

# Sri Lanka Institute of Information Technology



## Smart System to Optimize Organic Crop Rotation Using Precision Agriculture Data

2023-113

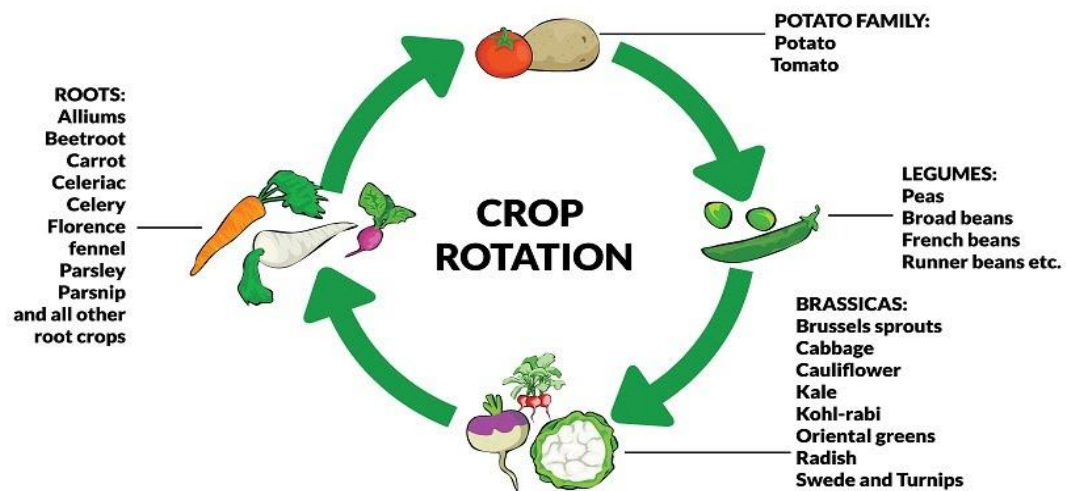
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IT20233808

Software Engineering Specialization

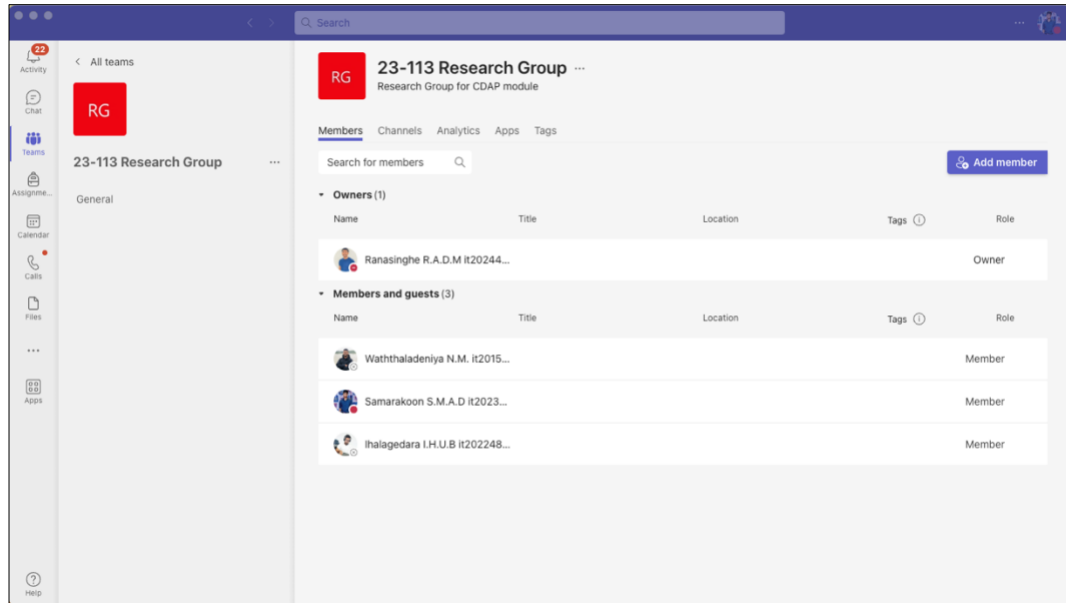
# TABLE OF CONTENTS

<b>PROJECT GROUP COMMUNICATION.....</b>	<b>i</b>
Microsoft Teams Channel Creation .....	i
Trello Board Creation.....	i
WhatsApp Group Creation .....	ii
<b>LOGBOOK CONTENT.....</b>	<b>1</b>

