

Agricultural Crop Monitoring using IOT- A Study

ABSTRACT

.In olden days farmers used to guess the fertility of soil and made assumptions to grow which type of crop. They didn't know about the moisture, level of water and particularly weather condition which terribles a farmer more The Internet of things (IOT) is remodeling the agriculture enabling the farmers with the wide range of techniques such as precision and sustainable agriculture to face challenges in the field. IOT technology helps in collecting information about conditions like weather, moisture, temperature and fertility of soil, Crop online monitoring enables detection of weed, level of water, pest detection, animal intrusion in to the field, crop growth, agriculture. IOT leverages farmers to get connected to his farm from anywhere and anytime. Wireless sensor networks are used for monitoring the farm conditions and micro controllers are used to control and automate the farm processes. To view remotely the conditions in the form of image and video, wireless cameras have been used. A smart phone empowers farmer to keep updated with the ongoing conditions of his agricultural land using IOT at any time and any part of the world. IOT technology can reduce the cost and enhance the productivity of traditional farming.

EXISTING SYSTEM

Agriculture is the backbone of our Nation. In olden days farmers used to guess the fertility of soil and made assumptions to grow which type of crop. They didn't know about the moisture, level of water and particularly weather condition which terribles a farmer more. They use pesticides based on some assumptions which made lead a serious effect to the crop if the assumption is wrong .The productivity depends on the final stage of the crop on which farmer depends.

DRAWBACKS

- Productivity may or may not be more.
- We cannot estimate weather conditions as pollution is increasing gradually etc.

PROPOSED SYSTEM

To enhance the productivity of the crop there by supporting both farmer and nation we have to use the technology which estimates the quality of crop and giving suggestions. The Internet of things (IOT) is remodeling the agriculture enabling the farmers with the wide range of techniques such as precision and sustainable agriculture to face challenges in the field. IOT technology helps in collecting information about conditions like weather, moisture, temperature and fertility of soil, Crop online monitoring enables detection of weed, level of water, pest detection, animal intrusion in to the field, crop growth, agriculture . IOT leverages farmers to get connected to his farm from anywhere and anytime. Wireless sensor networks are used for monitoring the farm conditions and micro controllers are used to control and automate the farm processes. To view remotely the conditions in the form of image and video, wireless cameras have been used. A smart phone empowers farmer to keep updated with the ongoing conditions of his agricultural land using IOT at any time and any part of the world. IOT technology can reduce the cost and enhance the productivity of traditional farming.

ADVANTAGES

- Productivity is enhanced.
- Based on the fertility, weather conditions crop is selected.
- It also reduces the cost of traditional farming equipments.

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –IV
- RAM - 4 GB (min)
- Hard Disk - 20 GB

- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows 7 or 8 32 bit
- Application Server : Tomcat5.0/6.X
- Programming Language : Java
- Java Version : JDK 1.6 and above