Dr. R. LAKSHMI

M.Sc., M. Phil., Ph. D in Chemistry

18 Years of Academic Experience

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I hold a Ph.D. in Chemistry from Bharathiar University and an M.Phil. in Chemistry from Bharathidasan University. With 18 years of academic experience, I currently serve as an Associate Professor. I am passionate about teaching diverse learners and helping students discover their strengths and learning styles. I believe in effective planning of lessons and time to create an organized and engaging learning environment. I maintain a positive and enthusiastic attitude and confidently embrace challenges in my professional and personal life. I strive to implement creative and innovative teaching practices while continuously developing myself both personally and professionally.

Vidwan Id: **295145** Google Scholar Id: 2N1sd1oAAAAJ

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Areas of expertise (subjects handled):

- Engineering Chemistry
- Analytical Chemistry
- Electrochemistry

Paper Publications:

1. "Corrosion Characterisation of TiO_2 Particulate Reinforced Al6061 Composites in Alkaline Medium" Moroccan Journal of Chemistry, 2025; 13: 1389-1404.
2. "Corrosion Behaviour of Al2024 Metal Matrix Composites Reinforced with Al_2O_3" International Research Journal of Multidisciplinary Technovation, 2024; 6(6): 213-222.
3. "Potentiodynamic Polarization Studies of Aluminium 2024/ Flyash Metal Matrix Composites" CIKITUSI Journal for Multidisciplinary research, 2019; 6(1): 32-36.
4. "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.

5. “Study on Mechanical Behaviour of Banana Fiber Reinforced Epoxy Composites”, Asian Journal of Multidisciplinary Research, 2019; 5(1): 12-16.

6. “Corrosion Characterization of Aluminium 6061/ TiB_2 Metal Matrix Composites in Sodium hydroxide Medium”, International Journal of Trend in Scientific Research and Development, 2018; 2(4): 2810-2814.
7. “Electrochemical studies of Aluminium6061/TitaniumDiboride Metal matrix Composites”, Journal of Applied Science and Computations, 2018; 5(11): 398-403.
8. “Tribological Behaviour of Aluminium with Varying Percentage of Copper andTungsten Carbide” published in Proceedings of NCIIT 2019.

9. Removal of Chromium (VI) From Wastewater – Indian J. Environmental Protection, 2006; 26(12): 1108–1111.
10. 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:

1. “ Corrosion Studies of Quartz Particulates Reinforced Al2024 Metal Matrix Composites” paper presented in the National Conference on Advanced Research in Applied Sciences organized by School of Applied Science, MVJ College of Engineering, Bangalore on 09.08.2025.
2. “Studies on Corrosion Characterization of Aluminium 2024 / Aluminium oxide Metal Matrix Composites in Hydrochloric Acid Medium” paper presented at the UGC sponsored 1^{st} international conference on “Recent Advances in Chemical, Pharmaceutical and Biological Sciences” organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5^{th} -7^{th} March 2020.

3. “Investigations on corrosion studies of Al6061 reinforced with TiO_2 metal matrix composites in Hydrochloric acid medium” paper presented at the UGC sponsored 1^{st} international conference on “Recent Advances in Chemical, Pharmaceutical and Biological Sciences” organized by Acharya Nagarjuna University, Guntur, Andhra Pradesh, India on 5^{th} -7^{th} March 2020.

4. “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.

5. “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.

6. “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.

7. “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.

8. “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.

9. 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.

10. “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.

11. "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).
12. "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).
13. "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).
14. "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:

1. FDP on Material characterisation Techniques organized by School of Applied Sciences MVJ college of Engineering (Autonomous) on 25th to 27th March 2025.
2. TJfdpIT-2024: Research Ideas to Patents organized by T. John Institute of Technology, Bengaluru on 19th to 23rd August 2024.
3. TJfdpIT-2024: Advanced Pedagogy Skills & 21st Century Soft Skills, Jan 2024.
4. FDP on Recent advances in Basic Science and their application for engineering from 08.01.2018 to 10.01.2018 organized by DSATM, Bangalore.
5. 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.
6. Five days FDP on "Recent Trends in Material Science" from 02.11.2020 to 06.11.2020 Feb 2021 organized by department of Chemistry, Sapthagiri College of Engineering, Bamgalore.
7. One Week Virtual Faculty Development Programme on Materials and Medicinal Chemistry- 2020 (MMC) During 10th -15th August 2020 organized by Don Bosco Institute of Technology, Bangalore.

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

1. NPTEL Certificate on Brief Introduction to Psychology on July-Aug 2024.
2. NPTEL Certificate on Teaching And Learning In General Programs: Talg on July-Aug 2023.
3. NPTEL Certificate on Corrosion Protection Methods on Feb-April 2023.
4. NPTEL Certificate on Basics of Health Promotion and Education Intervention on July-Sep 2022.
5. NPTEL Elite Certificate on Stress Management on July-Aug 2021.

Membership/Reviewer in Professional Bodies

- IFERP Membership ID: 37134922