

Project Design Phase-I
Proposed Solution Template

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID10536 |
| Project Name | IOT BASED SMART PROTECTION SYSTEM FOR AGRICULTURE |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

| S.No. | Parameter | Description |
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| 1. | Problem Statement (Problem to be solved) | Crops in the farm are many times devastated by the wild as well as domestic animals and low productivity of crops is one of the reasons for this. It is not possible to stay 24 hours in the farm to guard the crops. An intelligent crop protection system helps the farmers in protecting the crop from the animals and birds which destroy the crop. This system shall also include remote monitoring and control of pump to avoid the farmer to visit the farm in nighttime. |
| 2. | Idea / Solution description | Safety of people and animals, Low-cost solutions, lower dependency on power, Simple solution to suite the farmer community. System that is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, crop health, etc.) The processes like pest control, fertilizing, and irrigation are increasingly becoming automated, and farmers can control them remotely. The use of smart IoT sensors can maintain these processes, increasing crop production |

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| 3. | Novelty / Uniqueness | The SCPS work on the battery so that this project can be easily portable and also we are add solar panels and converter modules this can help the battery to charge from solar energy. The IOT device is used to indicate the farmer by a message while someone enter into the farm and we are used SD card module that helps to store a specified sound to fear the animals.the announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog of the mobile of the person to take the necessary action. |
| 4. | Social Impact / Customer Satisfaction | Improve the productivity,,Save lives for Farmers/help to farmer for to protect his farm Increased production: the optimisation of all the processes related to agriculture and livestock-rearing increases production rates. |
| 5. | Business Model (Revenue Model) | Community based solution by FAO's solution through contract farming |
| 6. | Scalability of the Solution | This project is smart crop protection system for protect the farm from animals as well as unknown person. This projects contents arduino UNO, Nodemcu, LCD display, PIR sensor,flame sensor,sd card module,solar panal,solar charges converter. This whole project is work on 12v dc supply from battery. We used solar panel to charge the battery. |