Patent Search

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Abstract:

Artificial Intelligence and IoT based Automated Irrigation System using Weather Prediction for Efficient Usage of Water Resources and good yields for efficient farming ABSTRACT The agricultural sector is the primary means by which people in India provide for their families and maintain their standard of living. It has been observed agricultural sector did not experience a significant amount of progress in terms of crop improvement over the course of the previous decade. Food prices continue to relentlessly and show little sign of leveling off anytime soon as a direct result of plummeting production rates. More than forty million people have fallen into poverty result of it since 2017. This may be due to a variety of factors, such as, but not limited to, improper use of water and fertilizer; low soil fertility; improper use of fertiliz change; diseases; and so on and so forth. In agricultural contexts, it is of the utmost importance to undertake efficient intervention, and the solution rests in the coup Internet of Things technology with wireless sensor networks. It has the potential to completely alter the process by which agricultural development takes place and m substantial contribution to the growth of intelligent agriculture. The internet of things employs a hierarchical organization scheme that is composed of three tiers. All aforementioned layers—the application layer, the network layer, and the perception layer—are included. The perception layer includes the sensor motes in its compo most fundamental components of sensor technology are gadgets like sensor motes that are made possible by information and communication technology (ICT). It is with cameras, radio frequency identification tags (RFID), sensors, and a sensor network, all of which enable it to recognize objects and collect information in real time and maintaining the environment in which a wide variety of plants are cultivated can be accomplished through the use of a large number of readily available techniqu result of the unequal distribution of rain water across the farm, it is extremely challenging for farmers to fulfill the requirements that are necessary to manage water a manner that is fair to all of the crops grown on the farm as a whole. As a consequence of this, it is necessary to use an irrigation technique that can accommodate a climate or soil and any kind or combination of crops. We shall thus develop methods of intelligent agriculture that are based on the Internet of Things in order to ove problem.

Complete Specification

Description:DESCRIPTION

According to the findings of a survey that was carried out by the Food and Agriculture Organization of the United Nations, the quantity of food that is produced glob need to be increased by seventy percent by the year 2050 in order to accommodate the expanding population. Agriculture is crucial to the life of the human race be is the major means through which people receive their food, and it also plays a large role in the expansion of a nation's economy. Both of these factors contribute t fact that agriculture is essential to the survival of the human race. In addition to this, it gives people access to a wide range of employment opportunities that are ac Agriculture is still practiced by the farmers using methods that have been around for centuries, which results in low crop and fruit yields. As a consequence, the utili of automated technology can lead to an increase in the amount of produce that is harvested from agricultural land. It is vital to make use of the most recent breakt in scientific research and technological development in order to attain the objective of increasing agricultural output. We should be able to enhance our output whil reducing our expenses if we make use of the Internet of Things. This will be made possible through the monitoring of the productivity of the soil, the monitoring of temperature and humidity, the monitoring of temperature and humidity, the monitoring of rainfall, the monitoring of the productivity of fertilizers, the monitoring c storage capacity of water tanks, and the detection of theft in agricultural areas. The implementation of both time-honored practices and the most cutting-edge technologies, such as the Internet of Things and wireless sensor networks, can make agricultural modernisation a reality. The Wireless Sensor Network is in charge gathering data from a broad variety of sensors and then sending that data to the central server via a wireless protocol. Its responsibilities also include delivering tha The extent of production is also affected by a vast number of other factors, each of which plays a key role in the process. In addition to assaults from insects and otl pests, the crop will become increasingly prone to attacks by wild animals and birds as it matures. These attacks can be averted by utilizing the necessary insecticide

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