



AVERIXIS SOLUTIONS IOT & ROBOTICS

MENTORSHIP PROGRAM

60 DAYS

GET A FREE
HARDWARE KIT

WHO WE ARE?

The Starting Point For Your Career Path

We help undergrad and post grad students struggling to get industrial experience with our Training + Internship programs which help them to become corporate-ready individuals and possess the skillset to take on any challenges without any self-doubt.

Take the Right Turn, With Us!

Starting Point For Your Career Path

Our Mission & Vision

We help undergrad and post grad students struggling to get industrial experience with our Industry Grade Mentorship programs which help them to become corporate-ready individuals and possess the skillset to take on any challenges without any self-doubt.



Mission

Our aim is to become one of the most preferred education technology platforms across the globe.



Vision

We envision a world in which each student receives the effective, equitable, and engaging education they need to reach their full and unique potential.

Lesson Plan

Month 01

› Overview of IoT and Robotics

Introduction to the concepts of Internet of Things (IoT) and robotics.

Discussion on the importance and applications of IoT and robotics in various fields.

› Basics of Electronics and Microcontrollers

Overview of basic electronic components and circuits.

Introduction to microcontrollers and their role in IoT and robotics projects.

› Introduction to Arduino and Programming

Introduction to the Arduino IDE and programming environment.

The basics of programming Arduino using the C/C++ language.

› Sensors and Actuators in IoT

Understanding the different types of sensors and actuators used in IoT applications.

Discussion on how sensors and actuators interact with the physical world.

› IoT Platforms and Cloud Services

Overview of IoT platforms and cloud services.

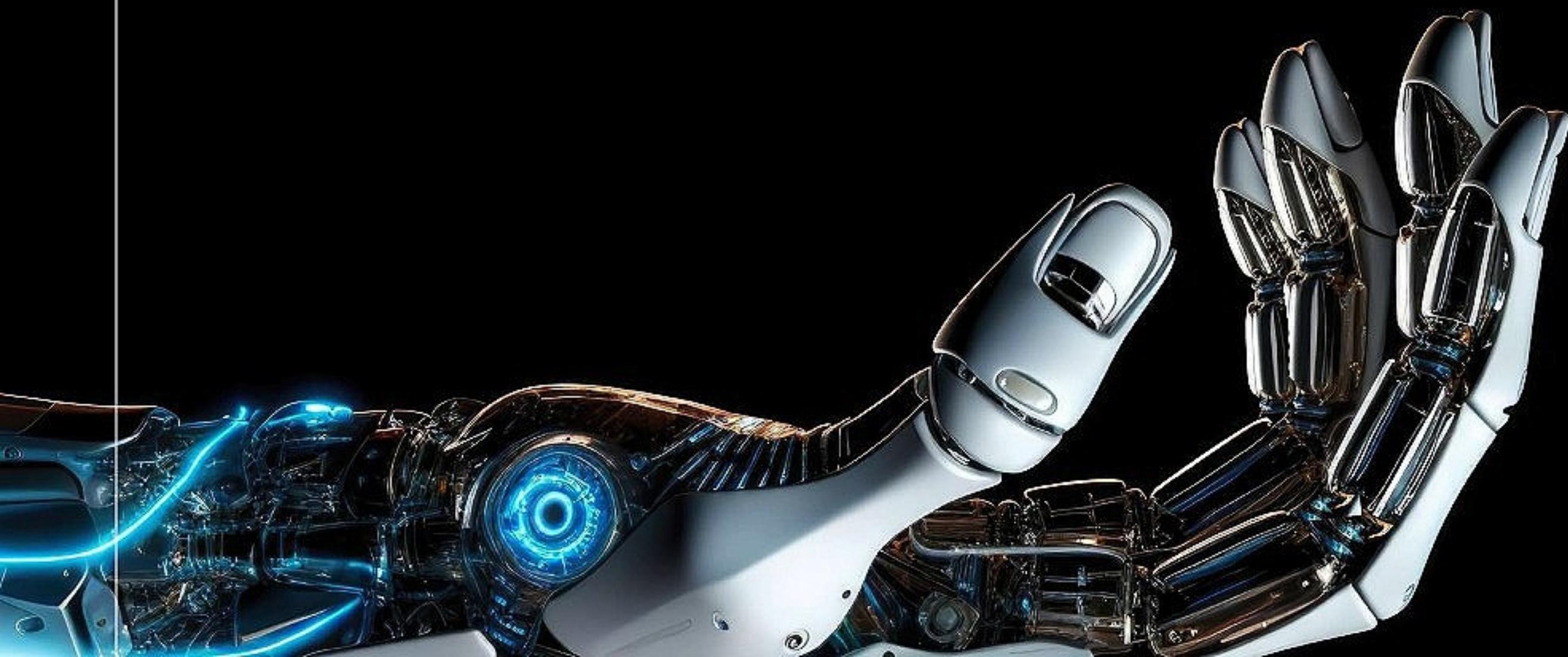
Introduction to platforms such as Arduino IoT Cloud, Blynk, and Cayenne.