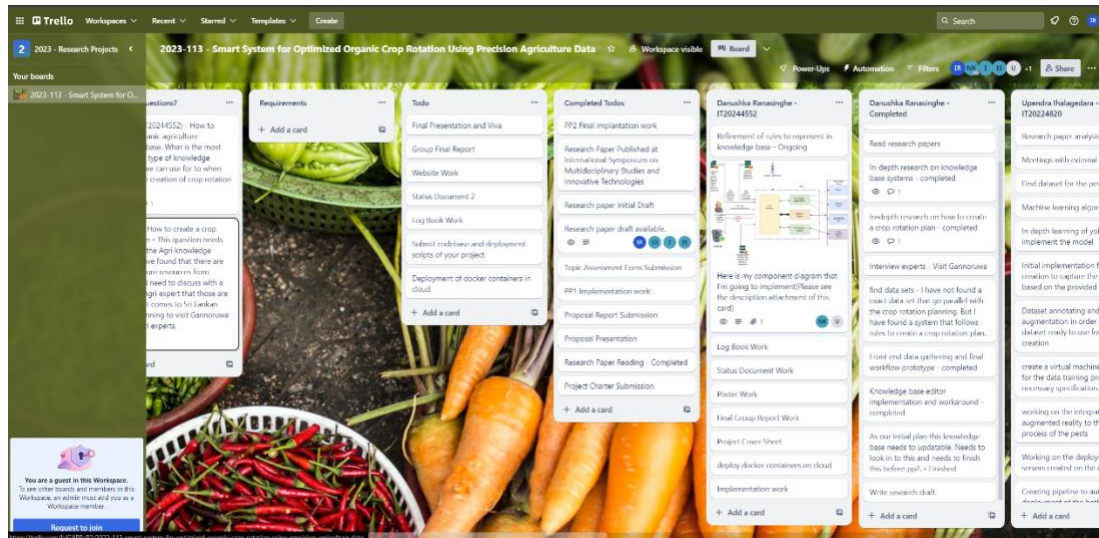


# PROJECT GROUP COMMUNICATION

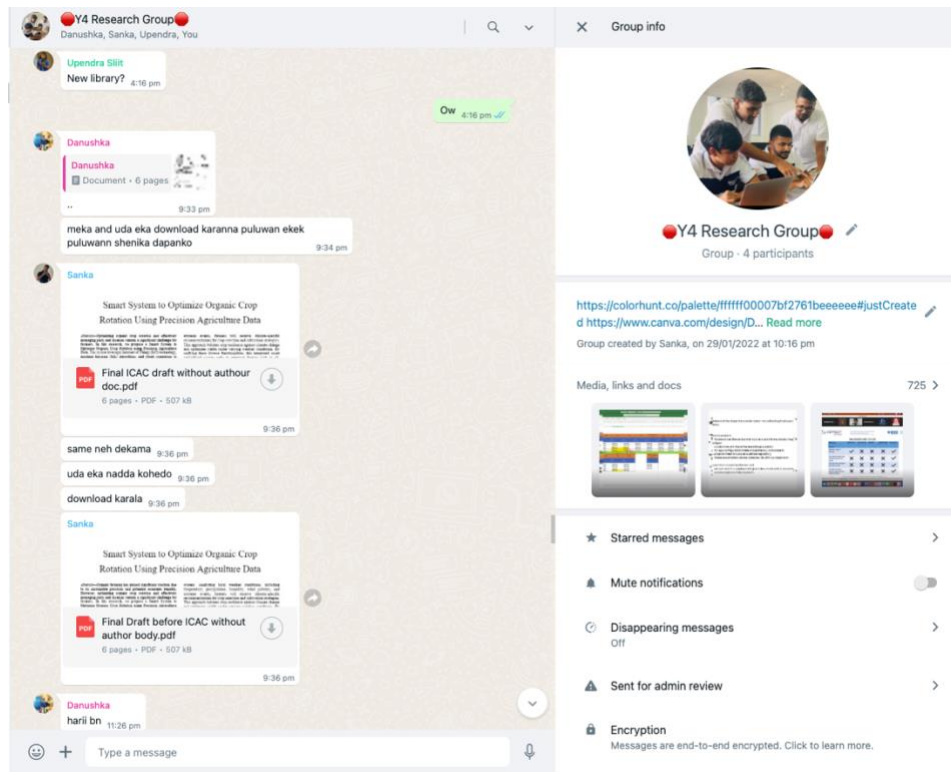
## Microsoft Teams Channel Creation



## Trello Board Creation



## WhatsApp Group Creation



## LOGBOOK CONTENT

Meeting date	7-Feb-23
Meeting type	Topic evaluation discussion
Attendance	Supervisor, Co-supervisor, All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>• Discussion about the potential components.</li> <li>• Novelty of the components</li> <li>• Finalizing the components</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• In this meeting, the potential components for each member were discussed. Each member presented their ideas to the supervisor and the co-supervisor and got their feedback. Both the supervisor and co-supervisor modified the ideas of the members by adding technical aspects. Also, the components were narrowed down so that it could be done within a year.</li> <li>• The novelty of the components was discussed, and the feedback of the supervisor and the co-supervisor helped us immensely to think in different ways.</li> </ul>

- Comments:

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Date

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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	11-Mar-23
Meeting type	Meeting with supervisor
Attendance	Supervisor, All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>• Discussion about the charter document submission.</li> <li>• Discussion about the proposal presentation.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• Since the Topic evaluation form was “Accepted with minor changes”, we had a meeting with the supervisor to verify it. The final draft of the charter document was also presented and got feedback from the supervisor. An external supervisor was taken into our project as it was the feedback given to us by the panel.</li> <li>• Was also instructed to contact the RP module team to clarify the doubts regarding the Project proposal deliverables.</li> </ul>

