

Department of Chemistry

1. About the Department:

The Department of Engineering Chemistry, established in 2009 at KPR Institute of Engineering and Technology, stands as one of the institution's foundational pillars. Renowned for its highly qualified faculty with expertise spanning academia and research, the department adheres to the principles of Outcome Based Education (OBE), fostering innovative teaching and learning practices. The faculty actively supports B.E./B.Tech. students in interdisciplinary research projects while maintaining a strong tradition of excellence in teaching and cutting-edge research in key areas of chemical science.

Recognized as a research center by Anna University, Chennai, the department offers full-time and part-time Ph.D. programs in seven specialized areas: Materials, Polymers, Medicinal, Analytical, Inorganic, Organic, and Physical Chemistry. Its state-of-the-art laboratory infrastructure supports rigorous research training for scholars. Over the years, the department has garnered substantial funding, starting with ₹1 lakh from AICTE in 2011 and ₹27 lakhs from DST-SERB in 2018. Additional grants from UGC-DAE, CSIR, TNSCST, and DRDO further strengthen its research initiatives.

The department's faculty, many of whom have completed Post-Doctoral Fellowships abroad, contribute significantly to top-tier journals. Hosting visiting professors and scholars enhances the academic ecosystem. The department's mission is to nurture excellence among students and researchers, fostering innovation and deep scientific understanding.

Industry Collaboration:

Industries such as KPM Rubbers and Kovai BSF, along with central laboratories like DRDO and CECRI, collaborate with the department.

Thrust Areas:

Materials science, encompassing nanomaterials, polymers, and thin films; medicinal chemistry; crystal growth; photochemistry; dye degradation studies; sensor technology; organic synthesis and characterization; as well as electrochemical cell and battery technology.

2. Facilities Available for Industry Collaboration

- i. Muffle Furnaces
- ii. Box Furnace
- iii. UV Photo Reactor
- iv. Flame Photometer
- v. State-of-the-Art Research Laboratory
- vi. Research Assistance

3. Consultancy

- i. Research Guidance for M.Sc., M.Phil. and Ph.D. Programmes
- ii. Skill Development Programs
- iii. Commercial Product Development

4. Executive Development Programs

- i. Scientific Communication Mastery
- ii. Advanced Laboratory Techniques
- iii. Innovative Materials Development
- iv. Sustainable Chemistry Practices
- v. Chemical Product Formulation and Marketing
- vi. Entrepreneurship in Chemistry
- vii. Regulatory Compliance and Quality Assurance
- viii. Project Management in Scientific Research
- ix. Personal and Professional Growth

5. Achievements and Success Stories

- i. Research Funding and Grants
- ii. Successful Project Execution
- iii. Industry Collaboration and Consultancy
- iv. Knowledge Dissemination
- v. Community Impact

6. Recognition and Awards

Faculty members and students have received accolades for their contributions to research, innovation, and teaching excellence. Publications in high-impact journals and patents awarded for novel technologies and methodologies.

7. Success Stories

- i. Transforming Industry Practices
- ii. Innovative Product Development
- iii. Skill Development and Empowerment