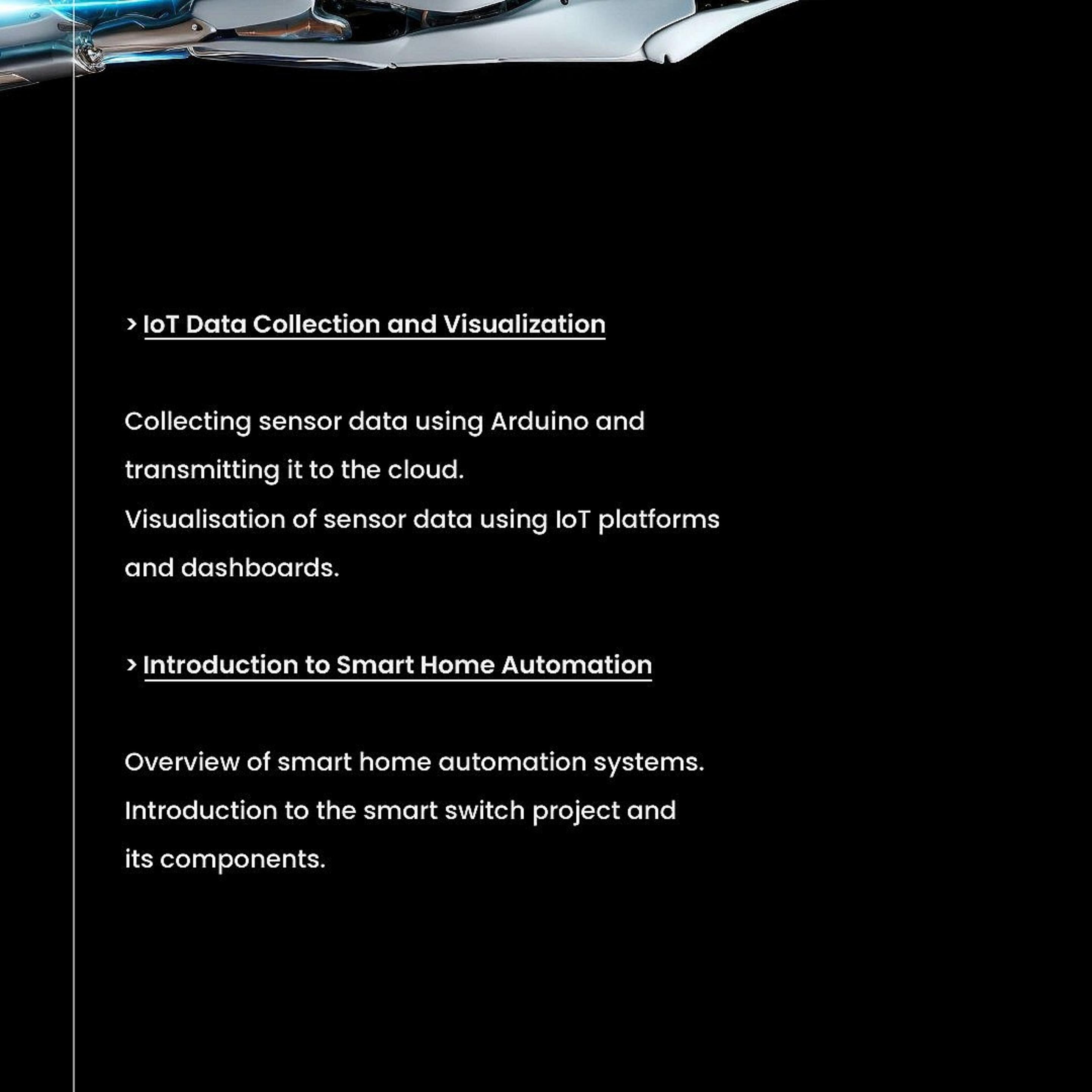
› IoT Project Development

Building IoT Applications with Arduino

Introduction to building IoT applications using Arduino.

