

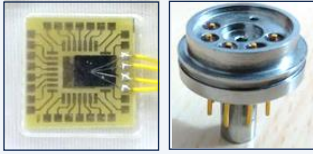


Ph.D. Admissions – January 2024 Session

DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING

National Institute of Technology, Tiruchirappalli

The department of Instrumentation and Control Engineering (ICE) of NIT-Tiruchirappalli is a pioneer in new-age research and teaching on Sensors, Instrumentation, Control, Automation, Biomedical devices, and allied fields. The department offers well-reputed academic programmes - B.Tech. in Instrumentation and Control Engineering (NBA Accredited 2023-29), M.Tech. in Industrial Automation, M.Tech in Process Control and Instrumentation (offered jointly with the dept. of Chemical Engineering) and the Ph.D. programme.



Products developed based on MEMS Sensors

The department welcomes candidates with PG/UG (for Direct Ph.D. admission) qualifications in engineering with an interest and motivation to do cutting-edge research, to join the Ph.D. programme. Faculty members, scientists and professionals working in private, government and government aided institutions are also welcome to join the Ph.D. programme, either full-time or part-time. The department has demonstrated remarkable research outcomes through its Ph.D. programme by means of Post-Ph.D. placements, peer reviewed research publications, patents, sponsored projects and industry collaborations.

For January 2024 session admissions, the ICE department offers **6 Full-Time Ph.D. positions** (OC-2, GenEWS-1, OBC-NCL-2 and SC-1), apart from part-time Ph.D. positions for working professionals.

- Direct Ph.D. possible after B.E./B.Tech
- GATE Score is NOT mandatory
- Attractive Fellowship: Rs. 37,000 per month for the first 2 years
Rs. 42,000 per month for 3rd-5th years
- Possible to pursue Ph.D. research work in premier research organizations and universities in India and abroad
- Chance to be a Prime Minister's Research Fellow (PMRF)

Research Facilities on emerging areas have been developed through funding from the government and sponsored projects.

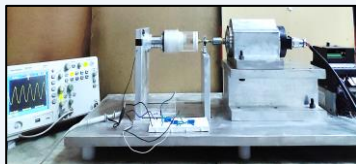
- Advanced Instrumentation and Measurement Laboratory
- Biomedical Device and Technology Development Lab
- Physiological Measurements and Instrumentation Laboratory
- Modelling and Simulation Laboratory
- MEMS Design Centre
- Biomedical Engineering Laboratory
- Smart Structures Laboratory
- Industrial Automation Laboratory
- Applied Electromagnetics Laboratory



Neonatal Jaundice Meter



Hybrid Tank System



Piezoelectric Energy Harvesting system

Prospective candidates are expected to get opportunity to work on research problems in the following domains:

- Development of sensors, instrumentation system and controls using Artificial Intelligence algorithms
- Industrial automation
- Next generation controllers
- Modelling and control of dynamical systems
- Process systems engineering and Process Control
- Network control systems
- Optical Instrumentation and Microscopy
- Instrumentation for Nanotechnology
- Nanometrology and Nanoscale material characterization
- Design and development of sensors and actuators
- RF and Microwave sensors
- Signal Processing Applications
- Precision Mechatronics, Assistive devices
- Biomedical Instrumentation Engineering
- Design and development of robots and sensor platforms
- Energy harvesting

The department facilitates placements for Ph.D. scholars in core industries, R&D organizations and reputed educational institutions, and also post doctoral fellowships (PDF) in world class universities abroad and in India.

Some of the organisations that have recruited the department's research scholars are ABB, Airbus, Alstom, Cadence, GE, L&T, TCS R&D, Vestas, North Texas University, Inha University, University of Alberta, IISc, NITs, BITS Pilani, SASTRA, and top NIRF-ranked private universities.

For more details regarding eligibility, application procedures and portal: <https://admission.nitt.edu/phdjan24/>

To know more about ICE department: <https://www.nitt.edu/home/academics/departments/ice/>

Prospective Research Scholars can visit the department and interact with faculty members. For more information, contact:

Important Dates	
Ph.D. Admission Portal Open	27 th September 2023
Last date for Application	31 st October 2023 5.00 PM
Tentative Written Test / Interview	4 th – 9 th December 2023



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