



# **AN INTELLIGENT ROBOT FOR MONITORING AND PROTECTING TODDLERS**

**Status Document - 2**

**Project ID: 2023 - 326**

## **Student Details**

<b>Student Name</b>	<b>Student ID</b>
Thuduhena R.S	IT20185466

The dissertation was submitted in partial fulfillment of the requirements for the

B.Sc. Special Honors Degree in Information Technology Specialized in

Computer Systems and Network Engineering

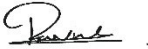
Department of Computer Systems Engineering

Sri Lanka Institute of Information Technology

Sri Lanka

## DECLARATION

I declare that this is my own work, and this proposal does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any other university or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

Name	Student ID	Signature
Thuduhena R.S	IT20185466	

## Table Of Content

Table Of Content .....	3
Table Of Figures .....	3
Gantt Chart For Project Work.....	4
Time Allocation .....	5
Project Breakdown Chart .....	6
Snapshots.....	7
Supervisor and Co – Supervisor Meeting Details .....	16
Project Plan Workflow .....	17

## Table Of Figures

<i>Figure 1.0.1 Gantt Chart For Project Work .....</i>	<i>4</i>
<i>Figure 2.0.1 Time Allocation .....</i>	<i>5</i>
<i>Figure 3.0.1 Project Breakdown Chart .....</i>	<i>6</i>
<i>Figure 4.0.1 WhatsApp Images -1 .....</i>	<i>7</i>
<i>Figure 4.0.2 WhatsApp Images -2 .....</i>	<i>8</i>
<i>Figure 4.0.3 Email Images -1 .....</i>	<i>9</i>
<i>Figure 4.0.4 Snip -1 .....</i>	<i>10</i>
<i>Figure 4. 0.5 Snip - 2 .....</i>	<i>10</i>
<i>Figure 4.0.6 Snip - 3 .....</i>	<i>11</i>
<i>Figure 4.0.7 Snip - 4 .....</i>	<i>11</i>
<i>Figure 4.0.8 WhatsApp Images - 3 .....</i>	<i>12</i>
<i>Figure 4.0.9 WhatsApp Images - 4 .....</i>	<i>13</i>
<i>Figure 4.0.10 WhatsApp Images - 5 .....</i>	<i>13</i>
<i>Figure 4.0.2 WhatsApp Images - 6 .....</i>	<i>14</i>
<i>Figure 4.0.3 WhatsApp Images - 7 .....</i>	<i>15</i>
<i>Figure 5.0.1 Meeting Details .....</i>	<i>16</i>