Hands-on session on connecting sensors and
actuators to Arduino





› IoT Data Collection and Visualization

Collecting sensor data using Arduino and transmitting it to the cloud.

Visualisation of sensor data using IoT platforms and dashboards.

› Introduction to Smart Home Automation

Overview of smart home automation systems.

Introduction to the smart switch project and its components.

› **Implementing the Smart Switch Project (Part 1)**

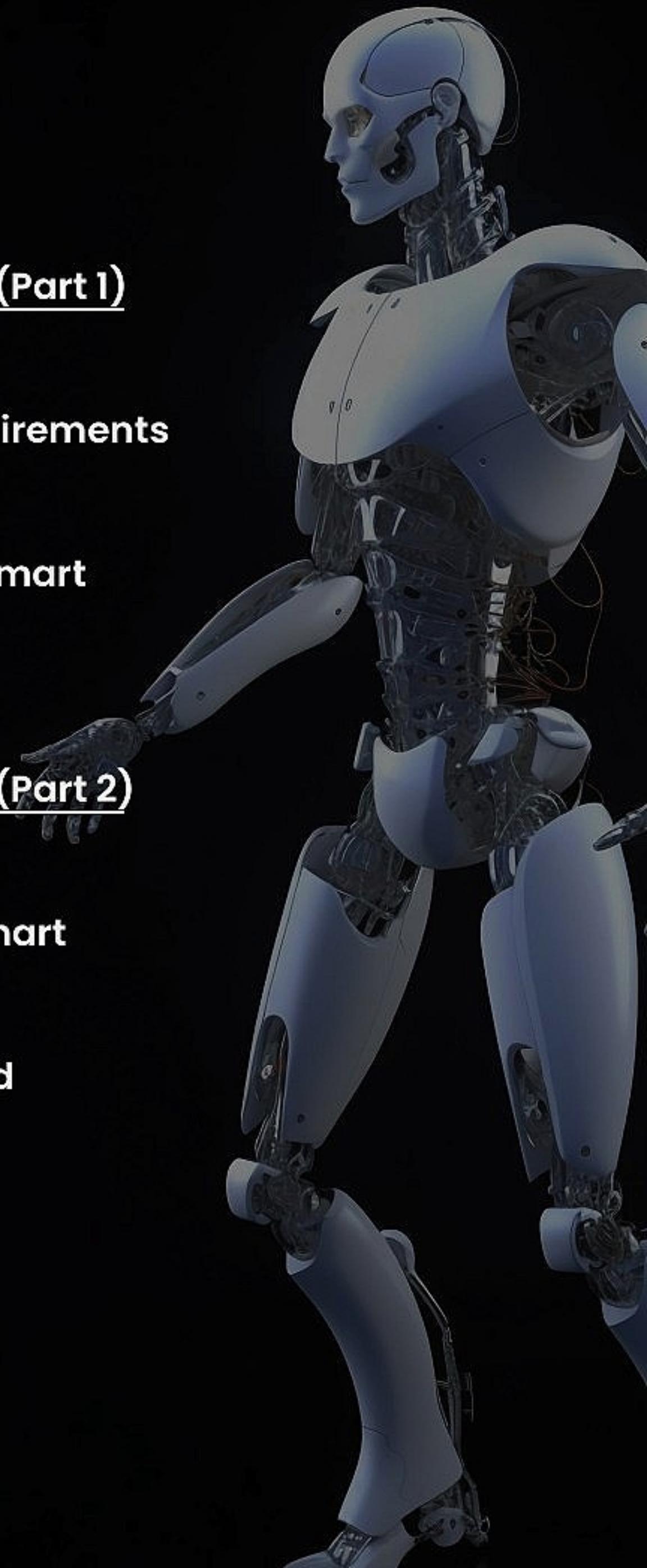
Understanding the functionality and requirements of the smart switch project.

