IBM

LITERATURE SURVEY

SMART FARMER – IOT ENABLED SMART FARMING APPLICATION

Team Details

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Literature Survey on “Smart Farmer – IOT Enabled Smart Farming Application”

Reference	Technologies used	Advantages	Disadvantages
[1]	Microcontroller: CC3200 Chip, MCU Communication Technologies: MMS, Wi-Fi Module Sensors: Camera, Temperature Sensor, Humidity Sensor	• Sends the information about humidity and temperature in air of field to farmer. • Uses MMS technology to send captured images.	• MMS adds extra cost • No automatic support system
[2]	Microcontroller: ATMEGA328P Cloud server: Adafruit Server Communication Technologies: Wi-Fi Sensors: Soil Moisture Sensor	• Controlling the actions of motor pump (ON/OFF) based on the threshold value.	• No sprinkles • No smart drains • No automatic support system
[3]	Microcontroller: Arduino Cloud server: ThingSpeak Sensors: Light Intensity, pH, Electrical Conductivity, Water Temperature, Relative Humidity	• Hydroponic System • Bayesian Network Model • System has manual and automatic mode	• Extremely computationally expensive model
[4]	Microcontroller: Arduino UNO Cloud server: ThingSpeak Communication Technologies: Wi-Fi Sensors: Water Level Sensor, Moisture Sensor	• Farmers can monitor their fields remotely • Irrigation control system	• Lack of automated decision support system
[5]	Microcontroller: Arduino Sensors: Temperature Sensor, Humidity Sensor, Soil Moisture Sensor	• Data regarding sensors stored on server and user can view via GUI application.	• Decision making is rely on user or farmer • No automatic support system

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