

**LADY DOAK COLLEGE**

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Madurai, TamilNadu, India

Re- accredited with 'A+' Grade by NAAC (4th Cycle)**DEPARTMENT OF CHEMISTRY***Organizes***NATIONAL LEVEL ONLINE FACULTY
DEVELOPMENT PROGRAMME****CHEMISTRY 4.0****INTEGRATING ARTIFICIAL
INTELLIGENCE INTO THE CURRICULUM****For Chemistry Faculty Members****DATE: 10. 08. 2026 - 14. 08. 2026****Time: 5.00 pm - 8.00 pm****ONLINE PLATFORM:  ZOOM****Be a Catalyst: Bring AI into Your
Chemistry Classroom!****Registration Fee: Rs. 500/- per person****ABOUT THE COLLEGE**

Founded in 1948 in Madurai by Ms. Katie Wilcox, Lady Doak College is a pioneering institution committed to women's education and empowerment. Academic autonomy was granted in 1978, making it one of the first autonomous institutions in India. A Challenging curriculum, integrated with relevant academic programmes, co-curricular activities, exposure initiatives, and a strong student support system, has positioned the college at the forefront of higher education. The college currently offers 26 undergraduate and 15 postgraduate programmes along with a wide range of PG diploma, diploma, and certificate courses.

ABOUT THE DEPARTMENT

Established in 1957, the Department of Chemistry at Lady Doak College, has been a pioneer in providing quality Chemistry education, research, and innovation for nearly seven decades. The department offers B.Sc., M.Sc., and Ph.D. in Chemistry. It was the first in India to introduce B.Sc. (Special) Chemistry with Cheminformatics (2008-09), integrating Chemistry with informatics, and established a state-of-the-art Cheminformatics Laboratory with support from the DBT-STAR College Scheme. The curriculum is continually enriched with Green Chemistry, Computational Chemistry, Cheminformatics, Data Mining, Nanomaterials, and skill-oriented courses that prepare students for emerging scientific challenges. The Online FDP on "Chemistry 4.0: Integrating AI into Chemistry Curriculum" reflects the department's continued commitment to advancing technology-enabled chemical education and preparing educators for the future.

ABOUT THE FDP - CHEMISTRY 4.0

This 5-day Faculty Development Programme aims to prepare the faculty members for the data-driven future of Chemistry. Leading educators and industry experts will demonstrate practical, classroom-ready methods to embed artificial intelligence across undergraduate and postgraduate Chemistry teaching and research.

KEY TAKEAWAYS

- Practical AI concepts for Chemistry: machine learning, data analysis, molecular modelling
- Ready-to-use lab and project modules using open-source tools and accessible datasets
- Assessment strategies and AI-enhanced assignments with rubrics
- Guidance for curriculum designing using AI

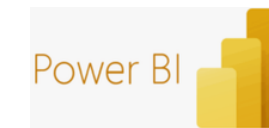
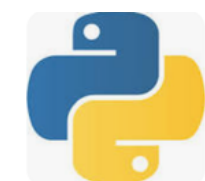
WHO CAN ATTEND ?

Faculty members, curriculum designers, and research supervisors in Chemistry discipline from colleges and universities

BENEFITS

Receive lesson plans, sample assignments, assessment rubrics, hands-on experience, networking opportunities, and a certificate of participation to strengthen your teaching portfolio.

Limited seats — Register now to transform your curriculum and lead Chemistry 4.0.

**AI Tools****DruMAP****RDChiral****REGISTRATION**

Registration Fee: **Rs. 500/- per person**
Registration Period: **17.07.2026 - 07.08.2026**

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<https://tinyurl.com/mw9cx86c>

SPEAKER PROFILE & SESSION DETAILS



Dr. Muthiah Manoharan

Senior Vice President of Drug Innovation,
Distinguished Research Scientist
Alnylam Pharmaceuticals,
Cambridge, Massachusetts, USA.

