



**AICTE Training and Learning (ATAL)
Academy
sponsored**

**One Week Offline Faculty Development
Program (FDP)
On**

**“Hybrid and Multifunctional
Materials: Bridging Energy,
Defense, and Aerospace
Frontiers”**

27th October – 1st November 2025

Organized by

**AICTE Training and Learning (ATAL)
Academy**

and



DEPARTMENT OF SCIENCE & HUMANITIES,

**CHETTINAD COLLEGE OF
ENGINEERING AND TECHNOLOGY,**

PULIYUR-CF, KARUR – 639114, TAMIL NADU.

Website – www.chettinadtech.ac.in

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Dr. G. SAHAYA DENNISH BABU,

Associate Professor / Physics

Co-coordinator

Dr. S. GOPINATH,

Associate Professor / Chemistry

Address for Correspondence

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Resource Persons

● **Dr. D. P. Sudhakar**, Outstanding Scientist & Deputy Director, IPRC-ISRO, Mahendragiri, Tamil Nadu.

● **Dr. Vikram Khemchandani**, Chairman of the Board & Co-Founder, SignOff Semiconductors, Bangalore, India.

● **Dr. Satish A. Patil**, Professor and Chair, SSCU, Indian Institute of Science, Bangalore.

● **Dr. Kuruvilla Joseph**, Registrar and Director-Academics, IIST-ISRO, Valiamala, Trivandrum, Kerala.

● **Dr. Alagarsamy Pandikumar**, Senior Scientist, CSIR-CECRI, Karaikudi, Tamil Nadu.

● **Dr. Satya Gupta**, President, VLSI Society of India - Founder & Chairman of - Intel Micro-Electronics, Bangalore.

● **Dr. L. Venkata Subramaniam**, Head - IBM Quantum India, New Delhi.

● **Dr. Ganapathy Balaji**, Deputy Director at Applied Materials, IIT-B, Powai, Mumbai, 400076, MH, India.

● **Dr. Ragitha Radhakrishnan**, IQAC Co-ordinator & Head, PG Department of Applied Psychology, Dr. MGR-Janaki College of Arts & Science for Women, Chennai, Tamil Nadu.

● **Dr. Ranjith Kumar Thanneeru**, Process Integration Manager, First Solar, Sriperumbudur, Tamil Nadu.

About the Institute

Chettinad College of Engineering and Technology is located in the district of Karur in Tamil Nadu was started in the year 2007. It is approved by the All-India Council for Technical Education, New Delhi and it is affiliated to the Anna University, Chennai. For over a decade, the college has been committed to delivering quality technical education to the student community. Considered to be one of the top Engineering colleges in Tamil Nadu, it has excellent infrastructure which provides growth opportunities for students to excel in their respective disciplines in the fields of engineering, technology and management. The college works towards moulding students into all-rounders with good interpersonal skills and effective soft skills to make them confident to embrace challenges of the future.

Objectives and Scope

The primary objective of this Faculty Development Programme is to provide a comprehensive platform for academicians, researchers, and industry professionals to explore emerging trends and innovations in next-generation materials with a special focus on their applications in energy, defense, and space sectors.

The FDP aims to:

- Enhance understanding of advanced functional materials and their synthesis, characterization, and integration techniques.
- Bridge the gap between academic research and industrial needs by showcasing real-world innovations and applications.
- Promote collaborative research, innovation, and technology transfer in critical areas of national importance.
- Empower faculty members with the latest insights to inspire curriculum development and cutting-edge research in material science and allied fields.

Themes

The FDP program aims to include the following topics:

- Next-Generation Materials for Energy Storage and Conversion
- Advanced Functional Materials for Defense Applications
- Materials for Space Technologies
- 2D Materials and Nanomaterials
- Smart and Intelligent Materials
- Metamaterials and Photonic Crystals
- Green and Sustainable Materials for Energy Applications
- Additive Manufacturing and Advanced Fabrication Techniques
- Materials for Wearable Electronics and Biomedical Devices
- Quantum Materials and Their Future Prospects
- Collaborative Innovation in Material Science for National Missions
- Quantum computing for Defense and Space Applications
- Green Hydrogen Energy
- Stress Management

Experts/Resource Persons

Resource Persons for FDP are from IISc, IITs, NITs, National Research Labs, Industries and other reputed organizations.

Target Participants

Faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc).

Registration Fee

There is no registration fee for participants.

Online registration

Signup and register using this link

<https://www.aicte-india.org/atal>

Selection

The seats are limited to 50 candidates. Preference will be on first-come basis. The intimation regarding selection will be sent to the candidates by email as per the schedule.

Note

A test will be conducted by coordinators at the end of the program. The certificate shall be issued to those participants who have attended the program as per the AICTE-ATAL FDP guidelines.