St. John Institute of Technology Golligere P.O. Bengaluru 560 083

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SEVENTH SENSE
Talent Solutions

In witness whereof the parties hereto have hereunto set their hands and seals the day and year first above - written

FIRST PARTY

Seventh Sense People Development Solutions Private Limited Bangalore

Name: Rajeev Swamy
Designation: Vice President
Date: 05/05/2021

SECOND PARTY

T John Institute of Technology Bengaluru,

Name: Dr. P. Suresh Venugopal
Designation: Principal
Date: 05/05/2021

T John Institute of Technology * Gottigere P.O. Bengaluru 560 083 * Kammanahalli

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BOSCH
Invented for life

Ms. J Suganthi
Associate Professor
T.John Institute of Technology
No. 88/1, Gottigere Bannerghatta Road, Bangalore,
Karnataka-560 083
Ph: 99427 74041

Bosch Limited - (PAN AAACM 9840 P) - (CIN: L85110KA1951PLC000761)
Post Box No:3000
Hosur Road, Adugodi
Bengaluru-560030
Karnataka, India
Tel + 91 80 6752-2393
Fax +91 80 222-72728

www.bosch.in

Sub: Youth Employability Skills Course content - Industry-Academia Collaboration **Date : 04-02-2022**

Dear Ms. Suganthi,

Greetings from Bosch!

With reference to our provisional employment letter, we are pleased to share the course content both in hard copy and digital form for "Youth Employability Skills" the box consists of 8 books and 1 Pen drive that contains digital copies of all books as support for industry-Academia collaboration at your institution, titles are:

S.No.	Title	Quantity
1	Prospectus	1
2	Skill Entrepreneur ▸ Module 1 ▸ Module 2 ▸ Module 3 ▸ Module 4	4
3	Nation building Attitudes and Behaviours	1
4	Future Human Competencies	1
5	Social Responsibility	1
	Total	**8**

Looking forward to an impactful journey ahead.

Thank you.
With warm regards

Dr. O. P. Goel
Senior General Manager
Head - Bosch India Foundation
CSR & Skill Development

Acknowledgement

We have received Box with 7 books and 1 prospectus hard copy and Digital content in Pen drive for industry - Academia Collaboration.

Name: Dr. P. Suresh Venugopal Date 03/02/2022

Signature by head of the Institute

Seal & Stamp

Registered Office: Bosch Limited, Hosur Road, Bengaluru-560030, Karnataka, India
Managing Director: Soumitra Bhattacharya, Joint Managing Director: Srinivasan S C
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Government of Karnataka

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Certificate Issued Date	:	18-Nov-2021 01:33 PM
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Stamp Duty Amount(Rs.)	:	300 (Three Hundred only)

PMSSN KORAMANGALA BANGALORE
Authorised Signatory

[redacted]

[redacted]

RS. 300

Please write or type below this line

Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

T.JOHN INSTITUTE OF TECHNOLOGY and IBM agree that all discussions between the parties regarding a potential business arrangement are nonbinding unless and until the parties enter into a written, definitive agreement signed by their duly authorized representative, and neither party shall be obligated to enter into such an agreement.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is intended to outline a proposed business relationship between IBM India Private Limited ("IBM") with Registered offices at 12, Subramanya Arcade, Bannerghatta Road, BANGALORE - 560 029 and T.JOHN INSTITUTE OF TECHNOLOGY with registered address at #88/1, Gottigere, Bannerghatta, Bangalore Urban, Karnataka 560083.

WHEREAS, T.JOHN INSTITUTE OF TECHNOLOGY and IBM have entered into discussions concerning IBM's provision of technology products and services for Customer;

WHEREAS, the parties anticipate that Customer will elect to engage IBM as the primary and preferred technology provider for IT hosting, hardware, software and services.

NOW, THEREFORE, in order to ensure that the discussions and evaluations between parties regarding the potential business relationship that is sought does not create any confusion or misunderstandings, the following items represent points that require the parties' agreement and will facilitate these evaluations and discussions.

1. Roles and Responsibilities

The proposed roles and responsibilities of the parties in connection with this proposed business relationship are described in Attachment 1.

2. Termination

This MOU will terminate on **5 years from the date of signing** unless extended or terminated earlier. If at any time any party wishes to withdraw from further evaluations and discussions in connection with the subject matter of this MOU and terminate this MOU, it may do so with or without cause and without liability by providing the other party with written notice of its intention to withdraw from further evaluation and discussions. All discussions, proposals, term sheets, draft agreements and other similar materials will be null and void if evaluations and discussions are terminated. This MOU can be extended upon written agreement of the parties.

3. Confidentiality

The existence and substance of this MOU and the provision of services contemplated hereby will be kept confidential and will not be disclosed to any party hereto to any third party without the prior written consent of the other party hereto. Notwithstanding the foregoing, any party may make such public disclosure as it believes, on the advice of counsel, is required by law or by applicable stock exchange regulations, in which case such party will consult with the other party and gain such party’s written approval prior to making such disclosure.

The parties acknowledge that the exchange of confidential information by TJIT and IBM in connection with this MOU will be governed by the terms and conditions of that certain Agreement for Exchange of Confidential Information, attached hereto as Attachment 2.

4. Limitation of Liability

The parties agree that (i) the activities intended by this MOU may not be successfully completed; (ii) the results achieved may not be as anticipated; and (iii) these activities may not lead to any announced or generally available or limited offering. Any decision by any party to forego, or engage any other business opportunity, to alter or supplement any business plan of direction, or to make any investment in anticipation of the consummation of any transaction contemplated hereunder, is at the sole discretion of the party electing to do so, and will not create any actual or potential liability or any obligation for the other party, even if that party is aware of, or has been informed of, or has indicated approval of, any such action, decision, or election.

Except for a breach of Articles 3 or 5, for any claim in any way related to the subject matter of this MOU, the damaged party shall not be entitled to recover any actual and direct damages unless and until a definitive agreement has been signed. This will apply regardless of the form of action, whether in contract or in tort, including negligence. This limitation will not apply to claims for bodily injury or damage to real property or tangible personal property for which a party is legally liable. In no event will either party be liable for any lost profits, lost savings, incidental damages, or other economic consequential damages, even if advised of the possibility of such damages. In addition, neither party will be liable for any damages claimed by the other party based on any third party claim.

5. Publicity

IBM and T.JOHN INSTITUTE OF TECHNOLOGY each agrees not to use the trademarks, trade names, services marks or other proprietary marks of the other party to this MOU in any advertising, press releases, publicity matters, or other promotional materials without prior written approval of the other party. In addition each party agrees not to initiate or distribute any press releases, publicity matters or other promotional materials related to or referencing the subject matter of this MOU without prior written approval of the other party.

6. Governing Law

This Memorandum of Understanding shall be governed by and construed in accordance with the laws of India, without regard to its conflict of laws provision.

7. General

Nothing contained in this MOU will be deemed to grant any ownership in, or license to, any patents, inventions, copyrights or trademarks of either party, whether made under this MOU or not. Each party will own any intellectual property created by it during the period of the MOU. In case a party wants to use the other party's intellectual property as created above for internal purposes, it would have to acquire appropriate licenses and rights from the other party, under a separate agreement. Each party will continue to own any pre-existing material contributed by it.

8. Feedback means any comments, suggestions, and recommendations on IBM products or services of this business relationship. The other party is under no obligation to give Feedback to IBM. In case, such Feedback is made, it is not treated as confidential to the other party, and IBM shall be free to act and use such Feedback, including but not limited to IBM products or services. Any enhancements to IBM product or services based on such Feedback shall be exclusively owned by IBM. Such rights to Feedback are granted on non-exclusive basis to IBM. Third party shall not disclose such Feedback to any other party without IBM's prior written approval.

It is understood that this MOU does not purport to cover all aspects of this business relationship.

This MOU supersedes all prior proposals and discussions on this subject and is the complete and exclusive statement of the agreement between the parties. This MOU cannot be modified except by a written agreement signed by the authorized representative of each of the T.JOHN INSTITUTE OF TECHNOLOGY and IBM companies. Any reproduction of this MOU by reliable means will be considered an original of this document**.**

Each party will be responsible for its own expenses in connection with these discussions. Except as set forth herein, there are no restrictions on either party as a result of these discussions and either party is free to pursue a similar business relationship with others at any time.

This Memorandum of Understanding sets forth the understanding of the parties as of

_____

IBM India Private Limited	**T.JOHN INSTITUTE OF TECHNOLOGY**
By: _____	By: _____
Name:	Name:
Title:	Title:

Attachment 1 – Program Structure

Foreseen benefits of the collaboration for T.JOHN INSTITUTE OF TECHNOLOGY

1. Opportunity to emerge as one of the competent entities in the academic circles in various areas of Information technology.
2. Opportunity to be recognized by the Industry and academic circles as one of the preferred location/institutions for acquiring training and skills in latest technology and software.
3. Opportunity to students and faculty members to increase their knowledge and acquire skills on best-in-class IBM Software.
4. Opportunity to design innovative curriculum and on various industry specialization using relevant IBM Software.
5. Opportunity to learn from the practitioners in the industry from IBM or business partners.
6. Opportunity for students and faculty members to avail professional and global certification on IBM Software.
7. Opportunity to receive Courseware from IBM designed by professionals in IBM Software Labs
8. Opportunity to conduct various seminar and workshops with IBM in the institution.
9. Opportunity to co-market with IBM to promote Programs.
10. Propagation of IBM Software and technology knowledge & skill to various students and faculty members

IBM and T.JOHN INSTITUTE OF TECHNOLOGY acknowledge the need for IBM Software skills, in the IT education and training sector. The objective is to have a number of graduating professionals skilled on IBM Software. Both IBM and T.JOHN INSTITUTE OF TECHNOLOGY are keen to cooperate in a way that shall benefit TJIT students pursuing a career in the industry.

T.JOHN INSTITUTE OF TECHNOLOGY shall rollout **Under-Graduate / Certificate / value added programs** with specialization aligned with relevant IBM Software delivering all or any of such programs to enrolled students and faculty members. IBM shall provide reasonable support as set-forth below to have TJIT commence and conduct this initiative. Such support may include assistance in the form of providing free IBM software products, identified courseware and academic support through Subject Matter Experts thru the IBM Business Partner. The provision of software, IBM materials and services shall be under a relevant IBM agreement executed by the parties. Such agreement shall govern the use of software, IBM materials by T.JOHN INSTITUTE OF TECHNOLOGY.

