Boodskap
Network of Things

BSKAP-A-THON 2k18 IoT Competition

Smart Farming e-Monitoring System

TEAM MEMBERS

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4) KRISHNA

PROBLEMS FACED BY FARMERS

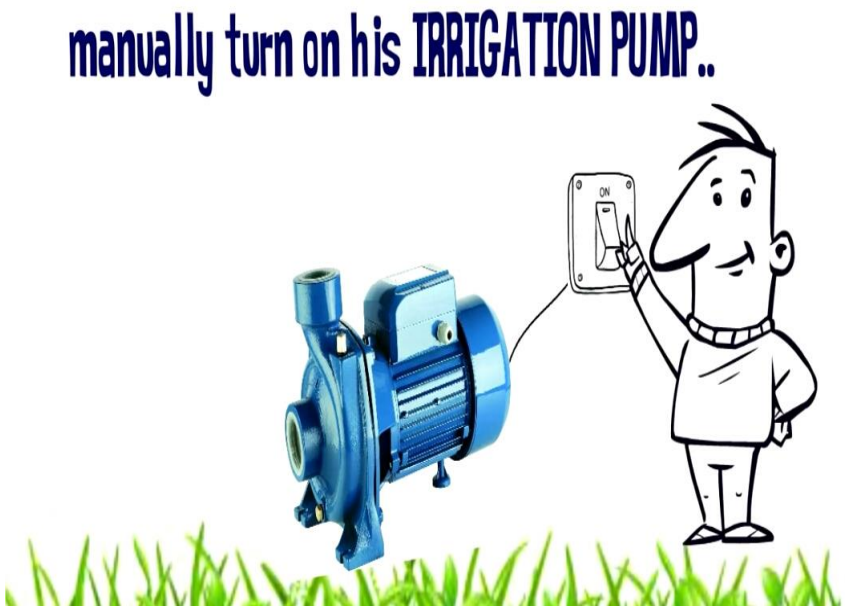
- In India about 70% of population depends upon farming and one third of the nation's capital comes from farming
- Farmers were struggling hard in the agricultural fields round the clock.
- In the agricultural sector, water pumps are used for irrigating small tracts of land from tube wells or open wells.

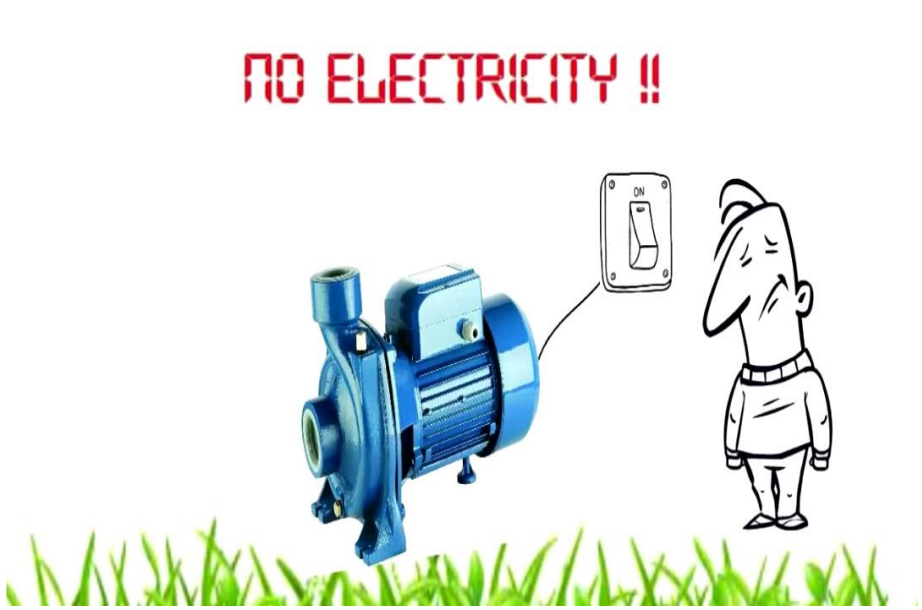
the scorching SUN..

fierce RAIN..

- **Agriculture receives power mostly during mid night as this reduces the cost of electricity supply for the transmission and Distribution Company. The farmers have to be on their guard all the time due to the unpredictable nature of supply of electrical energy.**

- **And the farmers have to switch on their motor after electricity supply resumes.**
- **Due to their negligence, sometimes they switch on the motor and then forget to switch off, which may leads to wastage of water.**





SOLUTION

- ✓ To overcome this problems, we are going for ‘Smart Farming e-Monitoring System’ to monitor the real time farming processes with critical historical data, such as weather events, climate changes, resources' availability, economics, product information
- ✓ This Product is turning out to be an eye-opener to the whole world considering the realistic and innovative prospects offered in the domain.