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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	12-Mar-23
Meeting type	Meeting with an external supervisor
Attendance	External supervisor, All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>• Discussion about the cop rotaion</li> <li>• Discussion about the each members component.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• Talked about the organic farming methods in Sri lanka with our External supervisor.</li> <li>• We were able to gain knowledge about how the traditional organic farming works in Sri Lanka</li> <li>• Was able to get an idea about how the soil and whether affect the organic cultivation</li> </ul>

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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	13-Mar-23
Meeting type	SCRUM meeting
Attendance	All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>• The Trello board was formatted.</li> <li>• The form for commercialization was finalized.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• We started using Trello as the platform for project management and communication. After our meeting, we prepared the Trello board appropriately.</li> <li>• We succeeded in completing the form that will be use to determine any potential gaps in the market for the purpose of our study.</li> </ul>

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Supervisor/Cosupervisor/Ext. Supervisor  
Signature



Meeting date	24-Mar-23
Meeting type	SCRUM meeting
Attendance	All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>• Creating the proposal report.</li> <li>• Formatting the final draft of the proposal report.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• The team was working on the proposal report after turning in the proposal report's initial drafting. The report was finished by the whole team, and in the conclusion, a final drafting was made.</li> <li>• The supervisor received the reports in order to provide input so that we may further enhance our particular areas of improvement.</li> </ul>

