IoT Based Smart Crop Protection System for Agriculture

TEAM MEMBERS:

1. Niveditha.M.G
2. Sandhiya.K
3. Harine Priya.A
4. Pradigaa.B

FACULTY MENTOR:

Mrs J. Dolly Irene

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PROBLEM STATEMENT:

- The significant problem which raises the requirement of this project was that the traditional agriculture method consumes time, manual labor work and is also not cost efficient.

- The method of installing the electric fence around every crop field to protect from the animals(the animals which affect the crop fields might be a domestic animal or a wild animal) which affect the harvest is not constant because the cost of the electric fence varies based on the size of the electric which again does not fulfill the cost efficient parameter.[1]

- The usage of smoke sensor is quite efficient but the prominent disadvantage of it is that it is very sensitive, which can lead to false alarms as a product of cooking not as responsive to smoldering fires - they are minutes slower than photoelectric sensors in detecting smoke particles from smoldering fires.[3]

- The usage of downpour sensor and other sensors bring in accurate results but it can also cause a failure of the system as the malfunctioning of any sensor will result in the failure of the whole system or the miscalculated answer of the system.[2]

- The power management system when PIR sensor is continuously sensing the animal movement around the crop field is high, resulting in more power usage in the system. Therefore continuous power supply is needed which is not a efficient solution.[3]

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