

IBM PROJECT

LITERATURE SURVEY

Smart Farmer – IoT Enabled Smart Farming Application

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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	<ul style="list-style-type: none"> Sends the information about humidity and temperature in air offield to farmer. Uses MMS technology to sendcaptured images. 	<ul style="list-style-type: none"> MMS adds extra cost No automatic support system
[2]	Microcontroller: ATMEGA328P Cloud server: Adafruit Server Communication Technologies: Wi-Fi Sensors: Soil Moisture Sensor	<ul style="list-style-type: none"> Controlling the actions of motor pump (ON/OFF) based on the threshold value. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Hydroponic System Bayesian Network Model System has manual and automatic mode 	<ul style="list-style-type: none"> Extremely computationally expensive model
[4]	Microcontroller: Arduino UNO Cloud server: ThingSpeak Communication Technologies: Wi-Fi Sensors: Water Level Sensor, Moisture Sensor	<ul style="list-style-type: none"> Farmers can monitortheir fields remotely Irrigation controlsystem 	<ul style="list-style-type: none"> Lack of automated decision supportsystem
[5]	Microcontroller: Arduino Sensors: Temperature Sensor, Humidity Sensor, Soil Moisture Sensor	<ul style="list-style-type: none"> Data regarding sensors stored on server and user canview via GUI application. 	<ul style="list-style-type: none"> Decision making is rely on user or farmer No automatic support system

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