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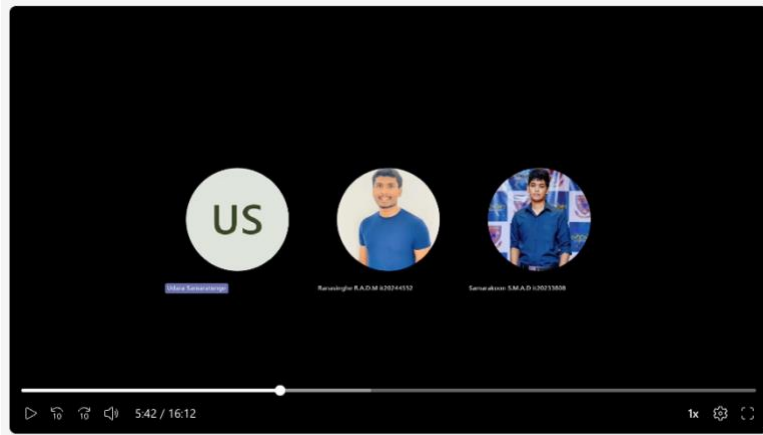
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	18-May-23
Meeting type	Meeting with supervisor
Attendance	All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>About the PP1</li> <li>About the specific components</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>Every group member received guidance. Discussed mainly about what should be the goal in pp1.</li> </ul> 

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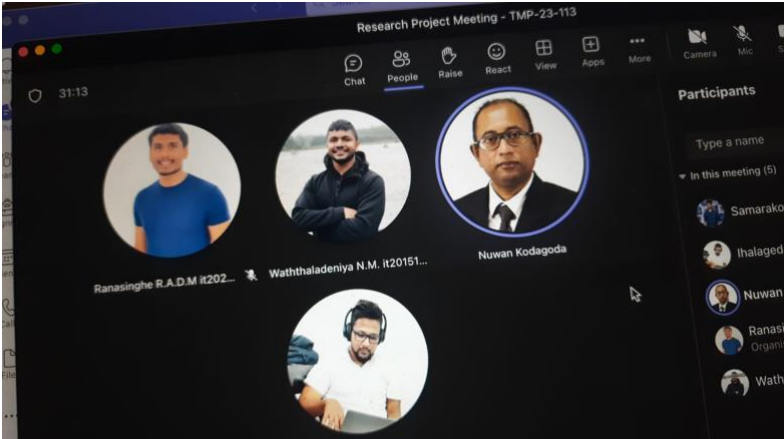
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	19-Jun-23
Meeting type	Meeting with supervisor and co-supervisor
Attendance	All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>About the feedback that was given at the PP1.</li> <li>Received advices on how to improve on the points that are mentioned in the pp1.</li> <li>Discussed about the Research paper writing</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>Discussed how to address and improve on the comments received in pp1.</li> <li>Discussed about how to write the research paper</li> </ul> 

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

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Supervisor/Cosupervisor/Ext. Supervisor  
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Meeting date	10-Aug-23
Meeting type	Meeting with supervisor and co-supervisor
Attendance	All 4 group members
Discussed points	Had a conversation about the written study paper. Talked on what ought to be included.
Comments and summary	<p><b>23-113 Research Paper Draft</b></p> <div>  <div> <p>Udara Samaratunge &lt;udara.s@sliit.lk&gt;</p> <p>To: Ranasinghe R.A.D.M it20244552</p> <p>Cc: Ihalagedara I.H.U.B it20224820; <b>+2 others</b></p> </div> <div>      </div> <p>Tue 8/15/2023 12:15 AM</p> </div> <p><b>[EXTERNAL EMAIL] This email has been received from an external source – please review before actioning, clicking on links, or opening attachments.</b></p> <p>Dear Students,</p> <p>Fix following IEEE formatting issues. I added IEEE template herewith. you can check following things and send it to me.</p> <ol style="list-style-type: none"> <li>1. Figures should be used as Fig.1, Fig.2 format not Figure 1, reconfirm all figure names. The spacing between figure name should be 4pt and 10pt before and after.</li> <li>2. My name there should be double "II" =&gt; "Arachchillage"</li> <li>3. Increase the font size further in the Figure 01.</li> <li>4. All Table name spacing should be 12pt before and 6pt after.</li> <li>5. All references need to be corrected. It <b>should not be center aligned</b> and font size should be 08. (check your previous paper version, references were in correct format.</li> <li>6. Check each and every reference IEEE referencing format.</li> </ol>