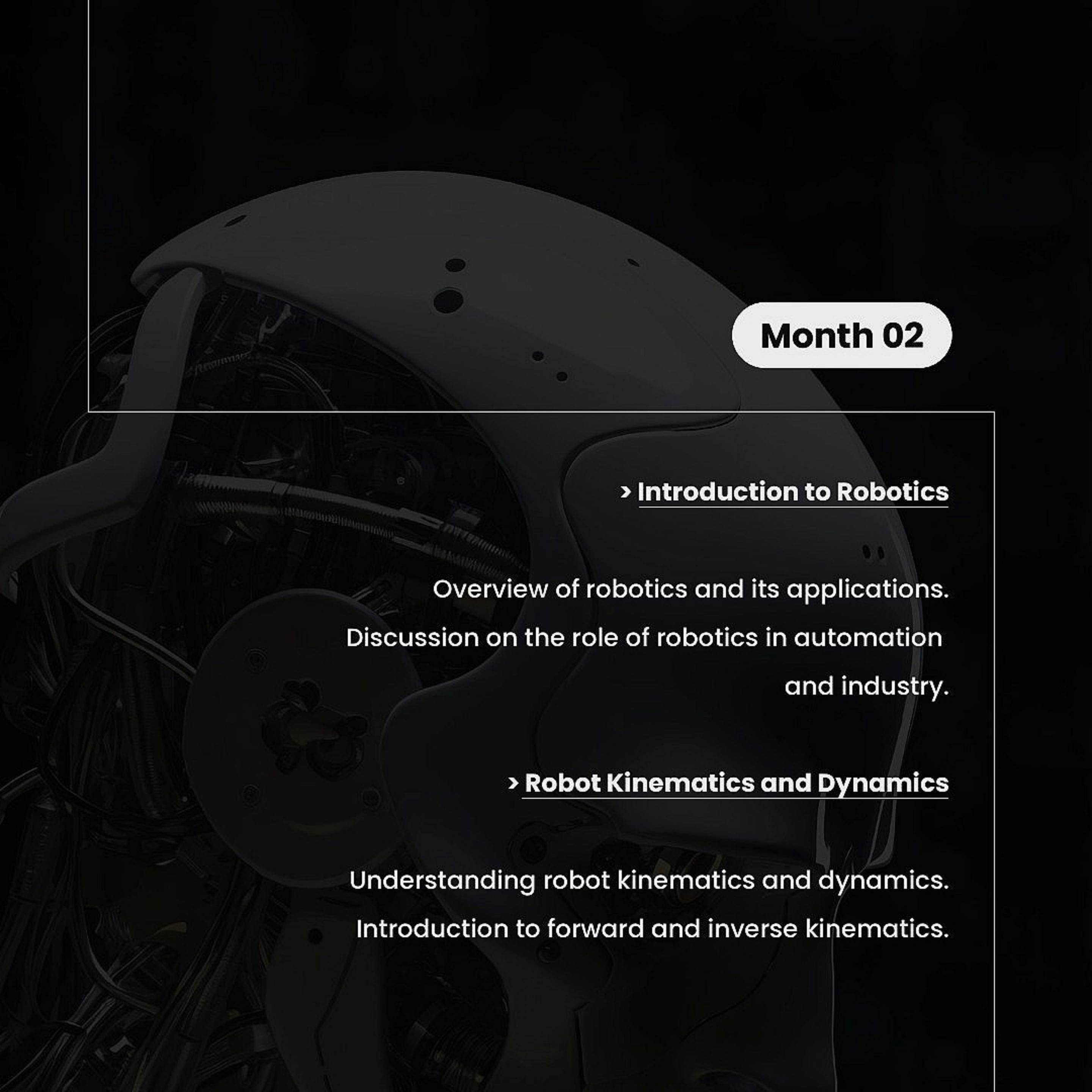
Hands-on session on programming the smart switch using Arduino.

› **Implementing the Smart Switch Project (Part 2)**

Completing the implementation of the smart switch project.

Testing the smart switch functionality and integration with IoT platforms.