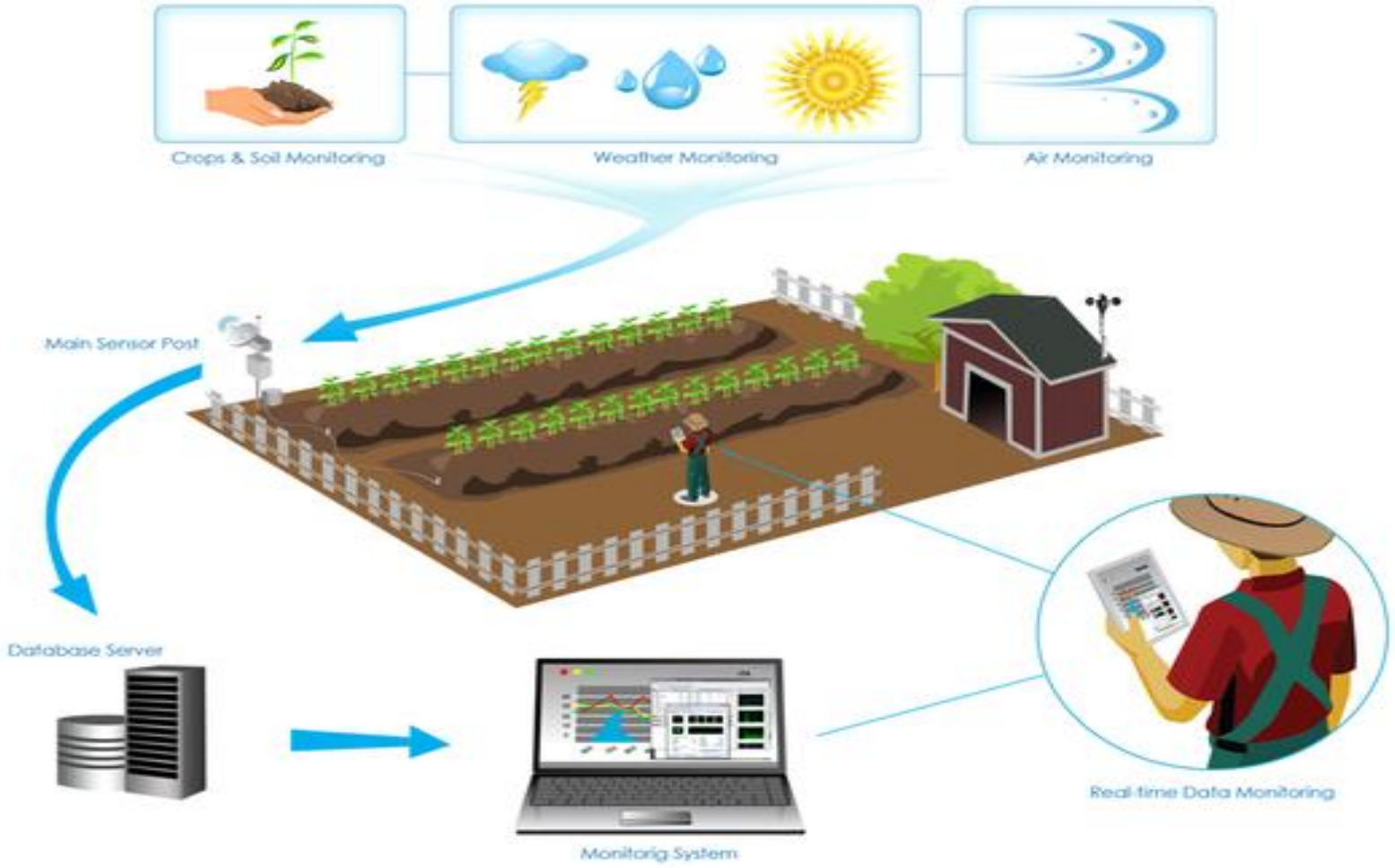
MARKET OVERVIEW

- **Since, India is an Agricultural country, this product is feasible for all types of Farmers cultivating different types of crops.**
- **With the world's population growing day by day, and land resources remaining unchanged, there is a growing need in optimization of agricultural productivity, and this can be achieved by automation of agriculture.**
- **Growth in agricultural sector is necessary for the development of economic condition of the country.**