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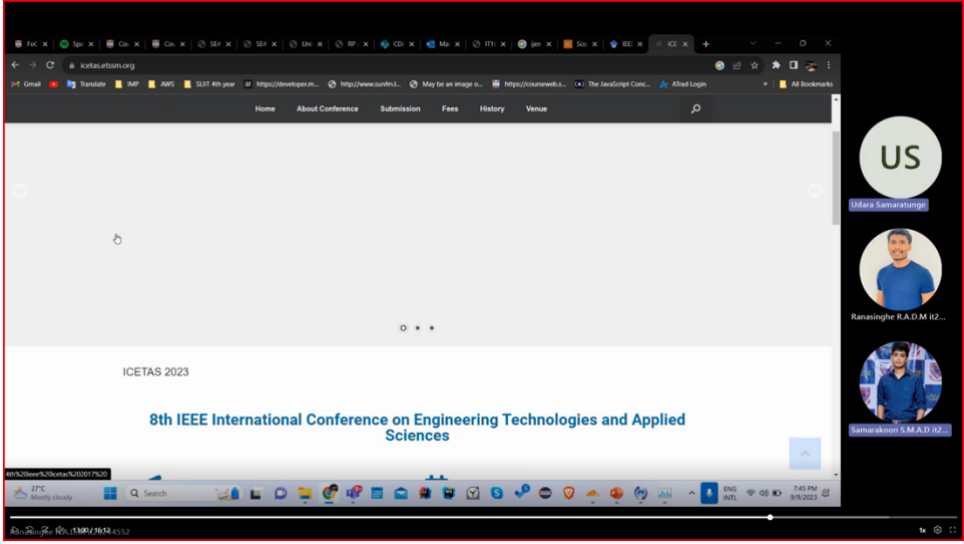
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	22-Aug-23
Meeting type	Research paper publication meeting
Attendance	Mr Udara Samarathunga
Discussed points	<ul style="list-style-type: none"> <li>Discussed about the conferences available.</li> <li>Discussed about the h-indexes and values of the conferences.</li> </ul>
Comments and summary	

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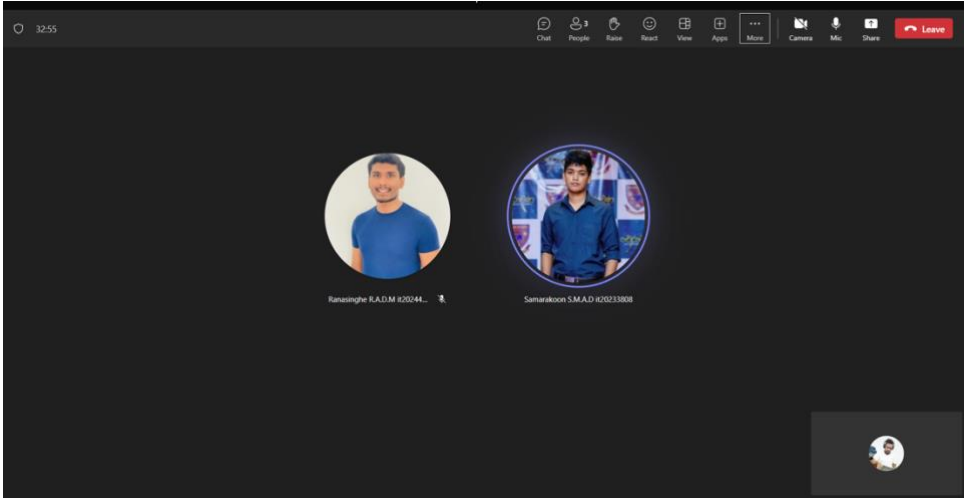
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	28-Aug-23
Meeting type	Research paper submission
Attendance	All 4 group members
Discussed points	<ul style="list-style-type: none"> <li>Discussed and submitted the research paper to ICAC</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>After carefully reviewing each member's qualifications, the group as a whole submitted the study report.</li> </ul> 

