**Project Design Phase-1**

**Proposed Solution**

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| Date | 17 October 2022 |
| Team ID | PNT2022TMID11911 |
| Project Title | Project - IoT Based Smart Crop Protection System for Agriculture |
| Maximum Marks | 2 Marks |

**Proposed Solution:**

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| **S.No.** | **Parameter** | **Description** |
| 1 | Problem Statement (Problem to be solved) | Develop affordable app-based solution for Soil health and protect crops from animals and birds. (Technology Bucket: IoT, AI, ML) |
| 2 | Idea / Solution description | Create app-based solution to detect soil parameters like moisture content, temperature, relative humidity, nutrient, Ph, CEC, and NPK etc. and emits ultrasonic waves to repel animals and birds to protect the crops. |
| 3 | Uniqueness | Provide remedies & alerts on soil deficiencies like Watering for low Moisture level, Fertilizers for Nutrient deficiencies etc. Automatic animal detection is implemented to only repel particular animals or birds. |
| 4 | Social Impact / Customer Satisfaction | Farmers can take immediate actions resulting better crop produces and farmers have better income. High Yield and prescriptive guidance. |
| 5 | Business Model (Revenue Model) | GSM Model |
| 6 | Scalability of the Solution | soil Armor, minimizing soil disturbance, plant diversity, continual live plant/root, and livestock integration. |