## IDEATION PHASE LITERATURE SURVEY

| DATE         | 15 October 2022                            |
|--------------|--|
| TEAM ID      | PNT2022TMID34560                           |
| PROJECT NAME | Fertilizer Recommendation System For Plant |
|              | Disease Prediction                         |

## **Literature Survey:**

| S.No | Title & Author                      | Year | Technique | Proposed System               |
|------|-------------------------------------|------|-----------|-------------------------------|
| 1    | Crop Prediction                     | 2022 | Support   | Basis on the crop and region  |
|      | and Disease                         |      | Vector    | of farming we will            |
|      | Detection System                    |      | Machine   | recommend the fertilizer      |
|      | - Sambhav                           |      | (SVM) or  | and its uses to boost the     |
|      | Bhansali, Punit                     |      | Neural    | yield productivity for        |
|      | Shah, Jinay                         |      | Networks. | farmers. Sometimes due to     |
|      | Shah, Priyal Vyas,<br>Poonam Thakre |      |           | unwanted excess of rainfall   |
|      | Poolialii Tilakie                   |      |           | or the pest attack can cause  |
|      |                                     |      |           | disease to crops. We will     |
|      |                                     |      |           | use the image classification  |
|      |                                     |      |           | technique where the user      |
|      |                                     |      |           | can upload the picture of the |
|      |                                     |      |           | affected plant/crop and the   |
|      |                                     |      |           | system will figure out the    |
|      |                                     |      |           | type of disease which will    |
|      |                                     |      |           | be done using Support         |
|      |                                     |      |           | Vector Machine (SVM) or       |
|      |                                     |      |           | using the neural network      |
|      |                                     |      |           | techniques. And this disease  |
|      |                                     |      |           | detection will suggest that   |
|      |                                     |      |           | how that plant/crop can be    |
|      |                                     |      |           | cure or prevent.              |
| 2    | Fertilizers                         | 2020 | Graph cut | Many people lead their life   |
|      | Recommendation                      |      | Algorithm | from agriculture field,       |
|      | System For                          |      |           | which gives fully related to  |
|      | Disease Prediction                  |      |           | agricultural products. Plant  |
|      | In Tree Leave -                     |      |           | disease, especially on        |
|      | R.Neela, P.Nithya                   |      |           | leaves, is one of the major   |

| 3 | Soil based fertilizer | 2021 | Long or<br>Short term | factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth of the agricultural level. Finding the leaf disease is an important role of agriculture preservation. After preprocessing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation.  The proposed system was able to analyse the soil |
|---|-----------------------|------|-----------------------|---|
| 3 | Soil based            | 2021 | Long or               |   |
|   |                       |      | Short term            | 1   |
|   | Recommendation        |      | memory                | nutrient type efficiently,  |
|   | system for crop       |      | algorithm.            | kind of leaf disease present  |
|   | disease prediction    |      |                       | in the crop and predict the   |
|   | – Dr.P.Pandiselvi,    |      |                       | fertilizer in a proficient  |
|   | P.Poornima            |      |                       | manner. The approach was  |
|   |                       |      |                       | flexible, and can be  |
|   |                       |      |                       | extended to the needs of the  |
|   |                       |      |                       | users in a better manner.   |

## **References:**

https://ieeexplore.ieee.org/document/9825446

http://www.ijstr.org/final-print/nov2019/Fertilizers-Recommendation-System-For-Disease-Prediction-In-Tree-Leave.pdf

https://www.semanticscholar.org/paper/Soil-Based-Fertilizer-Recommendation-System-for-Selvi-Poornima/b1541806e8d0ffb21386a1b570ad0cd6b5ff0435