Following are the Proposed activities,

a) IBM
   - Participate in Curriculum Design for Co-Branded Programs & BoS
   - Provide the participation certificates for all the students who have successfully completed the course.

b) IBM Business Partner
   - To provide IBM Career Education courses for the students as required and agreed in the Work order.
   - Provide orientation workshops for the faculty nominated by TJIT for the program.
   - Deploy SMEs for covering/deliver Courses (including practical/Lab hours) agreed as per the curriculum, for students as mutually agreed as per the curriculum.

c) T.JOHN INSTITUTE OF TECHNOLOGY

- To help IBM to co-develop the curriculum of the program as required
- Promote the program through various channels, develop collateral and market
- Conduct the admissions, deliver Courses agreed as per the curriculum, conduct evaluations/assessments and issue IBM certificate accordingly
- Provide detailed session plan
- Share the student data with IBM Business Partner who apply and enroll to the program as per prescribed format from IBM
- Nominate faculty members for the orientation program
- Provide the required infrastructure and other support for running the courses as per IBM's specification to IBM designated Business Partner resources
- Confirm and process the payments to IBM Business Partner in advance on agreed schedule.

Co-Branded Undergraduate Program Details

Student Development program – B Tech CSE with specialization in Analytics & Artificial Intelligence

Semester	Course Name	#Hours
1	IBM CE - Digital Skills (IBM CE - Python Programming)	32
2	IBM CE - RDBMS	32
3	IBM CE - Cloud Application Developer (AP Skills)	32
4	IBM CE - Machine Learning with Watson Studio	24
5	IBM CE - Predictive Modeling	32
6	IBM CE - Big Data Engineer (AP Skills)	32
7	IBM CE - Artificial Intelligence Analyst (AP Skills)	32

Attachment 2

Agreement for Exchange of Confidential Information

Our mutual objective under this Agreement is to provide protection for confidential information (Information) while maintaining our ability to conduct our respective business activities. Each of us agrees that the following terms apply when one of us (Discloser) discloses Information to the other (Recipient).

1. Disclosure

Information will be disclosed either:

1) in writing;
2) by delivery of items;
3) by initiation of access to Information, such as may be in a data base; or
4) by oral or visual presentation.

Information should be marked with a restrictive legend of the Discloser. If Information is not marked with such legend or is disclosed orally, the Information will be identified as confidential at the time of disclosure.

2. Obligations

The Recipient agrees to:

1) use the same care and discretion to avoid disclosure, publication or dissemination of the Discloser's Information as it uses with its own similar information that it does not wish to disclose, publish or disseminate; and
2) use the Discloser's Information for the purpose for which it was disclosed or otherwise for the benefit of the Discloser.

The Recipient may disclose Information to:

1) its employees who have a need to know, and employees of any legal entity that it controls, controls it, or with which it is under common control, who have a need to know. Control means to own or control, directly or indirectly, over 50% of voting shares; and
2) any other party with the Discloser's prior written consent.

Before disclosure to any of the above parties, the Recipient will have a written agreement with the party sufficient to require that party to treat Information in accordance with this Agreement.

The Recipient may disclose Information to the extent required by law. However, the Recipient will give the Discloser prompt notice to allow the Discloser a reasonable opportunity to obtain a protective order.

3. Confidentiality Period

Information disclosed under this Agreement will be subject to this Agreement for two years following the initial date of disclosure.

4. Exceptions to Obligations

The Recipient may disclose, publish, disseminate, and use Information that is:

1) already in its possession without obligation of confidentiality;
2) developed independently;
3) obtained from a source other than the Discloser without obligation of confidentiality;
4) publicly available when received, or subsequently becomes publicly available through no fault of the Recipient; or
5) disclosed by the Discloser to another without obligation of confidentiality.

The Recipient may use in its business activities the ideas, concepts and know-how contained in the Discloser's Information which are retained in the memories of Recipient's employees who have had access to the Information under this Agreement.

5. Disclaimers

THE DISCLOSER PROVIDES INFORMATION WITHOUT WARRANTIES OF ANY KIND.

The Discloser will not be liable for any damages arising out of the use of Information disclosed under this Agreement.

Neither this Agreement nor any disclosure of Information made under it grants the Recipient any right or license under any trademark, copyright or patent now or subsequently owned or controlled by the Discloser.

6. General

This Agreement does not require either of us to disclose or to receive Information. Neither of us may assign, or otherwise transfer, its rights or delegate its duties or obligations under this Agreement without prior written consent. Any attempt to do so is void.

The receipt of Information under this Agreement will not in any way limit the Recipient from:

1) providing to others products or services which may be competitive with products or services of the Discloser;
2) providing products or services to others who compete with the Discloser; or
3) assigning its employees in any way it may choose.

The Recipient will 1) comply with all applicable export and import laws and regulations, including associated embargo and sanction regulations, and 2) unless authorized by applicable governmental license or regulation, not directly or indirectly export or re-export any technical information or software subject to this Agreement (including direct products of such technical information or software) to any prohibited destination or country (including release to nationals, wherever they may be located, of any prohibited country) as specified in such applicable export regulations. This paragraph will survive the termination or expiration of this Agreement and the confidentiality period above and will remain in effect until fulfilled.

Only a written agreement signed by both of us can modify this Agreement.

Either of us may terminate this Agreement by providing one month's written notice to the other. Any terms of this Agreement which by their nature extend beyond its termination remain in effect until fulfilled and apply to respective successors and assignees.

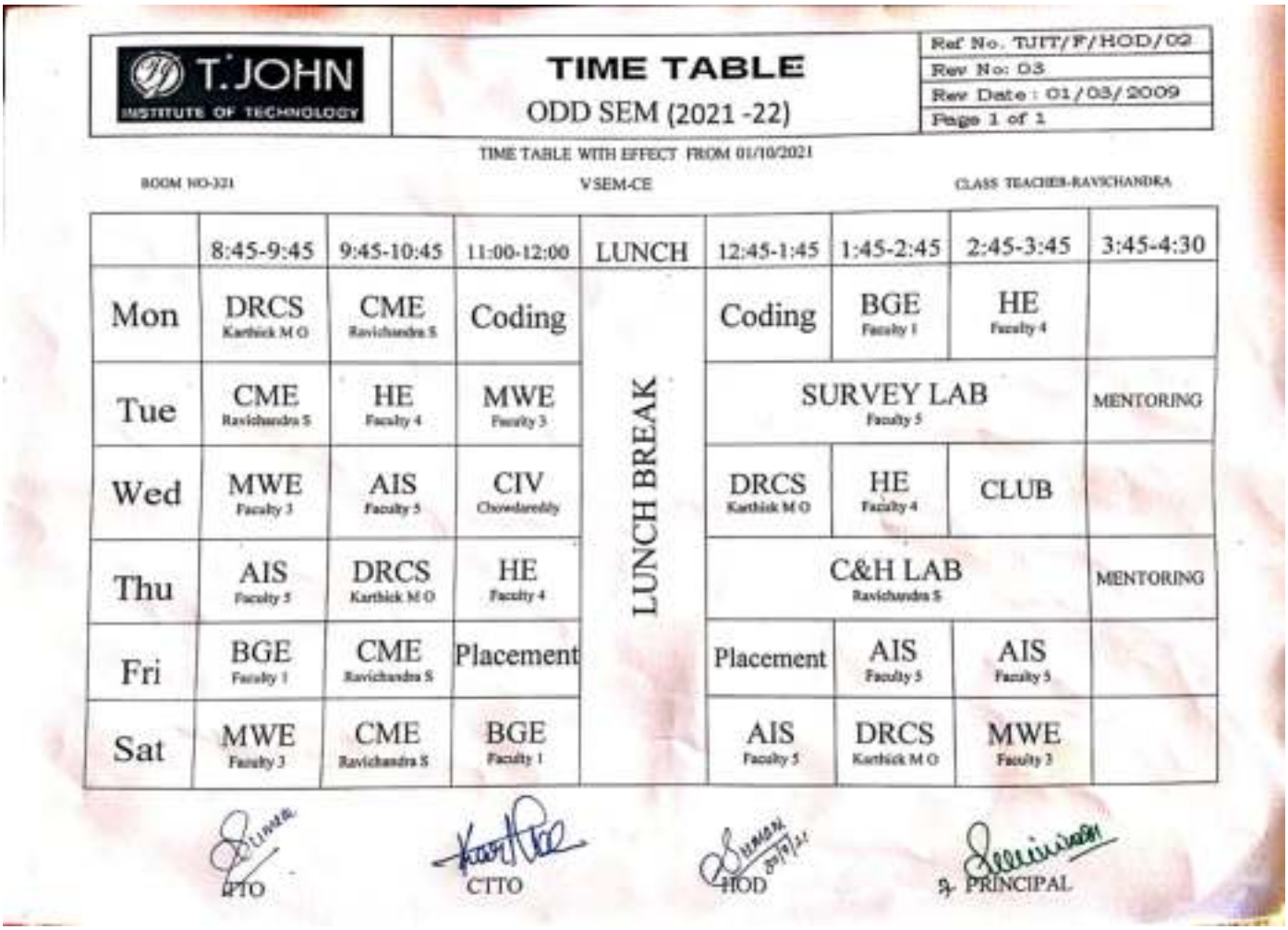
Both of us consent to the application of the laws of India to govern, interpret, and enforce all of your and our rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

This Agreement is the complete and exclusive agreement regarding our disclosures of Information and replaces any prior oral or written communications between us regarding these disclosures. By signing below for our respective enterprises, each of us agrees to the terms of this Agreement. Once signed, any reproduction of this Agreement made by reliable means (for example, photocopy or facsimile) is considered an original.

Agreed to:	Agreed to:
T.JOHN INSTITUTE OF TECHNOLOGY	**IBM India Private Limited**
By:	By:
Authorized Signature	Authorized Signature
Name (type or print):	Name (type or print):
Date:	Date:
Identification number:	Agreement number:
Address: #88/1, Gottigre, Bannerghatta, Bangalore Urban, Karnataka 560083	IBM address: No. 12, Subramanya Arcade, Bannerghatta Road, Bangalore 560029, India.

