ABSTRACT

Pesticide recommendation for crop disease is a new innovative way of identifying the crop disease using the sensors and alerting the farmer about the diseases and suggest him the best pesticide to be used for that particular disease. The motivation behind developing this project is to reduce the farmer efforts of continuously monitoring the crop health by using the required sensors. The data obtained using the sensors are uploaded to the cloud. Machine learning algorithm is used to analyze this uploaded data to identify the disease. Machine learning provides system the ability to automatically adjust to conditions pertaining to environmental factors and improve from historic data without being explicitly programmed. Traditional model of disease detection uses the complex process like image processing to identify the disease. Which is more time consuming and also requires installation of the expensive sensors which takes good quality images. This model will solve the above mentioned problem by decreasing the complexity in processing and the workload.

Agriculture development is providing the assistance to the crop producer by the help of various new technology and the agriculture resources. In this project a working model is developed to detect the disease of the crop using IOT and based on the data collected using sensors the best pesticides will be suggested to the crop producer for better yield.

In this project, an architecture is proposed which focuses on IOT and agriculture automation using the sensors and traditional crop disease detection methods. The architectural framework is general for variety of crops and their disease. To demonstrate working of this architecture the mango crop and its diseases is been chosen.

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LIST OF ACRONYMS

AC	Alternating Current
DC	Direct Current
DMA	Direct Memory Access
IC	Integrated circuit
IDE	Integrated Development Environment
IoT	Internet of Things
ML	Machine Learning
NTC	Negative Temperature Co-efficient
RAM	Random Access Memory
UML	Unified Modeling language
USB	Universal Serial Bus

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