

## Proposed Solution Template

Date	18 OCTOBER 2022
Team ID	PNT2022TMID14113
Project Name	IOT Based Smart Crop Protection System For Agriculture
Maximum Marks	2 Marks

### Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"><li>• Crops are properly not irrigated due to insufficient labour forces.</li><li>• Requires protecting crops from Wild animals attacks, birds and pests.</li><li>• In environmental factors such as temperature climate, topography and soil quality which results in crop destruction because of crops against various.</li></ul>
2.	Idea / Solution description	<ul style="list-style-type: none"><li>• Moisture sensor is interfaced with Arduino Microcontroller to measure the moisture level in soil and relay is used to turn ON and OFF.</li><li>• The motor pump for managing the excess water level. It will be updated to authorities through IOT.</li><li>• IOT based fertilizing methods are followed, to minimize the negative effects on growth of crops while using fertilizers.</li><li>• Image processing techniques with IOT is followed for crop protection against animal attacks.</li></ul>
3	Novelty / Uniqueness	<ul style="list-style-type: none"><li>• Using the IoT Technology of Automated crop maintenance and protection of embedded system.</li><li>• The increasing demand for quality food.</li></ul>
4	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>• This proposed system provides many facilities which helps the farmers to maintain the crop field without much loss.</li></ul>
5	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>• As the product usage can be understand by everyone ,it is easy for them to use it properly for their safest organisation</li></ul>

		<ul style="list-style-type: none"> <li>• This prototype can be developed as product with minimum cost with high performance</li> </ul>
6	Scalability of the Solution	<ul style="list-style-type: none"> <li>• This can be developed to a scalable product by using sensors and transmitting the data through Wireless Sensor Network and Analysing the data in cloud and operation is performed using robots</li> </ul>