

A Two-Day Training Program
on
Theoretical and Computational
Heat Transfer

December 1st and 2nd, 2023

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organized by
Department of Mechanical Engineering
Indian Institute of Information Technology,
Design and Manufacturing, Kancheepuram
An Institute of National Importance
Under MoE, Govt. of India.

About the Institute:

Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram (IIITDM Kancheepuram) was established in 2007 under the Ministry of Human Resource Development, Government of India. IIITDM Kancheepuram is an institution of national importance and offers undergraduate, postgraduate, and Ph.D. programs in various fields of engineering. The campus provides students with a conducive environment for learning and research. The aim of the Institute is to produce graduates who are well-equipped with design and engineering skills, accordingly, curriculum emphasizes design and manufacturing aspects, making it distinct from many other Institutes. The institute places significant importance on research and innovation. Faculty and students are encouraged to engage in research activities and projects. IIITDM Kancheepuram campus is equipped with modern infrastructure and facilities. IIITDM Kancheepuram collaborates with industry partners and other academic institutions to enhance the quality of education and research. IIITDM Kancheepuram is located in proximity to Chennai, with Tambaram serving as the nearest railway station.

Location: <https://maps.app.goo.gl/S8uZ1MgtBwRL9Sgq7>

About the Department:

Established in the year 2007, the Mechanical Department at IIITDM Kancheepuram has witnessed significant growth in expertise and competence in IT-enabled Design and Manufacturing-centered curriculum and research over the past decade. The department offers programs, which includes B.Tech., M.Tech., Dual-Degree, as well as PhD degree. Notably, it stands out for its IT-enabled design and manufacturing-based engineering curriculum, prioritizing technical proficiency, problem-solving skills, and innovation. The curriculum includes a variety of interdisciplinary courses to provide students with a holistic understanding of their field, regularly updated to reflect the latest scientific and technological advancements. The department fosters a rich research ecosystem. Encouraging students to engage in research projects and collaborate with neighboring industries, the department maintains active research groups equipped with state-of-the-art facilities, ensuring

high research standards. The distinguished faculty members with strong academic credentials further solidify the department's reputation for excellence in teaching and research.

About the Training Program:

The training program comprises lectures covering fundamental heat transfer principles and hands-on training with ANSYS-Fluent software. This practical training is especially beneficial for undergraduate students, as it equips them with essential skills and knowledge applicable to real-world engineering scenarios.

The numerical study of heat transfer takes center stage as a critical driver of innovation and progress across a spectrum of industries. Accurately understanding and predicting heat transfer processes is pivotal for designing sustainable and efficient technologies, ranging from electronic devices to power generation systems. The realm of computational heat transfer presents vast opportunities for those eager to explore it further. This field's practical applications span a wide array of industries, including aerospace, automotive, manufacturing, and energy production, where controlling heat transfer is instrumental in streamlining processes, reducing energy consumption, and ensuring safety and reliability in various sectors. Ultimately, expertise in the numerical study of heat transfer not only paves the way for advanced studies but also acts as a key driver for career opportunities in various industries.

List of Tentative Topics:

- Fluid Mechanics and Heat Transfer Fundamentals
- Computational Domain Modeling and Meshing
- Governing Equations and Boundary Conditions in Computational Heat Transfer
- Numerical Methods in Heat Transfer Modeling
- Hands-on Simulation Training

These topics encompass the essential components of understanding and applying computational methods to solve problems related to fluid mechanics and heat transfer.

Expected Participants:

This program is suitable for undergraduate students from diverse academic backgrounds, on the condition that they have completed a prerequisite course in fluid mechanics and/or heat transfer.

Registration:

1. Apply through the Google Form via the following link before Nov 10, 2023.
<https://forms.gle/pP7t2NY94sc3T3f17>
2. Shortlisted applicants will be contacted via email with further details. The participant count for this event is limited to 25.
3. Only shortlisted applicants are required to pay a registration fee of Rs. 1500. The payment link will be shared separately.
4. The registration fee includes course materials (soft copy), a registration kit, and participation certificates.
5. Hostel accommodation is subject to availability and comes at an additional cost if available. Participants can access cafeteria services for meals at their own expense.



Contact

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