REAL-TIME CARBON NEUTRALITY MANAGEMENT AND OPTIMIZATION USING NATURAL LANGUAGE PROCESSING

Project ID: 2022-175

Status Document 2

Vithursan Magenthirarajah IT19033174

Supervisor Name: Ms. Anjali Gamage

Co-supervisor Name: Ms. Sanjeevi Chandrasiri

B.Sc. Special (Honors) Degree in Information Technology

Department of Information Technology Sri Lanka Institute of Information Technology Sri Lanka

November 2022

Table of Contents

Table of	Contents	ii
List of F	igures — — — — — — — — — — — — — — — — — — —	iii
List of To	ables	iv
1. GA	NTT CHART COMPARISON	1
2. TI	MELINE COMPARISON AND WORK ALLOCATION	2
3. FI	NALIZED WORK ALLOCATION	3
4. <i>PR</i>	OJECT MANAGEMENT TOOLS REPORTS	4
4.1.	Planner Reports	4
4.2.	Milestones Completion	7
4.3.	Documentation Works	8
4.4.	Meeting Logs and Proofs	14
4.5.	GitLab proof	19

List of Figures

Figure 1.1: Gantt chart submitted with proposal report	
Figure 1.2: Updated Gantt chart	
Figure 3.1: Updated work breakdown structure	3
Figure 4.1: Full view of the project management tool (Planner)	4
Figure 4.2: Tasks completed by me until now	4
Figure 4.3: Ongoing and remaining tasks	5
Figure 4.4: Planner report generated for my component, common	tasks, and project
deliverables part	5
Figure 4.5: Planner overall contribution report generated	6
Figure 4.6: Milestones completed or contributed	7
Figure 4.7: Ongoing and remaining milestones	Error! Bookmark not defined.

List of Tables

Table 4.1: Su	pervisor meeting log	S	10
	4.2:		meeting
logs		10	

1. GANTT CHART COMPARISON



Figure 1.1: Gantt chart submitted with proposal report

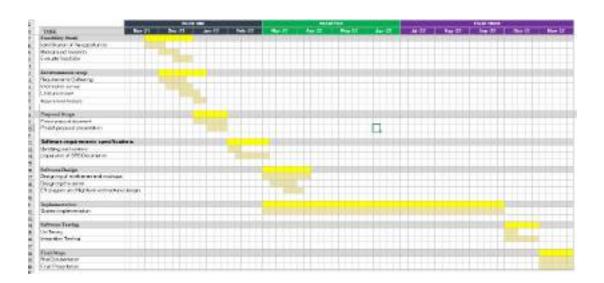


Figure 1.2: Gantt chart Status Document 1



Figure 1.2: Updated Gantt chart

2. TIMELINE COMPARISON AND WORK ALLOCATION

When compared with the proposal Gantt chart (shown in Figure 1.1) to the current Gantt chart (shown in Figure 1.2), the following changes occurred,

1. Delay in the mobile application design

Reasons: Due to some requirements changes I have updated wireframes three times and also take some time to create high fidelity diagrams.

2. Extension of mobile app implementation

Reasons: Due to weight of research component I have focused on the research area. So that Could not be able to finish it.

When compared with the proposal Gantt chart (shown in Figure 1.2) to the current Gantt chart (shown in Figure 1.3), the following changes occurred,

- 1. Delay in mobile application development
- 2. Delay in backend implementation

3. FINALIZED WORK ALLOCATION

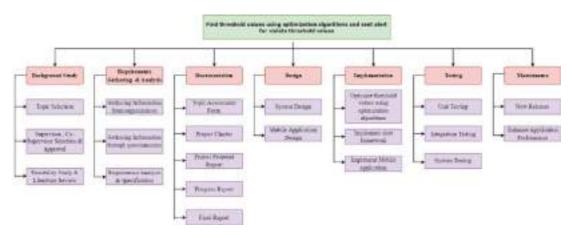


Figure 3.1: Updated work breakdown structure

4. PROJECT MANAGEMENT TOOLS REPORTS

4.1. Planner Reports

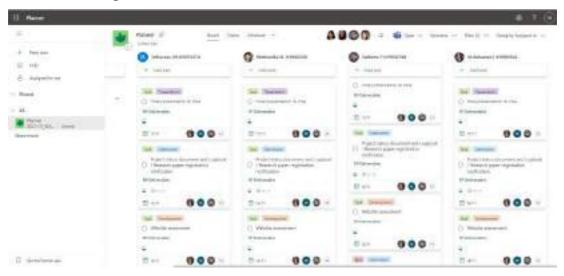


Figure 4.1: Full view of the project management tool (Planner)

