**LITERATURE SURVEY**

Patil K.(2016) proposes a wise agricultural model in integration with ICT. ICT have always mattered in Agriculture domain. Over period, weather patterns and soil conditions and epidemics of pests and diseases changed, received updated information allows the farmers to cope with and even benefit from these changes. It is really challenging task that needs to provide such knowledge because of highly localized nature of agriculture information specifically distinct conditions. The complete real-time and historical environment information helps to achieve efficient management and utilization of resources. The issue is that the technique can achieve convenient wireless connection within a short-distance.

Joaquín Gutiérrez (2014) .The paper aims at optimizing water use for agricultural crops. An algorithm was developed with threshold values of temperature and soil moisture that was programmed into a micro controller-based gateway to control water quantity. The system was powered by photovoltaic panel sand 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 issue is that the investment in electric power supply would be expensive.

Shakthipriya N (2014) [7], As mentioned it reviews the state of art wireless sensor technology in agriculture.Based on the value of soil moisture sensor the water sprinkler works during the period of water scarcity. Once the field is sprinkled with adequate water, the water sprinkler is switched off. Hereby water can be conserved. Also the value of soil pH sensor is sent to the the farmer via SMS using GSM modem.The issue is that it provides only precision values that is not accurate and is not cost efficient.

Beza Negash Getu (2015) . It investigate the design and simulation of an electronic system for automatic controlling of water pumps that are used for agricultural fields or plant watering based on the level of soil moisture sensing. The speed of the motor is varied according to the level of the soil moisture content the motor is OFF during maximum wet and is running with HIGH speed during dry soil conditions respectively. The duration of water pumping is controlled by a timer circuit. The system is tested using NI MULTISM simulation software.DIAC and TRIAC techniques are used.The issue is that it does not support several water levels and uses old techniques.

Nikhil Agrawal. (2015) It proposes a design for home automation system using ready-to-use, cost effective and energy efficient devices including raspberry pi, arduino micro controllers,x bee modules and relay boards. Use of these components results in overall cost effective, scalable and robust implementation of system. Use of these components results in overall cost effective, scalable and robust implementation of system. Drip irrigation system makes the efficient use of water and fertilizer. Freeduino flavor of arduino is used in this design. To start the drip irrigation system an email is sent to a defined account.The issue is that the failure of any particular part or device is not informed and has to be tested manually. not efficient for large agricultural fields.

HemlataChanne1 et al. (2015), it reviews the use of modernized techniques such as Internet-of-Things (IoT), Sensors,Cloud-Computing, Mobile Computing, Big-Data analysis in agricultural sector . Soil and environment properties are sensed and periodically sent to Agro Cloud through IoT (Beagle Black Bone). Big data analysis on Agro Cloud data is done for fertilizer requirements, best crop sequences analysis, total production, and current stock and market requirements. It is beneficial for increase in agricultural production and for cost control of Agro-products. The system does not include different soil nutrient sensors and does not produce accurate data.

T.Gayathri , proposed the system for monitoring the growing status of the corn (maize) plant continuously and intimate the agriculturist using wireless sensor network (WSN). But in practice, cultivator faces too much effort in the farmland. This paper makes eases the work of the farmer in cultivated land through the usage of different kind of sensors. The two LDR sensors are interfaced with PIC16F877A micro controller whereas its top array receives solar radiation for supply current and the bottom of the LDR array is for measuring leaf area index (LAI). The humidity sensor will compute the moisture level in the corn field, if the level decreases, then it automatically switches ON the DC motor. All the particulars of farmland are sent to the farmer through GSM and revel in the LCD screen. The temperature sensor will find the intensity of heat present in the soil. PH sensor is used to find the soil alkalinity which is essential for plant nutrition.

V Nainwal Sensors are used to detect the presence of objects in the surveillance area and the information is collected over time to extract the event of interest. The information gathered by the surveillance camera i.e., video or still images could be used for further analysis and detection of the intruding object. This system does not utilize advanced techniques for alerting the owner of that area.

Sneha Nahatkar ,proposed a home embedded surveillance system which evaluates the development of a low cost security system using small PIR (Pyro electric Infrared) sensor built around a micro controller with ultra-low alert power. The system senses the signal generated by PIR sensor detecting the presence of individuals not at thermal equilibrium with the surrounding environment. On detecting the presence of any unauthorized person in any specific time interval, it triggers an alarm & sets up a call to a predefined number through a GSM modem. After the MCU sends the sensor signals to the embedded system, the program starts the Web camera which then captures the images which can be viewed and analysed later.

Puja G, Mohammad Umair Bagali proposed the system. This project is based on surveillance with an animal ward-off system employed in farmlands in order to prevent crop vandalization by wild animals. In addition to providing protection this system distinguishes between an intruder and an authorized person using RFID’s, various PIR sensors are deployed in the area to detect any motion and hence turns ON a camera when movement is detected, thereby providing real time monitoring. It involves automation of certain methods used to prevent the wild animals from entering the farmlands and destroying the crops, an electronic fire cracker.