## Ph.D. Admissions – July 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), M.S by Research and Ph.D. programmes







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 public sector, government, government aided and private organizations / 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 July 2024 session admissions, the ICE department offers **7 Full-time Ph.D. positions** (Gen- 3, GenEWS- 1, OBC-NCL- 1, OBC-NCLPwD- 1 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 from MoE (GoI): Rs. 37,000 per month for the first 2 years Rs. 42,000 per month for 3<sup>rd</sup> - 5<sup>th</sup> 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







Four Tank System



IoT Test Bed

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

- Design and Development of Sensors, Actuators, Instrumentation and Control Systems
- RF and Microwave sensors
- Optical Instrumentation and Microscopy
- Precision Mechatronics, Soft Mechatronics
- Biomedical Instrumentation and Signal Processing
- Assistive devices
- Design and development of Robotic Systems, Sensor Platforms
- Modelling and Control of Dynamic Systems
- Process Systems Engineering and Process Control
- Network Control Systems
- **Next generation Controllers**
- **Industrial Automation**
- **Energy Harvesting**
- Instrumentation for Nanotechnology
- Nanometrology and Nanoscale material characterization
- Application of Artificial Intelligence algorithms for Instrumentation and Control Systems

The department facilitates placements for Ph.D. scholars in core industries, R&D organizations and reputed educational institutions, and also post doctoral fellowship (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, and top NIRFranked private universities.

For more details on eligibility, application procedures and portal: https://nittadm.samarth.edu.in/2024/

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

**Important Dates** 21st May 2024 Ph.D. Admission Portal Open 11th June 2024 11.59 PM Last date for Application 20th - 30th June 2024 Tentative Written Test and Interview

Prospective Research Scholars can visit the department and interact with the faculty members.



For more information, contact:

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