After signing, please return a copy of this Agreement to the "IBM address" shown above.

APPENDIX G



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ODD SEM (2021 -22)

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TIME TABLE WITH EFFECT FROM 01/10/2021

ROOM NO-321 V SEM-CE CLASS TEACHER-RAVICHANDRA S

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
Mon	DRCS Karthick M O	CME Ravichandra S	Coding	LUNCH BREAK	Coding	BGE Faculty 1	HE Faculty 4	
Tue	CME Ravichandra S	HE Faculty 4	MWE Faculty 3		SURVEY LAB Faculty 5			MENTORING
Wed	MWE Faculty 3	AIS Faculty 5	CIV Chowdareddy		DRCS Karthick M O	HE Faculty 4	CLUB	
Thu	AIS Faculty 5	DRCS Karthick M O	HE Faculty 4		C&H LAB Ravichandra S			MENTORING
Fri	BGE Faculty 1	CME Ravichandra S	Placement		Placement	AIS Faculty 5	AIS Faculty 5	
Sat	MWE Faculty 3	CME Ravichandra S	BGE Faculty 1		AIS Faculty 5	DRCS Karthick M O	MWE Faculty 3	

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ROOM NO-319

VII SEM PARALLEL -CE

CLASS TEACHER-KARTHICK M. O

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
Mon	DRCC&SS Faculty 2	DRCC&SS Faculty 2	GWH Sumam S B	LUNCH BREAK	UTP Faculty 4	Coding	Coding	
Tue	MIWWE Faculty 3	HIE Sumam S B	CAD LAB Karthick M O		CAD LAB Karthick M O			MENTORING
Wed	HIE Sumam S B	PROJECT			MIWWE Faculty 3	GWH Sumam S B	CLUB	
Thu	UTP Faculty 4	MIWWE Faculty 3	DRCC&SS Faculty 2		HIE Sumam S B	Placement	Placement	MENTORING
Fri	MIWWE Faculty 3	DRCC&SS Faculty 2	UTP Faculty 4		ENV LAB Faculty 3			
Sat	DRCC&SS Faculty 2	MIWWE Faculty 3	GWH Sumam S B		HIE Sumam S B	UTP Faculty 4	SEMINAR/ INTERNSHIP	

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ROOM NO-319 | VII SEM REGULAR - CE | CLASS TEACHER-KARTHICK M. O

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
Mon	DRCC&SS Faculty 2	DRCC&SS Faculty 2	GWH Sumam S B	LUNCH BREAK	UTP Faculty 4	Coding	Coding	
Tue	QSCM Faculty 4	E&E Siddesh	CAD LAB Karthick M O		CAD LAB Karthick M O			MENTORING
Wed	E&E Siddesh	PROJECT			QSCM Faculty 4	GWH Sumam S B	CLUB	
Thu	UTP Faculty 4	E&E Siddesh	DRCC&SS Faculty 2		QSCM Faculty 4	Placement	Placement	MENTORING
Fri	GT LAB Faculty 1	DRCC&SS Faculty 2	UTP Faculty 4		GT LAB Faculty 1			
Sat	DRCC&SS Faculty 2	E&E Siddesh	GWH Sumam S B		QSCM Faculty 4	UTP Faculty 4	SEMINAR/ INTERNSHIP	

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ROOM NO-321 | IV SEM-CE | CLASS TEACHER-SHUBHADA R

	8:45-9:45 (8:45 - 9:45)	9:45-10:45 (9:45 - 10:45)	11:00-12:00 (11:00 - 12:00)	LUNCH (12:00 - 12:45)	12:45-1:45 (12:45 - 13:45)	1:45-2:45 (13:35 - 14:45)	2:45-3:45 (14:45 - 15:45)	3:45-4:30 (15:45 - 16:30)
Mon	AH FACULTY A	WST FACULTY B	M-IV RAJI	LUNCH BREAK	ADS KARTHICK M O	CT FACULTY B	AS SHUBHADA RI	
Tue	ADS KARTHICK M O	AS SHUBHADA R	M-IV RAJI		GEOLOGY LAB SHUBHADA R			VYAVAHARI KA KANNAD A KANNADA
Wed	CT FACULTY B	WST FACULTY B	M-IV RAJI		CODING CODING		CLUB ACTIVITY CLUB	
Thu	AS SHUBHADA R	AH FACULTY A	ADS KARTHICK M O		FM LAB SHUBHADA R			MENTORING MENTOR
Fri	WST FACULTY B	AH FACULTY	M-IV RAJI		ADS KARTHICK M O	AS SHUBHADA R	ADALITHA KANNADA KANNADA	
Sat	AH FACULTY A	ADS KARTHICK M O	M-IV RAJI		CT FACULTY B	CT FACULTY B B	WST FACULTY	

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ROOM NO-320 | VI SEM-CE | CLASS TEACHER-KARTHICK M. O

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
Mon	DSS SHUBHADA R	SWM KARTHICK M O	DSS SHUBHADA R	LUNCH BREAK	Group 1 HI FACULTY A Group 2 WRM FACULTY B	Group 1 HI FACULTY A Group 2 CME FACULTY B	Group 1 AGE FACULTY C Group 2 WST SUDARSHAN S K	
Tue	Group 1 AGE FACULTY B Group 2 WRM FACULTY A	Group 1 NCES FACULTY A Group 2 HE KARTHIK K B	SWM KARTHICK M O		SA LAB FACULTY B			
Wed	SWM KARTHICK M O	Group 1 HI FACULTY A Group 2 CME FACULTY B	DSS SHUBHADA R		CODING CODING		CLUB ACTIVITY CLUB	
Thu	Group 1 AGE FACULTY B Group 2 WST SUDARSHAN S K	DSS SHUBHADA R	Group 1 HI FACULTY A Group 2 HE KARTHIK K B		Group 1 NCES FACULTY A Group 2 CME FACULTY B	Group 1 AGE FACULTY B Group 2 WRM FACULTY B	Group 1 AGE FACULTY B Group 2 HE KARTHIK K B	MENTORING MENTOR
Fri	Group 1 HI FACULTY A Group 2 CME FACULTY B	Group 1 NCES FACULTY C Group 2 WST SUDARSHAN S K	Group 1 AGE FACULTY B Group 1 HE KARTHIK K B		SA LAB FACULTY B			SEMINAR PROJECT
Sat	DSS SHUBHADA R	Group 1 NCES FACULTY A Group 2 WRM FACULTY B	WST SUDARSHAN S K O		SWM KARTHICK M O	SURVEY LAB MADHUSUDHANA S		PROJECT

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ROOM NO-319 VIII SEM-CE CLASS TEACHER-KARTHIK K B

	8:45-9:45 8:45 - 9:45	9:45-10:45 9:45 - 10:45	11:00-12:00 11:00 - 12:00	LUNCH 12:00 - 12:45	12:45-1:45 12:45 - 13:45	1:45-2:45 13:35 - 14:45	2:45-3:45 14:45 - 15:45	3:45-4:30 15:45 - 16:30
Mon	DPSC RAVICHANDRAN	QS SUDARSHAN S K	PD KARTHIK K B	LUNCH BREAK	DPSC RAVICHANDRAN	QS SUDARSHAN S K	PD KARTHIK K B	SEMINAR
Tue	QS SUDARSHAN S K	DPSC RAVICHANDRAN	PD KARTHIK K B		DPSC RAVICHANDRAN	PD KARTHIK K B	QS SUDARSHAN S K	MENTORING MENTOR
Wed	DPSC RAVICHANDRAN	QS SUDARSHAN S K	PD KARTHIK K B		DPSC RAVICHANDRAN	QS SUDARSHAN S K	CLUB ACTIVITY CLUB	
Thu	PROJECT PROJECT				PROJECT PROJECT			
Fri	PROJECT PROJECT				PROJECT PROJECT			
Sat	PROJECT PROJECT				PROJECT PROJECT			

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Room No:207 S8 Class Teacher:Soniya James

	0 8:45 - 9:45	1 9:45 - 10:45	2 11:00 - 12:00	LUNCH BREAK 12:00 - 12:45	3 12:45 - 13:45	4 13:45 - 14:45	5 14:45 - 15:45	6 15:45 - 16:30
Mon	FON TE	WC Kan	NCS SJ		FON TE	NCS SJ	WC Kan	NCS SJ
Tue	WC Kan	NCS SJ	WC Kan		FON TE	NCS SJ	FON TE	Mentoring
Wed	NCS SJ	FON TE	WC Kan		FON TE	WC Kan	Club	Club
Thu	Project/Seminar				Project/Seminar			
Fri	Project/Seminar				Project/Seminar			
Sat	Project/Seminar				Project/Seminar			

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Room No:208 S6 Regular Class Teacher:Aarthy J

	0 8:45 - 9:45	1 9:45 - 10:45	2 11:00 - 12:00	LUNCH BREAK 12:00 - 12:45	3 12:45 - 13:45	4 13:45 - 14:45	5 14:45 - 15:45	6 15:45 - 16:30
Mon	Mob App CSF1	OS Drakshayini	Arm Aarthy		DC Kan	Mob App CSF1	MWA TE	OS Drakshayini
Tue	MWA TE	Mob App CSF1	OS Drakshayini		EC Lab Group 1 Aarthy		EC Lab tut Group 1 Aarthy	MWA tut Group 1 TE
					Comm Lab Group 2 Kan		Comm lab tut Group 2 Kan	DC Tut Group 2 Kan
Wed	Arm Aarthy	OS Drakshayini	Arm Aarthy		Coding CF		Club	Club
Thu	Comm Lab Group 1 Kan		Comm lab tut Group 1 Kan		Mini Project			Mentoring
	EC Lab Group 2 Aarthy		EC Lab tut Group 2 Aarthy					
Fri	MWA TE	DC Kan	Arm tut Group 1 Aarthy		Arm Aarthy	DC Kan	OS Drakshayini	Mob App CSF1
			MWA tut Group 2 TE					
Sat	DC Kan	Mob App CSF1	DC Tut Group 1 Kan		MWA TE	Mob App CSF1	MWA TE	
			Arm tut Group 2 Aarthy					

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Room No:209 S4 Class Teacher:Nisha Joy