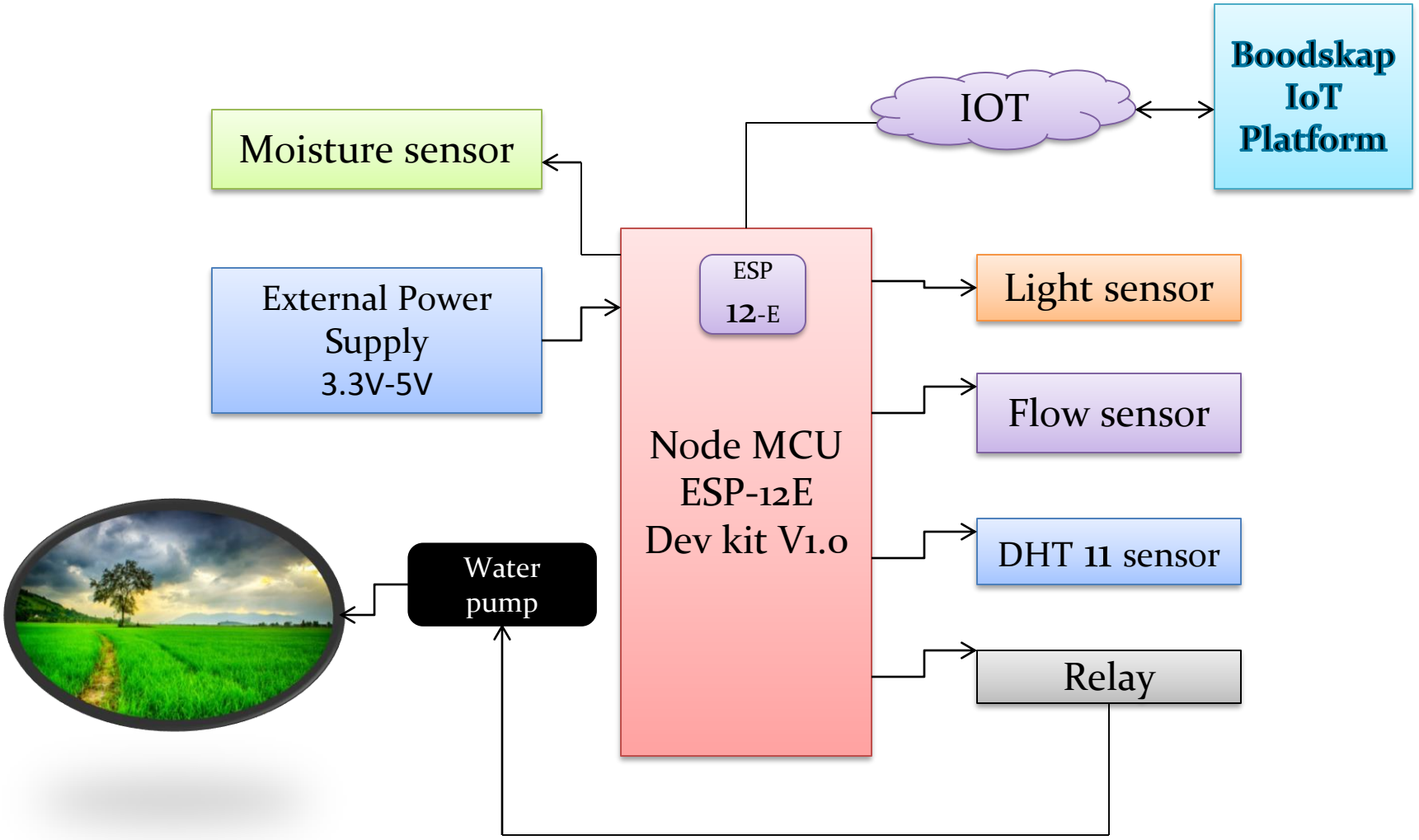
TARGET CUSTOMERS

- The Customers we are targeting is the Farmers by giving low cost agricultural products.
- Now a days Government is offering discounts to Farmers to use the new technology products for agriculture.
- This product we have developed is for social cause and thus by collaborated with Government it will be delivered to all the customers especially farmers.

