

SMARTFARMER – IoT ENABLED SMART FARMING APPLICATION

ABSTRACT

Farming is a major input sector for economic development of any country. Livelihood of majority of population of the country like India depends on agriculture. In this project, it is proposed to develop a Smart Farming System that uses advantages of cutting edge technologies such as IoT, Wireless Sensor Network and Cloud computing to help farmers enhance the way farming is done. Using sensors like temperature, humidity, moisture etc. are used to get information about the field and help farmers to take precise decisions on insights and recommendations based on the collected data.

PROPOSED SOLUTION

Our proposed system concentrates on monitoring the farming conditions through sensors like Humidity, Temperature, and soil moisture; LDR is used to sense the light intensity for the farm, and also IR sensor is used to detect the pest, birds, and humans by their body temperature and alerts the user through the message format to their mobile. These sensors are the interface to process module Arduino-UNO. The LCD is used to display the status of different sensors. When there is a change in temperature condition, the sensor detects and turns ON the DC and cools down the condition. After the temperature comes to a normal state, the DC fan will turn OFF. LDR (Light Dependent Resistor) is used to detect the light intensity in the farm. When the light intensity is less on the farm, the LDR senses the condition and turns ON the bulb. When the required light intensity is back, the bulb will turn OFF. The soil moisture sensor is used to sense the moisture level in soil (water level) when the water levels are reached low in the ground. The ground gets dry, and the sensor detects it, then turn ON the DC water pump. When floor gets moisturized, the DC water pump will turn OFF. The user can monitor these conditions in mobile phone with the help of Wifi module through IOT mobile app.

SOCIAL IMPACT

1. The time has been saved.
2. The product sales also get increased.
3. Farmer get commercially stable.
4. IoT devices provide better communication.