	0 8:45 - 9:45	1 9:45 - 10:45	2 11:00 - 12:00	LUNCH BREAK 12:00 - 12:45	3 12:45 - 13:45	4 13:45 - 14:45	5 14:45 - 15:45	6 15:45 - 16:30
Mon	CA Raji	Ad Kand	C& LA Dech		AC Lab Drakshayini		AC Lab tut Drakshayini	CS NJ
Tue	AC Drakshayini	S&S AS	C& LA Dech		MC SJ	S&S AS	AC Drakshayini	Vy Kand
Wed	C& LA Dech	S&S AS	CS NJ		Coding CF		Club	Club
Thu	CS NJ	CA Raji	S&S AS		CS NJ	MC SJ	AC Drakshayini	Mentoring
Fri	MC SJ	CA Raji	C& LA Dech		MC Lab SJ		MC Lab tut SJ	Group 1 AC tut Drakshayini Group 2 CA tut Raji
Sat	AC Drakshayini	CA Raji	MC SJ		CS NJ	C& LA Dech	Group 1 CA tut Raji Group 2 AC tut Drakshayini	

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Room No:206 S6 Parallel Class Teacher:Aarthy J

	0 8:45 - 9:45	1 9:45 - 10:45	2 11:00 - 12:00	LUNCH BREAK 12:00 - 12:45	3 12:45 - 13:45	4 13:45 - 14:45	5 14:45 - 15:45	6 15:45 - 16:30
Mon	Mob App CSF1	CCN parvathy	Arm Aarthy		DC Kan	Mob App CSF1	VLSI Aarthy	VLSI Aarthy
Tue	VLSI Aarthy	Mob App CSF1	DSS Dr Renin		EC Lab Aarthy		EC Lab Aarthy	Group 2 DC Tut Kan
Wed	Arm Aarthy	CCN parvathy	Arm Aarthy		Coding 208 CF		Club	Club
Thu	CN Lab parvathy				VLSI Aarthy	DSS Dr Renin	CCN parvathy	Mentoring
Fri	DSS Dr Renin	DC Kan	Group 1 Arm tut 208 Aarthy		Arm Aarthy	DC Kan	VLSI Aarthy	Mob App 208 CSF1
Sat	DC Kan	Mob App CSF1	Group 1 DC Tut Kan Group 2 Arm tut Aarthy		CCN parvathy	Mob App CSF1	DSS Dr Renin	

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TTO **HOD** **PRINCIPAL**

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S3

	1 8:45 - 9:45	2 9:45 - 10:45	Short Break 10:45 - 11:00	3 11:00 - 12:00	Lunch Break 12:00 - 12:45	4 12:45 - 13:45	5 13:45 - 14:45	6 14:45 - 15:45	7 15:45 - 16:30
Mo	PEI S3 NIS	ED S3 Mr.Praveen		MATHS(T) S3 Ms.Raji		EDI Lab(T) S3 NIS			DSL(T) S3 Ms.Drakshayini
Tu	NT S3 SK	DSD S3 Ms.Drakshayini		PEI S3 NIS		COA S3 AJ	MATHS(T) S3 Ms.Raji	CON S3 ash	EDI Lab(T) S3 Mr.Praveen
We	DSD S3 Ms.Drakshayini	ED S3 Mr.Praveen		MATHS(T) S3 Ms.Raji		PEI S3 NIS	DSD S3 Ms.Drakshayini	CLUB S3	EDI Lab(T) S3 Mr.Praveen
Th	DSD S3 Ms.Drakshayini	COA S3 AJ		NT S3 SK		DS Lab(P) S3 Ms.Drakshayini			MTR S3
Fr	COA S3 AJ	DSD S3 Ms.Drakshayini		MATHS S3 Ms.Raji		ED S3 Mr.Praveen	COA S3 AJ	ED S3 Mr.Praveen	DSL(T) S3 Ms.Drakshayini
Sa	DSD S3 Ms.Drakshayini	PEI S3 NIS		MATHS S3 Ms.Raji		ED S3 Mr.Praveen	COA S3 AJ	PEI S3 NIS	DSL(T) S3 Ms.Drakshayini

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TTO **HOD** **VP** **PRINCIPAL**

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S5

	1 8:45 - 9:45	2 9:45 - 10:45	Short Break 10:45 - 11:00	3 11:00 - 12:00	Lunch Break 12:00 - 12:45	4 12:45 - 13:45	5 13:45 - 14:45	6 14:45 - 15:45	7 15:45 - 16:30
Mo	VHDL S5 DS	POCS(t) S5 Ms.Drakshayini		DSP(L) S5 Mr.Anand Swamy		TIM S5 RJ	ITC S5 Mr.Praveen	PoCS(L) S5 Ms.Drakshayini	PoCS(L) S5 Ms.Drakshayini
Tu	DSPL(P) S5 Ms.Sukanya			DSPL(P) S5 Ms.Sukanya		VHDL S5 DS	PoCS(L) S5 Ms.Drakshayini	EMW S5 NIS	HDL(T) S5 NIS
We	TIM S5 RJ	DSP(L) S5 Mr.Anand Swamy		EVS S5 EVS		PoCS(L) S5 Ms.Drakshayini	DSP S5 Mr.Anand Swamy	CLUB S7 PC	Dsp Lab(T) S5 Ms.Sukanya
Th	ITC S5 Mr.Praveen	EMW S5 NIS		DSP(L) S5 Mr.Anand Swamy		HDL LAB(P) S5 NIS			MTR S5
Fr	POCS(t) S5 Ms.Drakshayini	ITC S5 Mr.Praveen		TIM S5 RJ		TIM S5 RJ	VHDL S5 DS	EMW S5 NIS	Dsp Lab(T) S5 Ms.Sukanya
Sa	EMW S5 NIS	ITC S5 Mr.Praveen		VHDL S5 DS		EMW S5 NIS	DSP S5 Mr.Anand Swamy	ITC S5 Mr.Praveen	Dsp Lab(T) S5 Ms.Sukanya

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TTO **HOD** **VP** **PRINCIPAL**

T.JOHN INSTITUTE OF TECHNOLOGY	TIME TABLE ODD SEMESTER 2021 - 22	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

S7

	1 8:45 - 9:45	2 9:45 - 10:45	Short Break 10:45 - 11:00	3 11:00 - 12:00	Lunch Break 12:00 - 12:45	4 12:45 - 13:45	5 13:45 - 14:45	6 14:45 - 15:45	7 15:45 - 16:30
Mo	CN S7 AJ	IOT S7 Ms.Sukanya		CN S7 AJ		EAE S7 SB	DIP S7 Mr.Anand Swamy	VLSI S7 DS	CNLAB(T) S7 AJ
Tu	Group 1 VLSIlab(P) S7 DS Group 2 CNLAB AJ			Group 1 VLSIlab(P) S7 DS Group 2 CNLAB AJ		EAE S7 SB	DIP S7 Mr.Anand Swamy	CN S7 AJ	CNLAB(T) S7 AJ
We	Group 1 CNLAB AJ Group 2 VLSIlab(P) S7 DS			Group 1 CNLAB AJ Group 2 VLSIlab(P) S7 DS		CN S7 AJ	VLSI S7 DS	CLUB S7	VLSIL(T) S7 DS
Th	EAE S7 SB	IOT S7 Ms.Sukanya		VLSI S7 DS		IOT S7 Ms.Sukanya	DIP S7 Mr.Anand Swamy	VLSI S7 DS	MTR S7
Fr	IOT S7 Ms.Sukanya	VLSI S7 DS		IOT S7 Ms.Sukanya		PROJ S7 Ms.Drakshayini			VLSIL(T) S7 DS
Sa	EAE S7 SB	DIP S7 Mr.Anand Swamy		CN S7 AJ		PROJ S7 Ms.Drakshayini			CNLAB(T) S7 AJ

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T.JOHN INSTITUTE OF TECHNOLOGY	TIME TABLE ODD SEMESTER 2021 - 22	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

S7PC

	1 8:45 - 9:45	2 9:45 - 10:45	Short Break 10:45 - 11:00	3 11:00 - 12:00	Lunch Break 12:00 - 12:45	4 12:45 - 13:45	5 13:45 - 14:45	6 14:45 - 15:45	7 15:45 - 16:30
Mo	RTS S7 PC SK	IOT S7 Ms.Sukanya		RTS S7 PC SK		MWA S7 PC Ms.Sukanya	DIP S7 Mr.Anand Swamy	MWA S7 PC Ms.Sukanya	ACL(T) S7 PC Ms.Sukanya
Tu	VLSIlab(P) S7 DS			VLSIlab(P) S7 DS		PE S7 PC Mr.Praveen	DIP S7 Mr.Anand Swamy	RTS S7 PC SK	ACL(T) S7 PC Ms.Sukanya
We	Aclab(P) S7 PC Ms.Sukanya			Aclab(P) S7 PC Ms.Sukanya		PE S7 PC Mr.Praveen	MWA S7 PC Ms.Sukanya	CLUB S5	VLSIL(T) S7 DS
Th	RTS S7 PC SK	IOT S7 Ms.Sukanya		PE S7 PC Mr.Praveen		IOT S7 Ms.Sukanya	DIP S7 Mr.Anand Swamy	PE S7 PC Mr.Praveen	MTR S7 PC
Fr	IOT S7 Ms.Sukanya	RTS S7 PC SK		IOT S7 Ms.Sukanya		PROJ S7 Ms.Drakshayini			VLSIL(T) S7 DS
Sa	MWA S7 PC Ms.Sukanya	DIP S7 Mr.Anand Swamy		MWA S7 PC Ms.Sukanya		PROJ S7 Ms.Drakshayini			ACL(T) S7 PC Ms.Sukanya