TECHNOLOGY USED



FUNCTIONAL FLOW CHART



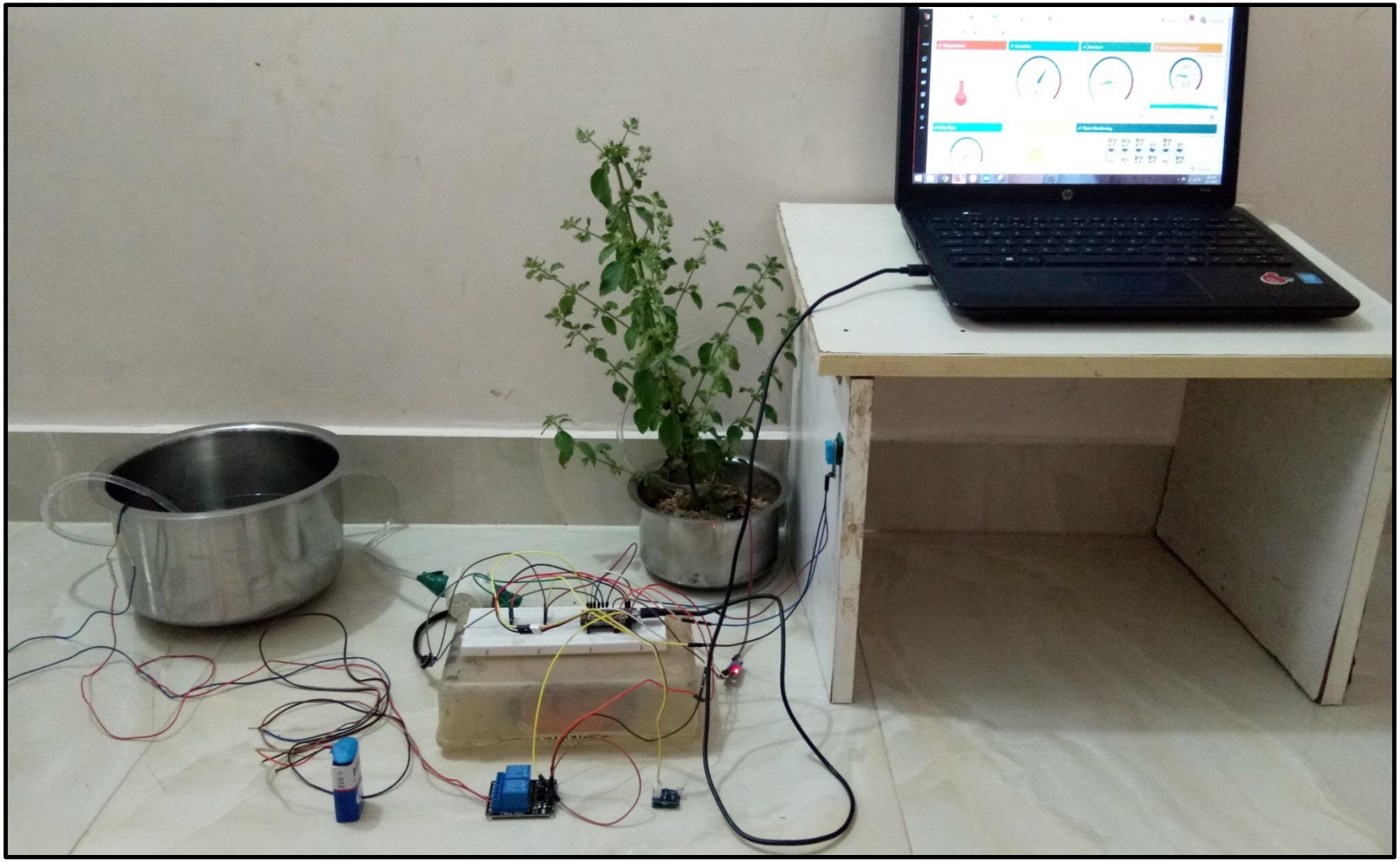
REQUIREMENTS

SOFTWARE	HARDWARE	SYSTEM
Arduino IDE	**1.** Node MCU **2.** Relay **3.** DHT11 Sensor **4.** Moisture Sensor **5.** Light Sensor **6.** Flow Sensor **7.** 6V DC motor **8.** 9V Battery **9.** Bread Board **10.** Jumper Wires **11.** USB Cable **12.** 1 inch Water Pipe	Laptop/ Mobile Phone

