**Project Design Phase-I**

**Problem-Solution Fit Template**

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| Date | 29 September 2022 |
| Team ID | PNT2022TMID50823 |
| Project Name | Project – smart Crop Protection system for Agriculture |
| Maximum Marks | 2 Marks |

**Problem-Solution Fit:**

* **Crop protection helps to keep plants healthy and maintain sustainable yields. The choice of plant protection strategy depends on the type of cultures grown and the threat. It can be diseases, insects, or weeds. At the same time, measures must be timely and, wherever possible, preventive.**
* **Modern crop protection compounds make extensive use of digital solutions. They enable the precise analysis of soil and plant conditions and provide accurate information about external factors such as weather conditions. At the same time, they allow optimizing the use of resources.**
* **As a result, farmers can protect crops, increase profits, and minimize environmental damage.**

**Purpose:**

Crops in farms are many times ravaged by local animals like buffaloes, cows, goats, birds etc. This leads to huge losses for the farmers.

It is not possible for farmers to barricade entire fields or stay on field 24 hours and guard it. So here we propose automatic crop protection system from animals.

This is a microcontroller based system using PIC family microcontroller. This system uses a motion sensor to detect wild animals approaching near the field. In such a case the sensor signals the microcontroller to take action.

The microcontroller now sounds an alarm to woo the animals away from the field as well as sends sms to the farmer so that he may know about the issue and come to the spot in case the animals don’t turn away by the alarm. This ensures complete safety of crops from animals thus protecting the farmers loss.

**Template:**

