Project Design Phase-I Proposed Solution

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| Date | 05 October 2022 |
| Team ID | PNT2022TMID17315 |
| Project Name | IoT Enabled Smart Farming Application |
| Maximum Marks | 2 Marks |

Proposed Solution:

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | IoT-based agriculture systems help the  farmer in monitoring different parameters of his field like soil moisture, temperature, and humidity using some sensors. |
| 2. | Idea / Solution description | Our system comprises the following elements to come up with a solution:   1. Pest control. 2. Timely irrigation. 3. Constant nutrient monitoring. 4. Estimated time for cultivation. 5. Additional nutrient supplements. 6. Estimated crop yield. 7. Environment monitoring. |
| 3. | Novelty / Uniqueness | Our system could function in both solar and battery mode. The inbuilt battery delivers  power during the necessary times. It also delivers remote sensing facilities. |
| 4. | Social Impact / Customer  Satisfaction | Upon implementing customers feel :   1. Seeing nearby adopting better agriculture practice. 2. Better income rates. 3. Better yield. 4. Feeling motivated. 5. Stable income. 6. Happy to work. 7. Feeling comfortable with the practices |
| 5. | Business Model (Revenue Model) | Our system comprises of hardware and  software part:  Hardware:   1. Controller(Brain) - 8000 2. Solenoid valves - 5000/piece 3. Pipe materials - needed to be provided by the land owner(May vary from place to place). |

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|  |  | 4. Cloud storage of data - 10000/Month(For n customers can be scaled up on demand)  Roughly sums around - 25000 Additionally we can generate income by  increasing the number of controllers since it is limited to a specific area.  Additional income - Ads posted on our mobile and web application platform |
| 6. | Scalability of the Solution | This system of ours is like a lego which can  be stacked and scaled up for a larger growth area. |