Train Detection & Alert System
(Quick Gate)

Status Document – 02

B.Sc. (Hons) Degree in Information Technology

Specialized Data Science

Department of Information Technology

Group: 23-302

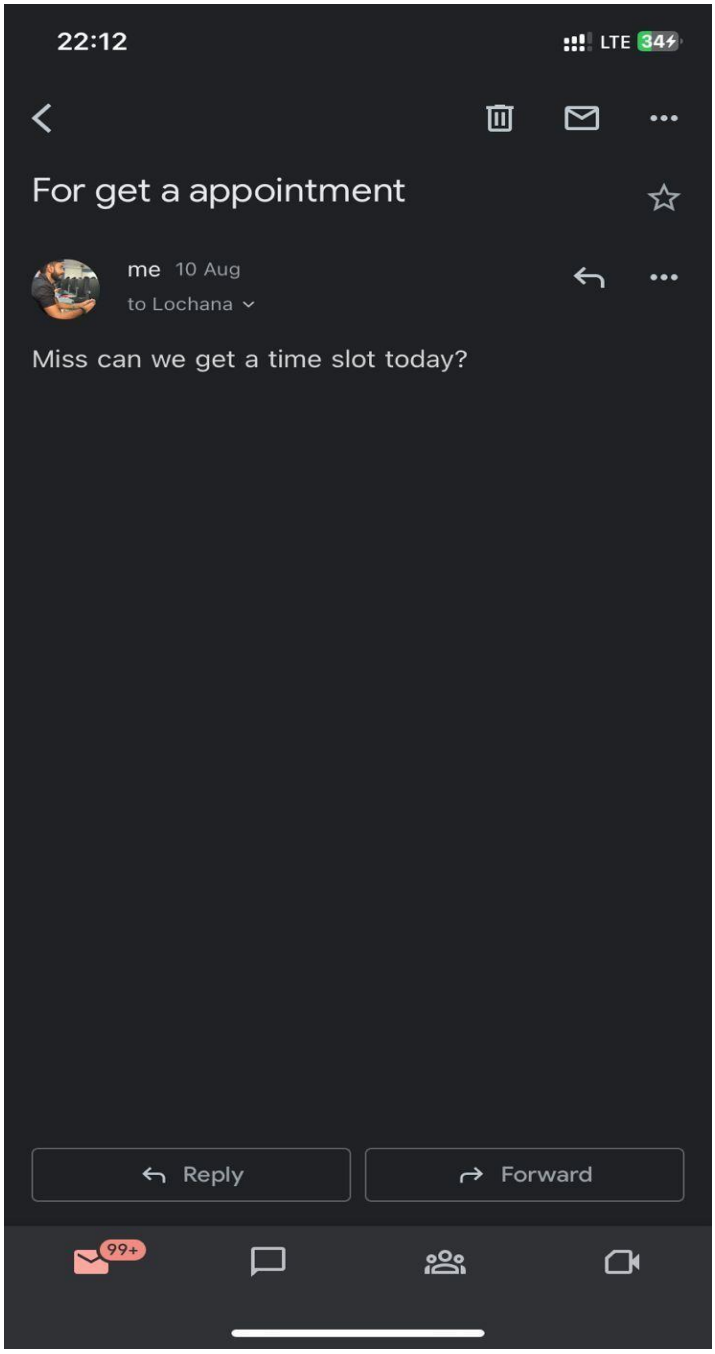
Biyanwila B.D.V.J. – IT20212490

