

## **About Us**

Adacode Solutions excels in innovative software solutions, specializing in IoT, Robotics, Cloud, Data Science, and more. Trust us as your partner for cutting-edge solutions, shaping the future of technology.

## We Provide

- **Scholarship for Students**
- **Education Loan**
- Life time Placement Support
- **Online and Offline Classes**
- Life time Access to course Materials

Call us for more info



+91 77369 72033 +91 90749 81793



#### **Industrial Experts**

We have industrial experts to teach you our courses.



#### 100% Genuine Placements

We offer 100% placement support.



#### Interview Assistance

We offer interview preparation assistance with industry experts.



#### **Collage Project Assistance**

We provide college final year project assistance.



#### **Aptitude Practice Sessions**

We offer aptitude sessions for comprehensive skill development.



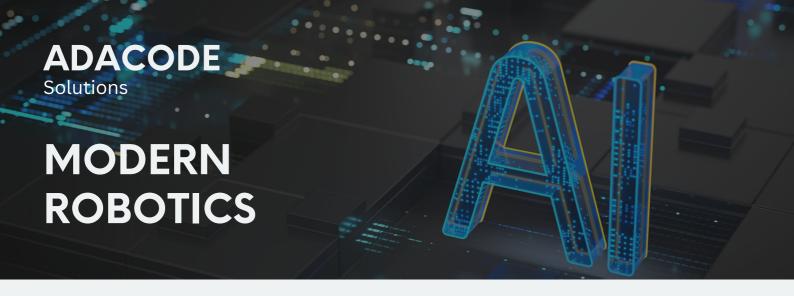
### **English Training**

We provide English training for effective language proficiency.



#### **Soft Skill Sessions**

We offer soft skill sessions for holistic professional development.



## Who Should Join This Course

- Tech enthusiasts seeking hands-on automation skills
- Professionals in engineering and tech industries.
- Students in technical fields seeking practical skills.

## **Course Details**

**Duration: 3 Months** 

10 Modules

**Unlimited Lab Access** 

**Final Project** 

**Project Certificates** 

**Course Certificates** 

**English Training Sessions** 

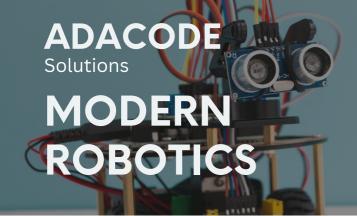
**Monthly Mock Interview Sessions** 

**IEEE Certified Projects** 

## **Course Content**

- Introduction to Robotics and Al
- Basics of Programming and Algorithms
- Mathematics for Robotics and Al
- Introduction to Al
- Robotics Fundamentals
- Computer Vision
- Machine Learning in Robotics
- Natural Language Processing (NLP) and Al
- Robotics and Al Ethics
- Project Work





# **Syllabus**

#### Module 1: Introduction to Robotics and Al

- Overview of Robotics and Al - Historical perspective
- Importance and applications

#### Module 2: Basics of Programming and Algorithms

- Introduction to programming languages (Python, C++)
  - Basic algorithms and data structures
    - Problem-solving techniques

#### Module 3: Mathematics for Robotics and AI

- Linear algebra
  - Calculus
- Probability and statistics

#### **Module 4: Introduction to AI**

- Machine Learning basics
- Types of learning algorithms
- Supervised and Unsupervised Learning

#### **Module 5: Robotics Fundamentals**

- Robot anatomy and kinematics
  - Sensors and actuators
  - Robot programming

#### **Module 6: Computer Vision**

- Image processing fundamentals
- Object detection and recognition
  - Applications in robotics

#### **Module 7: Machine Learning in Robotics**

- Reinforcement learning
- Neural networks and deep learning
- Case studies in robotic applications

# Module 8: Natural Language Processing (NLP) and

- Basics of NLP
- AI-driven language models
  - Conversational AI

#### Module 9: Robotics and AI Ethics

- Ethical considerations in AI and robotics
  - Bias and fairness
  - Responsible AI practices

#### Module 10: Project Work

- Practical application of learned concepts
  - Group projects on robotics and AI
    - Presentations and discussions

#### **Assessment and Certification**

- Final exams
- Project evaluations
- Course completion certificates



