Programme Highlights

An ATAL Online Faculty Development Programme (FDP) provides a unique platform for faculty members, researchers, and professionals to upskill themselves in emerging areas of science and technology. Conducted under the AICTE Training and Learning (ATAL) Academy, these FDPs are designed to promote excellence in teaching, learning, and research through expert lectures, interactive sessions, and hands-on demonstrations. Being online, they ensure wide accessibility, enabling participants from across India to attend without geographic constraints. The programs emphasize both theoretical foundations and practical applications, support interdisciplinary collaboration, and align with the National Education Policy (NEP) 2020 goals of lifelong learning and academic innovation.

How to Apply

- Visit: https://atalacademy.aicte-india.org
- Register as a participant (one-time registration)
- Login and browse the FDP Calendar
- Apply for **"Redefining Innovation: AI & ML for Industry 5.0"**
- Wait for selection intimation via email
- Confirm your participation upon selection

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Organizing Committee

PATRON

Dr.V.Geetha
Principal

CONVENOR

Dr.D. Mary Sugantharathnam
Professor and Head, ECE

COORDINATOR

Dr.M.Dhinakaran
Associate Professor/ECE

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VENUE
Online Platform.

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One Week AICTE-Teaching and Learning (ATAL) Academy

Sponsored

Faculty Development Programme

On

Redefining Innovation: AI & ML for Industry 5.0

September 01 - 06, 2025

COORDINATOR
Dr.M.Dhinakaran
Associate Professor

CO-CORDINATOR
Prof.D.Manibharathi
Assistant Professor

Organized by

Department of Electronics and Communication,
Government College of Engineering,
Salem-636011

About the Institute

Government College of Engineering, Salem (GCE Salem), established in 1966, is a premier government engineering institute in Tamil Nadu, affiliated to Anna University and approved by AICTE. The institution is accredited with an 'A+' grade by NAAC and enjoys autonomous status. The Institute offers six undergraduate and six postgraduate programs, including unique branches like Metallurgical Engineering, along with research opportunities through recognized Ph.D. programs. Situated on a scenic 400-acre campus, GCE Salem emphasizes academic excellence, innovation, and industry collaboration. The college also hosts an InnovateTN Lab, a state-of-the-art facility fostering product innovation and entrepreneurship among students. Supported by initiatives like TEQIP, the institution remains committed to quality education and technological advancement.

About the Department

The Department of Electronics and Communication Engineering (ECE) at Government College of Engineering, Salem was established in 1985 and is known for its strong academic foundation, industry-oriented curriculum, and research excellence. The department offers B.E. in ECE, M.E. in Communication Systems and recognized Ph.D. programs under Anna University. It is equipped with modern laboratories such as the VLSI Design Lab and Embedded Systems Lab, providing hands-on experience in cutting-edge technologies. The department actively organizes workshops, FDPs, seminars, and industry-interaction programs to bridge the gap between academia and real-world applications. With a dedicated team of experienced faculty, the department fosters innovation, interdisciplinary research, and skill development aligned with the goals of Industry 4.0 and beyond.

Key Objective of the FDP:

To equip faculty members, researchers and professionals with in-depth knowledge and practical skills in Artificial Intelligence and Machine Learning, focusing on their transformative role in Industry 5.0. It aims to foster an understanding of human-centric, sustainable and intelligent systems by exploring core concepts, emerging trends and real-world applications of AI and ML. Through expert sessions and hands-on engagement, the program intends to bridge the gap between academic learning and industrial innovation, empowering participants to contribute effectively to teaching, research, and product development in the AI/ML domain.

Guidelines for Participants

- Participants must register through the ATAL portal: https://atalacademy.aicte-india.org
- Attendance in all sessions is mandatory to receive an e-certificate
- Participants are required to join the sessions via the link provided by the organizing team
- Ensure stable internet connectivity and a quiet environment during sessions
- Actively participate in discussions, hands-on activities, and feedback surveys
- E-certificates will be issued only upon successful completion and feedback submission on the ATAL portal
- Participants must confirm their selection via email after receiving intimation

Topics to be Covered:

- Introduction to Industry 5.0
- Fundamentals of AI & ML
- Deep Learning & Neural Networks
- Tools & Platforms for AI/ML Development
- Human-Centric AI for Collaborative Robots (Cobots)
- Predictive Maintenance using ML in Smart Manufacturing
- AI in Smart Supply Chain and Logistics
- Healthcare 5.0: AI & ML in Personalized and Predictive Medicine
- Tutorial workshop on LLM
- Tutorial workshop on Agentic AI
- AI for ADAS
- AI for Autonomous Cars
- Explainable AI and Ethical Considerations
- Case Studies and Industry Applications of AI/ML

Resource Persons:

Sessions will be handled by eminent resource persons from:

- Premier academic and research institutions
- Reputed organizations and industries specializing in AI/ML
- Start-up founders and innovators working on AI-driven solutions
- Experts from international academia and industry

The resource persons bring with them diverse expertise and real-world insights, ensuring a balanced mix of theory, practical application, and futuristic trends in AI and Machine Learning.