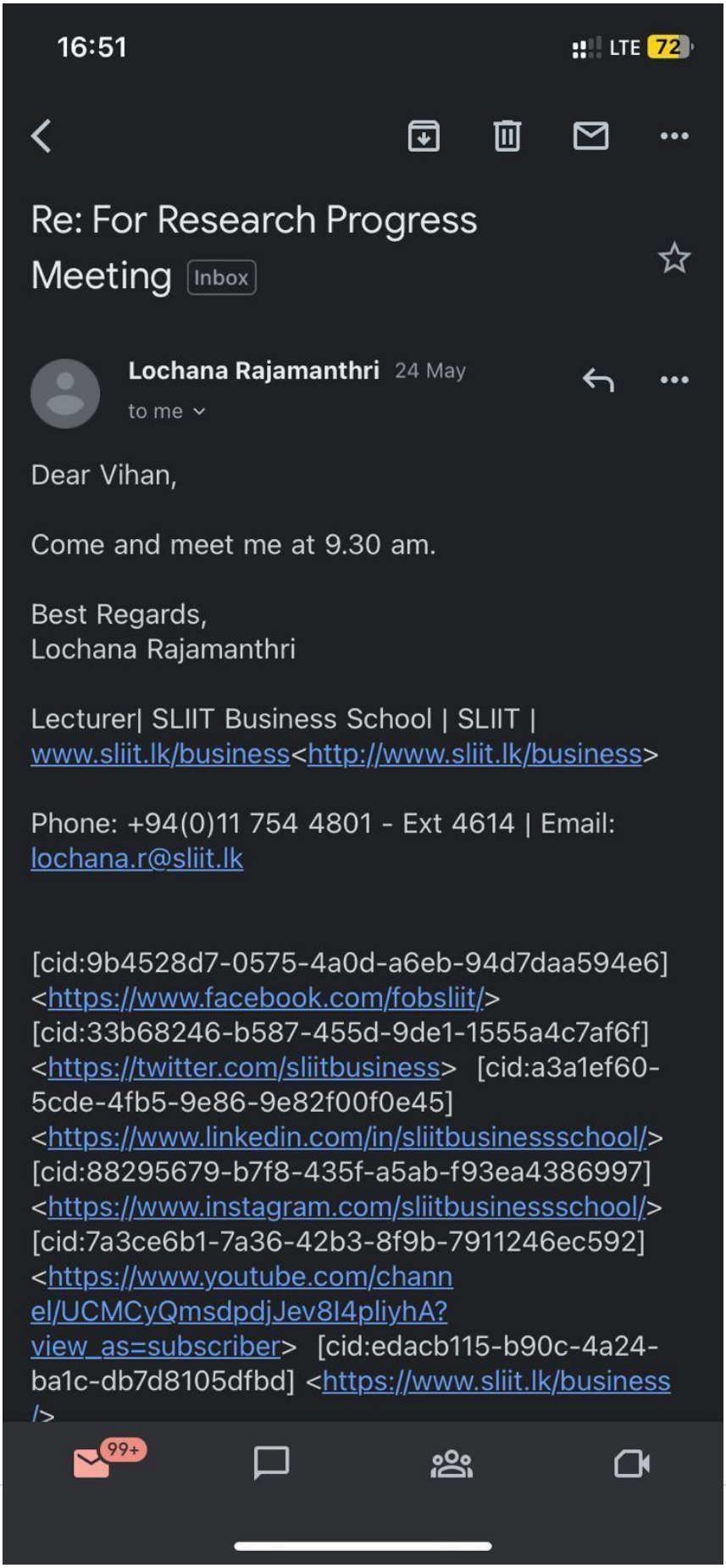
Submission Date: 07/09/2023

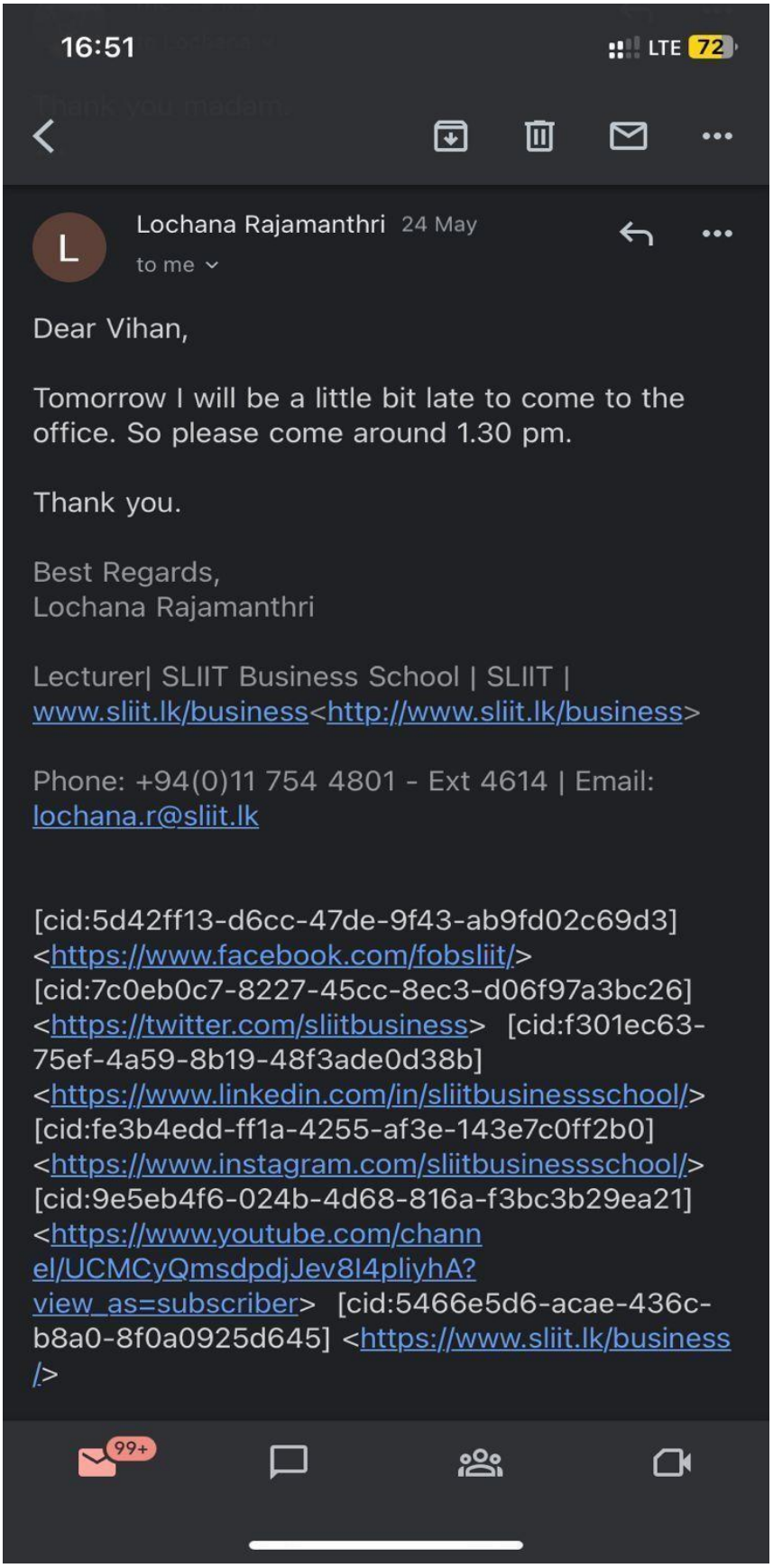
Contents

1. Communication with Supervisors

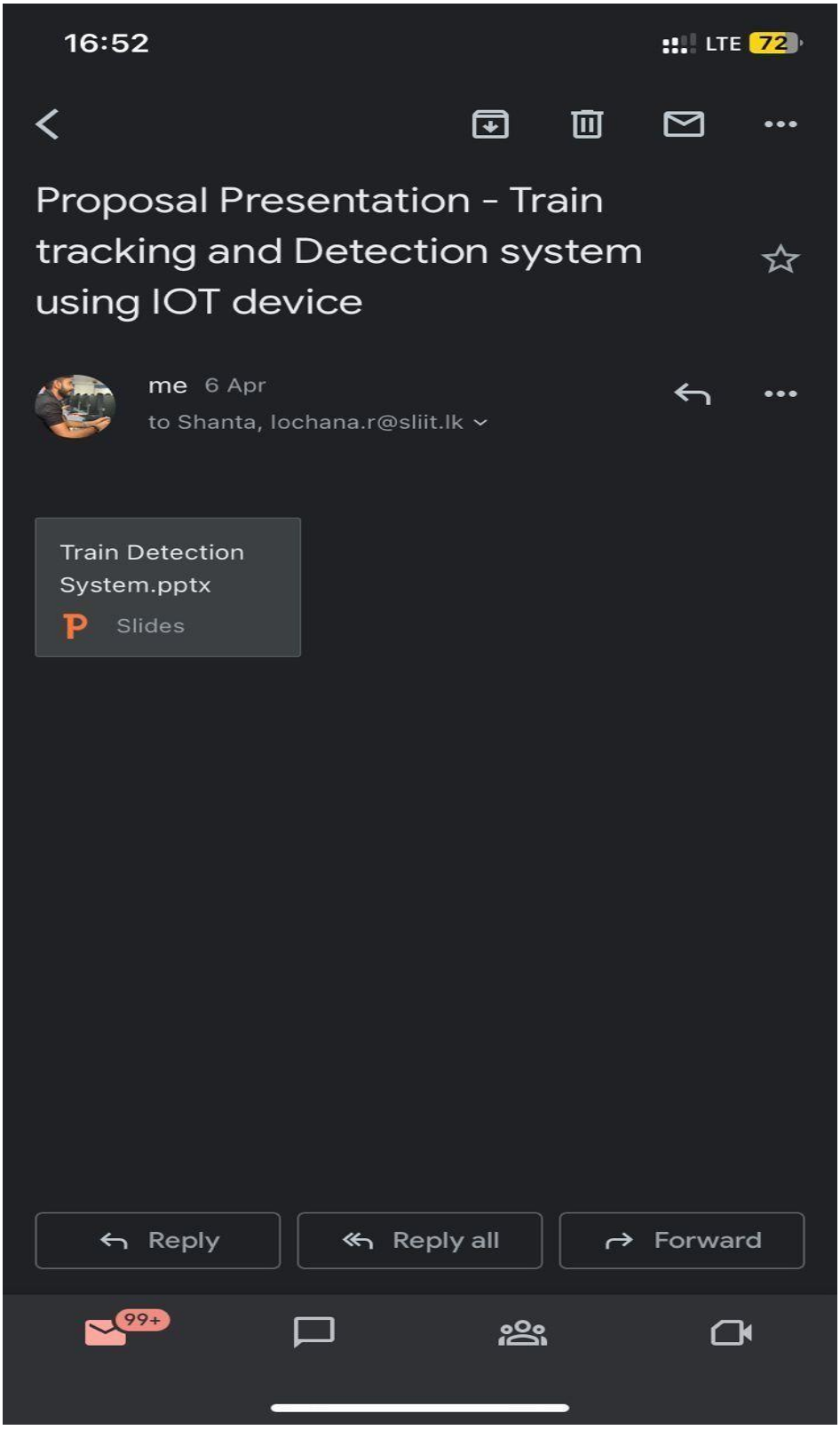
1.1. Visiting the Supervisor and the co-supervisor regularly.

