IOT BASED CROP PROTECTION SYSTEM

LITERATURE SURVEY

ABSTRACT

Agriculture is the backbone of our country that contributes to 45% of the GDP that is responsible for the enhancement of country′ s economy. This IOT based Crop Protection System aims on building an integrated module for improving the efficiency of the present agricultural modules. A smart way of automating farming process can be called as Smart Agriculture. Precision agriculture is one of the most famous applications of IoT in the agricultural sector and numerous organizations are leveraging this technique around the world. By implying an automated system, it possible to eliminate threats to the crops by reducing the human intervention. The major emphasize will be on providing favourable atmosphere for plants. These agricultural automated systems will help in managing and maintain safe environment especially the agricultural areas. Environment real time monitoring is an important factor in smart farming. Graphical User Interface based software will be provided to control the hardware system and the system will be entirely isolated environment, equipped with sensors like temperature sensor, humidity sensor. The controllers will be managed by a master station which will communicate with the human interactive software. This IOT based system will provide smart interface to the farmers and can increase the level of production than the current scenario.

CROP PROTECTION SYSTEM FROM LIVING OBJECTS AND FIRE USING ARDUINO

To design and execute the superior improvement in embedded device for Crops in farms are over and over ravaged with the aid of nearby animals like buffaloes, cows, goats, birds, and fireplace etc. This results in huge losses for the farmers and it is not feasible for farmers to barricade complete fields or precede field 24 hours and protect it. Therefore, here we present computerized crop safety system from animals and fire. This is an Arduino Uno primarily based device the use of microcontroller. This technique makes use of a motion sensor to discover wild animals drawing near the sphere and smoke sensor to discover the hearth. In such a case the sensor alerts the microcontroller to require action. The microcontroller now sounds an alarm to woo the animals away from the sector further as

sends SMS to the farmer and makes call, in order that farmer may fathom the difficulty and come to the spot just in case the animals don′ t recede by the alarm. If there's a smoke, it immediately turns ON the motor. This provides us entire safety of plants from animals and from fireplace for this reason protecting the farmers loss.

IOT BASED SMART CROP MONITORING IN FARM LAND

As new technologies have been introduced and utilized in modern world, there is a need to bring advancement in the sector of agriculture also. Various Researches have been undergone to enhance crop cultivation and are widely used. So as to enhance the crop productivity efficiently, it is necessary to monitor the environmental conditions in and around the field. The parameters that have to be exact monitored to enhance the yield are soil characteristics, weather conditions, moisture, temperature, etc., Internet of Things (IOT) is being utilized in a number of real time applications. The introduction of Internet of thing (IOT) along with the sensor network in frame refurbishes the traditional way of farming. Online crop monitoring the use of IOT helps the farmers to stay related to his subject from somewhere and anytime. Various sensors are used to screen and collect records about the area conditions. Collectively the about the farm circumstance is disbursed to the farmer through GSM technology.

IOT IN AGRICULTURAL CROP PROTECTION AND POWER GENERATION

Agriculture is that the science and artwork of cultivating plants. Agriculture performs most important position inside the economic development of our us of a and this can be the first occupation from a few years. so as to extend the productivity of the crops and to attenuate the expenses of agricultural practices we adopt smart agriculture techniques using IOT. The sensors are placed at different locations within the farm, by which the parameters are controlled using remote or through internet services and by interfacing the sensors operations are performed with microcontrollers. India is that the second most populated country. Power generation and supply is typically an unlimited problem. This mainly addresses power generation and rainwater harvesting as an influence generation method using energy together with crop protection.

DEVELOPMENT OF IOT BASED SMART SECURITY

Agriculture area being the backbone of the Indian economy deserves security. Security no longer in phrases of sources solely however additionally agricultural products wishes protection and safety at very preliminary stage, like protection from attacks of rodents or insects, in fields or grain stores. Such challenges should even be taken into consideration. Security systems which are getting used now a days don't seem to be smart enough to produce real time notification after sensing the matter. The mixture of typical methodology with present day technologies as Internet of Things and Wireless Sensor Networks can cause agricultural modernization. Keeping this scenario in our mind we've got designed tested and analysed an 'Internet of Things' based device which is capable of analysing the sensed information then transmitting it to the user. This gadget will be controlled and monitored from far off region and it is carried out in agricultural fields, grain shops and bloodless stores for protection purpose. This paper is oriented to intensify the methods to unravel such problems like identification of rodents, threats to crops and turning in actual time notification supported records evaluation and processing besides human intervention. During this device, referred to sensors and digital units are built-in using Python scripts. Supported attempted take a look at cases, we had been capable to obtain success in 84.8% check cases.

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