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|  | **Title:** **EDI / D&I / Major Project Registration & Progress Review** | | **FF No. 180** |  |
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| **Department: Instrumentation and Control** | | **Academic Year: 2020-21** | | | |
| **Semester: 3rd** | | **Group No.: 5** | | | |
| **Project Title: Machine Learning based Crop Consultant** | | | | | |
| **Project Area: Machine Learning** | | | | | |
| **Group Members Details:** | | | | | |

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| Project approved / Not approved  Guide Coordinator Head of Department |

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**FF No** **180**

**Project Synopsis**

# Importance of the decided project:

Farming is one of the most important occupations in India. It is difficult for new farmers to identify which fertilizer to use for a particular crop and soil, and at the same time know the probable diseases for the crop. To make it easier for farmers, a website in this project will be developed, wherein fertilizers will be recommended using the data from the soil and the environmental conditions and disease prediction will be done for certain crops using suitable machine learning algorithms and computer vision techniques, respectively. A real time weather API will also be implemented in this website, which will allow the farmers to predict rains.

# Steps to do the project/ methodology:

# Acquire the datasets for fertilizer prediction and crop disease prediction.

# Model training for the two applications.

# Integration of the model with the website.

# Website development with frontend and backend.

# Deployment of website on cloud platform.

**Tentative expected results/outcome from the project:**

A website will be developed in which the user can input the soil and weather information and/or an image of the crop for fertilizer prediction and disease prediction, respectively. Real time weather will also be available for the user.

**FF No** **180**

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| Group No. | 5 | | |
| Activity | Review Schedule | Progress Review Report submitted | Signature of Guide |
| Review 1 | Mid Sem. Semester | Yes / No |  |
| Review 2 | End of Semester | Yes / No |  |

Format of Progress Review Report:

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| **Review No.: 1 Group No.: 5 Date: 30/10/2020** |
| **Progress Review Report** |
| **Signature of Guide:** |

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| **Review No.: 2 Group No.: Date:** |
| **Progress Review Report** |
| **Signature of Guide:** |