Month 02

➤ Introduction to Robotics

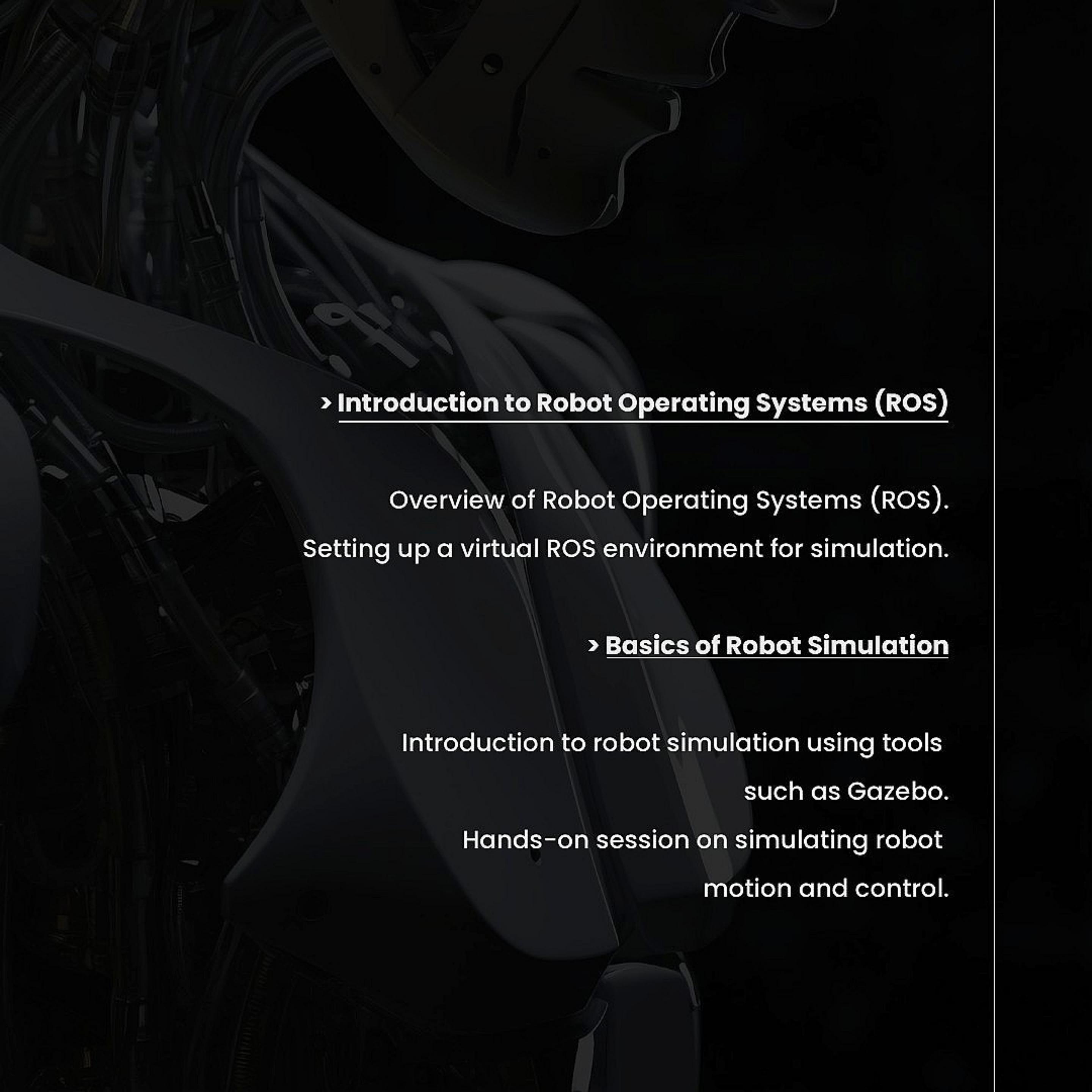
Overview of robotics and its applications.

Discussion on the role of robotics in automation
and industry.

➤ Robot Kinematics and Dynamics

Understanding robot kinematics and dynamics.

Introduction to forward and inverse kinematics.



› **Introduction to Robot Operating Systems (ROS)**

Overview of Robot Operating Systems (ROS).
Setting up a virtual ROS environment for simulation.

› **Basics of Robot Simulation**

Introduction to robot simulation using tools
such as Gazebo.
Hands-on session on simulating robot
motion and control.

› Project Planning for Virtual Robotics

Planning and designing a virtual robotics project.

Identifying project requirements and defining project objectives.

› Robotics Project Development

Virtual Robot Design and Implementation

Designing a virtual robot model for simulation.

Implementing robot control algorithms in a simulated environment.

› Path Planning and Navigation

Introduction to path planning algorithms for robotics.

Implementing navigation algorithms for virtual robots

› Object Detection and Manipulation

Introduction to computer vision for robotics.

Implementing object detection and manipulation algorithms.

