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Patent Search

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Abstract:

THE IMPLEMENTATION OF IOT IN GREENHOUSE FARMING: PROTOCOLS AND APPLICATIONS OF ENABLING TECHNOLOGIES ABSTRACT: In the big data environment, personalized information of college libraries based on big data from three aspects: the overall architecture of the system model, the functional model of the system, and design of system interface modules according to the design principles and requirements of the personalized information service system of the university library Service design. In terms of the functional design of the platform, the service platform is divided into four levels: accurate identification of user needs based on big data, personalized customized services based on artificial intelligence, academic research and discussion space based on integrated media, and fine-grained subject resource aggregation knowledge. On this basis, a centralized model of individualized services of university libraries including internal and external personnel, information resources, technical services, processes, platforms, and environment has been constructed. Artificial intelligence (AI) is one of the emerging trends and applications of computing in library programming computers to do things, which if done by humans, would be said to require intelligence. The ultimate promise of artificial intelligence in libraries is to develop computer systems or machines that think, behave, and in fact rival human intelligence, and this clearly has major implications on librarianship. The application of artificial intelligence in the library has become pervasive. They include expert systems for reference services, book reading and shelf-reading robots, virtual reality for immersion among others. Although the incorporation of artificial intelligence in libraries can be perceived to alienate librarians from their users, it will probably help libraries do more than taking over the jobs of librarians. It will enhance their services delivery. Artificial intelligence will greatly improve library operations and services and will upgrade and heighten the relevance of libraries in an ever-changing digital society. In modern times, wireless communication is increasingly replacing the cumbersome cable method in agriculture, as it is easier to install and administer. This study presents a novel design for an Internet of Things (IoT) application in a greenhouse. The design incorporates advanced technologies to propose a new model for the practical execution of the IoT concept. The primary concept is to enhance the productivity of vegetables, fruits, and crops by employing advanced technologies. The proposed Internet of Things (IoT) based smart greenhouse farming system utilizes sensor elements to monitor crucial aspects such as temperature, humidity, soil moisture, and light. It then warns users through a mobile application. The sensor values displayed on the GSM module can be utilized for the collection of agricultural data. Authenticated mobile application development enables remote monitoring of parameters from any location.

Complete Specification

Description:DESCRIPTIONS:

The concept of Internet of Things was initially introduced by Kevin Ashton in 1999 as a means to elucidate the integration of radio frequency identification (RFID) technology into the Internet. The International Telecommunication Union defines the Internet of Things as a worldwide infrastructure that enables advanced services by connecting physical and virtual objects using existing and evolving interoperable information and communication technologies. The current Internet has undergone a significant transformation, enabling it to connect and integrate various elements in the environment. This includes not only gathering information but also facilitating physical commands, and control. Additionally, the Internet now offers services such as information transfer, analytics, applications, and communication. The integration of the Internet with cutting-edge technologies in data processing, such as Big Data, Cloud Computing, and Machine Learning, has the potential to overcome challenges and progress in many fields including manufacturing, healthcare, logistics, and agriculture. Governments worldwide have significantly endorsed the development and implementation of IoT in agriculture in recent years. An example of an agricultural model that incorporates IoT is a hydroponic system, which requires the connection of numerous equipment. India, being a developing economy, has implemented the Make in India initiative to enhance its industrial sector by substituting manual labor with automated machinery across all sectors. However, it is important to note that a significant portion of the Indian population still relies on agriculture. As a result of insufficient rainfall and unprofitable crops, many individuals were unable to utilize automated machinery. They relied on numerous conventional methods of farm production. Recently, numerous research organizations have established greenhouses to cultivate crops under regulated climatic conditions. This method allows for increased agricultural output while minimizing resource usage, such as water and fertilizers. In recent times, the domestic sector has suffered significant damage as a result of increased imports from China. This has led to the proliferation of counterfeit seeds, resulting in reduced crop yields and causing injury to several individuals. Several

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