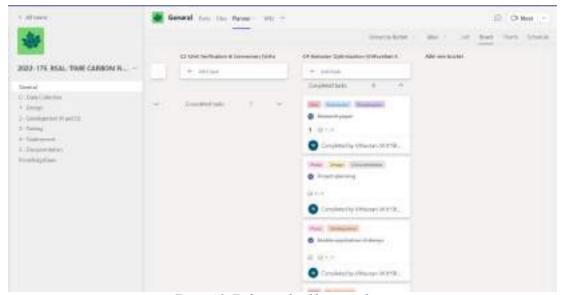


Figure 4.2: Tasks completed by me until now

Microsoft Planner was used to manage project tasks and work allocations (shown in figure 4.1). Figure 4.2 shows the phases and tasks completed by me until now.

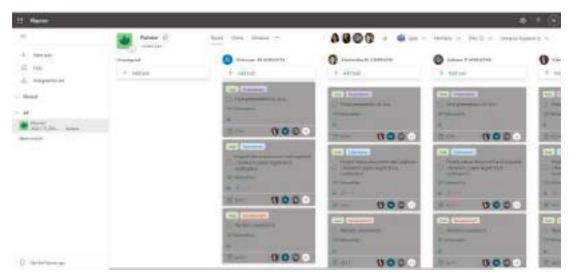
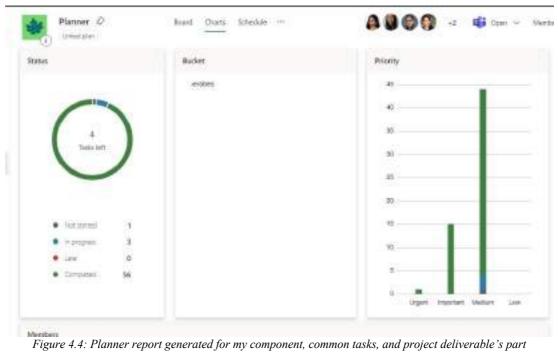


Figure 4.3: Ongoing and remaining tasks



Figures 4.4 and 4.5 show the reports generated by the planner for my contribution and progress status at the current moment.



Figure 4.5: Planner overall contribution report generated

4.2. Milestones Completion

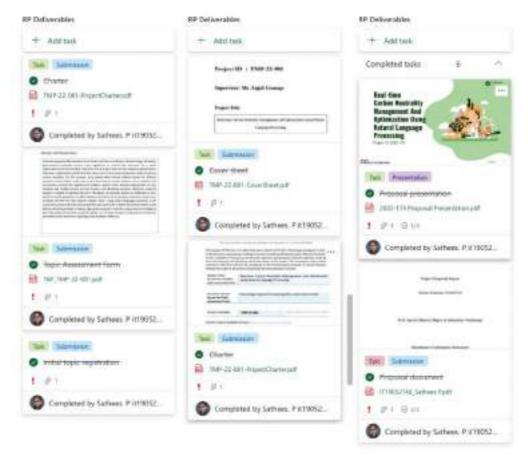


Figure 4.6: Milestones completed or contributed

4.3. Documentation Works

Until now I have contributed to the following documentation works,

- 1. Initial topic registration
- 2. Topic assessment form
- 3. Charter
- 4. Project proposal (individual)
- 5. Proposal presentation
 - a. My component
 - b. Commercialization
- 6. Meeting logbooks
- 7. Progress presentation 1
 - a. My component
 - b. Commercialization Business plan
- 8. Status document 1 (individual)
- 9. Research Paper
- 10. Draft Thesis final report
- 11. Thesis final report
- 12. Status document 2 (individual)