# Gantt Chart For Project Work

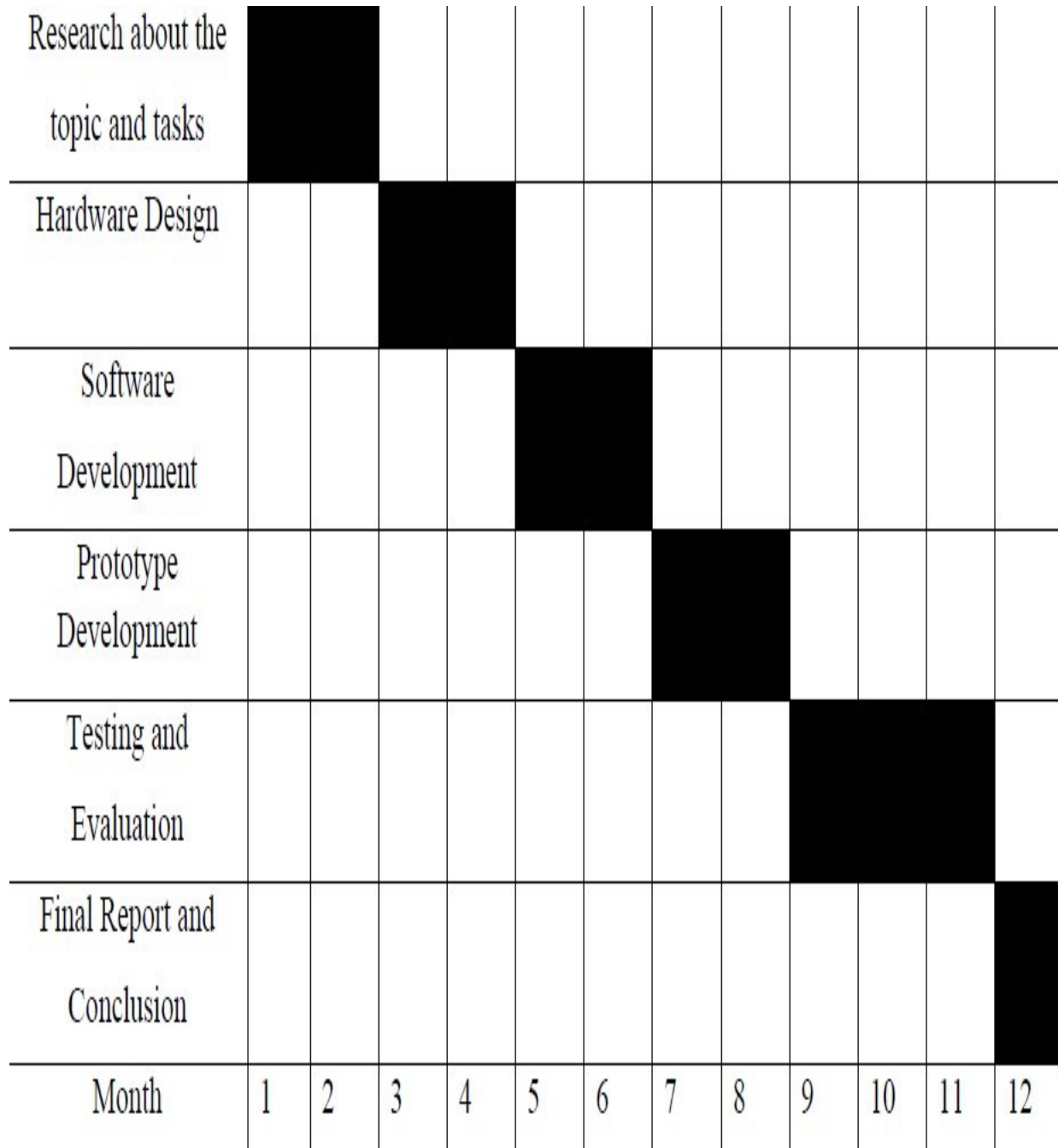


Figure 1.0.1 Gantt Chart For Project Work

# Time Allocation

Task	Duration	Start Date	End Date
TAF	2 Weeks	07/02/2023	21/2/2023
Project Charter	2 Weeks	22/2/2023	08/03/2023
Project proposal document and presentation	3 Weeks	09/03/2023	30/03/2023
Analysis	4 Weeks	31/03/2023	30/04/2023
Collecting physical componnets	4 Weeks	01/05/2023	01/06/2023
Implementation	3 Weeks	02/06/2023	23/6/2023
Exterior design and creation	3 Weeks	24/6/2023	15/7/2023
Integrating with the mobile application	3 Weeks	16/7/2023	06/08/2023
Hardware integration with the prototype	2 Weeks	07/08/2023	14/8/2023
Unit testing	2 Weeks	15/8/2023	29/8/2023
Preparation for final demonstartion	3 Weeks	30/8/2023	20/9/2023
Final report	5 Weeks	21/9/2023	26/10/2023

Figure 2.0.1 Time Allocation

# Project Breakdown Chart

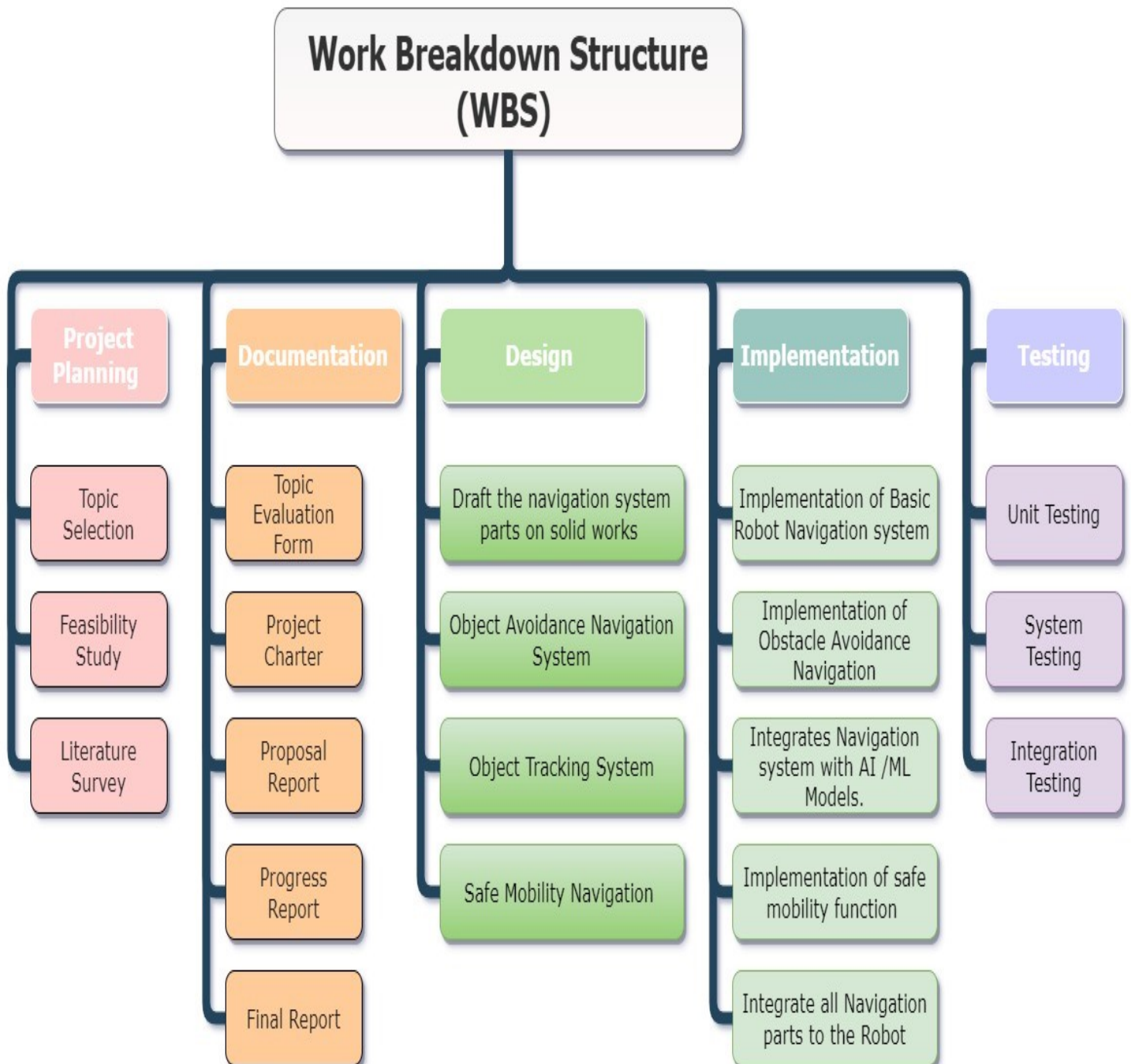


Figure 3.0.1 Project Breakdown Chart

# Snapshots

- WhatsApp Group Creation and adding supervisor and co-supervisor to the group.