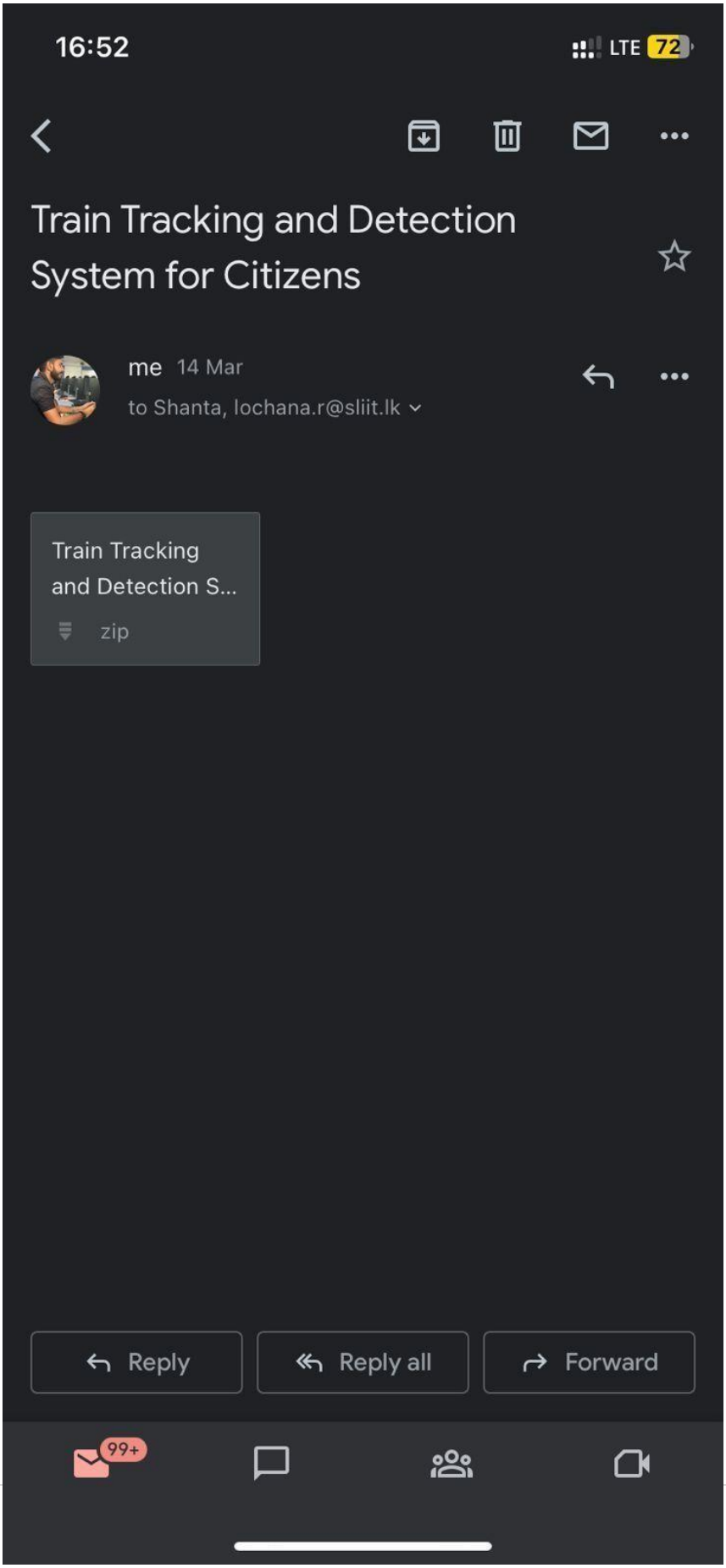



16:51
LTE 72
Re: For Research Progress Meeting
Inbox
Lochana Rajamanthri 24 May
to me
Dear Vihan,
Come and meet me at 9.30 am.
Best Regards,
Lochana Rajamanthri
Lecturer| SLIIT Business School | SLIIT | www.sliit.lk/business<http://www.sliit.lk/business>
Phone: +94(0)11 754 4801 - Ext 4614 | Email: lochana.r@sliit.lk
[cid:9b4528d7-0575-4a0d-a6eb-94d7daa594e6] <https://www.facebook.com/fobsliit/> [cid:33b68246-b587-455d-9de1-1555a4c7af6f] <https://twitter.com/sliitbusiness> [cid:a3a1ef60-5cde-4fb5-9e86-9e82f00f0e45] <https://www.linkedin.com/in/sliitbusinessschool/> [cid:88295679-b7f8-435f-a5ab-f93ea4386997] <https://www.instagram.com/sliitbusinessschool/> [cid:7a3ce6b1-7a36-42b3-8f9b-7911246ec592] <https://www.youtube.com/channel/UCMCyQmsdpdjJev8I4pliyhA?view_as=subscriber> [cid:edacb115-b90c-4a24-ba1c-db7d8105dfbd] <https://www.sliit.lk/business/>
99+

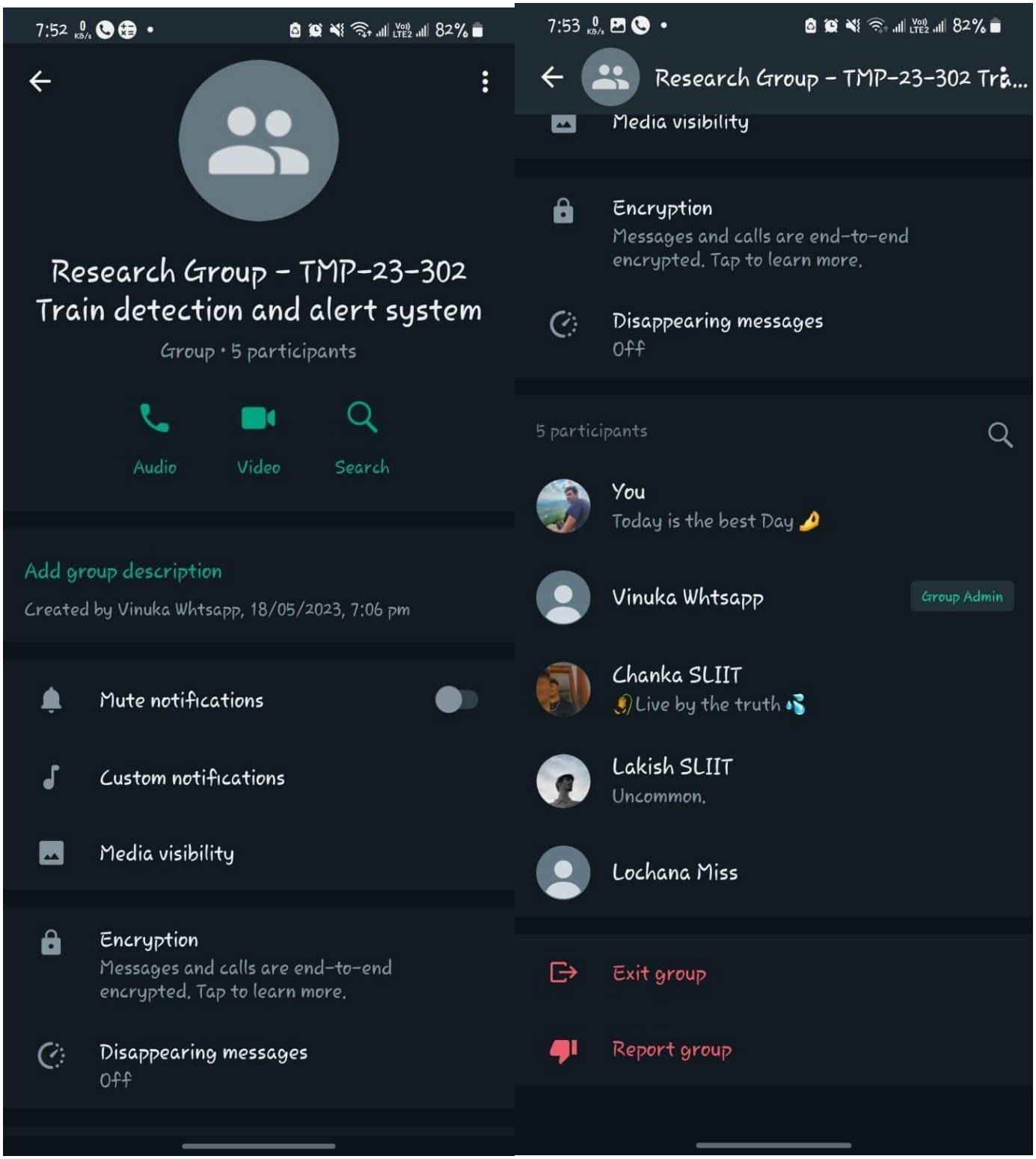

16:51
LTE 72
Lochana Rajamanthri 24 May
to me
Dear Vihan,
Tomorrow I will be a little bit late to come to the office. So please come around 1.30 pm.
Thank you.
Best Regards,
Lochana Rajamanthri
Lecturer| SLIIT Business School | SLIIT | www.sliit.lk/business<http://www.sliit.lk/business>
Phone: +94(0)11 754 4801 - Ext 4614 | Email: lochana.r@sliit.lk
[cid:5d42ff13-d6cc-47de-9f43-ab9fd02c69d3] <https://www.facebook.com/fobsliit/> [cid:7c0eb0c7-8227-45cc-8ec3-d06f97a3bc26] <https://twitter.com/sliitbusiness> [cid:f301ec63-75ef-4a59-8b19-48f3ade0d38b] <https://www.linkedin.com/in/sliitbusinessschool/> [cid:fe3b4edd-ff1a-4255-af3e-143e7c0ff2b0] <https://www.instagram.com/sliitbusinessschool/> [cid:9e5eb4f6-024b-4d68-816a-f3bc3b29ea21] <https://www.youtube.com/channel/UCMCyQmsdpdjJev8I4pliyhA?view_as=subscriber> [cid:5466e5d6-acae-436c-b8a0-8f0a0925d645] <https://www.sliit.lk/business/>
99+

