ROBOTICS & ADVANCED AUTOMATION

Eligibilty: B.E./ B.Tech.(Mechanical, Production, Electrical, EC, EEE, Automobile, Robotics & Automation, CS & IT, Mechatronics, IC or equivalent.) (Pursuing / Completed)(Year of passing: 2019-2026)

Modules:

1. Industrial Robotics
Introduction to Industrial Robot Simulations, Setting up Virtual Workcell, TCP & UserFrame/WorkObject Setup in Simulations, Various Hands-On Simulation Exercises, Introduction to Manipulator, Robot Controller & Teach Pendant, Jogging Exercises with Different Coordinate Systems, Hands-on Exercises of TCP Calibration, UserFrame/WorkObject, Robot Path Planning and Optimization with Motion Commands, Digital Input/Output programming and Control, Programming Loops and Conditional Statements, Electrical Architecture of Robot Controller, Manual and Automatic Operation Modes of Robot, Various Hands-On Exercises on Robotic Application, Robotic Welding Application with 2-Axis Positioner

2. PLC, SCADA & HMI
PLC programming, SCADA, HMI design, and sensors. Understand sensor principles, data acquisition, and real time monitoring. Proficiently troubleshoot and optimize industrial processes.

3. Collaborative Robots
Terminologies in Collaborative Robot, Risk Assessment for Cobot Installation, Importance of TCP, Payload, COG in Cobots, Offline Programming Simulator for Cobots, Robot Programming Basics, Robot Controller Architecture and Interface, Script Programming for Cobots, Hands-On Industrial Live Applications, Cobot Selection Guide for Beginners, Robotic Module Test and Practical Assessment

4. Mobile Robots
Introduction to Mobile Robots, Importance of AMR in Industries, Risk Assessment for AMR Installation, Payload Distribution and Stability in AMR, Mapping, Missions, Markers in AMR

5. Human skills
Interactive workshops, role-playing, and real-world simulations, fostering empathy, communication, adaptability, and leadership for holistic skill development

6. Industry Visits
Industry problems and solutions, addressing production, maintenance, and product development challenges to enhance efficiency and innovation within industrial settings

Admission Confirmation Fee: ₹ 5,000

COURSE FEES
₹ 23,000

DURATION
12 WEEKS

SCAN TO REGISTER

TATA IIS
TATA INDIAN INSTITUTE OF SKILLS

www.**tataiis**.org | www.**iismumbai**.org

Email: admissions@tataiis.org

Call & Whatsapp:
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Radhe Chouhan – 75979 53987

PLACEMENT ASSISTANCE AVAILABLE

SKILL LOAN
In partnership with: **SBI**