TECHNOCHAMP 2017

Project Title: **FARMONITOR**

Group members

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Introduction

Every year 40% of the farmers lose their crops because they don't take care of their field or they rather don't know what is good for their field. Hence, for their benefit we introduce "FARMONITOR" to change their style of doing work and to make their life much easier. This will definitely give them a wider idea about all the problems they are facing due to lack of knowledge. It will work just like a prim consultant and the solution for their basic problems.

Brief Description

"FARMONITOR" is a system for the farmers, which is made by combining some sensors, microcontrollers and machine learning. This will create an efficient way to tell the farmers what seeds are best, what fertilizers are needed, what nutrients lack in the soil and what to do to get the nutrients back, along with an automatic irrigation system to keep plants healthy.

 We will create small hubs using sensors like Temperature Sensor, Humidity Sensor, Soil moisture, sunlight intensity Sensor, PH Sensor and place them in the field. The field will be divided into patches so that, it will be easier to monitor. These hubs will also contain a microcontroller which will keep on reading data from these sensors

and send it to the server. The server will process all the data to give an efficient and cheaper way to increase crop health and production. The server will also monitor the weather forecast around the area.

This server will then send a report to the farmer's smart phone, helping to monitor the crops from anywhere.

The App will also alert farmers about any hazards or if the water in the irrigation tanks is less. It will also have control over the Irrigation Pipeline System and can be switched using the Application.

CONCLUSION

Using Machine learning, our server will process the data with the weather forecast to improve field production thereby increasing the farmer's profit.