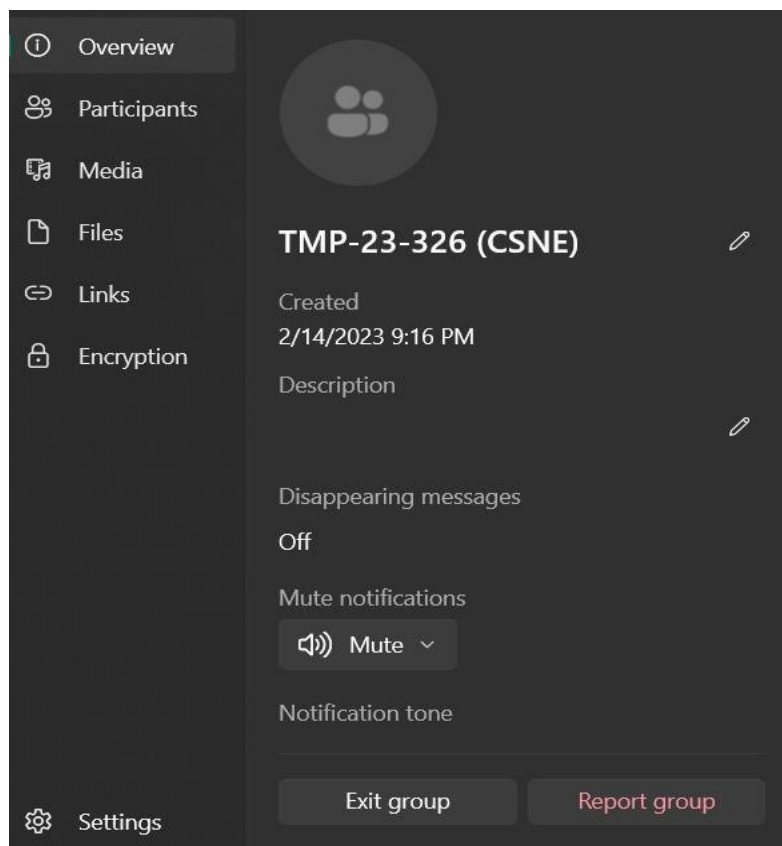


Figure 4.0.1 WhatsApp Images -1

- Asking suggestions from supervisors and arranging a meeting.

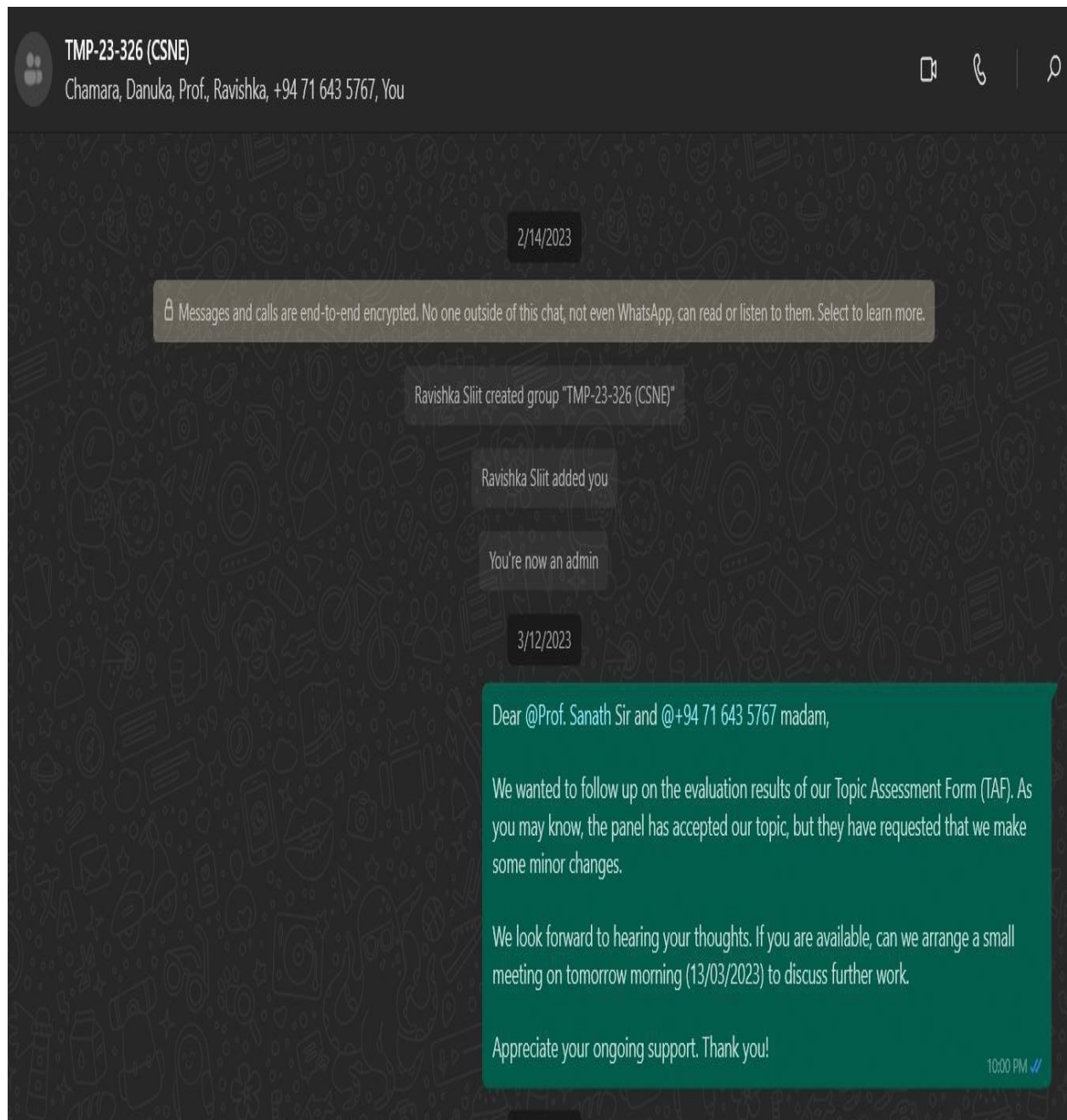


Figure 4.0.2 WhatsApp Images -2



- Resolve some issues in research project with CDAP.

