# Ph. D. Programme in Thermal Sciences 2024-2025

## Department of Mechanical Engineering National Institute of Technology Calicut



Applications are invited from motivated and research-driven candidates for admission to the Ph.D. programme in Thermal Sciences, including interdisciplinary research, at the Department of Mechanical Engineering, NIT Calicut.

> GATE Qualification NOT Mandatory! Last Date to Apply: 17 APRIL 2024 Visit: https://nitc.ac.in/noticeboard/admissions

### **Research Facilities**

To develop practical and research skills required for industry, our Ph. D. students have unlimited access to well-equipped labs and additional facilities.

- High-Performance Computational Laboratories
- Thermal Engineering Laboratory
- Solar Energy Center
- Alternate Fuels Laboratory
- Hydrogen testing Laboratory
- Heat Engines Laboratory
- Green Energy Laboratory
- Heat Transfer Laboratory
- Fluid Mechanics and Machinery Laboratory
- Centre for Advanced Studies in Cryogenics
- Fuel Cells Laboratory
- Jet Flows and Acoustics Laboratory
- Combustion Laboratory



For information on our Faculty, scan:

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### Why choose us?

- To be part of cutting-edge research on thermal science and futuristic energy systems, and to contribute to the development of technologies that will support sustainable development
- Experienced faculty having collaborations with premier institutes and research labs in the world, working on niche areas of applied research
- Funding for research projects worth over ₹4.42 crores in the last three years
- 11 patents filed in the last 5 years
- Exposure to state of the art research facility
- Round the clock accessibility to central facilities including library, computing center and workshops.

For information on Ph. D. Admissions, scan:



## Areas of Ongoing Research in Thermal Sciences

- High Performance Computing
- Combustion
- Acoustics and Vibration
- Transport in Porous media
- Electrochemical Energy Systems
- Multiphase Flows
- Biofluid Dynamics
- Machine Learning
- Solar Energy
- Fuel Cells and battery

Computational Fluid Dynamics

**APPLY NOW** 

- Hydrogen energy Storage and Conversion
- Clean Energy Technologies
- Circular Economy
- AI in Thermal Systems
- Unmanned Aerial Systems
- Carbon Dioxide Capture and Storage
- Mechanical Sensors

- Turbomachinery
- Fluid-Structure Interaction
  - Theoretical Fluid Dynamics
- Hypersonic Heat Transfer
  - Inverse Heat Transfer
  - Interfacial Phenomena and Gravity Waves
  - Advanced Engine Technologies
  - Non-intrusive Measurements
    - Macro- and nano- Fluidics

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