Timetable generated:23-01-2022

aSc Timetables

TTO **HOD** **VP** **PRINCIPAL**

T.JOHN INSTITUTE OF TECHNOLOGY

TIME TABLE
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ROOM NO. : 007

II SEM ' A ' - PHY CYCLE

CLASS TEACHER: RAJI.J

	8:45-9:45 8:45 - 9:45	9:45-10:45 9:45 - 10:45	11:00-12:00 11:00 - 12:00	LUNCH 12:00 - 12:45	12:45-1:45 12:45 - 13:45	1:45-2:45 13:35 - 14:45	2:45-3:45 14:45 - 15:45	3:45-4:30 15:45 - 16:30
Mon	ELEL Group 1 D PHYL Group 2 AVINASH			LUNCH BREAK	MAT- II RJ	PHY AVINASH	CIV KM	ELE MR
Tue	PHY AVINASH	ELE MR	CIV KM		EGDL PREMCHAND / HK			MAT- II RJ
Wed	MAT- II RJ	PHY AVINASH	ELE MR		CIV KM	ENG II SS	CLUB ACTIVITY II SEM 'A' - PHY CYCLE	CCL II SEM 'A' - PHY CYCLE
Thu	PHYL Group 1 AVINASH ELEL Group 2 D				MAT- II RJ	PHY AVINASH	CIV KM	MENTORING MENTOR
Fri	MAT- II RJ	CIV KM	ELE MR		EGDL PREMCHAND / HK			SEMINAR 07 II SEM 'A' - PHY CYCLE
Sat	ENG II SS	PHY AVINASH	ELE MR		PHY AVINASH	MAT- II RJ	CIV KM	SEMINAR 07 II SEM 'A' - PHY CYCLE

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aSc Timetables

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ROOM NO. : 008

II SEM ' B ' - PHY CYCLE

CLASS TEACHER: CHOWDAREDD

	8:45-9:45 8:45 - 9:45	9:45-10:45 9:45 - 10:45	11:00-12:00 11:00 - 12:00	LUNCH 12:00 - 12:45	12:45-1:45 12:45 - 13:45	1:45-2:45 13:35 - 14:45	2:45-3:45 14:45 - 15:45	3:45-4:30 15:45 - 16:30
Mon	EGDL SIDDESHA / SK			LUNCH BREAK	MAT- II DH	ENG II SS	ELE MR	CIV RS
Tue	PHY CHOWDAREDDY	ENG II SS	PHY CHOWDAREDDY		ELE MR	MAT- II DH	CIV RS	CCL II SEM 'B' - PHY CYCLE
Wed	EGDL SIDDESHA / SK				PHY CHOWDAREDDY	ELE MR	CLUB ACTIVITY II SEM 'B' - PHY CYCLE	MAT- II DH
Thu	MAT- II DH	ELE MR	CIV RS		PHYL Group 1 CHOWDAREDDY ELEL Group 2 TE			MENTORING MENTOR
Fri	PHY CHOWDAREDDY	MAT- II DH	CIV RS		ELEL Group 1 TE PHYL Group 2 CHOWDAREDDY			SEMINAR 08 II SEM 'B' - PHY CYCLE
Sat	CIV RS	PHY CHOWDAREDDY	MAT- II DH		CIV RS	PHY CHOWDAREDDY	ELE MR	SEMINAR 08 II SEM 'B' - PHY CYCLE

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aSc Timetables

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II SEM ' E ' - CHEM CYCLE

ROOM NO. 019

CLASS TEACHER : R.LAKSHMI

	8:45-9:45 8:45 - 9:45	9:45-10:45 9:45 - 10:45	11:00-12:00 11:00 - 12:00	LUNCH 12:00 - 12:45	12:45-1:45 12:45 - 13:45	1:45-2:45 13:35 - 14:45	2:45-3:45 14:45 - 15:45	3:45-4:30 15:45 - 16:30
Mon	ELN NJ	CHEM LATHA	CPS ss	LUNCH BREAK	ENG II SS	MAT- II VIJAY BG	ME SHARANBASAPPA	CCL II SEM 'E' - CHE CYCLE
Tue	CPL Group 1 ss				CHEM LATHA	CHEM LATHA	ME SHARANBASAPPA	ELN NJ
	CHEL Group 2 LAKSHMI							
Wed	MAT- II VIJAY BG	ELN NJ	CPS ss		ENG II SS	CPS ss	CLUB ACTIVITY II SEM 'E' - CHE CYCLE	CHEM LATHA
Thu	MAT- II VIJAY BG	ME SHARANBASAPPA	ELN NJ		CHEL Group 1 LAKSHMI			MENTORING MENTOR
					CPL Group 2 RS			
Fri	MAT- II VIJAY BG	CPS ss	MAT- II VIJAY BG		ELN NJ	ME SHARANBASAPPA	ELN NJ	SEMINAR II SEM 'E' - CHE CYCLE
Sat	CPS ss	MAT- II VIJAY BG	ME SHARANBASAPPA		CHEM LATHA	CPS ss	CHEM LATHA	SEMINAR II SEM 'E' - CHE CYCLE

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ROOM NO. : 018

II SEM ' C ' - PHY CYCLE

CLASS TEACHER: VIJAY B G

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
	8:45 - 9:45	9:45 - 10:45	11:00 - 12:00	12:00 - 12:45	12:45 - 13:45	13:35 - 14:45	14:45 - 15:45	15:45 - 16:30
Mon	ELE MR	CIV RS	MAT- II 07 VIJAY BG	LUNCH BREAK	Group 1 ELEL NJ Group 2 PHYL CHOWDAREDDY			SEMINAR II SEM 'C' - PHY CYCLE
Tue	MAT- II 07 VIJAY BG	PHY AVINASH	MAT- II 07 VIJAY BG		Group 1 PHYL CHOWDAREDDY Group 2 ELEL NJ			PHY AVINASH
Wed	EGDL NM / MS				PHY AVINASH	MAT- II 07 VIJAY BG	CLUB ACTIVITY II SEM 'C' - PHY CYCLE	CIV RS
Thu	ELE MR	CIV RS	MAT- II VIJAY BG		EGDL NM / MS			MENTORING II SEM 'C' - PHY CYCLE
Fri	ELE MR	PHY AVINASH	ENG II SS		ELE MR	CIV RS	PHY AVINASH	CCL II SEM 'C' - PHY CYCLE
Sat	ELE MR	ENG II SS	CIV RS		MAT- II VIJAY BG	PHY AVINASH	CIV RS	SEMINAR II SEM 'C' - PHY CYCLE

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aSc Timetables

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CSE 5A

Class Teacher: Ms. Remya Sivan

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	Python Ms. Sumy Joseph	Unix Dr. Srinivasa H.P	CNS Ms. Suma R	LUNCH BREAK	CN LAB (Group 1) Ms. Subee Lakshmi DBMS LAB (Group 2) Ms. Jeevitha			CNS Ms. Suma R
Tuesday	DBMS Ms. Jeevitha	Unix Dr. Srinivasa H.P	CNS Ms. Suma R		CIV Ms. Latha	ATC Ms. Remya Sivan	ME Mr. Madhusudan	Python Ms. Sumy Joseph
Wednesday	ATC Ms. Remya Sivan	Unix Dr. Srinivasa H.P	Python Ms. Sumy Joseph		CNS (T) Ms. Suma R	ATC Ms. Remya Sivan	CLUB	ATC Ms. Remya Sivan
Thursday	DBMS Ms. Jeevitha	Python Ms. Sumy Joseph	Unix Dr. Srinivasa H.P		ATC Ms. Remya Sivan	ME Mr. Madhusudan	DBMS(T) Ms. Jeevitha	Mentoring
Friday	Python Ms. Sumy Joseph	ME Mr. Madhusudan	CNS Ms. Suma R		DBMS LAB (Group 1) Ms. Jeevitha CN LAB (Group 2) Ms. Subee Lakshmi			Python Ms. Sumy Joseph
Saturday	DBMS(T) Ms. Jeevitha	ATC Ms. Remya Sivan	ME (T) Mr. Madhusudan		ME (T) Mr. Madhusudan	ATC Ms. Remya Sivan	DBMS Ms. Jeevitha	

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TTO **HOD** **PRINCIPAL**

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CSE 5B

Class Teacher: Ms. Sumy Joseph

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	ATC Ms. Remya Sivan	DBMS Ms. Jeevitha	Unix Dr. Srinivasa H.P	LUNCH BREAK	Python Ms. Sumy Joseph	CNS Ms. Suma R	ME Mr. Santosh Kolli	ATC Ms. Remya Sivan
Tuesday	DBMS LAB (Group 1) Ms. Bhavya N. J.				Python Ms. Sumy Joseph	DBMS Ms. Jeevitha	CIV Ms. Lakshmi	ME Mr. Santosh Kolli
	CN LAB (Group 2) Mr. Vivek							
Wednesday	DBMS(T) Ms. Jeevitha	CNS Ms. Suma R	Unix Dr. Srinivasa H.P		DBMS Ms. Jeevitha	ME Mr. Santosh Kolli	CLUB	CNS Ms. Suma R
Thursday	ATC Ms. Remya Sivan	Unix Dr. Srinivasa H.P	CNS Ms. Suma R		CN LAB (Group 1) Mr. Vivek			Mentoring
					DBMS LAB (Group 2) Mr. Adarsh			
Friday	ATC Ms. Remya Sivan	Unix Dr. Srinivasa H.P	DBMS(T) Ms. Jeevitha		ME Mr. Santosh Kolli	Python Ms. Sumy Joseph	ATC Ms. Remya Sivan	DBMS Ms. Jeevitha
Saturday	ME (T) Mr. Santosh Kolli	CNS (T) Ms. Suma R	ME (T) Mr. Santosh Kolli		Python Ms. Sumy Joseph	CNS (T) Ms. Suma R	Python Ms. Sumy Joseph	

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TTO **HOD** **PRINCIPAL**

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CSE 7A

Class Teacher: Ms. Bhavya N. J.