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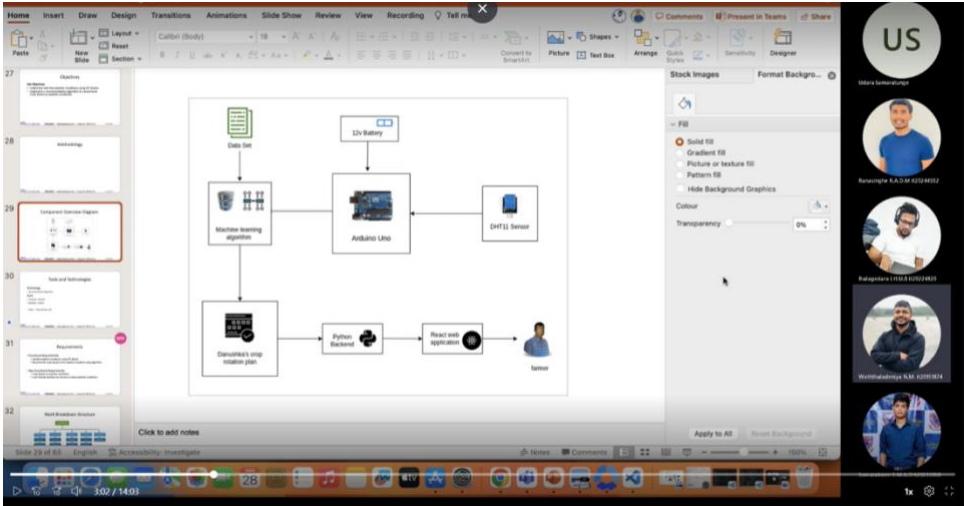
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	1-Sep-23
Meeting type	Product final discussion
Attendance	All 4 group members and supervisor
Discussed points	<ul style="list-style-type: none"> <li>Scheduled a meeting with the External supervisor to discuss more about the proposed system.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>Discussed more about the proposed system and several points were highlighted by the supervisor to improve the performance</li> </ul> 

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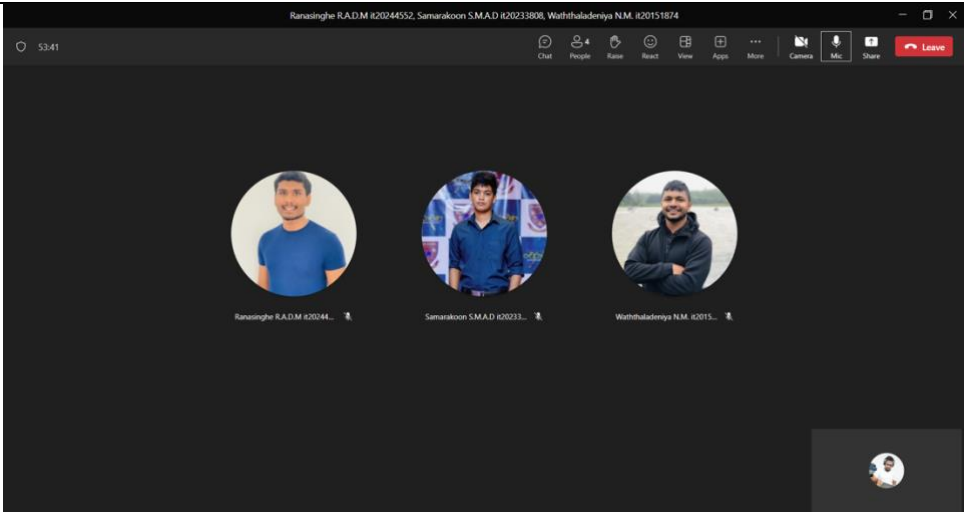
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Supervisor/Cosupervisor/Ext. Supervisor  
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Meeting date	1-Sep-23
Meeting type	Product implementation meeting
Attendance	Group members
Discussed points	<ul style="list-style-type: none"> <li>Scheduled a meeting with the team members to discuss more about the implementation and integrations</li> </ul>
Comments and summary	