4.4. Meeting Logs and Proofs

Table 4.1: supervisor meeting logs

Date	Time	Platform	Superviso r	Co- supervisor	Ext- supervisor	Vithursa n	Discussions	Conclusions
12/6/2021	8:00 PM	MS Teams	Present	Absent	Absent	Present	Topic selection Co-supervisor selection Components Communications with supervisor (e.g., teams) External supervisor	Identify more relevant components for the idea Find a more novel idea
12/10/202	8:00 PM	MS Teams	Absent	Present	Absent	Present	Group intro Research area / technologies Reason for delay Idea 2 - domain, problem, implementation Idea 2 - possible implementation Dataset collection Form submission extension Communication - 077-6918328	Decided to go with KIC and data science Arrange a meet with the supervisor Might have a large scope Formulate a topic
12/28/202 1	4:00 PM	Zoom	Absent	Absent	Present	Present	Domain area, Problems, Idea	Decided to be our external supervisor
3/28/2022	2:00 PM	MS Teams	Absent	Present	Absent	Present	Progress	progress comments
3/8/2022	12:40	WhatsAp p	Absent	Present	Absent	Present	Meeting arrangement	Meeting time
3/29/2022	2:00 PM	MS Teams	Absent	Present	Absent	Present	Progress, PPI demo with Jupyter notebooks, Weekly meetings	Decided to demo PP1 within jupyter notebooks
4/5/2022	2:00 PM	MS Teams	Absent	Present	Absent	Present	Progress discussion	progress comments
4/21/2022	9:00 PM	MS Teams	Present	Absent	Absent	Present	Progress discussion	progress comments
4/26/2022	3:30 PM	MS Teams	Present	Absent	Absent	Present	Individual progress, Demo instructions, Presentation draft discussions, Next meeting	Decided to meet after 5th may to see the trial PP! presentation and demo.
4/29/2022	2:00 PM	MS Teams	Absent	Present	Absent	Present	Individual progress, Reviewing PP1 slides, Changes to system architecture diagram, Next meeting for demo	Decided to add detailed parts for Component 1 and 4, Decided to have a demo presentation after 5th May
5/24/2022	7:00 PM	WhatsAp p	Present	Absent	Absent	Present	Progress meeting time	Time: 26th May
5/25/2022	1:00 PM	WhatsAp p	Absent	Present	Absent	Present	Meeting arrangement	Meeting time
5/26/2022	8:00 PM	MS Teams	Present	Absent	Absent	Present	Reviewing PP1 Presentation and demo, Corrections to PP1 Slides	Decided to update slides for the corrections proposed by the supervisor
6/7/2022	10:00 AM	MS Teams	Absent	Present	Absent	Present	Conference guides, research approach, NBQSA competition guides.	Decided to write individual papers. Decided to publish in 20 - 30 h index conferences.
6/16/2022	9:00 PM	MS Teams	Present	Absent	Absent	Present	Progress discussion, NBQSA preparation	Comments on progress, NBQSA demo
7/6/2022	9:00 PM	MS Teams	Present	Absent	Absent	Present	NBQSA preparation, Presentation demo	Slides improvements & corrections,
7/14/2022	8:20 PM	WhatsAp p	Present	Absent	Absent	Present	NBQSA issues	Sample questions. Gone with simpler approach
7/29/2022	10:00 AM	WhatsAp p	Present	Absent	Absent	Present	Discussed possible conferences	Agreed with 2 conferences
8/12/2022	9:30 PM	MS Teams	Present	Absent	Absent	Present	NBQSA Competition final demo	Agreed on the presentation slides
8/15/2022	5:00 PM	WhatsAp p	Present	Absent	Absent	Present	CENIM Conference	Agreed to submit
8/25/2022	6:20 PM	WhatsAp	Present	Absent	Absent	Present	IoT AIS Conference	Agreed to submit
9/5/2022	6:20 PM	P WhatsAp	Present	Absent	Absent	Present	Thesis discussion	Draft submission
9/10/2022	1:00 PM	P WhatsAp	Present	Absent	Absent	Present	Thesis issue	Timeline issue happened by
9/22/2022	11:00 PM	p WhatsAp	Present	Absent	Absent	Present	Discussed possible conferences	mistake New conference
10/9/2022	9:30 AM	p WhatsAp	Present	Absent	Absent	Present	Paper issues & Registration	Solved issues and paper status
10/18/202	2:00 PM	p MS	Absent	Present	Absent	Present	Paper comments & review	Review changes given
2		Teams						3