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	Cryp Ms. Bhavya N. J.	ML Mr. Prashant Koparde	BDA Dr.J T M Das	LUNCH BREAK	ML LAB (Group 1) Ms. Remya Sivan Project (Group 2) Mr. Adarsh			ML Mr. Prashant Koparde
Tuesday	Project (Group 1) Mr. Adarsh ML LAB (Group 2) Ms. Remya Sivan				Cryp Ms. Bhavya N. J.	UID Mr. Adarsh	E&E Dr.Chidanand	BDA Dr.J T M Das
Wednesday	BDA Dr.J T M Das	UID Mr. Adarsh	ML Mr. Prashant Koparde		UID Mr. Adarsh	E&E Dr.Chidanand	CLUB	BDA Dr.J T M Das
Thursday	Cryp Ms. Bhavya N. J.	BDA Dr.J T M Das	UID Mr. Adarsh		BDA Dr.J T M Das	ML Mr. Prashant Koparde	E&E Dr.Chidanand	Mentoring
Friday	UID Mr. Adarsh	BDA Dr.J T M Das	ML Mr. Prashant Koparde		E&E Dr.Chidanand	Cryp Ms. Bhavya N. J.	E&E Dr.Chidanand	Cryp Ms. Bhavya N. J.
Saturday	ML Mr. Prashant Koparde	Cryp Ms. Bhavya N. J.	UID Mr. Adarsh		Project			

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TTO **HOD** **PRINCIPAL**

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CSE 7B

Class Teacher: Ms. Jeevitha

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	UID Mr. Adarsh	Cryp Ms. Bhavya N. J.	UID Mr. Adarsh	LUNCH BREAK	Cryp Ms. Bhavya N. J.	ML Mr. Prashant Koparde	E&E Dr.Chidanand	BDA Dr.J T M Das
Tuesday	BDA Dr.J T M Das	ML Mr. Prashant Koparde	E&E Dr.Chidanand		Project Group 1 Dr.J T M Das ML LAB Group 2 Mr. Prashant Koparde			UID Mr. Adarsh
Wednesday	ML Mr. Prashant Koparde	BDA Dr.J T M Das	Cryp Ms. Bhavya N. J.		BDA Dr.J T M Das	UID Mr. Adarsh	CLUB	ML Mr. Prashant Koparde
Thursday	BDA Dr.J T M Das	ML Mr. Prashant Koparde	Cryp Ms. Bhavya N. J.		E&E Dr.Chidanand	Cryp Ms. Bhavya N. J.	BDA Dr.J T M Das	Mentoring
Friday	E&E Dr.Chidanand	UID Mr. Adarsh	E&E Dr.Chidanand		ML LAB Group 1 Mr. Prashant Koparde Project Group 2 Dr.J T M Das			UID Mr. Adarsh
Saturday	UID Mr. Adarsh	BDA Dr.J T M Das	ML Mr. Prashant Koparde		Project			

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CSE 3A

Class Teacher: Ms. Nikhita

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	DSA NF 1	CO Mr. Vivek	ADE Ms. Nikhita	LUNCH BREAK	DMS Ms. J RAJI	SE NF 3	CO Mr. Vivek	DSA NF 1
Tuesday	DMS Ms. J RAJI	DSA NF 1	M3 Ms. Dechamma		ADE LAB Group 1 NF2 DS LAB Group 2 Mr. Mahesh			ADE Ms. Nikhita
Wednesday	SE NF 3	CO Mr. Vivek	M3 Ms. Dechamma		DMS Ms. J RAJI	DSA NF 1	CLUB	ADE Ms. Nikhita
Thursday	SE NF 3	ADE Ms. Nikhita	M3 Ms. Dechamma		DMS Ms. J RAJI	ADE Ms. Nikhita	CPC Ms. Aswini P. R.	Mentoring
Friday	DSA(T) NF 1	ADE Ms. Nikhita	DSA NF 1		DS LAB Group 1 Mr. Mahesh ADE LAB Group 2 NF2			M3 (T) Ms. Dechamma
Saturday	SE NF 3	M3 (T) Ms. Dechamma	M3 (T) Ms. Dechamma		SE NF 3	CO Mr. Vivek	DSA(T) NF 1	

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CSE 3B

Class Teacher: Mr. Vivek

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	SE NF 3	CO NF2	M3 Ms. Dechamma	LUNCH BREAK	ADE LAB Group 1 Ms. Nikhita			ADE Ms. Nikhita
					DS LAB Group 2 NF 1			
Tuesday	M3 Ms. Dechamma	DMS Ms. J RAJI	DSA(T) NF 1		ADE Ms. Nikhita	DSA NF 1	ADE Ms. Nikhita	SE NF 3
Wednesday	DS LAB Group 1 NF 1				M3 (T) Ms. Dechamma	SE NF 3	CLUB	M3 (T) Ms. Dechamma
	ADE LAB Group 2 Ms. Nikhita							
Thursday	M3 Ms. Dechamma	DMS Ms. J RAJI	DSA NF 1		SE NF 3	DSA(T) NF 1	CO NF2	Mentoring
Friday	DMS Ms. J RAJI	CO NF2	M3 (T) Ms. Dechamma		DSA NF 1	DMS Ms. J RAJI	CPC Ms. Aswini P. R.	ADE Ms. Nikhita
Saturday	DMS Ms. J RAJI	ADE Ms. Nikhita	SE NF 3		DSA NF 1	CO NF2	ADE Ms. Nikhita	

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TTO **HOD** **PRINCIPAL**

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CSE PS

Class Teacher: Mr. Mahesh B

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	ACA NF2	SAN NF 4	INS Mr. Mahesh	LUNCH BREAK	WT LAB Dr.J T M Das			WT Mr. Mahesh
Tuesday	ACA NF2	WT Mr. Mahesh	WT (T) Mr. Mahesh		SAN NF 4	ML NF 4	SAN NF 4	INS Mr. Mahesh
Wednesday	WT (T) Mr. Mahesh	SAN NF 4	INS (T) Mr. Mahesh		WT Mr. Mahesh	ML NF 4	CLUB	ACA NF2
Thursday	WT Mr. Mahesh	ACA NF2	WT Mr. Mahesh		ML LAB Ms. Sumy Joseph			Mentoring
Friday	WT Mr. Mahesh	INS Mr. Mahesh	ACA NF2		ML NF 4	SAN NF 4	ML NF 4	ML NF 4
Saturday	ACA NF2	INS Mr. Mahesh	ML NF 4		Project & Seminar			

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aSc Timetables

TTO **HOD** **PRINCIPAL**

4A

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	102 OS Prof.Remya Sivan	102 M4 Prof. Vijay	102 DC Prof. Suma R	LUNCH BREAK	Group 1 DAA LAB 112 AIS Group 2 MC LAB 111 Prof. Prashant Koparde			Mentoring 102
Tuesday	102 MC Prof. Prashant Koparde	102 OOC NFD	102 DC Prof. Suma R		102 OS Prof.Remya Sivan	102 M4 Prof. Vijay	102 DAA AIS	
Wednesday	102 OOC NFD	102 DAA AIS	102 M4 Prof. Vijay		CODING	CODING	CA	102 Vyavahari k Kannad a Kannada Faculty
Thursday	Group 1 MC LAB 111 Prof. Prashant Koparde Group 2 DAA LAB 112 AIS				102 OOC NFD	102 MC Prof. Prashant Koparde	102 DC Prof. Suma R	102 Adalit Kannada Kannada Faculty
Friday	102 DAA AIS	102 DC Prof. Suma R	102 MC Prof. Prashant Koparde		102 OS Prof.Remya Sivan	102 OOC NFD	102 M4 Prof. Vijay	
Saturday	102 OS Prof.Remya Sivan	102 MC Prof. Prashant Koparde	102 DAA AIS		102 MC Prof. Prashant Koparde	102 OS Prof.Remya Sivan	102 DAA AIS	

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4B

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	103 MC Prof. Prashant Koparde	103 DC Prof. Suma R	103 OS Prof.Remya Sivan	LUNCH BREAK	103 DAA Prof.Jeevitha	103 OOC NFD	103 M4 Prof. Dechamma	Mentoring 103
Tuesday	103 OOC NFD	103 M4 Prof. Dechamma	103 DAA Prof.Jeevitha		DAA LAB 122 Group 1 Prof.Jeevitha MC LAB 111 Group 2 NF(PT)			
Wednesday	103 OS Prof.Remya Sivan	103 DC Prof. Suma R	103 MC Prof. Prashant Koparde		CODING	CODING	CA	102 Vyavahari k Kannad a Kannada Faculty
Thursday	103 DAA Prof.Jeevitha	103 DC Prof. Suma R	103 OOC NFD		103 MC Prof. Prashant Koparde	103 M4 Prof. Dechamma	103 OS Prof.Remya Sivan	102 Adalit Kannada Kannada Faculty
Friday	MC LAB 111 Group 1 UM DAA LAB 112 Group 2 Prof.Jeevitha				103 MC Prof. Prashant Koparde	103 OS Prof.Remya Sivan	103 DAA Prof.Jeevitha	
Saturday	103 OOC NFD	103 DC Prof. Suma R	103 M4 Prof. Dechamma		103 OOC NFD	103 DC Prof. Suma R	103 M4 Prof. Dechamma	

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aSc Timetables

6A

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	122 DM/AJ Prof.Jeevitha	122 SS&CD Prof. Srinivasa H.P	122 CG Prof. Kavya M S	LUNCH BREAK	122 CG Prof. Kavya M S	122 DM/AJ Prof.Jeevitha	122 WT Prof. Priyanka M R	Mentoring 112
Tuesday	Group 1 SS Lab 130 Prof. Priyanka M R				WT Prof. Priyanka M R	SS&CD Prof. Srinivasa H.P	NCES Dr.Chidanand	
	Group 2 MAD Lab 137 Prof.Remya Sivan							
Wednesday	122 CG Prof. Kavya M S	122 WT Prof. Priyanka M R	122 NCES Dr.Chidanand		CODING	CODING	CA	
Thursday	122 WT Prof. Priyanka M R	122 SS&CD Prof. Srinivasa H.P	122 NCES Dr.Chidanand		Group 1 MAD Lab 137 Prof.Sumy Joseph			
					Group 2 CG Lab 110 Prof. Bhavya J			
Friday	Group 1 CG Lab 110 Prof. Bhavya J				122 CG Prof. Kavya M S	122 DM/AJ Prof.Jeevitha	122 SS&CD Prof. Srinivasa H.P	
	Group 2 SS Lab 130 Prof. Priyanka M R							
Saturday	122 DM/AJ Prof.Jeevitha	122 NCES Dr.Chidanand	122 NCES Dr.Chidanand		122 SS&CD Prof. Srinivasa H.P	122 DM/AJ Prof.Jeevitha	122 CG Prof. Kavya M S	