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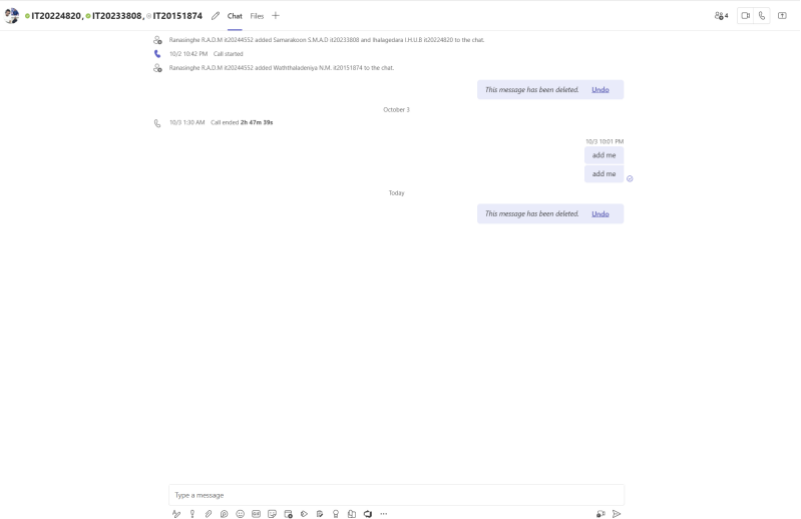
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Supervisor/Cosupervisor/Ext. Supervisor  
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Meeting date	4-Sep-23
Meeting type	System unveiling meeting with the co-supervisor
Attendance	Members of the project team
Discussed points	<ul style="list-style-type: none"> <li>• Arranged a physical meeting with the co-supervisor to present the implemented system.</li> <li>• Received some points to discuss in Progress Presentation 2.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• The co-supervisor provided some positive feedback on the implemented system.</li> <li>• Some recommendations were made to improve the performance of the implemented system.</li> <li>• The areas that need to be prioritized for Progress Presentation 2 were discussed.</li> </ul> 

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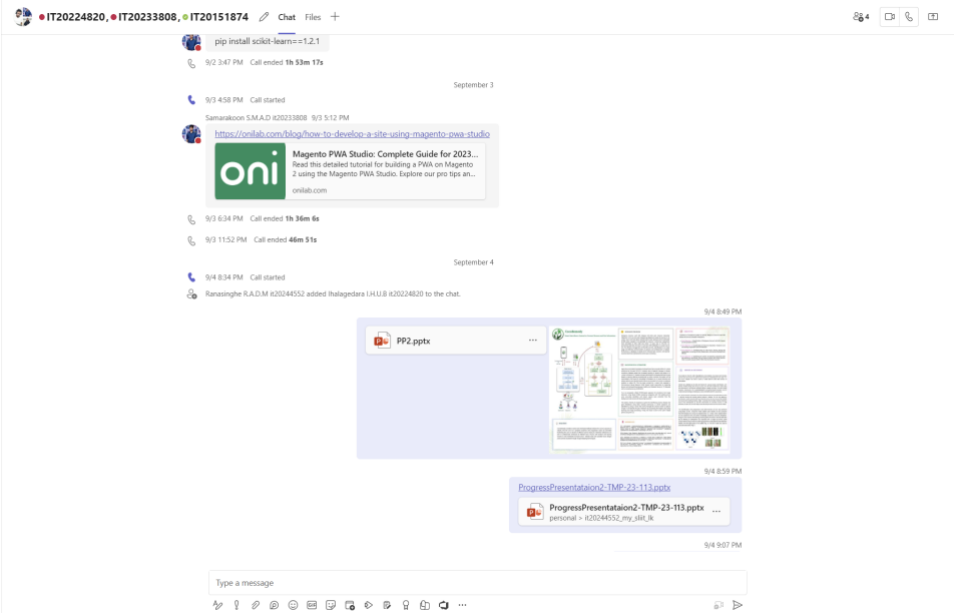
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Supervisor/Cosupervisor/Ext. Supervisor  
Signature