Table 4.2: Group meeting logs

Date	Time	Platform	Vithursan	Discussions	Conclusions
2021-11-20	8:00 PM	Zoom	Present	Component separation, supervisor selection	Chosen topic 1 as the priority idea Started working on component separation
2021-11-21	1:00 PM	Zoom	Present		
2021-11-22	1:00 PM	Zoom	Present	Finalize supervisor document Send mail to supervisor Responsive and informing prior Journal task allocation Slack usage	
2021-11-23	8:00 AM	Zoom	Present	Informing prior about attendance Meeting time (to morning) Slack usage	
2021-11-24	8:00 AM	Zoom	Present	Sheek usinge	
2021-11-29	10:00 AM	Zoom	Present	Identify unique research components Allocate sections	Decided to research about each sections
2021-12-01	8:00 AM	Zoom	Present	Research component search progress Supervisor issue	Decided to mail the supervisor for a meet this Friday
2021-12-02	8:00 AM	Zoom	Present	New component separation Component allocation Courses System diagram Allocation of the time title submission form	Decided to send a mail to supervisor requesting a meeting
2021-12-03	5:00 PM	Zoom	Present	Mail sent Tasks identified	
2021-12-05	8:00 AM	Zoom	Absent	Tasks identified Supervisor status Form submissions	Decided to send a remainder mail to supervisor for topic selection, supervising, and co-supervisor. Decided to conduct meetings every day from now.
2021-12-06	8:00 AM	Zoom	Present	Supervisor issue Dataset issue Sending a third mail	Decided to ask for new supervisor
2021-12-06	9:00 PM	Zoom	Present	Data and Topic issue Send mail to Dilani and Pradeepa miss	Sent mails to supervisors
2021-12-07	8:00 AM	Zoom	Absent	Updates on mails Data science technologies	
2021-12-07	9:00 PM	Zoom	Present	Topic selection Co-supervisor selection Components Communications with supervisor (e.g. teams) External supervisor	Identify more relevant components for this bee idea Find a more novel idea
2021-12-08	8:00 AM	Zoom	Present	New idea formation Co-supervisor More resources for 1st idea	Decided to send documents of new idea to supervisor Asked for a co-supervisor
2021-12-09	8:00 AM	Zoom	Present	New components to the new idea Co-supervision from Dharshana sir	Sent a request to Dharshana sir
2021-12-09	8:00 PM	Zoom	Present	Arranging new meet with supervisor Concept of bee idea	Wait for co-supervisor meeting
2021-12-10	8:00 PM	Zoom	Present	New ideas Feasibility of the ideas What to ask with co- supervisor	Decided to ask for a schedule with co-supervisor
2021-12-11	8:00 AM	Zoom	Present	What to discuss with co- supervisor Any new ideas	Go with the second idea
2021-12-11	8:00 PM	Zoom	Present	Identify topics Product name	
2021-12-12	8:00 AM	Zoom	Present	Forming topic Submitting the topic	

2021-12-12	8:00 PM	Zoom	Present	Literature review Technical side	No meeting on Monday morning
2021-12-19	8:00 PM	Zoom	Present	Task allocation New idea finding	
2021-12-20	8:00 PM	Zoom	Present	New ideas TAF rewrite Supervisor contact	Find a relevant component for Vithursan
2021-12-21	8:00 PM	Zoom	Present	Progress status	
2021-12-22	8:00 PM	Zoom	Present	Progress status	
2021-12-23	8:00 PM	Zoom	Present	Progress status	
2021-12-24	8:00 PM	Zoom	Present	Progress status	
2021-12-27	8:00 PM	Zoom	Present	Progress status	
2022-03-10	19:00	MS Teams	Present	Progress status	
2022-03-12	19:00	MS Teams	Absent	Progress status	
2022-03-15	19:00	MS Teams	Present	Progress status	
2022-03-16	19:00	MS Teams	Present	Progress status	
2022-03-17	19:00	MS Teams	Present	Progress status	
2022-03-19	19:00	MS Teams	Absent	Progress status	
2022-03-21	19:00	MS Teams	Absent	Progress status	
2022-03-22	19:00	MS Teams	Present	Progress status	
2022-03-23	19:00	MS Teams	Present	Progress status	
2022-03-24	19:00	MS Teams	Present	Progress status	
2022-03-26	19:00	MS Teams	Present	Progress status	
2022-03-29	19:00	MS Teams	Present	Progress status	
2022-03-30	19:00	MS Teams	Present	Progress status	
2022-03-31	19:00	MS Teams	Present	Cancelled due to connection iss	ue
2022-04-02	19:00	MS Teams	Absent	Cancelled due to connection iss	ue
2022-04-05	19:00	MS Teams	Present	Progress status	
2022-04-06	19:00	MS Teams	Present	Progress status	
2022-04-07	19:00	MS Teams	Present	Progress status	
2022-04-09	19:00	MS Teams	Present	Progress status	
2022-04-12	19:00	MS Teams	Present	Progress status	
2022-04-13	19:00	MS Teams	Present	Progress status	
2022-04-14	19:00	MS Teams	Present	Cancelled due to New year	
2022-04-16	19:00	MS Teams	Present	Progress status	
2022-04-19	19:00	MS Teams	Present	Progress status	
2022-04-20	19:00	MS Teams	Present	Progress status	
2022-04-21	19:00	MS Teams	Present	Progress status	
2022-04-23	19:00	MS Teams	Present	Progress status	
2022-04-26	19:00	MS Teams	Present	Progress status	
2022-04-27	7:00 PM	MS Teams	Present	Progress status, meeting journa	ı
2022-04-28	7:00 PM	MS Teams	Present	Progress status	
2022-05-03	7:00 PM	MS Teams	Present	Progress status, PP1 Marking Rubric discussion	

