| S.N | AUTHOR | PAPER NAME | ABSTRACTION |
|---|---|---|---|
| 1. | Ashwini B V | Study on Smart Irrigation System Using IoT for Surveillance of Crop-Field | The whole system is micro control based and can be operated from remote location through wireless transmission so there is no need to concern about irrigation timing as per crop or soil condition. Sensor is used to take sensor reading of soil like soil moisture, temperature, air moisture and decision making is controlled by user (farmer) by using microcontroller. The data received from sensors are sent to server database using wireless transmission. The irrigation will be automated when the moisture and temperature of the field is reduced. The farmer is notified with the information regarding field condition through mobile periodically |
| 2. | Joaquín Gutiérrez „Juan Francisco Villa-Medina, Alejandra Nieto-Garibay, and Miguel Ángel Porta-Gándara | Automated Irrigation System Using a Wireless Sensor Network and GPRS Module | An automated irrigation system was developed to optimize water use for agricultural crops. The system has a distributed wireless network of soil-moisture and temperature sensors placed in the root zone of the plants. In addition, a gateway unit handles sensor information, triggers actuators, and transmits data to a web application. An algorithm was developed with threshold values of temperature and soil moisture that was programmed into a microcontroller-based gateway to control water quantity. The system was powered by photovoltaic panels and had a duplex communication link based on a cellular-Internet interface that allowed for data inspection and Irrigation scheduling to be programmed through a web page. The automated system was tested in a sage crop field for 136 days and water savings of up to 90% compared with traditional irrigation practices of the agricultural zone were achieved. |
| 3. | Stefanos A. Nikolidakis, Dionisis Kandris, Dimitrios D. Vergados, Christos Douligeris | Energy efficient automated control of irrigation in agriculture by using wireless sensor networks | The system takes into consideration the historical data and the change on the climate values to calculate the quantity of water that is needed for irrigation. In case that the change on the collected values is above a threshold more frequent data collection is proposed to minimize the necessary quantity of water. On the other hand, in case that the change of the values is below a preset threshold then the time interval to collect data can increase to save sensor energy, leading to a prolonged sensor lifetime. |

| 4 | **Himavamshi** | **Smart irrigation using IoT** | The Arduino acts as a control unit. Based on the sensed values, water will be supplied to the plant which can help us to avoid over-irrigation and under irrigation. Water sensor is used to sense the amount of water still available in the tank. Information from the two soil moisture sensors will be regularly updated to the web page using WIFI module and message alert will be sent to the user. Sensor values are uploaded to the thingspeak channel to generate graphs for analysis, the same can be viewed in-app and motor can be controlled. |
| 5 | **Srishti Rawal** | **IOT based Smart Irrigation System** | The paper proposes an automated irrigation system which monitors and maintains the desired soil moisture content via automatic watering. Microcontroller ATMEGA328P on arduino uno platform is used to implement the control unit. The setup uses soil moisture sensors which measure the exact moisture level in soil. This value enables the system to use appropriate quantity of water which avoids over/under irrigation. IOT is used to keep the farmers updated about the status of sprinklers. Information from the sensors is regularly updated on a webpage using GSM-GPRS SIM900A modem through which a farmer can |