1.1. Sending research project-related files to the Supervisor and Co-supervisor

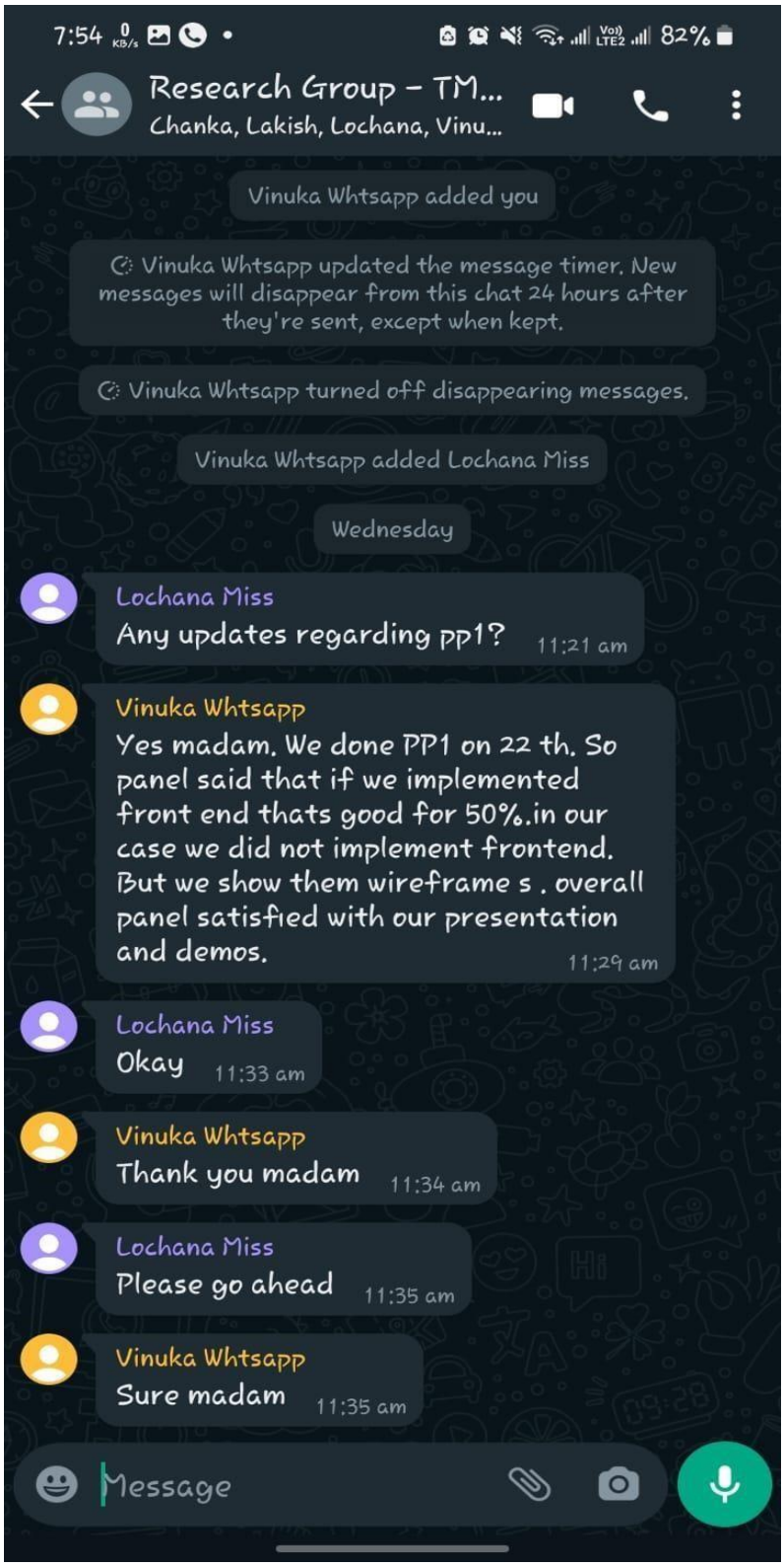



16:52
LTE 72
Train Tracking and Detection System for Citizens
me 14 Mar
to Shanta, lochana.r@sliit.lk
Train Tracking and Detection S...
zip
Reply
Reply all
Forward
99+