2022-05-04	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	
2022-05-05	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	
2022-05-07	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	
2022-05-10	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	
2022-05-11	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	
2022-05-12	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation, Discussion with supervisor about the slides and demo for PP1	
2022-05-14	7:00 PM	MS Teams	Absent	Progress status	
2022-05-17	7:00 PM	MS Teams	Present	Progress status	
2022-05-18	7:00 PM	MS Teams	Present	Progress status	
2022-05-19	7:00 PM	MS Teams	Present	Progress status	
2022-05-21	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-05-24	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, started Research paper works	
2022-05-25	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-05-26	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-05-28	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-05-31	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Created branches for the backend and frontend in Git Lab	
2022-06-08	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-06-11	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-06-23	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-06-25	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion with supervisor about the conferences and research paper	
2022-06-29	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-07-02	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	

2022-07-05	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion with co supervisor about the conferences and research paper	
2022-07-09	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-07-13	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, got feedback about the research paper from Co Supervisor	
2022-07-16	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-07-21	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-07-23	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-07-30	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences	
2022-08-04	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion about the Backend and Frontend development	
2022-08-06	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion about the Backend and Frontend development	
2022-08-10	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion about the Backend and Frontend development	
2022-08-13	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion about the Backend and Frontend development	
2022-08-17	7:00 PM	MS Teams	Present	Progress status, Discussion about research paper and conferences, Discussion about the Backend and Frontend development	
2022-08-20	7:00 PM	MS Teams	Present	Progress status	
2022-08-27	7:00 PM	MS Teams	Present	Progress status	
2022-09-01	7:00 PM	MS Teams	Absent	Progress status, Progress Discussion with Supervisor	
2022-09-03	7:30 PM	MS Teams	Present	Progress status, Progress Discussion with Co - Supervisor	
2022-09-14	7:30 PM	MS Teams	Present	Progress status	
2022-09-17	7:30 PM	MS Teams	Present	Progress status	
2022-09-24	7:30 PM	MS Teams	Absent	Progress status	
2022-09-27	7:30 PM	MS Teams	Absent	Progress status	
2022-09-28	7:30 PM	MS Teams	Present	Progress status	
2022-10-12	7:30 PM	MS Teams	Present	Progress status, Discussion with Supervisor about PP2 presentation slides and demo	
2022-10-18	7:30 PM	MS Teams	Present	Progress status	
2022-10-19	7:30 PM	MS Teams	Present	Progress status	

2022-11-02	7:30 PM	MS Teams	Present	Progress status, Discussion with Co - Supervisor about Research paper acceptance	
2022-11-03	7:30 PM	MS Teams	Present	Progress status, Discussion with Co - Supervisor about Research paper acceptance	
2022-11-04	7:30 PM	MS Teams	Present	Discussion about Final Presentation slides and marking rubric, Discussion about the progress	
2022-11-08	7:30 PM	MS Teams	Present	Progress status, Discussion about Final Presentation slides and marking rubric	
2022-11-10	7:30 PM	MS Teams	Present	Progress status, Discussion about Final Presentation slides and marking rubric	