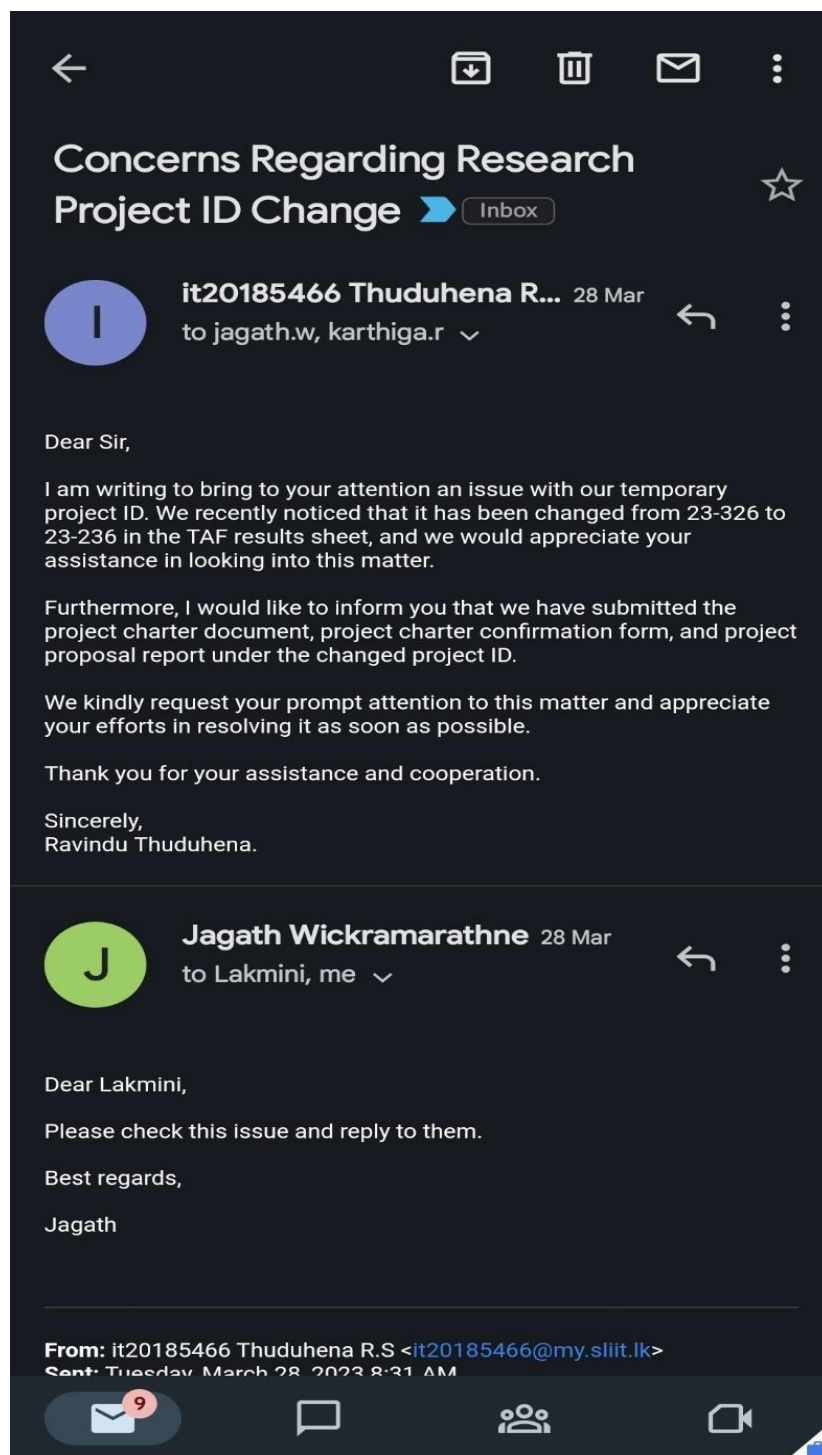


Figure 4.0.3 Email Images -1

- GIT Lab creation and setup phase.

