

# ROBOTICS & AUTOMATION FOR SMART FACTORIES

**Eligibility:** B.E. / B.Tech. (All Streams) | Year of Graduation: 2021 - 2025

## 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. 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

### 3. 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

### 4. Human skills

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

### 5. Industry Visits

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



**BUILD A CAREER IN  
ROBOTICS & AUTOMATION  
FOR SMART FACTORIES  
IN JUST 8 WEEKS**

Admission Confirmation Fee: ₹ 5,000

**COURSE FEES**

**₹ 23,000**

**DURATION**

**8 WEEKS**

SCAN TO REGISTER



# TATA IIS

TATA INDIAN INSTITUTE OF SKILLS

www.tataiis.org | www.iismumbai.org

✉ **Email:** admissions@tataiis.org

☎ **Call & Whatsapp:**

Milind Joshi - 99090 24218

Sayali Kakade - 81809 10612

Sachin Sawant - 76660 31618

Radhe Chouhan - 75979 53987

**PLACEMENT  
ASSISTANCE  
AVAILABLE**

**SKILL LOAN**

In partnership with: 