Abstract

The Internet of Things (IoT) is a network of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. Farming needs sustained irrigation that itself consumes the highest percentage of water resource in any area. To solve this problem smart irrigation systems are powered by latest IoT technology that can help in conservation of water resources by monitoring irrigation through remote sensing technologies. This system is an attempt towards the smart irrigation system concept. An electronic device is responsible for sensing the moisture conditions of the soil. Along with it, a bluetooth functionality is added to the hardware device. The sensed environmental conditions are taken and sent to the server, which has a MySQL database for storage of records. As the user logs into his smartphone, history of values of soil moisture which were previously sensed
and sent to the database are available to be viewed by the user. Another functionality of the system is that various nodes are available which indicate the severity of the conditions in the environment using the database records and indicate the user to take actions accordingly. Also the user is able to see the crop suggestions given to him. Thus by using this concept, the irrigation sector can gain various benefits to avoid calamity.

References

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Index Terms

Computer Science
Information Systems

Keywords

Internet of Things, Sensors, Smart Device, Precision Agriculture, MySQL.