

## **Project Objectives**

### **By the end of this project you will:**

- Gain knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
- Explore python client libraries of Watson IoT Platform.
- Gain knowledge on IBM Cloudant DB
- Configuring APIs using Node-RED for communicating with a mobile application.
- Creating a Mobile Application through which the user interacts with the IoT device.

### **Project Flow:**

- The parameters like temperature, humidity, and soil moisture are updated to the Watson IoT platform
- The device will subscribe to the commands from the mobile application and control the motors accordingly
- APIs are developed using Node-RED service for communicating with Mobile Application
- A mobile application is developed using the MIT App inventor to monitor the sensor parameters and control the motors.

### **To accomplish this, we have to complete all the activities and tasks listed below:**

- Create and configure IBM Cloud Services
  - Create IBM Watson IoT Platform
  - Create a device & configure the IBM IoT Platform
  - Create Node-RED service
  - Create a database in Cloudant DB to store all the sensor parameters
- Develop a python script to publish and subscribe to the IBM IoT platform
- Configure the Node-RED and create APIs for communicating with mobile application
- Develop a mobile application to display the sensor parameters and control the motors