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

## REFERENCES :

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- [5] Kiani F., and Seyyedabbasi A. (2018). Wireless Sensor Network and Internet of Things in Precision Agriculture. International Journal of Advanced Computer Science and Applications, 9(6). doi: 10.14569/ijacsa.2018.090614.