1.2. Create a WhatsApp Group with supervisor and co-supervisor

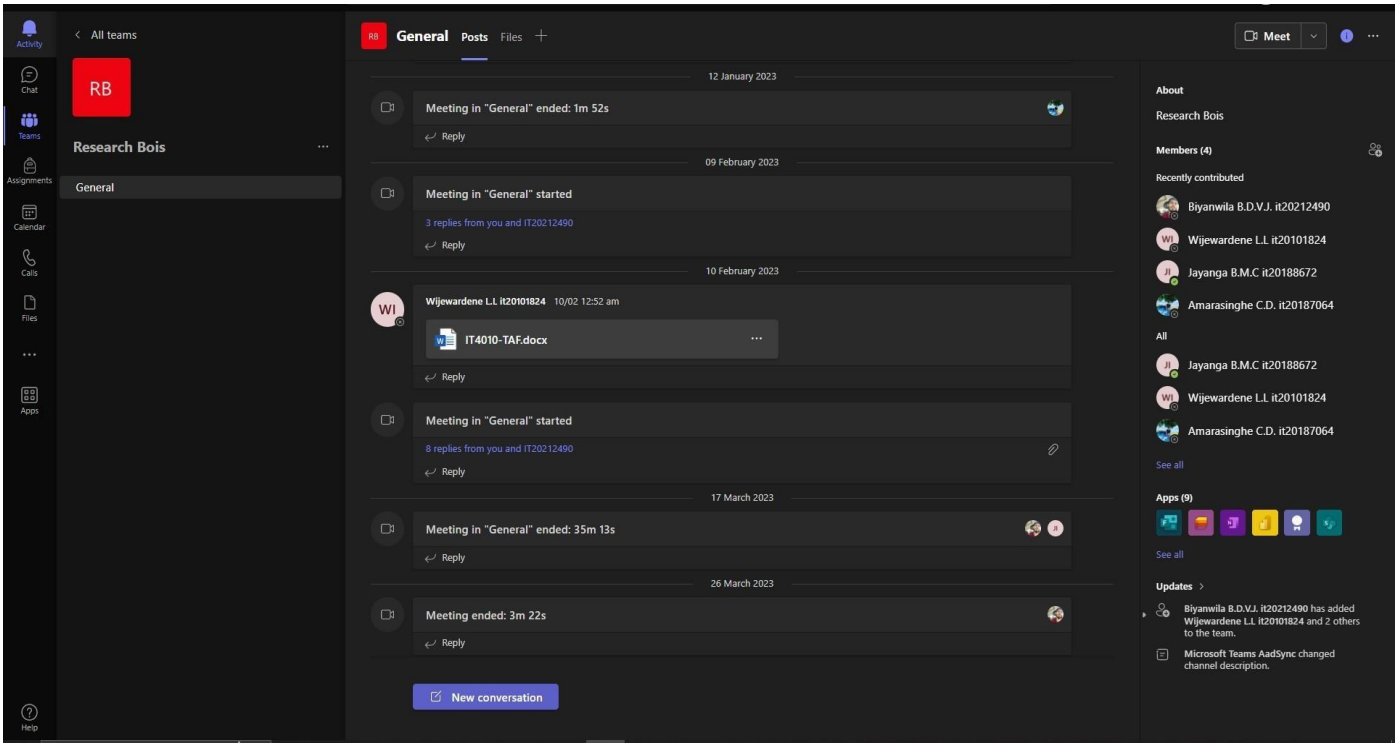


1.3. Share ideas with supervisor through WhatsApp chats.

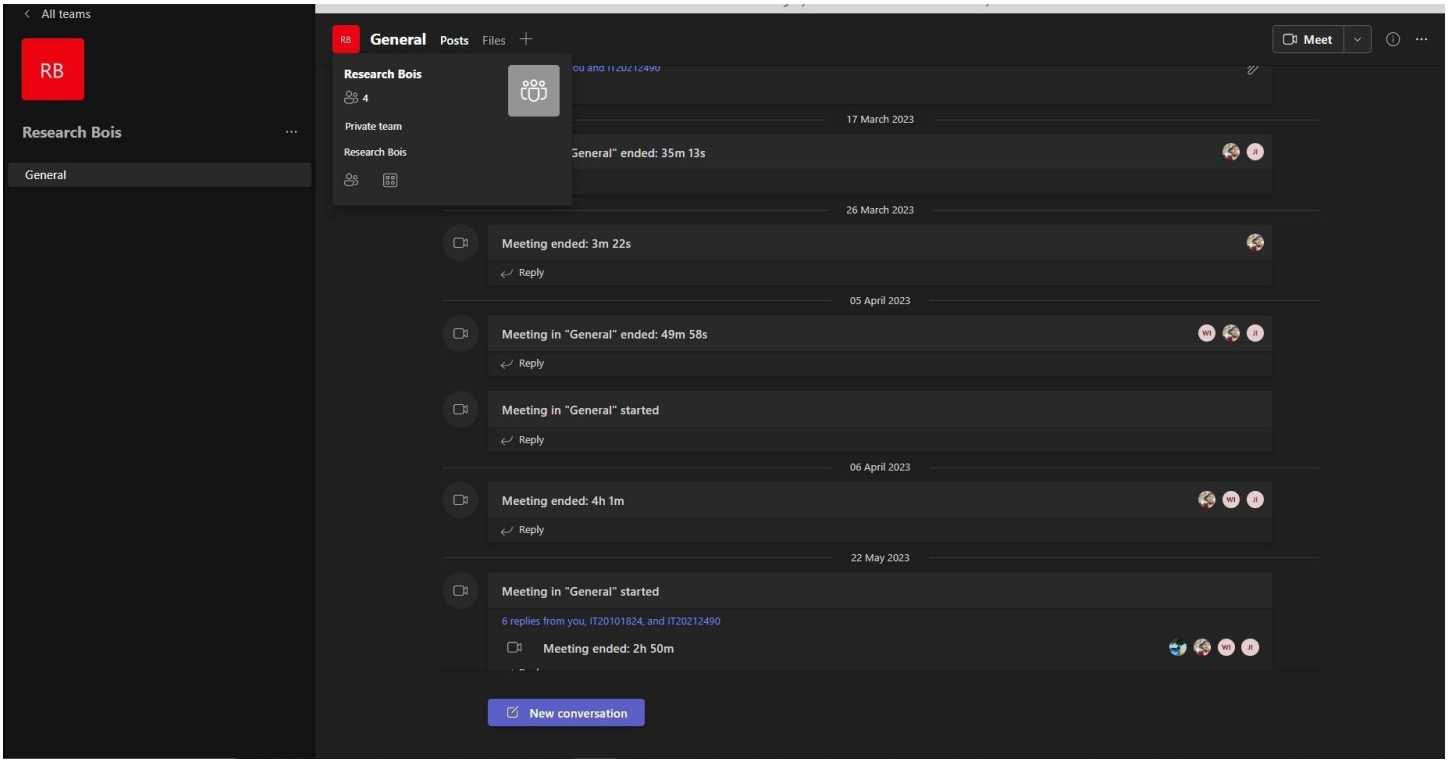


2. Research Group

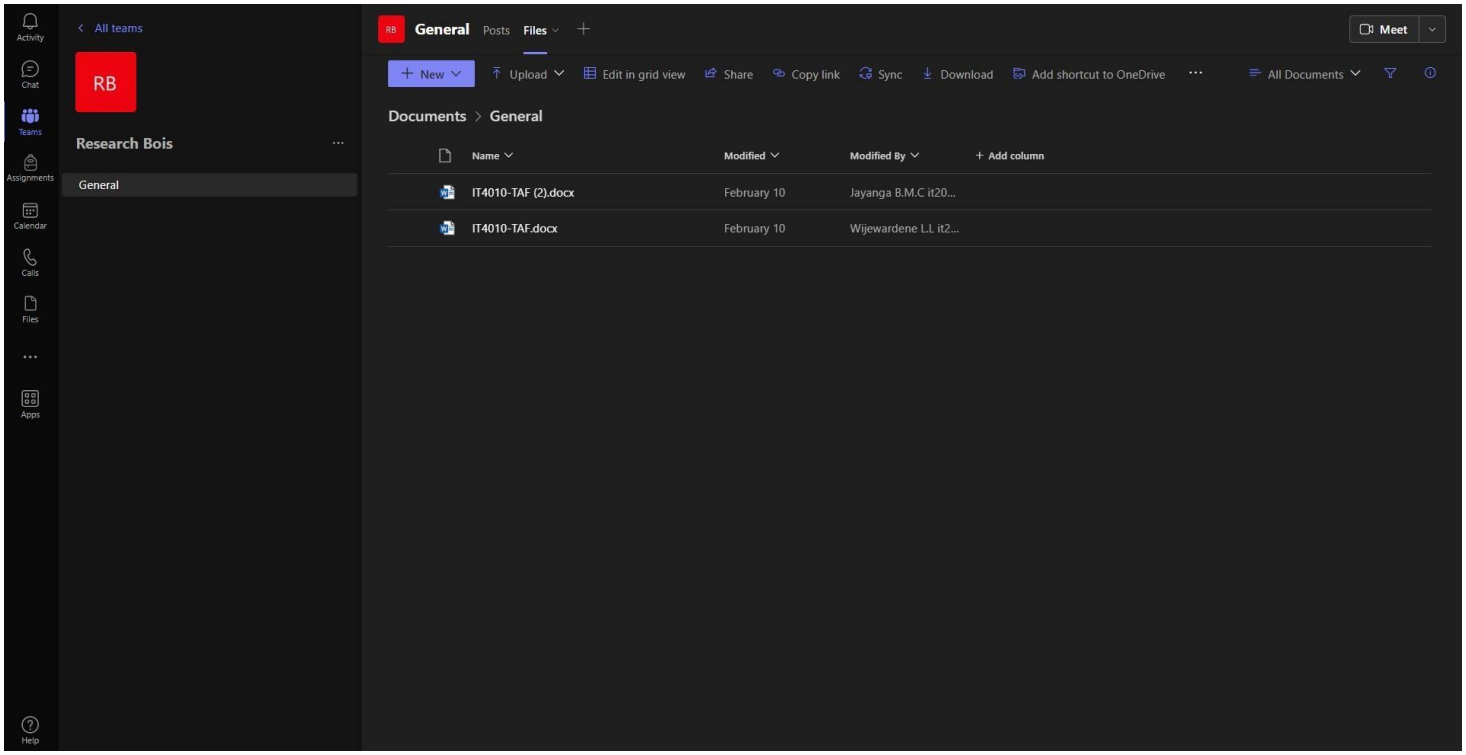
2.1. Create a MS team group with team members.



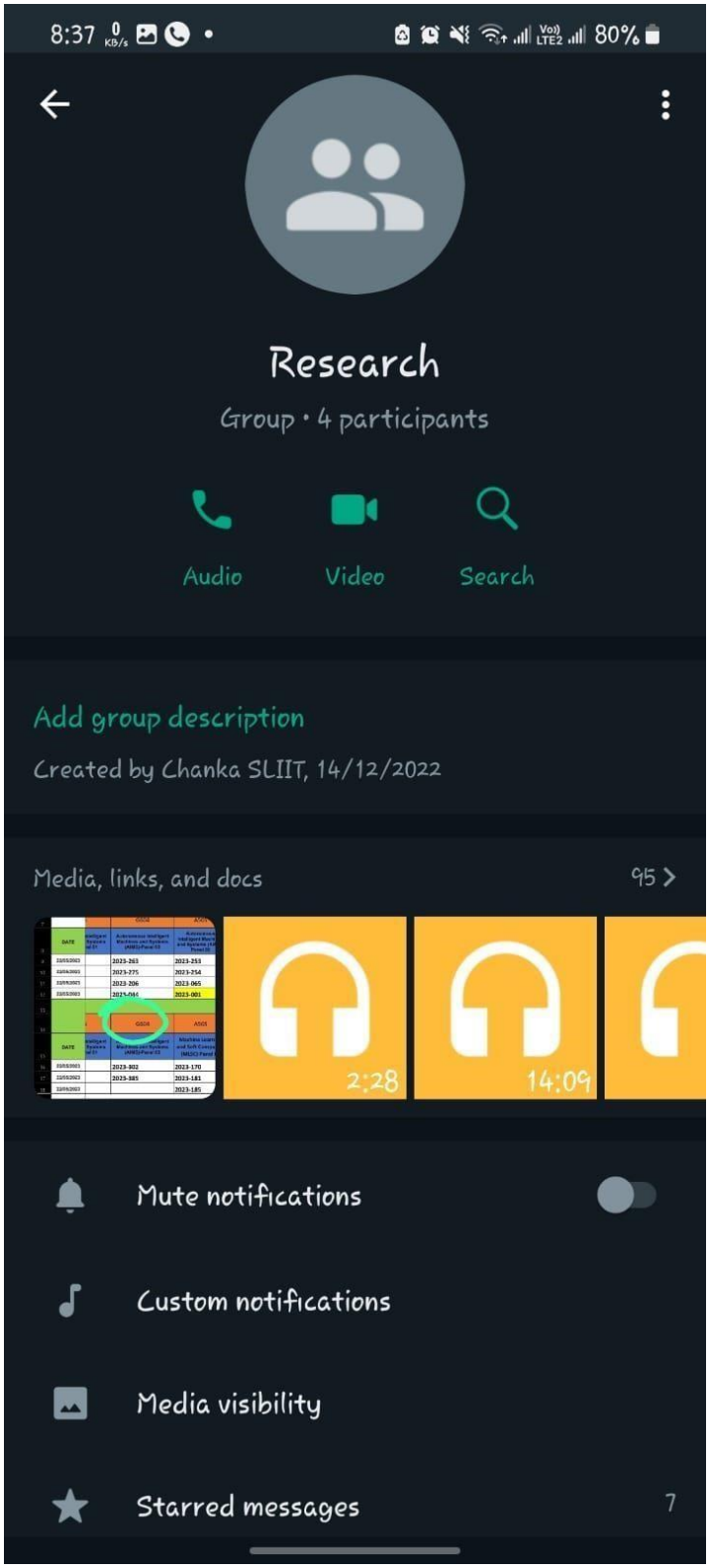
2.2. MS teams meetings with members.