Chemical Innovation in the Age of RNA and AI: A New Era of Drug Discovery

Dr. Manoharan brings industrial leadership in RNA therapeutics and translational research; his session will connect frontier chemical science innovations with AI-driven workflows, helping educators design curriculum that prepares students for research and industry careers in modern chemical sciences.



Dr. Thirumoorthy Krishnan

Associate Professor,
School of Computer Science and Engineering,
VIT Vellore, Tamil Nadu.

Introduction to AI, Machine Learning and Python for Chemists

Dr. Thirumoorthy specializes in applied AI and software pedagogy. His practical introduction to machine learning and Python will equip Chemistry teachers with conceptual foundations and the programming skills needed to build hands-on AI modules for undergraduate and postgraduate courses.



Dr. Rajnish Kumar

Associate Professor,
Department of Pharmaceutical Engineering & Technology,
IIT, Varanasi, Uttar Pradesh.

Applications of AI in Pharmacokinetic Properties Prediction in Drug Discovery

Dr. Kumar's expertise in computational pharmaceuticals will demonstrate AI-enabled drug design and ADME/T prediction approaches, giving faculty concrete examples to incorporate computational drug discovery projects into Chemistry and pharmaceutical curricula.



Dr. S. Pitchumani Angayarkanni

Professor, Department of CSE,
Aarupadai Veedu Institute of Technology, Chennai,
Tamil Nadu.

Session 1: From Chemical Data to AI insights: Visualization and Preprocessing

Session 2: AI-Driven Statistical Modeling and Predictive Analytics for Chemical Research

Dr. Angayarkanni will cover best practices in data preprocessing, visualization, and statistical modeling tailored to chemical datasets, enabling teachers to teach robust data-handling skills and evidence-based decision making in laboratory and research courses.



Dr. R. Aldrin Denny, Ms. Rudrakshi Chauhan

Founder & CEO, Medizen Inc., Boston, U.S.A. Research Scholar,
Visiting Professor, IIIT Delhi & VIT Vellore. Department of Computational Biology, IIIT- Delhi.



Practical Applications of AI/ML in Chemistry

Dr. Denny & Ms. Rudra will engage the participants in hands-on exercises exploring the transformative impact of AI and machine learning on Chemistry including unsupervised clustering for catalyst discovery, generative models for designing novel drug-like molecules, deep learning for predicting reaction outcomes, retrosynthesis planning, and pattern recognition for infrared spectroscopy. Each exercise will employ real-world published datasets and models, allowing participants to compare classical methods with cutting-edge AI approaches.



Dr. Dhaval Maheta,

Professor
Veer Narmad South Gujarat University, Surat, Gujarat.

Session 1: Generative AI for Teaching and Evaluation in Chemical Sciences

Session 2: Generative AI for research in Chemistry. Literature Mining and Scientific Communication using AI

Dr. Maheta will present generative-AI tools for syllabus design, literature mining, and AI-assisted scientific writing—practical strategies for faculty to streamline literature review, create teaching materials, and mentor students in AI-augmented research communication.

ORGANIZING COMMITTEE

CHIEF PATRON

Dr. R. Beulah Jeyashree
Principal and Secretary,
Lady Doak College, Madurai.

CONVENOR

Dr. V. Sridevi
Head and Associate Professor,
Department of Chemistry,
Lady Doak College, Madurai.

ORGANIZING SECRETARIES

Dr. M. Anusha Rani, Assistant Professor
Dr. P. Silviya Reeta, Assistant Professor

MEMBERS

Dr. S. K. Suja, Associate Professor
Dr. S. Julie Rane, Associate Professor
Dr. G. Jayanthi Kalaivani, Assistant Professor
Dr. K. Rajam, Assistant Professor
Dr. S. Mahalakshmi, Associate Professor (SF)
Mrs. S. Mathiya, Associate Professor (SF)
Mrs. K. Berlin Asha, Assistant Professor (SF)
Dr. D. Rani Rosaline, Assistant Professor (SF)

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