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NAAC Accredited Autonomous Institution
Approved by AICTE & Affiliated to Anna University
ISO 9001:2015 Certified Institution
Thalavapalayam, Karur, Tamilnadu.

SMARTFARMER – IOT ENABLED SMART FARMING APPLICATION

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PNT2022TMID15629

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ABSTRACT

In this paper, we propose fostering a framework ideally watering farming yields in light of a remote sensor organization. This work meant to plan and foster a control framework involving hub sensors in the harvest field with information the board through cell phone and a web application. The three parts are equipment, web application, and versatile application. The main part was planned and executed in charge box equipment associated with gather information on the yields. Soil dampness sensors are utilized to screen the field, interfacing with the control box. The subsequent part is an electronic application that was planned and carried out to control the subtleties of harvest information and field data. This part applied information mining to dissect the information for anticipating reasonable temperature, stickiness, and soil dampness for ideal future administration of harvests development. The last part is chiefly used to control crop watering through a versatile application in a cell phone. This permits either programmed or manual control by the client. The programmed control involves information from soil dampness sensors for watering. Nonetheless, the client can select manual control of watering the harvests in the practical control mode.

LITERATURE REVIEW:

This paper talks about the different uses of IoT and distributed computing in the field of agribusiness and ranger service. As per the text, the utilization of IoT plays an important job in brilliant agribusiness. The fundamental advancements of IoT like laser scanner,428 K.Lakhwanietal. RFID (Radio Frequency Identification), photoacoustic electromagnetic sensors, and so on these advances can be involved to make extraordinary developments in rural. Essentially in rural data transmission, exact water system, clever development control, agrarian product safety, and some more.

AUTHOR: Zuraida Muhammad (2020)

DESCRIPTION: The task is about brilliant agriculture framework that is executed with IOT. The framework is joined with water system framework to adapt to the eccentric climate in Malaysia. Raspberry Pi 4 Model B is utilized as the microcontroller of this framework. DHT22 and soil cream sensor whenever used to identify the temperature around and mugginess in encompassing and dampness level of the dirt separately where result will be shown on the advanced cell and the PC.

AUTHOR: S Sujatha (2018)

DESCRIPTION: Writing survey depending to certain books of MDPI are drive organization perfectly positioned of open specialized beginning construct research on the water system utilization of web of things innovation for live controlling of soil dampness, more over examination of emotionally supportive networks. Smart in cultivating by Jayaraman with gathering of creator demonstrates the way that the web of things stage can assembled also, partner data, for example, the general climate, soil and horticulture and it is execution. More significant, web of things stage can team up into camera, sensor and so forth. One more exploration report what can be utilized in Wi-Fi sensor engineering in water system and devotion of ranchers with enormous quantities of data. water system is a term that utilizes a savvy of calculations that pre-owned late data to work on quality, creation and productivity.

AUTHOR: Nurzaman Ahmed (2016)

DESCRIPTION: An Wireless Sensor Network for River Water Quality Monitoring in India This paper introduces a river water quality monitoring system based on wireless sensor network which helps in continuous and remote monitoring of the water quality data in India. The wireless sensor node in the system is designed for monitoring the pH of water, which is one of the main parameters that affect the quality of water. Wireless sensor Network which aids in River Water Quality Monitoring. This paper also proposes a novel technique for the design of a water quality sensor node which can be used for monitoring the pH of water.

AUTHOR: Anushree Math (2018)

DESCRIPTION: The target of this try is to water the plants utilizing the savvy dribble water system framework. To accomplish this, open source stage is utilized as a focal regulator of the framework. Different sensor have been utilized which constantly give the current boundaries of variables overseeing fitness of plants. In light of the data got from the RTC module water is provided to plants at standard time frames by controlling a solenoid valve. The whole framework can observed and oversaw by the site page.

AUTHOR: Vaishali S & Suraj S (2017)

DESCRIPTION: Conventional techniques that are utilized for water system, for example, above sprinkler and flood type, isn't excessively much productive. They bring about a great deal of wastage water and can likewise advance sickness, for example, parasite development because of over dampness in the dirt. Robotized water system framework is fundamental for protection of the water and in a roundabout way practicality of the ranch since it is a significant product. Around 85% of all out accessible water assets across the world are exclusively utilized for the water system reason. In the robotization framework water accessibility to edit is observed through sensor and according to require watering is finished through controlled water system.

AUTHOR: Megha F. Yaligar & Shalini H Nagur (2019)

DESCRIPTION: To plan a savvy remote sensor for farming climate, the WSN (Wireless Sensor Network) is intended for directing and controlling for different element, for example, stickiness, soil, dampness, temperature, switches that engender the organization over bigger distance and facilitator that speaks with the PC, which in turns show the information and communicate it utilizing web of things, which can diminish the human work. Client can ready to develop more number of plants in their home by utilizing this data. Utilizing this application client can set aside cash and time in making application for own new application.

AUTHOR: Shrihari M (2020)

DESCRIPTION: Computerizing the development of harvests has existed since the mid 90's and one of the significant issues the two researchers and ranchers face is the subject of water system. A water system framework is dynamic framework that is prevalently reliant upon outer covariant. This paper gives a system by using an exceptionally fabricated numerical model which incorporates remote sensor as an information source that is handled on google cloud they are giving a shrewd IOT empowered design that can be scaled even on huge ranches. The framework is furnished with android application through a remote.

AUTHOR: Sivakumar N & Sandhiya R (2018)

DESCRIPTION: To the extent that thoughts agricultural improvement is worried about, the agricultural intercolumniation is a significant power advancing the farming turn of events and change and a cornerstone for keeping up with sound and supporting monetary improvement. In a beyond couple of years, we have been center in around agricultural data administration and foundation improvement. After numerous long periods of hard endeavors, surprising results had seen in agricultural foundation improvement. Every object in IoT is addressable, recognizable, readable and locatable through the internet by using RFID (Radio Frequency Identification), Wireless Sensor Network (WSN) or other means. The idea of IoT is involving numerous in various areas, for example, accuracy horticulture, items supply chain the executives, Savvy Framework, natural observing, distributed computing and some more.