› Advanced Robotics Concepts

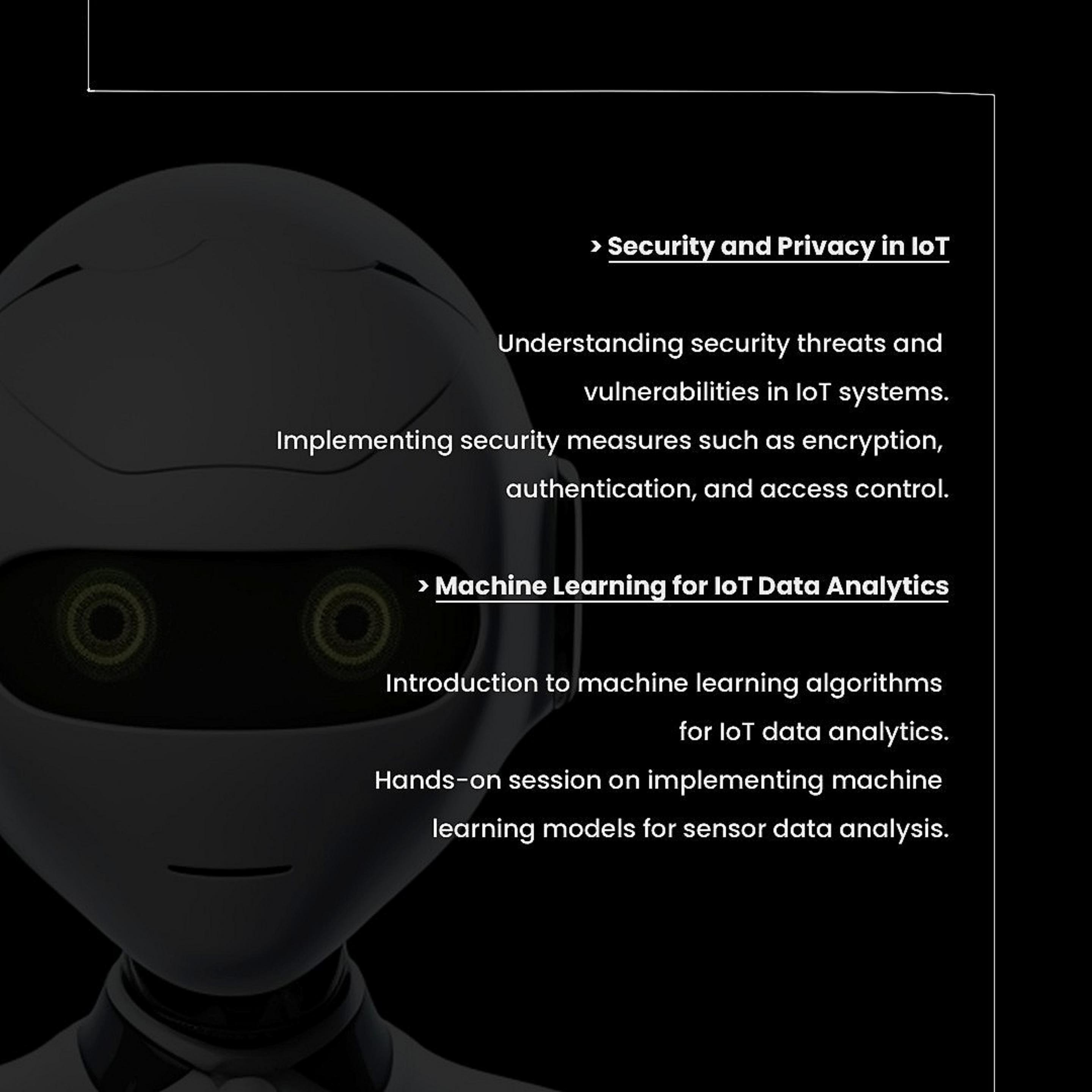
Discussion on advanced robotics concepts such as machine learning and artificial intelligence.

Exploration of emerging trends in robotics research.

› Advanced IoT Protocols and Communication

Exploring advanced IoT protocols such as MQTT, CoAP, and LoRaWAN.

Discussion on communication techniques and standards for IoT devices.



› **Security and Privacy in IoT**

Understanding security threats and vulnerabilities in IoT systems.

Implementing security measures such as encryption, authentication, and access control.

› **Machine Learning for IoT Data Analytics**

Introduction to machine learning algorithms for IoT data analytics.

Hands-on session on implementing machine learning models for sensor data analysis.

» Robotics in Industry 4.0

Overview of Robotics in Industry 4.0 and
Smart Manufacturing.

Discussing the integration of IoT, robotics, and
AI in industrial automation.

» IoT and Robotics for Smart Cities

Exploring the role of IoT and robotics in
building smart cities.

Case studies and examples of IoT-enabled
infrastructure and services.

» Future Trends and Career Opportunities

Discussion on future trends in IoT and robotics,
such as edge computing, swarm robotics, and
human-robot collaboration.

Exploring career opportunities in the fields of IoT,
robotics, and smart technologies.

Our Collaborated Companies



Our Alumni Work At



SUPPLEMENTARY PERKS



Resume Building Session



Our Courses Give You Hands On Experience With
Mock Interviews

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