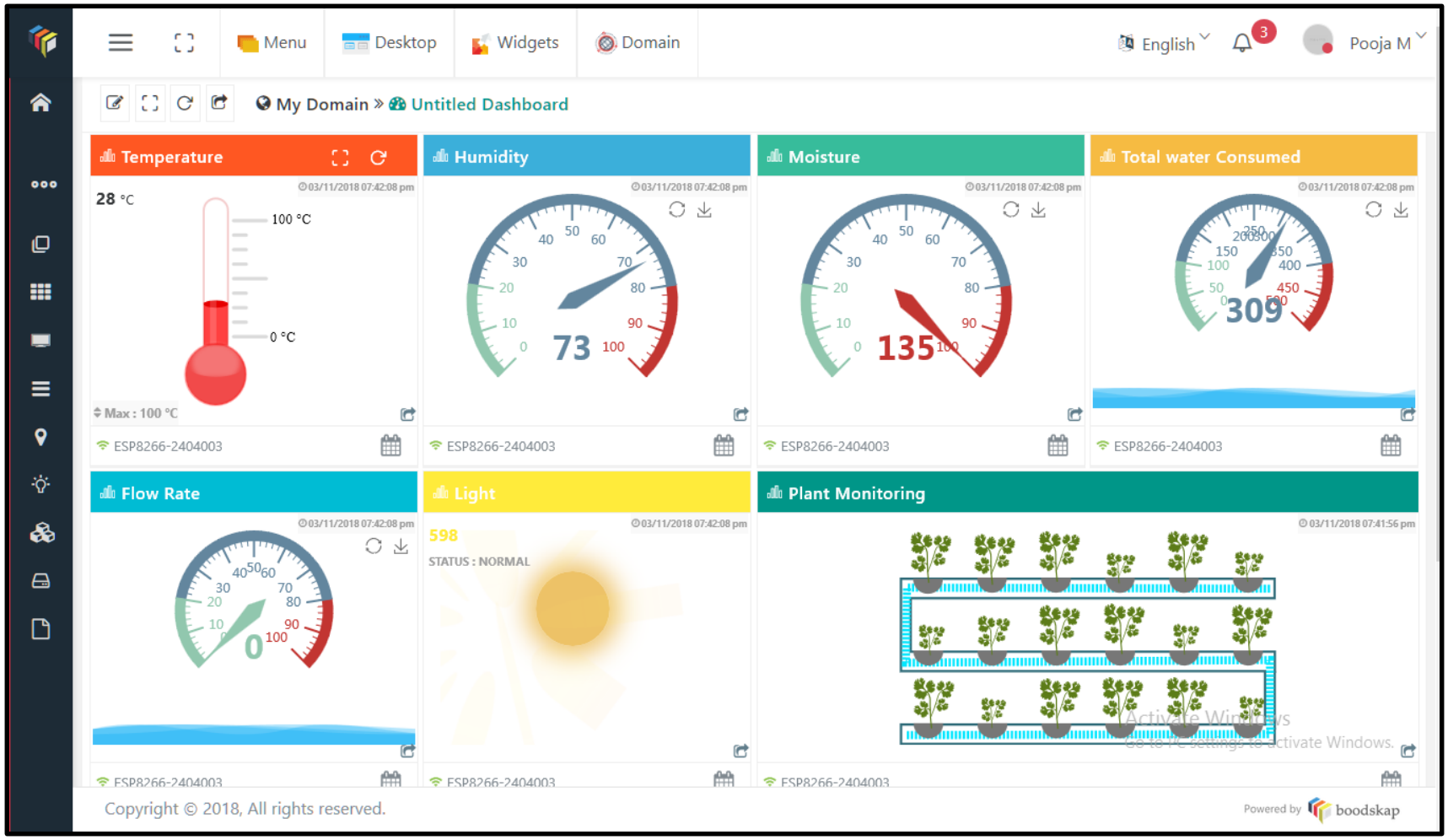
BOODSKAP IoT PLATFORM

- It is a Powerful and Flexible platform.
- It has its own Boodskap Server.
- It is a digital dashboard where we can build a graphic interface for our project by simply dragging and dropping widgets.
- It works on the Web Application.

EXPERIMENTAL SETUP



BOODSKAP DASHBOARD-1



BOODSKAP DASHBOARD-2

KEY DIFFERENTIATOR

- ✓ **Proper usage of Water for irrigation facilities thus reduces wastage of water.**
- ✓ **Less Power consumption.**
- ✓ **Maximize the food production and minimize the environmental impacts.**
- ✓ **Man power will be reduced.**

COST ANALYSIS

- **Cost of the system is very less when compared to other existing Systems.**
- **This Product which is more compatible to use.**
- **It is also non obtrusive in nature which makes it more advantageous.**
- **It is very accurate in giving notifications to the farmers through the mobile phone.**

FUTURE PLANS

- The future of the technology is that implementation of machine learning using sensors data can lead to optimized fertilizer suggestions.
- The sensors can also be scaled up to be used in Drones and Tractors for cultivation.
- Hydroponics Farming System.
- Using Drones for spraying Fertilizers to the affected crops.
- The data gathered can be used to find efficiency of a certain yield.

THANK YOU

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