4.5. Meeting Screenshot Proofs

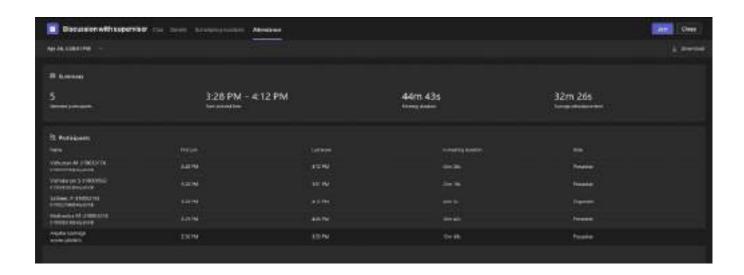
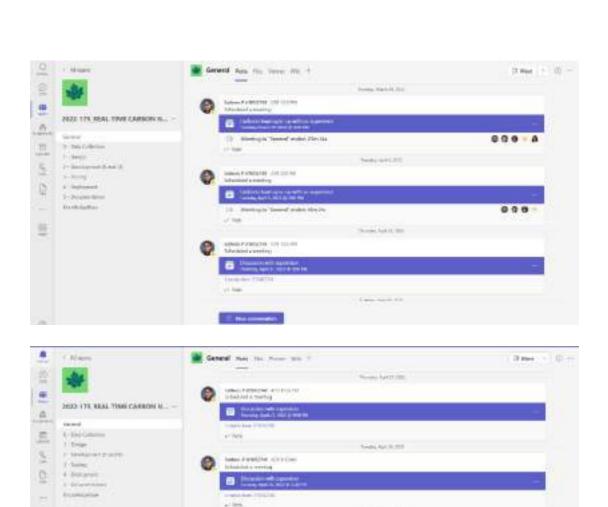
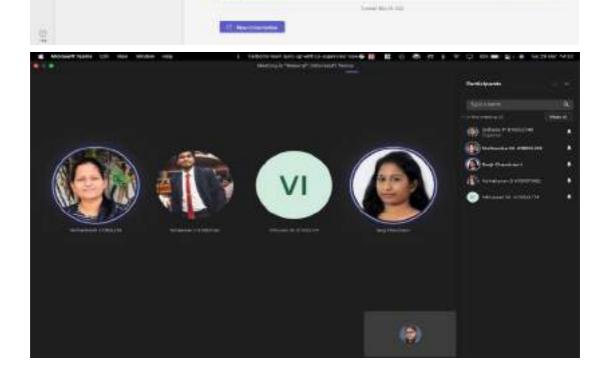


Figure 4.8: Supervisor meeting proof

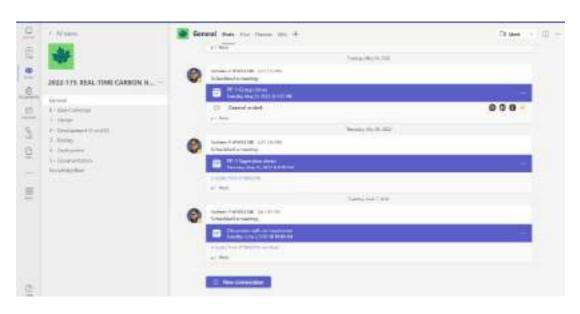


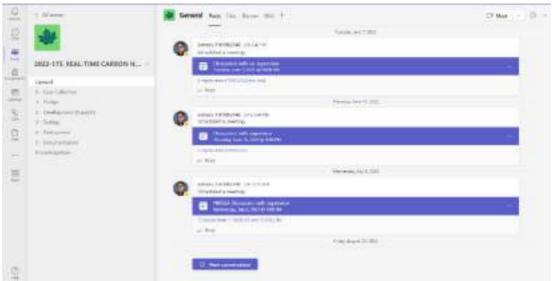


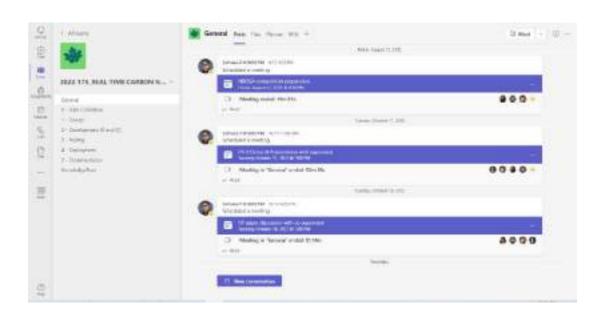


=

000-4







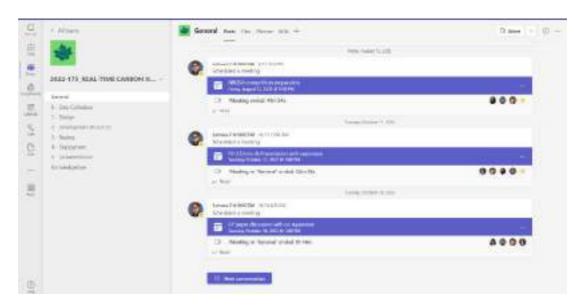


Figure 4,9: Meeting proofs

4.6. GitLab Proofs