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6B

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	105 DM/AJ UM	105 WT Prof. Priyanka M R	105 SS&CD Prof. Srinivasa H.P	LUNCH BREAK	105 NCES Premachand	105 DM/AJ UM	105 CG Prof. Kavya M S	Mentoring 104
Tuesday	105 CG Prof. Kavya M S	105 NCES Premachand	105 SS&CD Prof. Srinivasa H.P		Group 1 MAD Lab New FAculty04			
					Group 2 CG Lab 110		Prof. Kavya M S	
Wednesday	Group 1 SS Lab 130 Prof. Srinivasa H.P				CODING	CODING	CA	
	Group 2 MAD Lab 137 Prof.Sumy Joseph							
Thursday	Group 1 CG Lab 110 Prof. Kavya M S				105 SS&CD Prof. Srinivasa H.P	105 CG Prof. Kavya M S	105 WT Prof. Priyanka M R	
	Group 2 SS Lab 130 SW							
Friday	105 CG Prof. Kavya M S	105 NCES Premachand	105 SS&CD Prof. Srinivasa H.P		105 WT Prof. Priyanka M R	105 DM/AJ UM	105 WT Prof. Priyanka M R	
Saturday	105 DM/AJ UM	105 NCES Premachand	105 CG Prof. Kavya M S		105 NCES Premachand	105 DM/AJ UM	105 SS&CD Prof. Srinivasa H.P	

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8A

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	107 Big Data Prof. Bhavya J	107 IOT AIS	107 IOT AIS	LUNCH BREAK	107 UID New FAculty04	107 Big Data Prof. Bhavya J	107 UID New FAculty04	Mentoring 107
Tuesday	107 Big Data Prof. Bhavya J	107 IOT AIS	107 UID New FAculty04		107 Big Data Prof. Bhavya J	107 IOT AIS	107 Big Data Prof. Bhavya J	
Wednesday	107 IOT AIS	107 UID New FAculty04	107 UID New FAculty04		107 Big Data Prof. Bhavya J	107 IOT AIS	CA	
Thursday								
Friday								
Saturday								

Timetable generated:4/5/2021 *aSc Timetables*

8B

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	108 UID SW	108 IOT New FAculty04	108 IOT New FAculty04	LUNCH BREAK	108 Big Data Prof. Bhavya J	108 UID SW	108 Big Data Prof. Bhavya J	Mentoring
Tuesday	108 IOT New FAculty04	108 IOT New FAculty04	108 Big Data Prof. Bhavya J		108 UID SW	108 Big Data Prof. Bhavya J	108 UID SW	
Wednesday	108 UID SW	108 Big Data Prof. Bhavya J	108 Big Data Prof. Bhavya J		108 IOT New FAculty04	108 IOT New FAculty04	CA	
Thursday								
Friday								
Saturday								

Timetable generated:4/5/2021 *aSc Timetables*

Parallel

	1 8:45 - 9:45	2 9:45 - 10:45	3 11:00 - 12:00	. 12:00 - 12:45	4 12:45 - 1:45	5 1:45 - 2:45	6 2:45 - 3:45	7 3:45 - 4:30
Monday	122 DM/AJ Prof.Jeevitha	122 SS&CD Prof. Srinivasa H.P	122 CG Prof. Kavya M S	LUNCH BREAK	122 CG Prof. Kavya M S	122 DM/AJ Prof.Jeevitha	OS 15/17 Prof.Sumy Joseph	Mentoring
Tuesday	SS Lab 130 Prof. Priyanka M R				OS 15/17 Prof.Sumy Joseph	SS&CD Prof. Srinivasa H.P	OS 15/17 Prof.Sumy Joseph	
Wednesday	122 CG Prof. Kavya M S	Python NFD	CNSC NF(PT)		CODING	CODING	CA	
Thursday	OS 15/17 Prof.Sumy Joseph	122 SS&CD Prof. Srinivasa H.P	OS 15/17 Prof.Sumy Joseph		CNSC NF(PT)	CNSC NF(PT)	CNSC NF(PT)	
Friday	CG Lab 110 Prof. Bhavya J				122 CG Prof. Kavya M S	122 DM/AJ Prof.Jeevitha	122 SS&CD Prof. Srinivasa H.P	
Saturday	122 DM/AJ Prof.Jeevitha	Python NFD	Python NFD		122 SS&CD Prof. Srinivasa H.P	122 DM/AJ Prof.Jeevitha	122 CG Prof. Kavya M S	

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ISE-SEM-III

ROOM NO

Class Teacher:MANJUSHA N. MAHAMUNE

	8:45 - 9:45 1	9:45 - 10:45 2	11:00 - 12:00 3	12:00 - 12:45 LUNCH BREAK	12:45 - 1:45 4	1:45 - 2:45 5	2:45 - 3:45 6
Mo	ADE LAB			LUNCH BREAK	DMS JR	ADE	CO
Tu	DMS JR	CO	Maths-III DK		SE MNM	DS DGS	CPH APR
We	DS DGS	CO	Maths-III DK		DMS JR	ADE	CLUB-S3-S5-S7 CC
Th	DS DGS	ADE	Maths-III DK		DMS JR	SE MNM	DS DGS
Fr	DS LAB DGS				ADE	DS DGS	SE MNM
Sa	DS LAB TUT DGS	Maths-III DK	Maths-III DK		ADE LAB TUT	SE MNM	CO

Timetable generated:22-10-2021

aSc Timetables

TTO **HOD** **VICE-PRINCIPAL** **PRINCIPAL**

TIME TABLE WITH EFFECT FROM 01/10/2021

T.JOHN INSTITUTE OF TECHNOLOGY	TIME TABLE ODD SEM (2021-2022)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

ISE-SEM-V

ROOM NO

Class Teacher:Dr. MEENAKUMARI P

	8:45 - 9:45 1	9:45 - 10:45 2	11:00 - 12:00 3	12:00 - 12:45 LUNCH BREAK	12:45 - 1:45 4	1:45 - 2:45 5	2:45 - 3:45 6
Mo	CN LAB TUT	PYTHON DMP	AT&C DJS	LUNCH BREAK	DBMS DMP	UNIX PROG MNM	CNS DGS
Tu	ME RPJ	UNIX PROG MNM	CNS DGS		DBMS-LAB DMP		
We	DBMS DMP	AT&C DJS	EVS BS		PYTHON DMP	CNS DGS	CLUB-S3-S5-S7 CC
Th	CN-LAB				ME RPJ	DBMS DMP	UNIX PROG MNM
Fr	AT&C DJS	DBMS DMP	ME RPJ		AT&C DJS	PYTHON DMP	CNS DGS
Sa	PYTHON DMP	UNIX PROG MNM	DBMS DMP		ME RPJ	CNS DGS	DBMS LAB TUT DMP

Timetable generated:22-10-2021

aSc Timetables

TTO **HOD** **VICE-PRINCIPAL** **PRINCIPAL**

TIME TABLE WITH EFFECT FROM 01/10/2021

T.JOHN INSTITUTE OF TECHNOLOGY	TIME TABLE ODD SEM (2021-2022)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

ISE-SEM-VII

ROOM NO **Class Teacher:DIVYA G. S**

	8:45 - 9:45 1	9:45 - 10:45 2	11:00 - 12:00 3	12:00 - 12:45 LUNCH BREAK	12:45 - 1:45 4	1:45 - 2:45 5	2:45 - 3:45 6
Mo	UID DGS	AI & ML MNM	UID DGS	LUNCH BREAK	EAE PS	CRYPTO DJS	BDA DMP
Tu	AI & ML MNM	UID DGS	BDA DMP		CRYPTO DJS	EAE PS	AI & ML MNM
We	AI & ML LAB MNM				EAE PS	BDA DMP	CLUB-S3-S5-S7 CC
Th	AI & ML MNM	BDA DMP	UID DGS		CRYPTO DJS	CRYPTO DJS	BDA DMP
Fr	BDA DMP	AI & ML MNM	EAE PS		PROJECT MNM	PROJECT DJS	PROJECT DMP
Sa	AI & ML MNM	CRYPTO DJS	UID DGS		PROJECT DJS	PROJECT DJS	PROJECT DGS

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TTO **HOD** **VICE-PRINCIPAL** **PRINCIPAL**

TIME TABLE WITH EFFECT FROM 01/10/2021

T.JOHN INSTITUTE OF TECHNOLOGY	TIME TABLE ODD SEM (2021-2022)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

SEM VII P

	8:45 - 9:45 1	9:45 - 10:45 2	11:00 - 12:00 3	12:00 - 12:45 LUNCH BREAK	12:45 - 1:45 4	1:45 - 2:45 5	2:45 - 3:45 6
Mo	SA&DP DJS			LUNCH BREAK			
Tu	SA&DP DJS						
We							
Th		SA&DP DJS					
Fr			SA&DP DJS				
Sa	SA&DP DJS						

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TTO **CTTO** **HOD** **PRINCIPAL**

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T. JOHN GROUP OF INSTITUTIONS	TIME TABLE EVEN SEM(2020-2021)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

ROOM NO: 222 **SEMESTER 8** **CLASS TEACHER: DR. MURUGAN R.**

	1	2	3	4	5	6	7	8
	08:45-09:45	09:45-10:45	11.00-12:00	12;00-12:45	12:45-01:45	01:45-02:45	02:45-03:45	03:45-04:30
MONDAY	UID	BDA	IOT	LUNCH BREAK	BDA	UID	IOT	UID
TUEDAY	IOT	BDA	IOT		UID	BDA	UID	MENTORING
WEDNESDAY	UID	BDA	IOT		BDA	IOT	CLUB ACTIVITY	BDA
THURSDAY	PROJECT WORK PHASE-II				PROJECT WORK PHASE-II			
FRIFAY	PROJECT WORK PHASE-II				SEMINAR		PLACEMENT ACTIVITY	
SATURDAY	SEMINAR		PLACEMENT ACTIVITY		PROJECT WORK PHASE-II			

TTO **HOD** **PRINCIPAL**

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T. JOHN GROUP OF INSTITUTIONS	TIME TABLE EVEN SEM(2020-2021)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

ROOM NO: 221 **SEMESTER 6** **CLASS TEACHER: SUNIL KUMAR M.**

	1	2	3	4	5	6	7	8
	08:45-09:45	09:45-10:45	11.00-12:00	12;00-12:45	12:45-01:45	01:45-02:45	02:45-03:45	03:45-04:30
MONDAY	ST	WT	ST LAB TUT	LUNCH BREAK	MAD LAB		DM DW	ST
TUEDAY	ST LABORATORY				FS	SCM	DM DW	FS
WEDNESDAY	FS	DM DW	SCM		CODING CLASS		CLUB ACTIVITY	WT
THURSDAY	FS LABORATORY				ST TUT	ST	WT	MENTORING
FRIFAY	SCM	ST	FS		WT	ST T UT	WT	DM DW
SATURDAY	FS LAB T	FS TUT	DM DW		SCM	WT	DM DW	