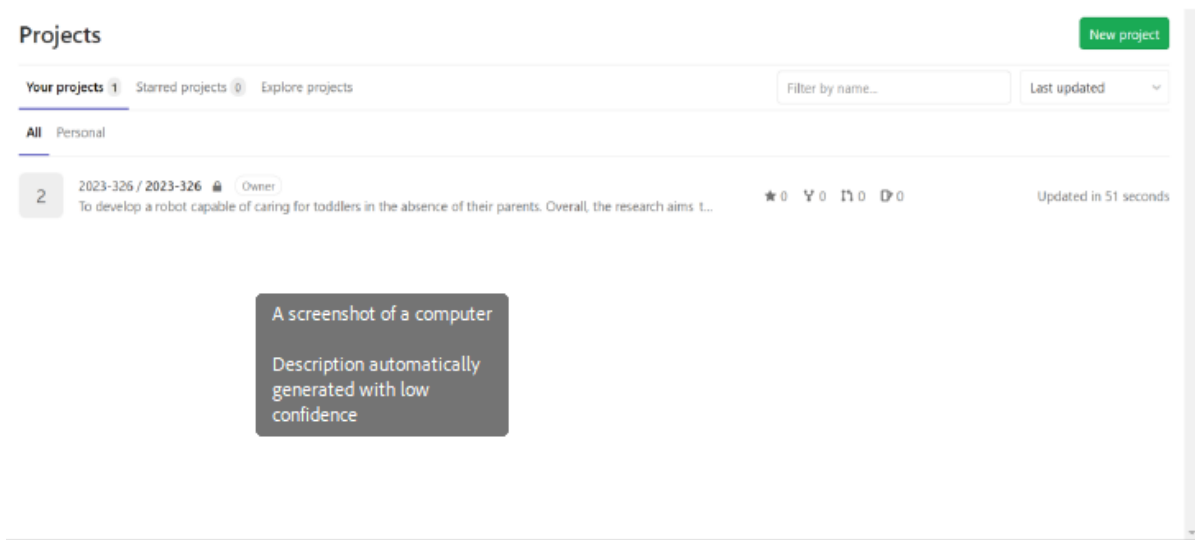


Figure 4.0.4 Snip -1

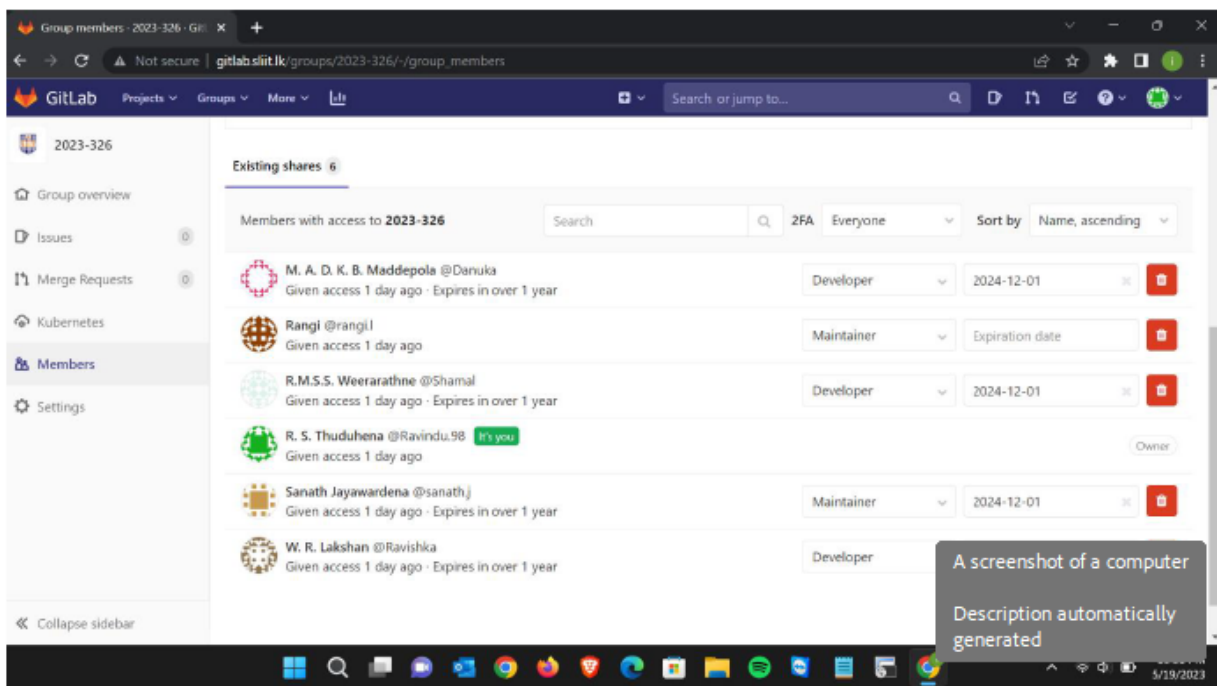


Figure 4. 0.5 Snip - 2

- Learning curves with Team members with Udemy courses about AI | ML .

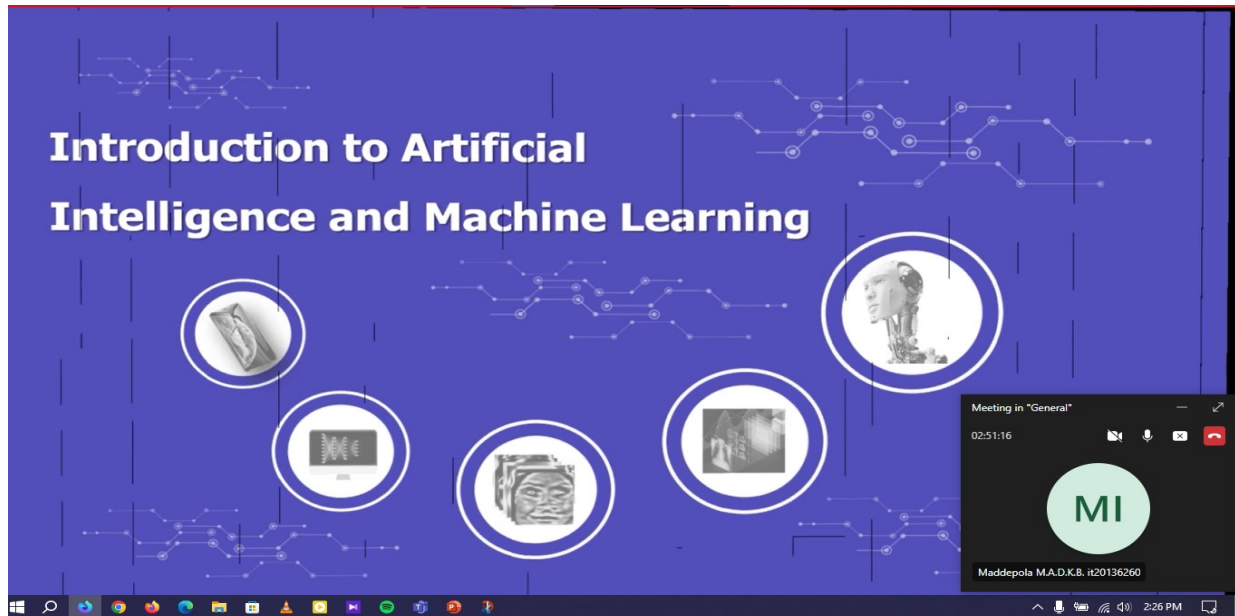


Figure 4.0.6 Snip - 3

- Arrange team meeting to discuss the progress presentation -1 .

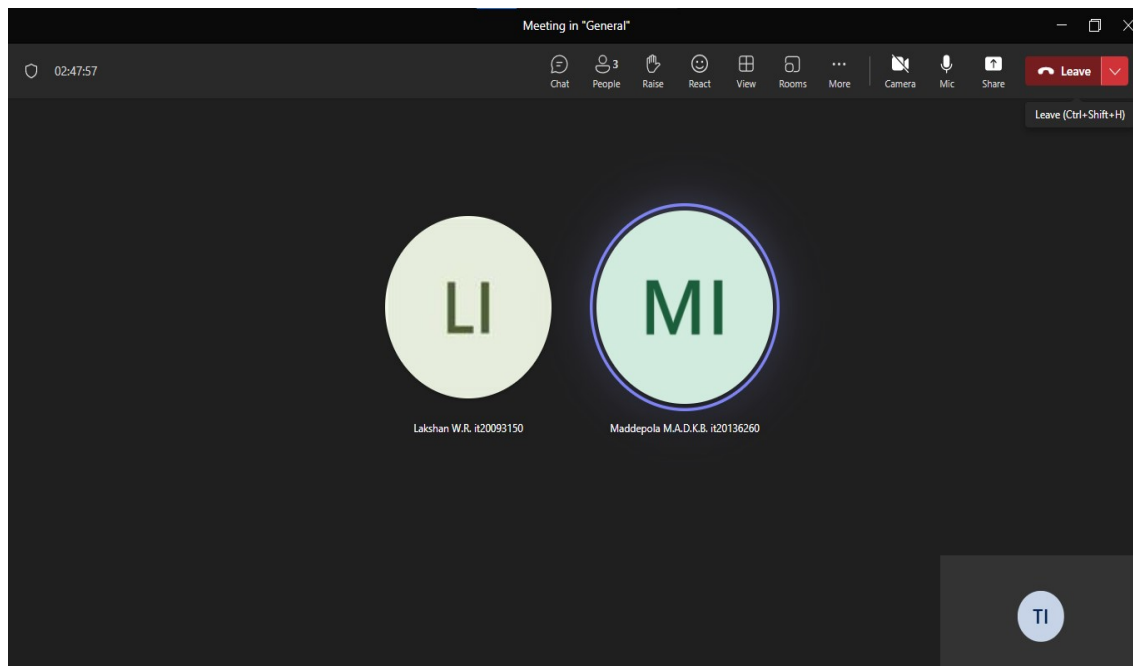


Figure 4.0.7 Snip - 4

- WhatsApp chat proof (Progress Presentation – 1 Draft Setup with Supervisor and presentat slide proof reading)

