DEPARTMENT OF PHYSICS

Course Offered

Research Program(Ph.D.)

Vision

World class quality technical education with strong ethical values.

Mission

- To establish infrastructure to develop novel materials essential for competitive research.
- To provide opportunities for new eyes to observe and new hands to manipulate at micro and nano scales that enable new insights into systems of recognized importance and the exploration of completely new regimes.
- To foster strong link with the multifaceted laboratories, diverse interdisciplinary laboratories of Science and Engineering disciplines.



DepartmentOverview

The Department of Physics was established in 1957. It handles Physics courses for first-year B.E. students and offers elective courses for third-year and final-year students. The department offers a Ph.D. program with specializations in areas such as Smart Materials, Computational Materials, Quantum Computing, Thin Film Materials, Crystal Growth, and Nanomaterials. It is supported by the FIST program of the Department of Science and Technology (DST), New Delhi. Additionally, the department maintains active collaborations with industries, academic institutions, and professional bodies, and is involved in several technology development projects funded by organizations such as BRNS, DRDO, DST, ISRO, CSIR, and AICTE.

Department Highlights

- 1. Faculty members have received 13 sponsored research projects.
- 2. The department benefits from the expertise of an adjunct faculty member from IIT Madras.
- 3. Research internship opportunities are offered to undergraduate and postgraduate students from other institutions.
- 4. The department maintains an average of 20 research publications per year.
- 5. Active collaborations are in place with international and national research institutions, including Tohoku University (Japan), University of Patras (Greece), DMRL (Hyderabad), BARC (Mumbai), and IUAC(New Delhi).
- 6. The department regularly organizes outreach activities such as National Science Day celebrations, research seminars by international experts, Faculty Development Programs (FDPs), national workshops, Physics Olympiads, and International Conferences to promote science among students.

Total Faculty Strength	14	
Faculties with Ph.D & Post Doc	05	130
Professors	01	Publications
Assistant Professors	11	
Adjunct Faculty	01	2 Crores
Full-time Ph.D. Research Scholars	21	Total Grants amount

Faculty Achievements

- Prof. M. Mahendran completed his Post-Doctoral Fellowship (BOYSCAST Fellowship) at the Massachusetts Institute of Technology (MIT), USA, and the Weizmann Institute of Science, Israel.
- Prof. M. Mahendran is a distinguished recipient of several prestigious honors, including the Fellowship of the Academy of Sciences from the TamilNadu Science Academy, Chennai; the UGC Research Award from the University Grants Commission, NewDelhi; and the National Young Scientist Award from the Department of Science and Technology, NewDelhi.

Research Infrastructure

- Smart Materials Research Laboratory
- Nano materials Research Laboratory
- Thin films Research Laboratory
- Crystal Growth Research Laboratory
- Materials Science Research Laboratory (TARC)

Research Areas

- Quantum Computing
- Smart Materials
- Computational Materials
- Thin film Materials

- Nano Materials
- Energy Storage Materials
- Crystal Growth

Centre for Excellence

 Centre for Hydrogen Energy Research–Combined with Department of Chemistry

 Centre of Excellence in Materials Research and Energy Solutions (CoEMRES)





Professional Societies

















Outreach Activities



INSPIREMANAK Award State Level Exhibition & Project Competition



Guest Lecture by Dr. Ananthavel, AN2Therapeutics, USA



Dr.Amuthan, R&D Head, GE, USA Interacted with our Ph.D Research Scholars



Prof. TeWeiChiu, National Taipei University of Technology, Taiwan Interacted with faculties and PhD Research Scholars



National Science Day2025 Poster Presentation Competition

Contact

Professor & Head Email:manickam-mahendran@tce.edu Phone: +91-9488977333









