**IOT Based Smart Crop Protection System for Agriculture**
**Phase-I**
**Proposed Solution**

| S.No. | Parameter | Description |
|---|---|---|
| 1. | Problem Statement (Problem to be solved) | Over use of pesticides and fertilizer in agricultural fields leads to destruction of the crop as well as reduces the efficiency of the field increasing the soil vulnerability toward pest. |
| 2. | Idea / Solution description | IOT based farming improves the entire Agriculture system by monitoring the field in real time.With the help of sensors and inter connectivity,the internet of things in agriculture has not only saved time of the farmers but also reduced the extravagant use of resources such as water and electricity. |
| 3. | Novelty / Uniqueness | IOT based smart farming ,a system is built for monitoring the crop field with the help of sensors like light, humidity,air,temperature and soil moisture and automating the irrigation system.The farmers can monitor the field conditions from anywhere. |
| 4. | Social Impact / Customer Satisfaction | IOT ensures accurate and efficient communication to farmers of real time data related to dynamic agricultural processes weather forecasts,soil quality,and availability and cost of labor. |
| 5. | Business Model (Revenue Model) | *Sensors to monitor and track the status of crops and insects<br>*Drones for monitoring the livestock such as hens<br>*Automated water pumping systems to water the crops according to convenient times<br>*Machines for performing route operations and ensuring proper functioning of Systems<br>*It measures all kinds of data remotely and provide this information to farmer in real time. |
| 6. | Scalability of the Solution | It reduces waste,improve productivity and enable management of a greater number of resources through remote sensing. |