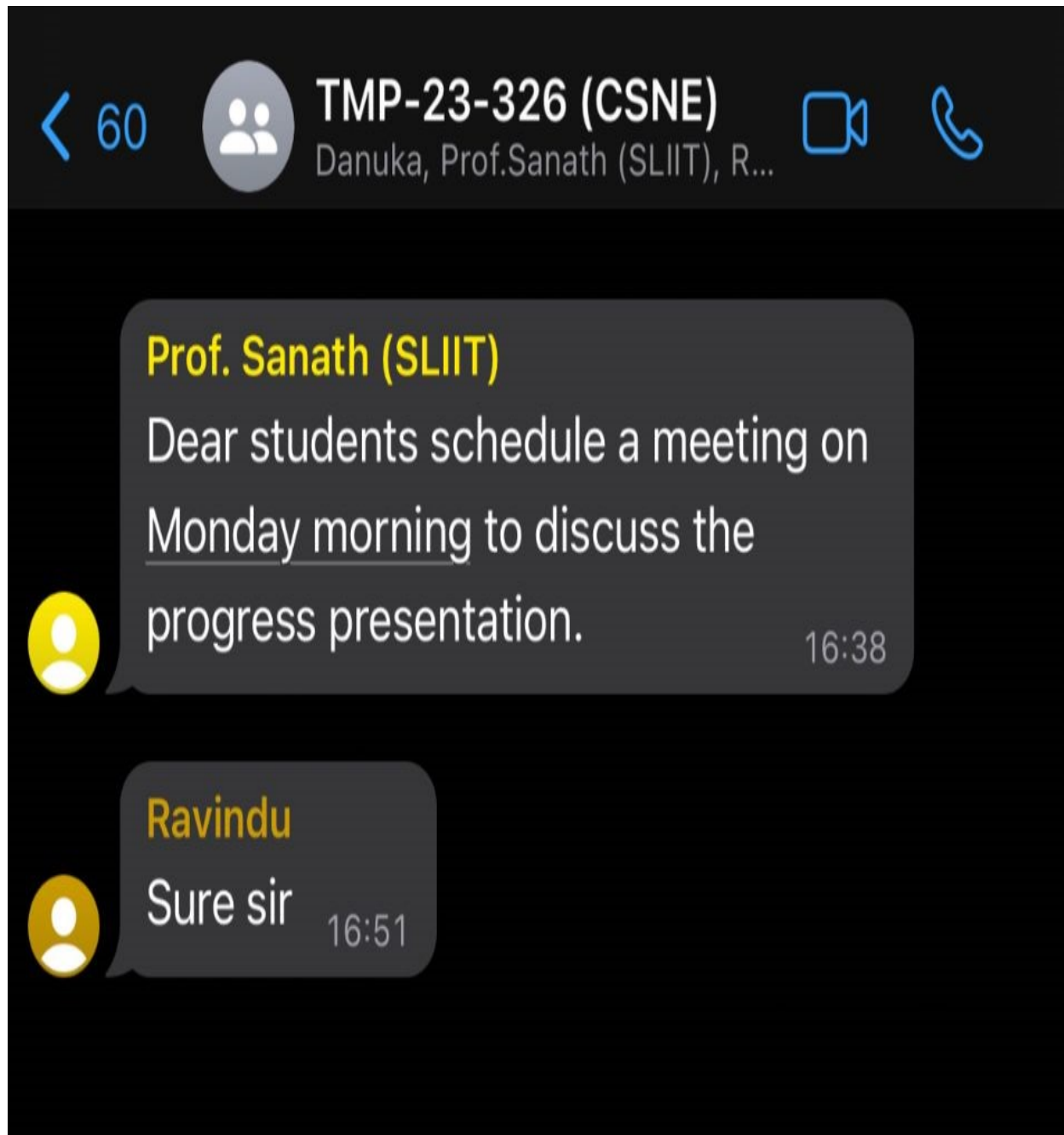


Figure 4.0.8 WhatsApp Images - 3

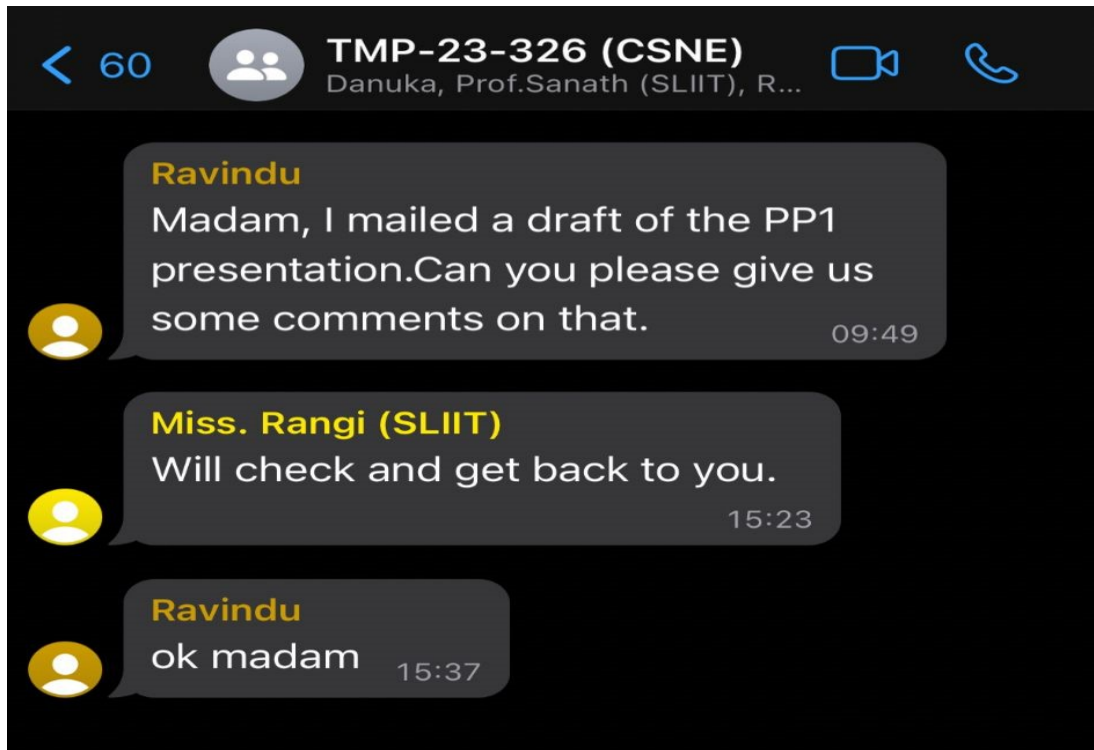


Figure 4.0.9 WhatsApp Images - 4

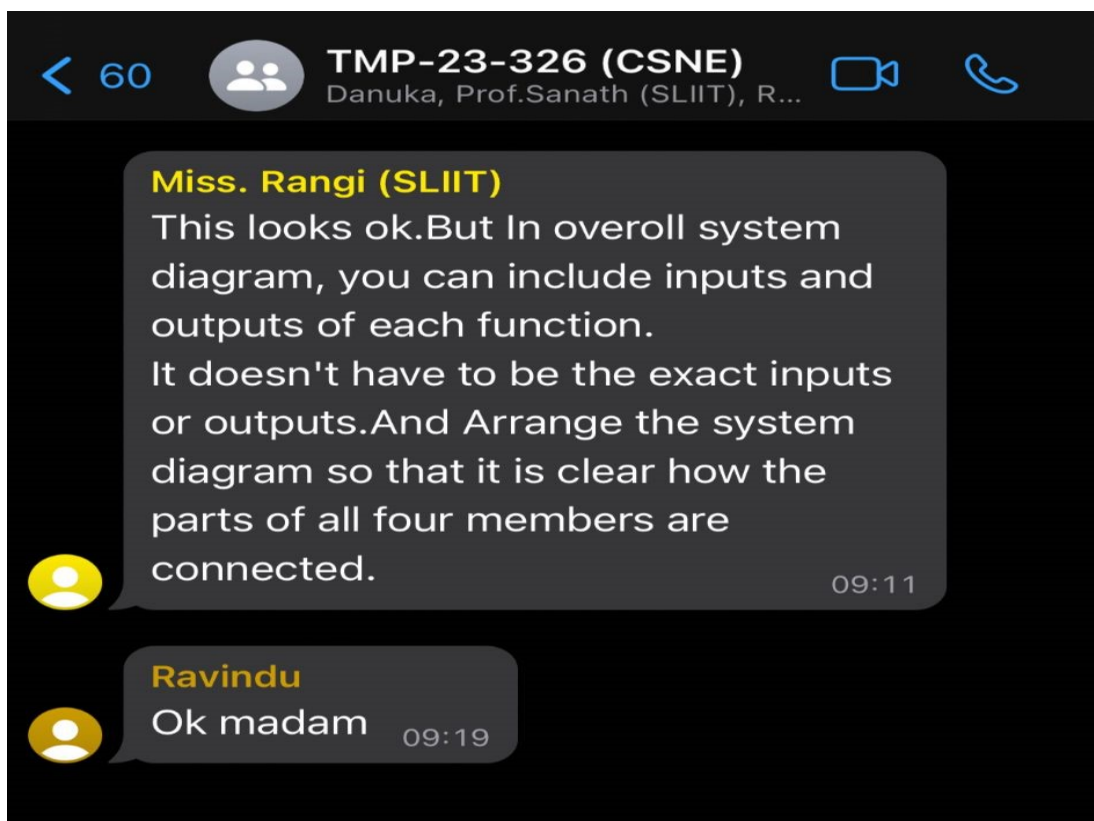


Figure 4.0.10 WhatsApp Images - 5

