**LITERATURE SURVEY**

**Smart farming: IoT based smart sensors agriculture stick for live temperature and moisture monitoring using Arduino, cloud computing & solar technology**

**Anand Nayyar Assistant Professor, Department of Computer Applications & IT KCL Institute of Management and Technology, Jalandhar, Punjab Er. Vikram Puri M.Tech(ECE) Student, G.N.D.U Regional Center, Ladewali Campus, Jalandhar**

Internet of Things (IoT) technology has brought revolution to each and every field of common man’s life by making everything smart and intelligent. IoT refers to a network of things which make a self-configuring network. The development of Intelligent Smart Farming IoT based devices is day by day turning the face of agriculture production by not only enhancing it but also making it cost-effective and reducing wastage. The aim / objective of this paper is to propose a Novel Smart IoT based Agriculture Stick assisting farmers in getting Live Data (Temperature, Soil Moisture) for efficient environment monitoring which will enable them to do smart farming and increase their overall yield and quality of products. The agriculture stick being proposed via this paper is integrated with Arduino Technology, Breadboard mixed with various sensors and live data feed can be obtained online from Thingsspeak.com. The product being proposed is tested on Live Agriculture Fields giving high accuracy over 98% in data feeds.

**Smart Farming using IoT, a solution for optimally monitoring farming conditions Jash Doshi Tirth kumar Patel Santosh kumar Bharati**

Internet of Things (IoT) is the present and future of every field impacting everyone’s life by making everything intelligent. It is a network of different devices which make a self-configuring network. The new developments of Smart Farming with use of IoT, by day turning the face of conventional agriculture methods by not only making it optimal but also making it cost efficient for farmers and reducing crop wastage. The aim is to propose a technology which can generate messages on different platforms to notify farmers. The product will assist farmers by getting live data (Temperature, humidity, soil moisture, UV index, IR) from the farmland to take necessary steps to enable them to do smart farming by also increasing their crop yields and saving resources (water, fertilizers). The product proposed in this paper uses ESP32s Node MCU, breadboard, DHT11 Temperature and Humidity Sensor, Soil Moisture Sensor, SI1145 Digital UV Index / IR / Visible Light Sensor, Jumper wires, LEDs and live data feed can be monitored on serial monitor and Blynk mobile. This will allow farmer to manage their crop with new age in farming.

**Smart Farming Using IOT**

**CH Nishanthi1 , Dekonda Naveen2 , Chiramdasu Sai Ram3 , Kommineni Divya4 , Rachuri Ajay Kumar5 1 Associate Professor, ECE Dept., Teegala Krishna Reddy Engineering College, Hyderabad, India 2,3,4,5student, ECE Dept., Teegala Krishna Reddy Engineering College, Hyderabad, India**

The agriculture industry is developed a lot with the help of technology; it became data-centered and smarter. The rapid growth of the Internet of Things based technologies reshaped many industries, including agriculture. Such a radical change dismantles existing farming practices and creates new opportunities along with some challenges. The IoT systems contributed in many fields and proven. It is time for farmers need to introduce the Smart Agricultural systems for higher crop yield. With a compilation of data from sensors and modern electronic gadgets, the farmer can monitor agricultural fields. Smart Agriculture can forecast weather data, switching ON the pump motor and switch ON the bulb for artificial light due to less light intensity, for farms acknowledging the dampness of soil of moisture levels. The IR sensor detects the pest and humans by their temperature; the sensors are interfaced to process module Arduino-UNO. The Smart agriculture system can be operated from anywhere with the help of networking technology