TTO **HOD** **PRINCIPAL**

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T. JOHN GROUP OF INSTITUTIONS	TIME TABLE EVEN SEM(2020-2021)	Ref No. TJIT/F/HOD/02 Rev No: 03 Rev Date : 01/03/2009 Page 1 of 1

ROOM NO: 220 **SEMESTER 4** **CLASS TEACHER: MANJUSHA N. M.**

	1	2	3	4	5	6	7	8
	08:45-09:45	09:45-10:45	11.00-12:00	12;00-12:45	12:45-01:45	01:45-02:45	02:45-03:45	03:45-04:30
MONDAY	DAA LAB T.	ADALIKA KANNADA	MATHS-4	LUNCH BREAK	MS&ES	OOC	DC	MC&ES
TUEDAY	OOC	DAA	MATHS-4		OS	MC&ES	DAA TUT	V. KANNADA
WEDNESDAY	DC	DAA TUT	MATHS-4		CODING CLASS		CLUB ACTIVITY	OS
THURSDAY	OS	MC&ES	OS		DAA LABORATORY			MENTORING
FRIFAY	DC	MC&ES	MATHS-4 TUT		MC &ES LABORATORY			MC&ES
SATURDAY	DAA	OOC	MATHS-4 TUT		OOC	DC	OS	

TTO **HOD** **PRINCIPAL**

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T.JOHN INSTITUTE OF TECHNOLOGY

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EVEN SEM (2020-2021)

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ROOM NO-303 **VI SEM-ME (REGULAR)** **CLASSTEACHER-NARASIMHAMURTHYC**

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
	8:45 - 9:45	9:45 - 10:45	11:00 - 12:00	12:00 - 12:45	12:45 - 13:45	13:35 - 14:45	14:45 - 15:45	15:45 - 16:30
Mon	HT RAHUL JOHN	NTM S G SUJITH KUMAR	FEA MADHUSUDHANA S	LUNCH BREAK	Group 2 TE KARTHIK K B	Group 1 MP S G SUJITH KUMAR	DME-II Dr.HARISH KUMAR	Group 1 NTM S G SUJITH KUMAR
Tue	MP S G SUJITH KUMAR	FEA MADHUSUDHANA S	DME-II Dr.HARISH KUMAR		HT LAB NARASIMHA MURTHY			TE KARTHIK K B
Wed	NTM S G SUJITH KUMAR	TE KARTHIK K B	HT RAHUL JOHN		CODING CODING		CLUB ACTIVITY CLUB	
Thu	FEA MADHUSUDHANA S	HT RAHUL JOHN	DME-II Dr.HARISH KUMAR		CAMA LAB SIDDESHA			MENTORING MENTOR
Fri	DME-II Dr.HARISH KUMAR	MP S G SUJITH KUMAR	HT RAHUL JOHN		FEA MADHUSUDHANA S	TE KARTHIK K B	NTM S G SUJITH KUMAR	SEMINAR PROJECT
Sat	TE KARTHIK K B	DME-II Dr.HARISH KUMAR	Group 1 MP S G SUJITH KUMAR 2		HT RAHUL JOHN	FEA MADHUSUDHANA S	NTM S G SUJITH KUMAR	SEMINAR PROJECT

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TTO **CTTO** **HOD** **PRINCIPAL**

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ROOM NO-307 **S7-ME** **CLASS TEACHER-NARASIMHA MURTHY C**

	8:45-9:45	9:45-10:45	11:00-12:00	LUNCH	12:45-1:45	1:45-2:45	2:45-3:45	3:45-4:30
	8:45 - 9:45	9:45 - 10:45	11:00 - 12:00	12:00 - 12:45	12:45 - 13:45	13:35 - 14:45	14:45 - 15:45	15:45 - 16:30
Mon	Group 1 TBD PREMCHAND Group 2 TQM S G SUJITH KUMAR	Group 1 FPS RAHUL JOHN Group 2 EP & M CIVIL FACULTY	Group 1 CAD & M Dr.HARISH KUMAR Group 2 EE SHARANBASAPPA	LUNCH BREAK	CE Dr.CHIDANAND PRASAD	CODING / PLACEMENT TRAINING SS		SEMINAR SEMINAR
Tue	CE Dr.CHIDANAND PRASAD	MECHATRONICS Dr.HARISH KUMAR	Group 1 TBD PREMCHAND Group 2 TQM S G SUJITH KUMAR		CIM LAB Santosh Kolli			SEMINAR SEMINAR
Wed	Group 1 TBD PREMCHAND Group 2 TQM S G SUJITH KUMAR	CE Dr.CHIDANAND PRASAD	MECHATRONICS Dr.HARISH KUMAR		PROJECT NARASIMHA MURTHY	Group 1 CAD & M Dr.HARISH KUMAR Group 2 EE SHARANBASAPPA	CLUB ACTIVITY CLUB	
Thu	Group 1 CAD & M Dr.HARISH KUMAR Group 2 EE SHARANBASAPPA	Group 1 FPS RAHUL JOHN Group 2 EP & M CIVIL FACULTY	MECHATRONICS Dr.HARISH KUMAR		DESIGN LAB SHARANBASAPPA			MENTORING MENTOR
Fri	CE Dr.CHIDANAND PRASAD	Group 1 FPS RAHUL JOHN Group 2 EP & M CIVIL FACULTY	Group 1 CAD & M Dr.HARISH KUMAR Group 2 EE SHARANBASAPPA		Group 1 TBD PREMCHAND Group 2 TQM S G SUJITH KUMAR	CODING / PLACEMENT TRAINING SS		SEMINAR SEMINAR
Sat	MECHATRONICS Dr.HARISH KUMAR	PROJECT NARASIMHA MURTHY	CE Dr.CHIDANAND PRASAD		Group 1 TBD PREMCHAND Group 2 TQM S G SUJITH KUMAR	Group 1 FPS RAHUL JOHN Group 2 EP & M CIVIL FACULTY	Group 1 CAD & M Dr.HARISH KUMAR Group 2 EE SHARANBASAPPA	SEMINAR SEMINAR

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TTO **CTTO** **HOD** **PRINCIPAL**

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ROOM NO-302 **S3-ME** **CLASS TEACHER-Dr.HARISH KUMAR**

	8:45-9:45 (8:45 - 9:45)	9:45-10:45 (9:45 - 10:45)	11:00-12:00 (11:00 - 12:00)	LUNCH (12:00 - 12:45)	12:45-1:45 (12:45 - 13:45)	1:45-2:45 (13:35 - 14:45)	2:45-3:45 (14:45 - 15:45)	3:45-4:30 (15:45 - 16:30)
Mon	BTD NARASIMHA MURTHY	MOM Dr.HARISH KUMAR	M-III RAJI	LUNCH BREAK	MT LAB SIDDESHA			SEMINAR SEMINAR
Tue	CAMD S G SUJITH KUMAR		CODING PLACEMENT TRAINING SS		CODING PLACEMENT TRAINING SS	M-III RAJI	CIP ASHWINI P R	SEMINAR SEMINAR
Wed	MOM Dr.HARISH KUMAR	BTD NARASIMHA MURTHY	M-III RAJI		MCF Santosh Kolli	MS MADHUSUDHANA S	CLUB ACTIVITY CLUB	
Thu	CAMD S G SUJITH KUMAR		CODING PLACEMENT TRAINING SS		CODING PLACEMENT TRAINING SS	BTD NARASIMHA MURTHY	MOM Dr.HARISH KUMAR	MENTORING MENTOR
Fri	MOM Dr.HARISH KUMAR	MCF Santosh Kolli	M-III RAJI		WS & M LAB MADHUSUDHANA S			SEMINAR SEMINAR
Sat	BTD NARASIMHA MURTHY	MS MADHUSUDHANA S	M-III RAJI		MOM Dr.HARISH KUMAR	MCF Santosh Kolli	MS MADHUSUDHANA S	SEMINAR SEMINAR

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TTO **CTTO** **HOD** **PRINCIPAL**

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ROOM NO-303 **S5-ME** **CLASS TEACHER-SHARANBASAPPA**

	8:45-9:45 (8:45 - 9:45)	9:45-10:45 (9:45 - 10:45)	11:00-12:00 (11:00 - 12:00)	LUNCH (12:00 - 12:45)	12:45-1:45 (12:45 - 13:45)	1:45-2:45 (13:35 - 14:45)	2:45-3:45 (14:45 - 15:45)	3:45-4:30 (15:45 - 16:30)
Mon	M & E Santosh Kolli	DOM MADHUSUDHANA S	CODING PLACEMENT TRAINING SS	LUNCH BREAK	CODING / PLACEMENT TRAINING SS	FPE NARASIMHA MURTHY	TM RAHUL JOHN	SEMINAR SEMINAR
Tue	DME-I SHARANBASAPPA	OM SIDDESHA	DOM MADHUSUDHANA S		EC LAB NARASIMHA MURTHY			SEMINAR SEMINAR
Wed	TM RAHUL JOHN	DME-I SHARANBASAPPA	ES CHOWDA REDDY		DOM MADHUSUDHANA S	OM SIDDESHA	CLUB ACTIVITY CLUB	
Thu	DOM MADHUSUDHANA S	M & E Santosh Kolli	DME-I SHARANBASAPPA		FM LAB RAHUL JOHN			MENTORING MENTOR
Fri	TM RAHUL JOHN	DME-I SHARANBASAPPA	CODING PLACEMENT TRAINING SS		CODING / PLACEMENT TRAINING SS	M & E Santosh Kolli	FPE NARASIMHA MURTHY	SEMINAR SEMINAR
Sat	OM SIDDESHA	TM RAHUL JOHN	M & E Santosh Kolli		DOM MADHUSUDHANA S	DME-I SHARANBASAPPA	FPE NARASIMHA MURTHY	SEMINAR SEMINAR

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TTO **CTTO** **HOD** **PRINCIPAL**