- Research paper Draft (Research paper proof reading Email and WhatsApp messages).



Figure 4.0.11 Email Snip - 3

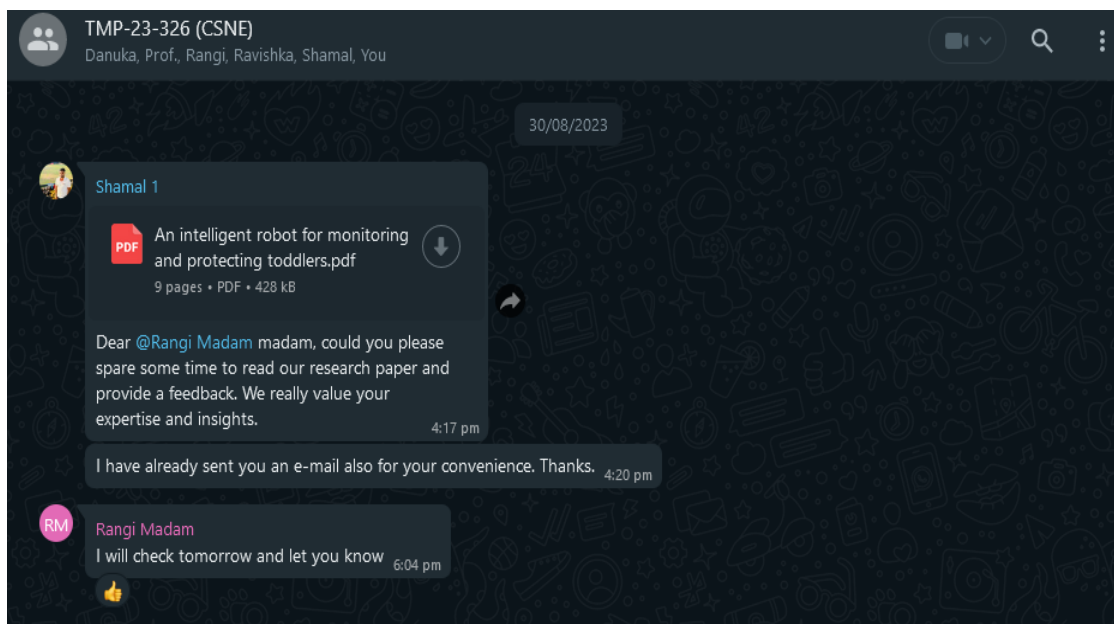


Figure 4.0.12 WhatsApp Images - 6

- Research paper Draft changes suggest by supervisor and co – supervisor.

