## Ph.D. Programme in Thermal Sciences 2025-2026

# 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 in the Department of Mechanical Engineering, NIT Calicut

GATE Qualification is NOT Mandatory! Last Date to Apply: 17 April 2025, 5.00 PM Visit: <a href="https://nitc.ac.in/custom-pages/phd-monsoon-semester-july-admissions-2025-26">https://nitc.ac.in/custom-pages/phd-monsoon-semester-july-admissions-2025-26</a>

#### **Research Facilities**

To enhance the practical and research skills, our Ph.D. students are granted unlimited access to fully equipped labs and additional facilities.

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

#### Why choose us?

- To actively participate in pioneering research in thermal science and innovative energy systems, while contributing to the development of technologies that foster sustainable development
- Experienced faculty working in the niche areas of applied research
- Funding for research projects worth over
   ₹ 6 crores
- 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 our Faculty, scan:





For a preview to our Lab facilities, scan:





### Ongoing Research Areas in Thermal Sciences

- Advanced Engine Technologies
- AI in Thermal Systems
- Biofluid Dynamics
- Carbon dioxide Capture & Storage
- Clean Energy & Circular Economy
- Combustion and Gasification
- Computational Fluid Dynamics
- Electrochemical Energy Systems
- Fluid-Structure Interaction
- Fuel Cells and Battery

- High Performance Computing
- Hydrogen Energy Storage and Conversion
- Hypersonic Heat Transfer
- Interfacial Phenomena & Gravity Waves
- Inverse Heat Transfer
- Macro- and Nano- Fluidics
- Mechanical Sensors
- Multiphase Flows

- Non-intrusive Measurements
- Solar Energy
- Solar Refrigeration
- Theoretical Fluid Dynamics
- Thermal management & Thermal Systems
- Transport in Porous Media
- Turbomachinery
- Unmanned Aerial Systems