

# **Touch & Augmented Reality**

## Content Outline:

### **Introduction to Robotics**

What is robotics?

Future of robotics

### **Understanding Robot Locomotion**

Tracked robots

Biped robots

Wheel robots

### **Basic Electronics**

Basic components

Logic Gates

OP-AMP

Oscillators

### **Understanding actuators**

DC Motor

Stepper motor

### **Introduction of Microcontroller**

Different families of microcontroller

Basic features of microcontroller

### **Introduction of Arduino/Freduino Boards**

Internal structure of Arduino

Wiring & Programming IDE

### **Introduction of Bluetooth module**

Basics of Bluetooth

Bluetooth connections between to devices

Bluetooth module with Arduino

## **Introduction to Android**

Introduction to different types of android applications

Communication between android device & an embedded system

## **Introduction to L293D (Motor driver)**

Introduction to actuators

Introduction to NPN & PNP transistor switching

Working of motors

## **Creating your Android controlled robotics**

Assembling

Assembling robot and circuitry

Programming

Coding

Burning program within microcontroller

Testing

Functioning of a Robot

After attending this workshop, you can make your own android voice and touch controlled robot and also will learn the basic concepts related to robotics & embedded systems.

## **Instructions:**

- 1) Participation certificate to each participant.
- 2) 10% discount on summer/winter training program by INFIZEAL TECHNOLOGIES.
- 3) Lifetime email support for participants.