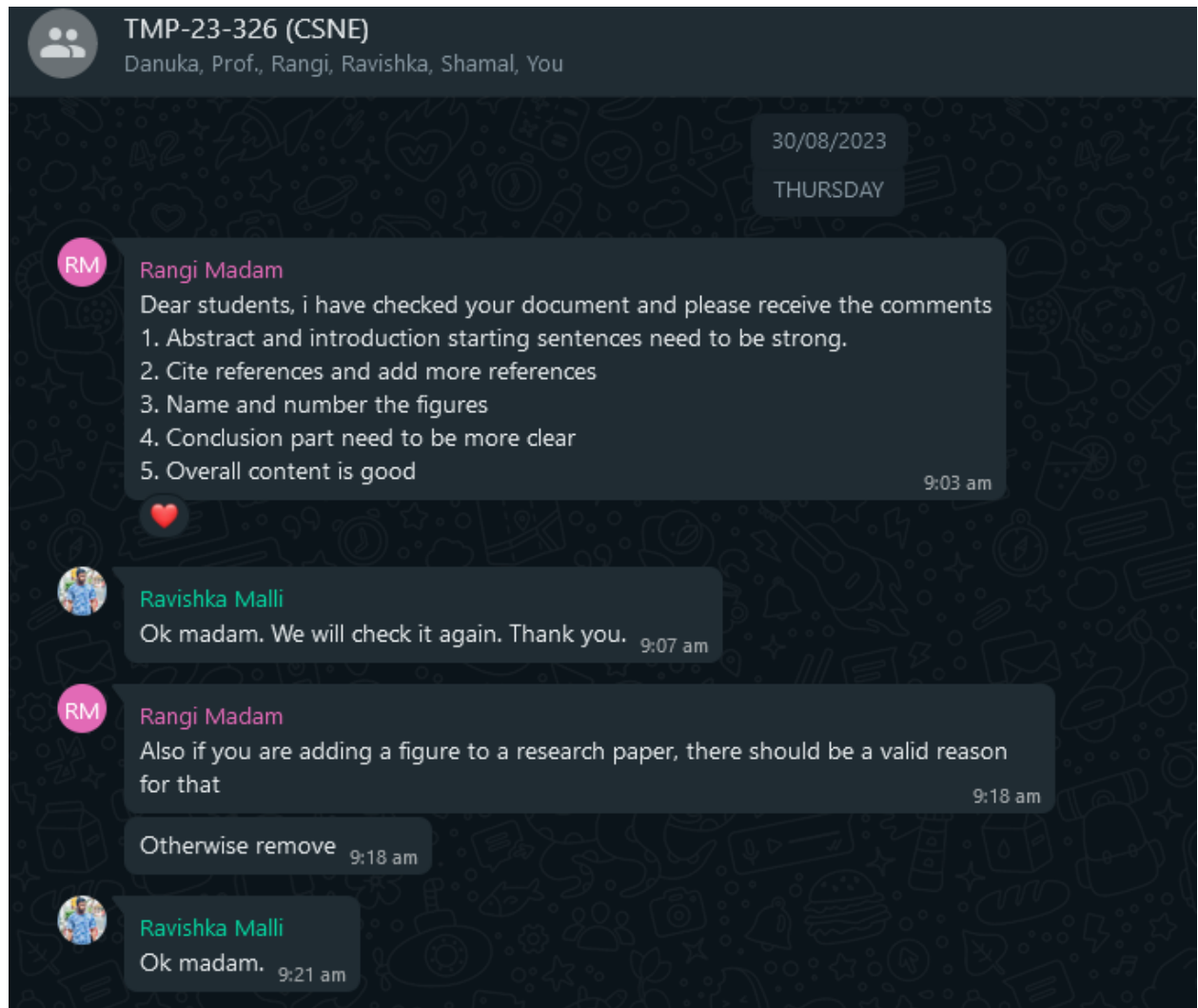


Figure 4.0.13 WhatsApp Images - 7

# Supervisor and Co – Supervisor Meeting

## Details

supervisor meetings were carried out as a physical meeting to discuss project progress. Below screenshot shows the Microsoft Teams channel used to carry out the meetings.

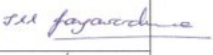
Date	Task
23/01/2023	Research topic discussion
06/02/2023	Discussion of members' functions and novelties.
13/02/2023	Finalize the research topic and main functions.
03/04/2023	Discussion about research equipment selection.
05/05/2023	Progress discussion 1
19/05/2023	Discussion before PP1
Supervisor Signature	

Figure 5.0.1 Meeting Details



# Project Plan Workflow

## 1. Project Planning

- 1.1 Define project scope and objectives.
- 1.2 Identify stakeholders.
- 1.3 Establish project timeline and milestones.

## 2. Research and Development

- 2.1 Conduct market research.
- 2.2 Analyze existing technologies.
- 2.3 Develop concept designs.
- 2.4 Conduct feasibility study.
- 2.5 Develop prototype.

## 3. Testing and Evaluation

- 3.1 Test prototype for functionality.
- 3.2 Evaluate prototype for safety.
- 3.3 Collect user feedback.
- 3.4 Refine design based on feedback.

## 4. Manufacturing and Assembly

- 4.1 Develop production plan.
- 4.2 Source materials and components.
- 4.3 Assemble robot.
- 4.4 Conduct quality control checks.

## 5. Deployment and Maintenance

- 5.1 Develop deployment plan.
- 5.2 Install robot in target locations.
- 5.3 Train users on robot operation
- 5.4 Establish maintenance plan.

## 6. Project Management

- 6.1 Monitor project progress.
- 6.2 Manage project budget.
- 6.3 Manage project risks.
- 6.4 Communicate with stakeholders.

## 7. Documentation and Reporting

- 7.1 Document project activities and outcomes.
- 7.2 Prepare project reports.
- 7.3 Present findings to stakeholders.

## 8. Project Closure

- 8.1 Conduct post-project review.
- 8.2 Archive project documentation.
- 8.3 Celebrate project success.

