

## **IDEATION PHASE PROBLEM STATEMENT**

Date	09 NOVEMBER 2022
Team ID	PNT2022TMID28957
Project Name	Project – IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	2 Marks

### **CUSTOMER PROBLEM STATEMENT:**

I am	a farmer
I'm trying	to yield more crops by using sensors
But	lack of internet facility
Because	there is no continuous internet connection in rural areas
Which makes me feel	disappointed

### **PROBLEM STATEMENT:**

- The significant problem which raises the requirement of this project was that the traditional agriculture method consumes time, manual labor work and is also not cost efficient.
- The detected signal from the soil moisture sensor is processed by a conditional comparator circuit corresponding to different levels of actual soil moisture content. A logic circuit follows the conditional circuit with its output signals used to

activate a system of relays that control the power circuit of the motors used for water pumping.

- IOT is developing rapidly and widely applied in all wireless environments. In this paper, sensor technology and wireless networks integration of IOT technology has been studied and reviewed based on the actual situation of agricultural system. A combined approach with internet and wireless communications, Remote Monitoring System (RMS) is proposed.

- The system consists of esp8266 (nodeMCU), soil moisture sensor, dihydrogen monoxide sensor, GPRS and GSM module, servo motor, dihydrogen monoxide pump, etc. to obtain the required output.

- The system was powered by photovoltaic panels and had a duplex communication link based on a cellular-Internet interface that allowed for data inspection and irrigation scheduling to be programmed through a web page.