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1:humidity sensor 2.
temperature

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SMART FARMING: AN IOT BASED MONITORING SYSTEM M.

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Abstract: Smart farming has been introduced in many countries and in India agriculture needs to be modernized with the introduction of technologies for production improvement. In this paper smart farming based on Internet of Things was proposed in which humidity sensors and temperature sensors are used to take the reading of the test soil and depending on the reading water pump will be automatically powered on/off. With which human intervention can be reduced to a maximum

Keywords: agriculture, Internet of Things, Sensors
Introduction: In India most of the agriculture is completely involves human intervention like human needs to see the fields and depending on the condition he has to turn the pump on and needs to wait till fields get sufficient water and then human turns off the pump. In most of the villages government will not provide 24 hrs current facility and current will be given in the rotation basis for 8 hrs and so. And the farmer needs to wait for the current to come and see the fields and turn on/off the pump depending on the requirement. Night times its very dangerous for the farmers so many farmers are losing their lives. **Proposed Model: Devices Used: 1.**

Humidity Sensor: This sensor is responsible for measuring the humidity in the sample soil and this will be reported. Fig 1: Humidity Sensor 2.

Temperature Sensor This Sensor is responsible for measuring the changes made in the test soil and this will be reported. Fig 2: Temperature

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Sensor 3. PressureSensor Using this sensor the water pressure from the pump is identified and then farmer will be intimated about the time to fill fields with water. Fig. 3 PressureSensor4.

RainSensor Rain Sensor is used to identify the rain and it can be used for rain water harvesting. Fig. 4 Rain Sensor 5. PIRSensor Fig5.

PIR Sensor PIR Sensor is responsible to detect the motion of the animals and intruders and report it to the farmer by activating the camera. 6. Camera Fig. 6 pi Camera Pi Camera is used to take video of the intruder and this can be activated by PIR sensor. And the video will be sent to the farmer. 7.

GSM Module Using which the information can be sent to the mobile phone of the farmer. 8. WiFi Module Using which the information can be sent to the application. 9. Pump Pump is used to facilitate water supply to the fields.

Proposed System: Fig. 7 shows the block diagram of the proposed Model and this model is used to improve the productivity and reduce the resource utilization Fig 7: Block diagram for proposed system Farmer will

install the system in the test soil and humidity sensor will sense the humidity in the soil and the temperature sensor is going to send temperature to the farmer and simultaneously we will power on the motor and supply water to the fields if necessary depending on the reading taken from humidity and temperature sensor and water flow and pressure sensor is used to estimate the time taken for pump to fill the fields with enough water, and rain drop sensor is used to sense the rain and to perform rain water harvesting and PIR motion sensor is used to identify the intruders and activate the camera to take the video of the intruder and send it to the farmer to take necessary

actions. GPRS module and WiFi module is used to send information from the set/kit to the farmer.

Conclusion: Smart Agriculture improves productivity and saves lives of the farmer in most dangerous situation, it takes various measures into account and automatically turns on/off the pump and simultaneously sends alerts to the mobile phone of the farmer to the mobile phone or to the app from where farmer can control the pump. References: 1. S. R. Nandurkar, V. R.

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