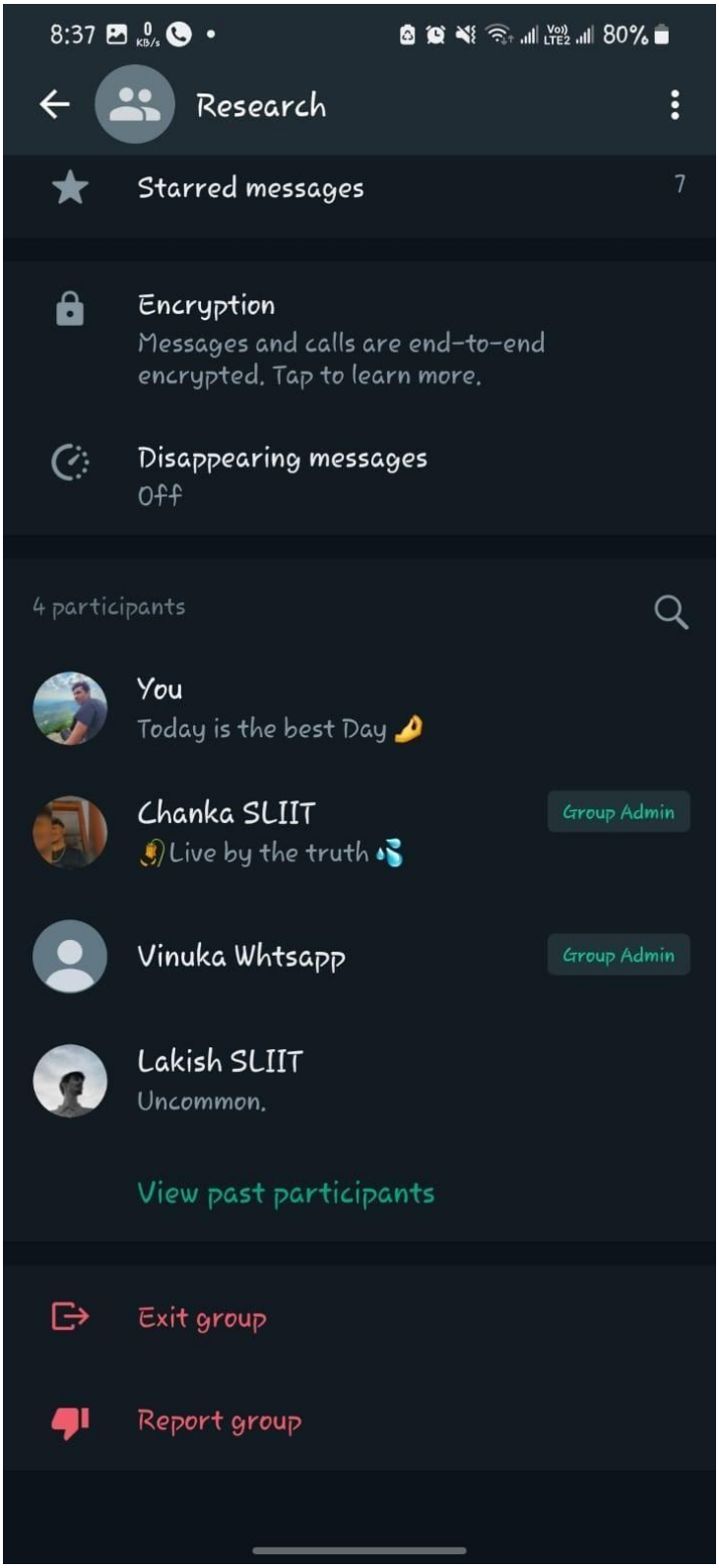


2.3. MS teams files

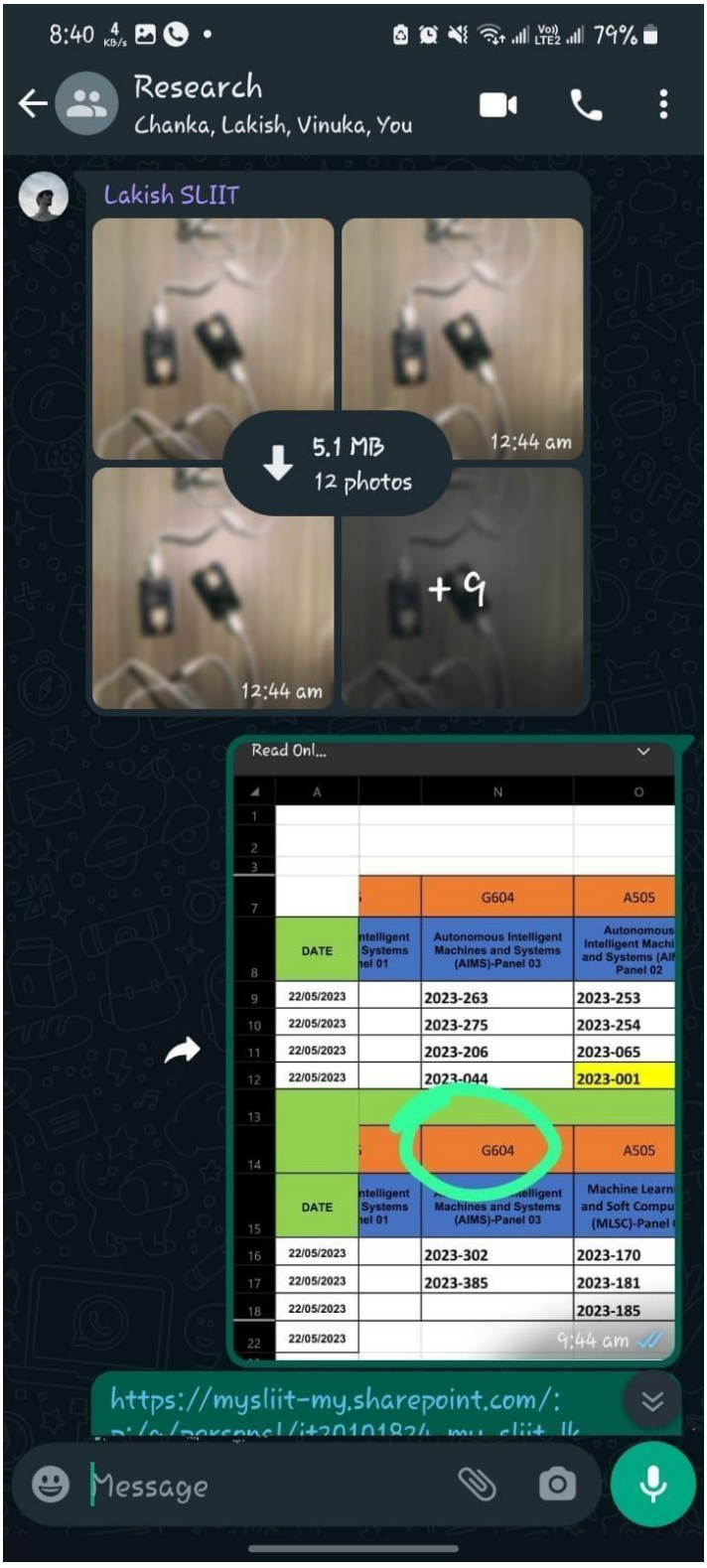


2.4. Create a WhatsApp group with team members**.**

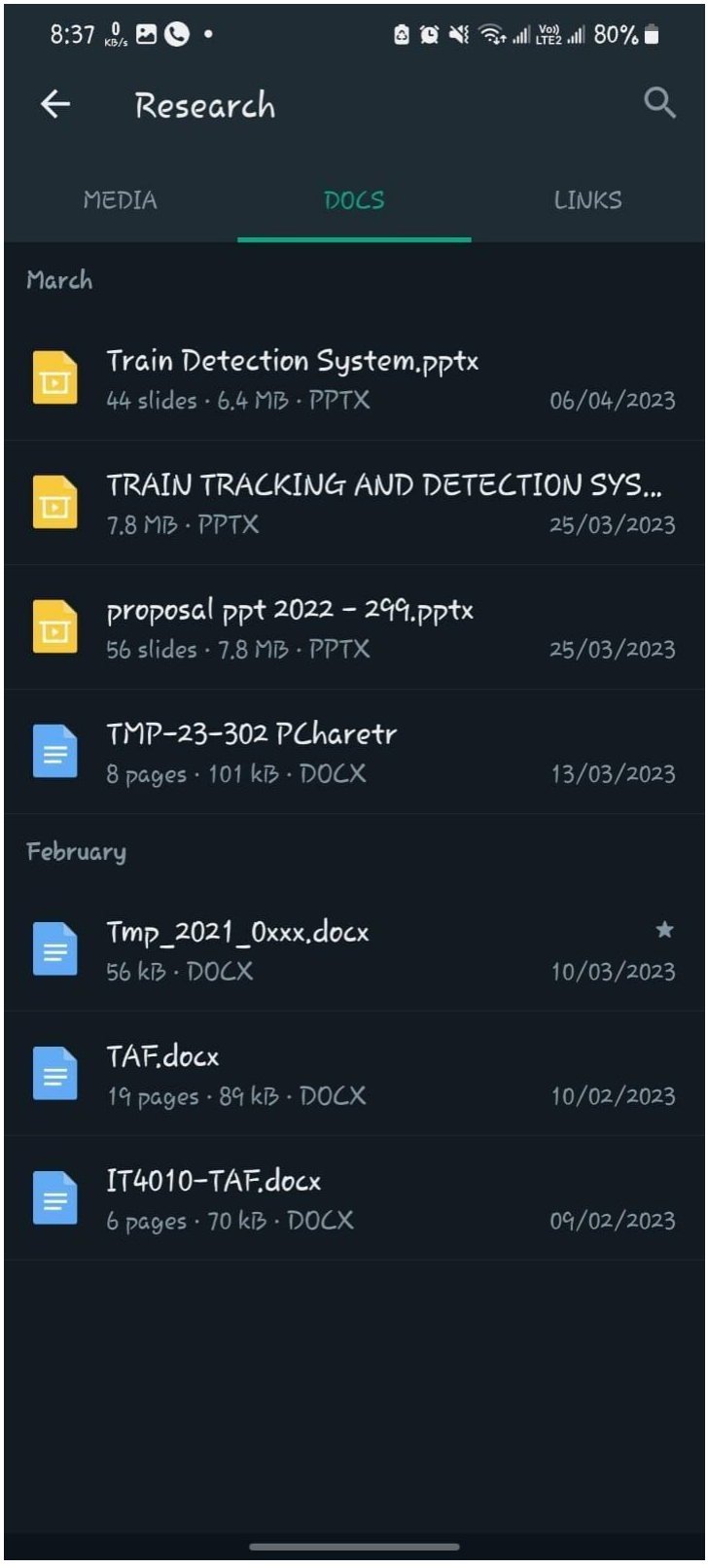




