FUTURE SCOPE OF SMART AGRICULTURE SYSTEM BASED ON IOT

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Introduction:-

- IoT based smart farming system can prove to be very helpful for farmers since over as well as less irrigation is not good for farming. Threshold values for climatic conditions like humidity, temperature, moisture can be fixed based on the environmental conditions of that particular region.
- This system generates irrigation schedule based on the sensed real time data from field and data from the weather repository. This system can recommend farmer whether or not, is there a need for irrigation.
- In this project, it is proposed to develop a Smart Farming System that uses advantages of cutting edge technologies such as IoT, are used to get information about the field and help farmers to take precise decisions on insights and recommendations based on the collected data.

Future Scope Of This Project:-

Smart farming is a concept quickly catching on in the agricultural business. Offering high-precision crop control, useful data collection, and automated farming techniques, there are clearly many advantages a networked farm has to offer.

- Of the many advantages IoT are:

1. Its ability to innovate the landscape of current farming methods is absolutely ground breaking.

2. IoT sensors capable of providing farmers with information about crop yields, rainfall, pest infestation, and soil nutrition are invaluable to production.

3. New hardware, like the corn-tending Rowbot, is making strides by pairing data-collecting software with robotics to fertilize the corn, apply seed cover-crops, and collect information in order to both maximize yields and minimize waste.

Disadvantage:-

- Some disadvantages are:-

1. It is need for every soil type to be calibrated. So it may take time to analyse the things and cost more than usual.

2. Agriculture being a natural phenomenon relies mostly on nature, and man predict or control nature let it be rain drought sunlight availability. pests control etc. So ever implementation IoT system agriculture.

3. The smart agriculture need availability on internet continuously. Rural part of the developing countries did not fulfil this requirements. Moreover internet is slower.

4. Fault sensor or data processing engines can cause faulty l decisions which may lead to over use of water, fertilizers and other wastage of resources.

5. The smart farming based equipment require farmer to understand and learn the use of technology. This is the major challenge in adopting smart agriculture framing at large scale across the continues.

CONCLUSION:-

"The smart agriculture market is expected to reach $18.45 Billion in 2022 at a CAGR of 13.8%". IOT serves as a powerful, reliable and cost effective technology to implement the idea of "Smart Village" that aims to empowerment of villages with advance connectivity through web service, measurement of environment factors like Soil moisture, temperature, humidity and implementing cloud computing along with real time monitoring using GSM system. Using this project, the status of crops can be viewed remotely on a smartphone or laptops using the internet. This helps to keep the farmer up to date even when he is away.

So the most valuable things is the future of this project is very bright despite some issues which is soluble.

THANK YOU