



Wireless Robotics Workshop

Session 1:

Introduction to Robotics

- Introduction
- Laws of Robotics
- Characteristics
- Introduction of Embedded System
- Information about Robots

Basic of Electronics

- Ohm's Law
- Series & Parallel Circuit
- Practical use of Multimeter

Session 2:

Basic of Electronics II

- Resistors
- Capacitors
- Diodes
- Transistors

Digital Electronics

- Binary Data
- Binary Conversions

Session 3:

Logic Gates



- *NOT Gate*
- *AND Gate OR Gate*
- *Practical using Transistor*

Wireless Communication

- IR Communication RF
- Communication Bluetooth
- Communication Wi-Fi
- Satellite Communication

Motors

- AC Motors
- DC Motors
- DC Geared Motors
- L293D IC

Session 4:

Data Transmission

- Encoder
- Decoder
- Address Bit Selector
- RF Communication

Assembling of Wireless Kit

Projects Covered:

- *Led Glowing*
- *Serial Circuit Practical*
- *Parallel Circuit Practical*

Making Gates:-

- *NOT Gate*
- *AND Gate*



- *OR Gate*
- Working of L293D using Tactile Switch Controlling of DC Motor Speed Wireless Robot

Kit Component

- Resistors Transistors
- Tactile Switch
- Male Burg Sticks
- Bread Board
- LED
- Wireless Kit
- DC Motors & Connecting Wires