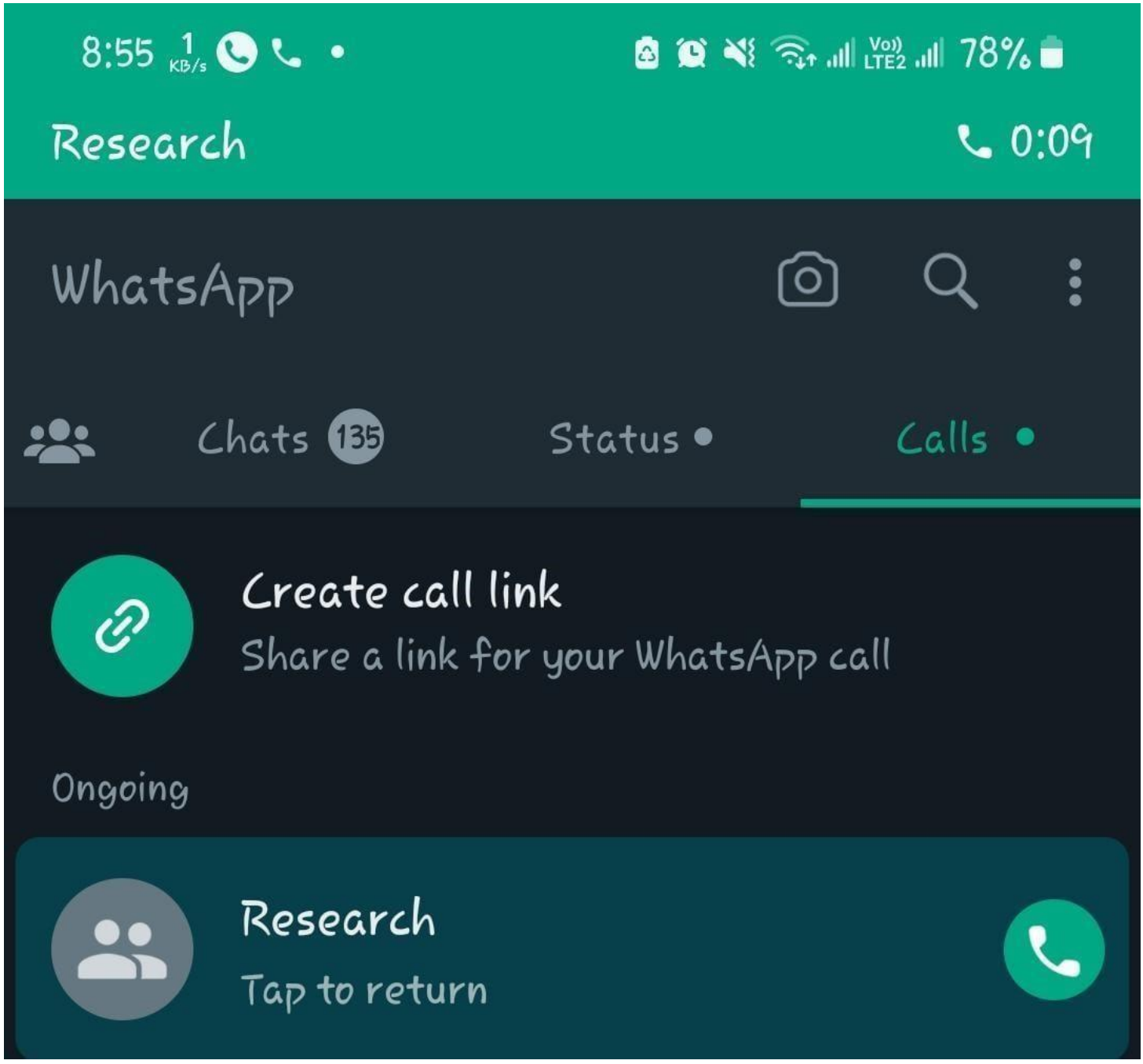
2.5. Chat in WhatsApp group with group members



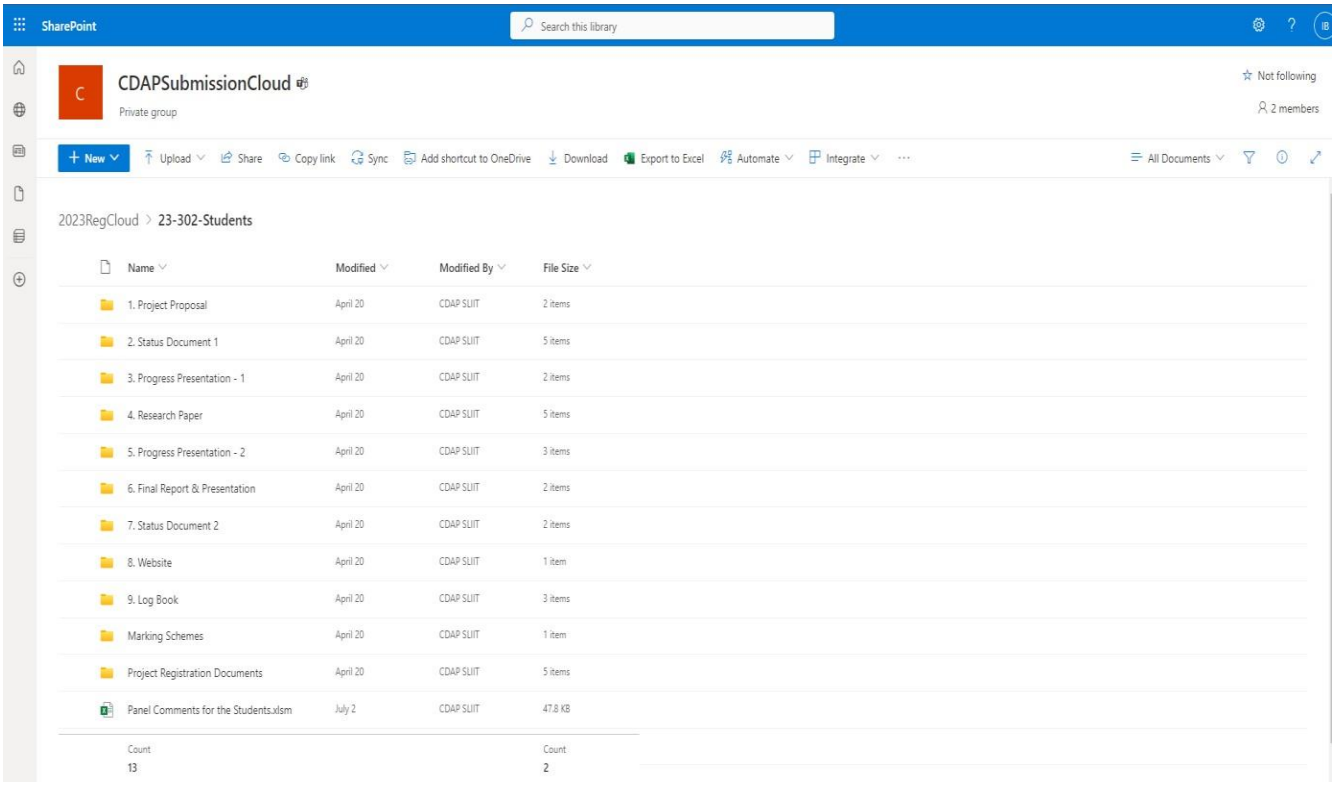
2.6. Files shared in WhatsApp group with group members



