

One Week STTP on “Integration of AI and Quantum Computing for Robotics”

08-12 Dec. 2025

Physical Mode



Organized by

Centre for AI, IoT, and Robotics

Department of Mechanical Engineering

Indian Institute of Information Technology, Design and
Manufacturing, Kancheepuram, Chennai – 600127

Key Facilitators



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ABOUT THE INSTITUTE

Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram (IIITDM Kancheepuram) is an Institute of National Importance established in 2007 by the Ministry of Education, Government of India, to pursue design and manufacturing-oriented engineering education and research and to promote competitive advantage of Indian products in global markets. The institute is presently offering various B.Tech programs in Computer Science and Engg., Electronics and Communication Engg., Mechanical Engg., and Smart Manufacturing, M.Tech & DD programs, and inter-disciplinary Ph.D programs in core and applied areas of engineering. In addition, a new DD program in B.Tech Mechanical Engineering and M.Tech in “AI and Robotics” has been launched from AY 2024-25.

ABOUT THE CENTRE

The **Centre for AI, IoT, and Robotics** was established by the Institute and inaugurated by the Hon’ble Finance Minister of India, Smt. Nirmala Sitharaman on 10th Sep. 2022. The vision of this interdisciplinary Centre is to enhance the skill sets of researchers, engineers, students, and faculty in AI, Robotics & Automation, IoT, and allied areas. The Centre supports various GoI schemes such as Skill India, Make in India, Digital India, Start-up India, Smart City Scheme, NEP2020, and National Quantum Mission.

ABOUT THE STTP

The curricula of various engineering programs at many universities in India are being updated to meet the challenging demands of industry and society, especially in emerging areas such as Robotics, Drones, AI, Data science, GenAI, Quantum Computing etc. To meet such demands, faculty and researchers must continuously upgrade their skills and knowledge, which will ultimately support students in learning and fostering a productive culture. Hence, this STTP aims to upskill the fundamental knowledge required to learn, understand, and teach Advanced AI, Robotics, and Quantum Computing.

TOPICS TO BE COVERED (Tentative)

- ❖ Introduction to AI
- ❖ Pattern Recognition and Applications
- ❖ Linear & Non-Linear Classifier
- ❖ Robot Mechanics
- ❖ Mobile Robot Kinematics
- ❖ Mobile Manipulator
- ❖ Robot Simulation with Hands-on Practice Sessions
- ❖ Fundamentals of Quantum Computing
- ❖ Quantum Circuits & Algorithms
- ❖ Quantum ML
- ❖ Quantum Computing for NLP: Theory & Practice
- ❖ Quantum Intelligence: Materials to Systems
- ❖ Hands-on Experience on Quantum Summation-Qiskit
- ❖ Yoga, NEP2020

REGISTRATION FEE *

Category	Amount (Rs.) #
a) Students & Full-time Ph.D. Scholars	3,000
b) Faculty/Academic/Research Staff	5,000
c) Participants from Industry/R&D Organization	8,000

GST 18 % Extra

WHO CAN ATTEND

- Faculties from technical institutions
- Research scholars / PG & UG (Pre-final/Final year) students
- Scientists/Professionals from R&D institutions/industries

IMPORTANT DATES

Payment of Fee/Registration (Online)

Begin - End : 01/10/2025 - 31/10/2025 **15/11/2025**

* ➤ Applicants are requested to pay the registration fee using <https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=634626> [Search by “IIITDM” > Click on “IIITDM -EDUCATIONAL EVENTS” > Payment Category “Quantum Robotics”] and please pay as per the category. Then, submit the online registration form along with payment proof using the following link: <https://forms.gle/AqCg9XGS1Tu4cTpa8>.

➤ Registration fee includes a registration kit, lunch and refreshments on all five days, special dinner on one day, and participation certificates (scanned copy by email and hard copy in person or by speed post).

➤ Student hostel facilities could be provided on demand, subject to availability and on payment basis.

➤ For further updates, please visit www.iiitdm.ac.in



Payment
Link



Registration
Form