SmartFarmer - IoT Enabled Smart Farming Application

Literature Review

- In traditional farming it is important to monitor the temperature, humidity, rain, wind, presence of pests, pollutants in air, water and soil including many other weather factors directly by a human in order to achieve good yield.
- The weather conditions are monitored and the data are recorded in real time by the appropriate sensors and fed to decision making system to support crops growth. The water supply to field is monitored by water-flow sensor and rainfall amount is also taken in account for water supply.
- This type of farming is known as smart farming and uses only adequate amount of resources and provides good yield.
- The user can monitor the field 24x7 basis and take appropriate actions that embark good crop yield.
- These sensors have their own threshold, which aids in automation, which facilitates use and lessens workload.
- Using multiple different sensors, a decision support system (DSS) can intelligently distribute water and fertilizer used in crop production based on the age of the plant and information gathered from the soil and surrounding environment.
- Statistical data which is designed utilizing the information from the sensors set up in the farms allows the farmer to increase productivity.
- We use a mobile application that can plot the data using several representations to examine all parameters data in a graphical style, view live and historical data, and save those data in a secure location.
- If the end user is in a remote location, a small area local network can be used to access the data. Cloud technologies can be used for remote data access by the user.

References

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