Meeting date	5-Sep-23
Meeting type	Pre-presentation meeting with team members
Attendance	Members of the project team
Discussed points	<ul style="list-style-type: none"> <li>Arranged a meeting with team members to practice the PP2 presentation.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>All team members' timings were checked and adjusted.</li> <li>Talked about the points that needed to be clarified in the PP2.</li> </ul> 

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Meeting date	16-Oct-23
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Meeting type	Finalizing the thesis group report
Attendance	Members of the project team
Discussed points	<ul style="list-style-type: none"> <li>• Arranged a team meeting to integrate the final thesis (group report).</li> <li>• Individual contributions were formatted.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• Figure and table names were edited in accordance with a strict standard. The suggestions of each group member were considered, and the report was revised accordingly.</li> </ul>

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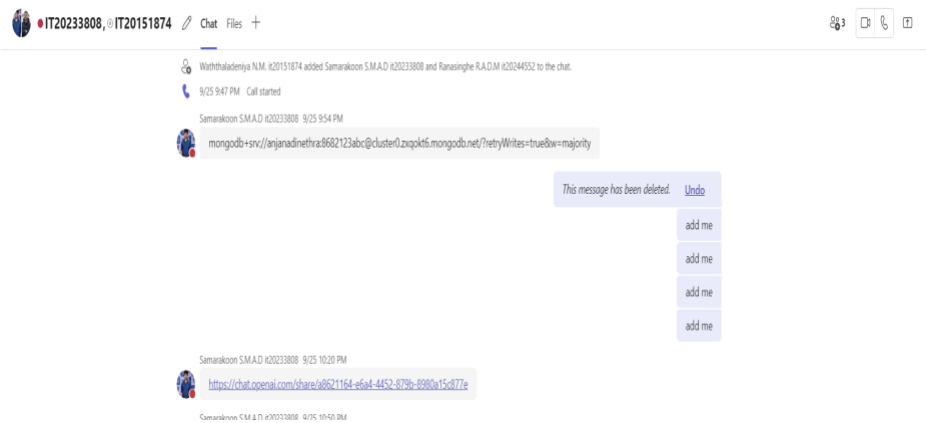
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Supervisor/Cosupervisor/Ext. Supervisor  
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Meeting date	19-Oct-23
Meeting type	Code re-assessment meeting
Attendance	Members of the project team
Discussed points	<ul style="list-style-type: none"> <li>Scheduled a meeting with the team members to reassess the code of the project.</li> <li>Some modifications were made to Crop Rotation Planning System.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>The validation of all the components were discussed in the call.</li> </ul> 

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Meeting date	29-Oct-23
Meeting type	Meeting to finalize the project
Attendance	Members of the project team
Discussed points	<ul style="list-style-type: none"> <li>• Arranged for a meeting with team members to finalize the logbook.</li> <li>• Re-evaluated the GitLab repository and completed the final commits.</li> <li>• Discussed the finalized research paper with team members.</li> </ul>
Comments and summary	<ul style="list-style-type: none"> <li>• The logbook was updated by including all meetings held throughout the research project.</li> <li>• The GitLab repository was completed by adding codes and merging them to ensure full implementation..</li> </ul> 

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Supervisor/Cosupervisor/Ext. Supervisor