



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

National Institute of Technology Rourkela is an institute of national importance created under the act of parliament. With different inclusive initiatives and the introduction of a standardized education policy, over the years, the Institute's graduates have been great performers at professional fronts in India and abroad. With the focus on teaching and learning across departmental boundaries, the mix-technology and management skills, NITians have been valuable assets to our country.

DEPARTMENT OF INDUSTRIAL DESIGN

Department of Industrial Design at National Institute of Technology Rourkela was established in 2010 to flourish in the emerging areas of design fields. NIT Rourkela provides quality education in a diverse and multi-cultural environment. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate students.

ABOUT THE COURSE

This 4-week course on Advance Robotics and Intelligent Manufacturing Systems is designed to provide participants with comprehensive knowledge and practical exposure to modern robotics, automation, smart manufacturing technologies and intelligent systems. The program covers the complete workflow from fundamentals to industrial applications with hands-on sessions, case studies, and emerging trends.

IMPORTANT DATES

- Course Duration
4 WEEKS
- Course Dates
22 JUNE – 22 JULY 2026
- Registration Period
15 MAY – 15 JUNE 2026

VENUE

- By Road – Rourkela is well connected by State Highway no. 10 and National Highway no. 23. It connects to the cities like Ranchi, Rajpur, Sambalpur, Bhubaneswar etc.
- By Rail – Rourkela railway station is 7 km away from the NIT campus. The Howrah-Mumbai line and Ranchi-Bhubaneswar line passes through this city.
- By Air – The airports near to Rourkela are Jharsuguda, Ranchi, Bhubaneswar, Rajpur and Kolkata.

CONTACT DETAILS

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NIT Rourkela
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- +91 82696 16386

4 WEEKS SHORT TERM COURSE ON

ADVANCE ROBOTICS AND INTELLIGENT MANUFACTURING SYSTEMS

— EMPOWERING AUTOMATION. ENABLING TOMORROW. —

22 JUNE – 22 JULY 2026

Hybrid Mode

— ORGANISED BY
DEPT. OF INDUSTRIAL DESIGN
NATIONAL INSTITUTE OF
TECHNOLOGY ROURKELA



Industry-Relevant
Expert Sessions



Hands-on
Learning



Advanced
Technologies



Certificate
of Participation

4-WEEK COURSE SCHEDULE

WEEK

01



ROBOTICS FUNDAMENTALS & SYSTEMS

Introduction to robotics, types of robots, robot kinematics and dynamics, end-effectors, sensors and actuators, robot programming basics and safety.

WEEK

02



AUTOMATION & CONTROL SYSTEMS

PLC & SCADA fundamentals, industrial communication, control logic, HMI, sensors integration and hands-on with automation platforms.

WEEK

03



INTELLIGENT MANUFACTURING & AIoT

Industrial IoT, data acquisition, machine learning for manufacturing, predictive maintenance, digital twins and smart factory concepts.

WEEK

04



ADVANCED MANUFACTURING & INTEGRATION

Flexible manufacturing systems, additive manufacturing, robotics integration, system simulation, industry case studies and project presentation.

MAJOR THEMES

- ✓ Robotics Fundamentals
- ✓ Automation & Control Systems
- ✓ Industrial IoT & AI Applications
- ✓ Advanced Manufacturing Technologies
- ✓ System Integration & Simulation
- ✓ Industry 4.0 & Smart Manufacturing



EXPERT
SESSIONS



HANDS-ON
WORKSHOPS



ADVANCED
TOOLS



PRACTICAL
LEARNING



INDUSTRY
EXPOSURE



CERTIFICATE
OF PARTICIPATION

REGISTRATION DETAILS

The following registration fee is applicable.

- Student : 1200 INR
- Academician/
R&D Lab : 2000 INR
- Industrialist : 3000 INR

Participants need to pay accommodation and food charges as per the institute norm separately.

PAYMENT DETAILS

The bank details for payment are

Name of the Account :
Conference NIT Rourkela
Account Number : 36734418111
IFSC Code : SBIN0002109
Bank Name : State Bank of India
Branch : SBI, NIT Campus, Rourkela
Address : SBI, NIT Campus,
Rourkela – 769008,
Odisha

SCAN & PAY (UPI)

UPI ID: 2804180418@sbi



Merchant Name:
Conference NIT Rourkela

After the payment of Registration fees, all participants are requested to fill the scanned registration form available on the link
<https://forms.gle/vFKn8ANYhUJm0i58>

REGISTRATION FORM



ORGANISING TEAM

Patron
Prof K Umamaheshwar Rao
Director, NIT Rourkela
Chairperson
Prof BBVL Deepak
Department of Industrial Design
NIT Rourkela
Principal Coordinator:
Prof Swapnil Shinde
Prof Ashish Shukta
(Department of Industrial Design
NIT Rourkela)
Coordinator:
Prof K Ch Sekhar
Prof Anil Kumar
(Lendi Institute of Engineering and
Technology Vizianagaram)

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