Capstone Project Proposal Report
(Individual Report)

Instructions:

- This form is to be completed by each student doing Project registration to fulfill their capstone project requirement. It must be completed and submitted to your Guide. Each student must complete this form individually.
- This report is to be completed during the starting of the semester, while the project description report will be completed during end of the semester.

CAP4001– Capstone Project Proposal Report

Student Name	THARUN KUMAR K
Register Number	21BCE8765
Programme	B-TECH, CSE-CORE
Semester/Year	FALL SEM (2024,25), 4th year 1st sem
Name of the Guide	PROF. RAVI SANKAR BARPANDA
Project Title	CROP RECOMMENDATION SYSTEM

Team Composition: Provide the information below for each member of the **project team**. Include **all** project team members, not just those in your discipline or those enrolled for Capstone project. Please also include yourself!

Register Number	Name	B.Tech. Major	Specialization
21BCE8765	THARUN KUMAR K	CSE	CORE
21BCE8170	MOHAJIT NEOG	CSE	Data Analytics
21BCE8603	NIKESH KUMAR	CSE	CORE
21BCE7420	ANKIT SINGH HADA	CSE	CORE

Project and Task Description: Provide a brief (one or two page) technical description of the design project and your specific tasks, as outlined below: (use a separate sheet)

(a) Provide a summary of the project, including a description of the project and its requirements, the purpose, specifications, and a summary of the approach. If this is a continuing project, you may use and/or edit the same project description.

(b) Describe the specific role and tasks that **you individually** will be completing as part of the design of the project. What **specific deliverables** will you produce?

(c) Discuss in detail the specific approach that will be used to complete **your** portion of the design.

(d) Describe the phases of the design process that will be incorporated and what work will be accomplished during those phases. (you may attach a Gantt Chart)

Outcome Matrix: Describe your plan to demonstrate each of the outcomes below.

| Outcomes:	Plan for demonstrating outcome:
a) an ability to apply knowledge of mathematics, science, and engineering	Utilize ML algorithms to create recommendation and classification models, integrate mathematical models to enhance accuracy.
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	Develop a website with AI-driven features that consider such as economic affordability, environmental impact, and social usability for farmers.
d) an ability to function on multidisciplinary teams	Collaborate with experts in agriculture, data science and software development to ensure the projects holistic success
e) an ability to identify, formulate, and solve engineering problems	Address challenges like dataset bias and model accuracy by refining the dataset and improving algorithmic approaches.
g) an ability to communicate effectively	Present findings through clear visualisations and accessible language on the website ensuring comprehensibility.
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	Employ Tensor Flow, python, cloud based tools to build and deploy the AI models and website.

Realistic Constraints:

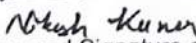Discuss on the Realistic Constraints taken in to account for the Project:

- Focusing on Low-Cost solutions for small scale farmers.
- Ensuring that the model considers sustainable farming practices.

Engineering Standards: Discuss the Engineering Standards that will be followed and maintained in the Project:

Follow IEEE standards for AI and data management and W3C standards for web development to ensure reliability & accessibility

Tharun Kumar K
K. Arte
Name and Signature of Student 1

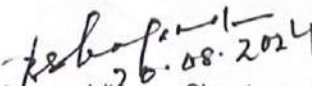Mohajit Neog
mohajilneeg
Name and Signature of Student 2

Nikesh Kumar
Nikesh Kumar
Name and Signature of Student 3

Ankit Singh Hada
A
Name and Signature of Student 4

26.08.2024
Guide Approval (Name, Signature with date)

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CAP4001– Capstone Project Proposal Report

Student Name	MOHAJIT NEOG
Register Number	21BCE8170
Programme	B.TECH, CSE - DATA ANALYTICS
Semester/Year	FALL SEM (2024-25), 4th YEAR 1st SEM
Name of the Guide	PROF. RAVI SANKAR BARPANDA
Project Title	CROP RECOMMENDATION SYSTEM

Team Composition: Provide the information below for each member of the **project team**. Include **all** project team members, not just those in your discipline or those enrolled for Capstone project. Please also include yourself!

Register Number	Name	B.Tech. Major	Specialization
21BCE8170	MOHAJIT NEOG	CSE	DATA ANALYTICS
21BCE8765	THARUN KUMAR K	CSE	CORE
21BCE8603	NIKESH KUMAR	CSE	CORE
21BCE7420	ANKIT SINGH HADA	CSE	CORE

Project and Task Description: Provide a brief (one or two page) technical description of the design project and your specific tasks, as outlined below: (use a separate sheet)

(a) Provide a summary of the project, including a description of the project and its requirements, the purpose, specifications, and a summary of the approach. If this is a continuing project, you may use and/or edit the same project description.

