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Patent Search

Invention Title	ANALYSIS IRRIGATION SYSTEM FOR REAL TIME AUTOMATION OF AGRICULTURAL ENVIRONMENT SYSTEM IN INDIA
Publication Number	52/2023
Publication Date	29/12/2023
Publication Type	INA
Application Number	202311080089
Application Filing Date	24/11/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	MECHANICAL ENGINEERING
Classification (IPC)	A01G0025160000, A01G0009240000, H04L0067120000, G06Q0050020000, G06N0020000000

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Abstract:

ABSTRACT ANALYSIS IRRIGATION SYSTEM FOR REAL TIME AUTOMATION OF AGRICULTURAL ENVIRONMENT SYSTEM IN INDIA The India Analysis Irrigation System (IAIS) is a real-time automation system for agricultural environment systems in India. It incorporates two key components: information sensing and management, and automated irrigation control. IAIS provides near real-time analysis of environmental conditions, such as temperature, humidity, and rainfall. Using this data, the system can autonomously irrigate agricultural lands in a timely and effective manner. This system is designed to reduce water consumption, improve crop yield, and produce equal crops in remote areas. Additionally, IAIS can be used to monitor the impact of changing climate on the soil and plants, enabling the accurate assessment of potential risks and adjustments of crops for optimization. IAIS is an advanced application of Internet of Things (IoT) technology, providing farm owners and agricultural scientists with the data and insights necessary for successful and responsible farming. The Analysis Irrigation System for Real-time Automation of the Agricultural Environment System (ARES) is a computing system designed to provide automatic monitoring and control of agricultural environments in India. ARES leverages a cloud-computing system, which is used to acquire data from various sources across the agricultural environment. This data is then used to run various algorithms that enable the analysis, monitoring, and control of the agricultural environment, which in turn allows for the optimal operation of the agricultural environment. ARES also provides an automated decision-support system that enables the monitoring and control of the environment more effectively. The ARES system consists of several components, each of which has an important role in collecting, monitoring, and controlling the agricultural environment. The ARES architecture includes multiple sensors, industrial devices, actuators, controllers, and data communications between components. The sensors detect various environmental parameters, such as temperature, soil moisture, wind, sunlight, etc., and transmit the data to the cloud. The devices and actuators work together to regulate the environment, such as irrigation systems, heating/cooling systems, etc. The controllers are responsible for the data analysis and interpretation, and carry out the necessary functions of analysis, monitoring, and control. Finally, the data communications component links the various components and allows for the transfer of data from the sensors to controllers, and from the controllers to the cloud. Overall, the ARES system seeks to provide an automated solution for the control of agricultural environments in India. By leveraging the latest technology and implementing a comprehensive set of algorithms, ARES is able to monitor and control the environment more effectively and efficiently than manual methods allow. This system should be further developed to effectively handle larger and more complex environments to ultimately provide an automated solution for the agricultural sector in India.

Complete Specification

Description:FORM 2
THE PATENTS ACT,1970
(39 of 1970)

&
THE PATENT RULES, 2003
Complete Specification
(See section10 and rule13)

1. Title of the Invention: ANALYSIS IRRIGATION SYSTEM FOR REAL TIME AUTOMATION OF AGRICULTURAL ENVIRONMENT SYSTEM IN INDIA

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Page last updated on: 26/06/2019