(b) Describe the specific role and tasks that **you individually** will be completing as part of the design of the project. What **specific deliverables** will you produce?

(c) Discuss in detail the specific approach that will be used to complete **your** portion of the design.

(d) Describe the phases of the design process that will be incorporated and what work will be accomplished during those phases. (you may attach a Gantt Chart)

Outcome Matrix: Describe your plan to demonstrate each of the outcomes below.

Outcomes:	Plan for demonstrating outcome:
a) an ability to apply knowledge of mathematics, science, and engineering	Utilize ML algorithms to create recommendation and classifications models, integrate mathematical models to enhance accuracy —
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	Develop a website with AI-driven features that consider such as economic affordability, environmental impact, and social usability for farmers.
d) an ability to function on multidisciplinary teams	Collaborate with experts in agriculture, data science and software development to ensure projects relistic success.
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Realistic Constraints:
Discuss on the Realistic Constraints taken in to account for the Project:

- Focusing on low-cost solutions for small scale farmers
- Ensuring that model considers sustainable farming practices

Engineering Standards: Discuss the Engineering Standards that will be followed and maintained in the Project:

Follow IEEE standards for AI and data management and W3C standards for web developments to ensure reliability and accessibility.

THARUN KUMAR K

Name and Signature of Student 1

NIKESH KUMAR

Name and Signature of Student 3

MOHAJIT NEOY

Name and Signature of Student 2

ANKIT SINGH HADA

Name and Signature of Student 4

08.2024

Guide Approval (Name, Signature with date)

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CAP4001– Capstone Project Proposal Report

Student Name	NIKESH KUMAR
Register Number	21BCE8603
Programme	B Tech., CSE CORE
Semester/Year	FALL SEM (2024,25), 4th year, 1st SEM
Name of the Guide	PROF. RAVI SHANKAR BARPANDA
Project Title	CROP RECOMMENDATION SYSTEM

Team Composition: Provide the information below for each member of the **project team**. Include **all** project team members, not just those in your discipline or those enrolled for Capstone project. Please also include yourself!

Register Number	Name	B.Tech. Major	Specialization
21BCE8765	THARUN KUMAR K	CSE	CORE
21BCE8170	MOHAJIT NEOG	CSE	Data Analytics
21BCE8603	NIKESH KUMAR	CSE	CORE
21BCE7420	ANKIT SINGH HADA	CSE	CORE

Project and Task Description: Provide a brief (one or two page) technical description of the design project and your specific tasks, as outlined below: (use a separate sheet)

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Outcome Matrix: Describe your plan to demonstrate each of the outcomes below.

Outcomes:	Plan for demonstrating outcome:
a) an ability to apply knowledge of mathematics, science, and engineering	Utilize ML algorithms to create recommendation and classifications models, integrate mathematical models to enhance accuracy
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	Develop a website with AI-driven features that consider such as economic affordability environmental impact, & social usability for farmers
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Realistic Constraints:
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- Focusing on low-cost solutions for small scale farmers.
- Ensuring that model considers sustainable forming practices

Engineering Standards: Discuss the Engineering Standards that will be followed and maintained in the Project:

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THARUN KUMAR K

Name and Signature of Student 1

MOHAJIT NEOG

Name and Signature of Student 2

NIKESH KUMAR

Nikesh Kumar
Name and Signature of Student 3

ANKIT SINGH HADA

Name and Signature of Student 4

08.2024

Guide Approval (Name, Signature with date)

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CAP4001– Capstone Project Proposal Report

Student Name	ANKIT SINGH HADA
Register Number	21BCE 7420
Programme	B.TECH , CSE - CORE
Semester/Year	FALL SEM (2024-25) 4th Year 1st Sem
Name of the Guide	PROF. RAVI SANKAR BARPANDA
Project Title	CROP RECOMMENDATION SYSTEM

Team Composition: Provide the information below for each member of the **project team**. Include **all** project team members, not just those in your discipline or those enrolled for Capstone project. Please also include yourself!

Register Number	Name	B.Tech. Major	Specialization
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21BCE 8603	NIKESH KUMAR	CSE	CORE
21BCE 7420	ANKIT SINGH HADA	CSE	CORE

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THARUN KUMAR K

Name and Signature of Student 1

NIKESH KUMAR
Nikesh kumar

Name and Signature of Student 3

MOHAJIT NEOG

Name and Signature of Student 2

ANKIT SINGH HAPA

Name and Signature of Student 4

Feber far 8. 2024

Guide Approval (Name, Signature with date)