2.7. WhatsApp group calls.

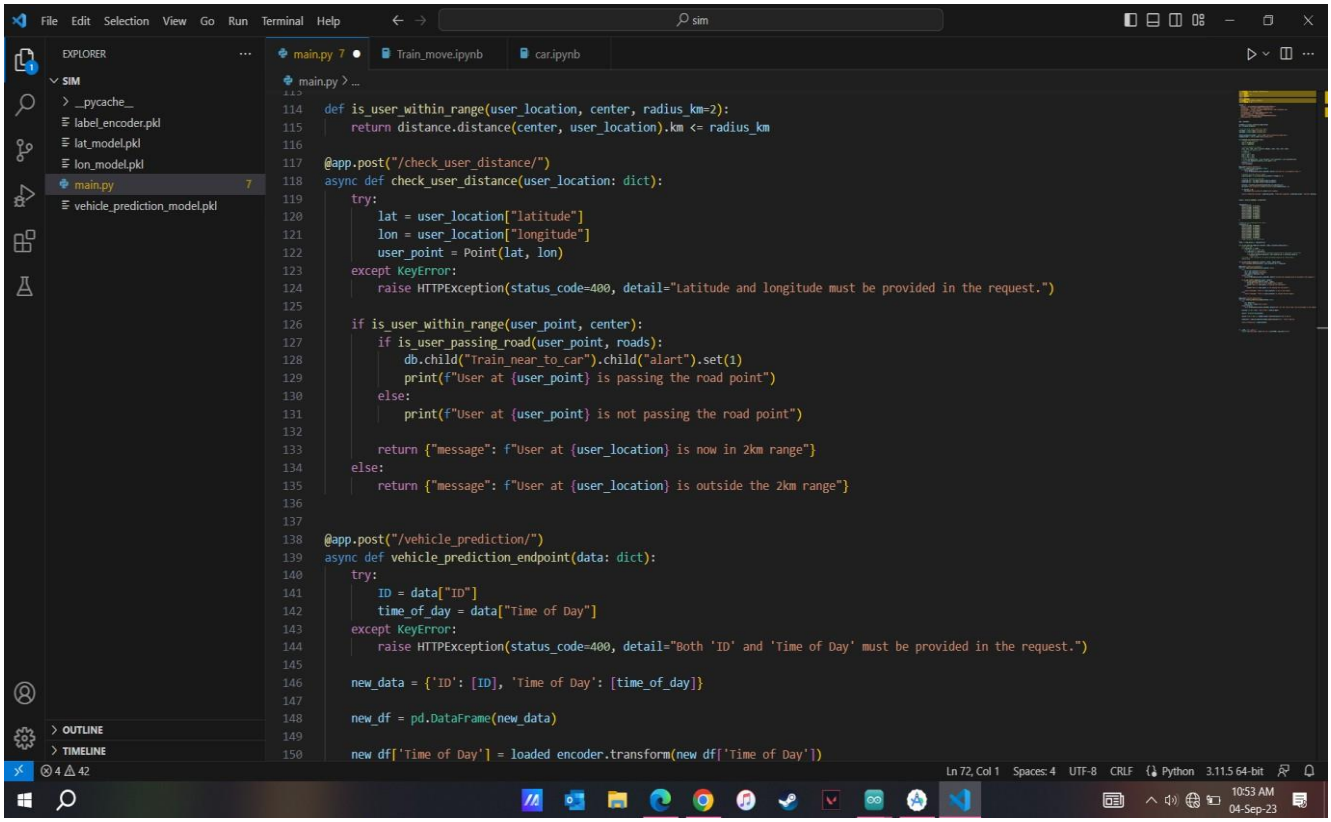


3. Update CDAP Cloud Submissions

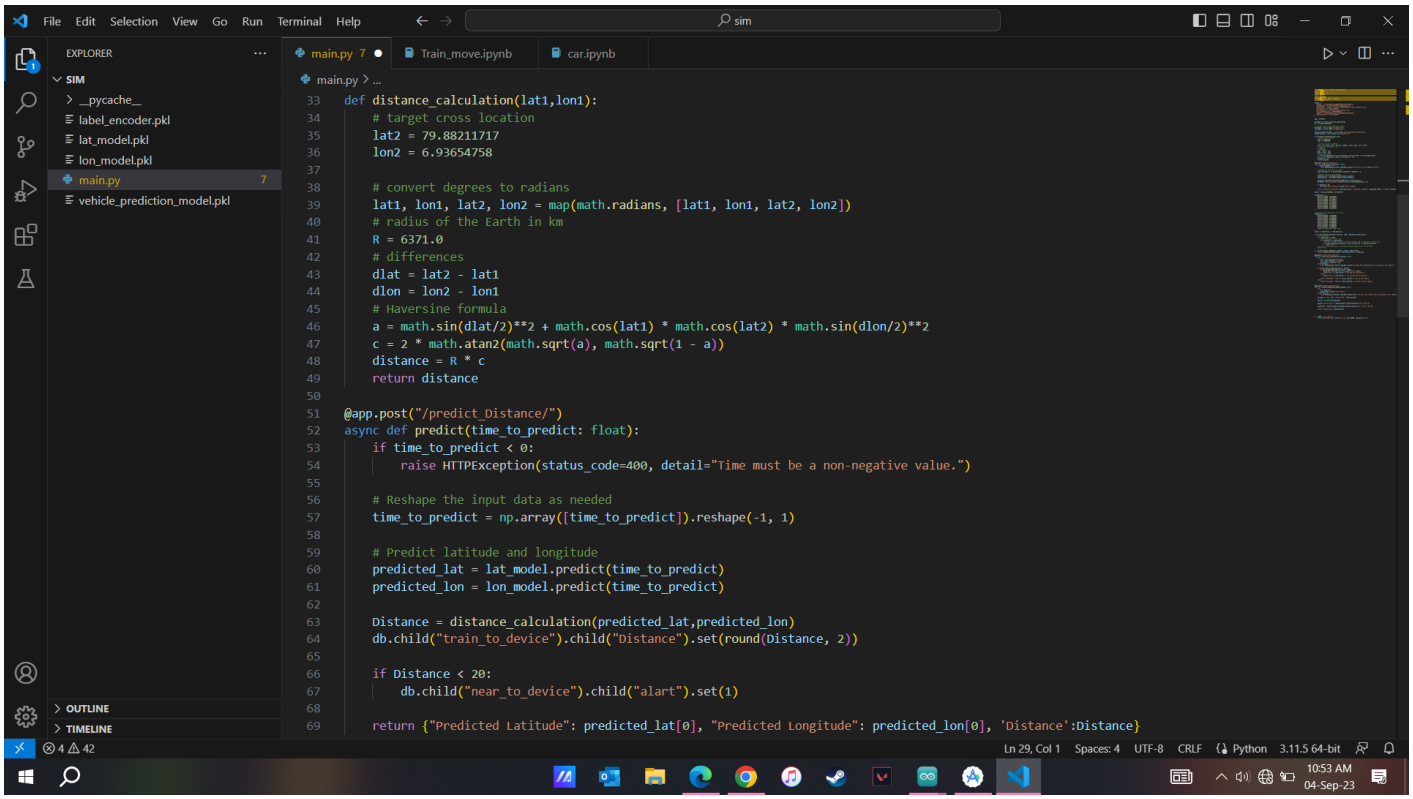


4. Completed 90% of the Research Project

4.1 Main Back-end code

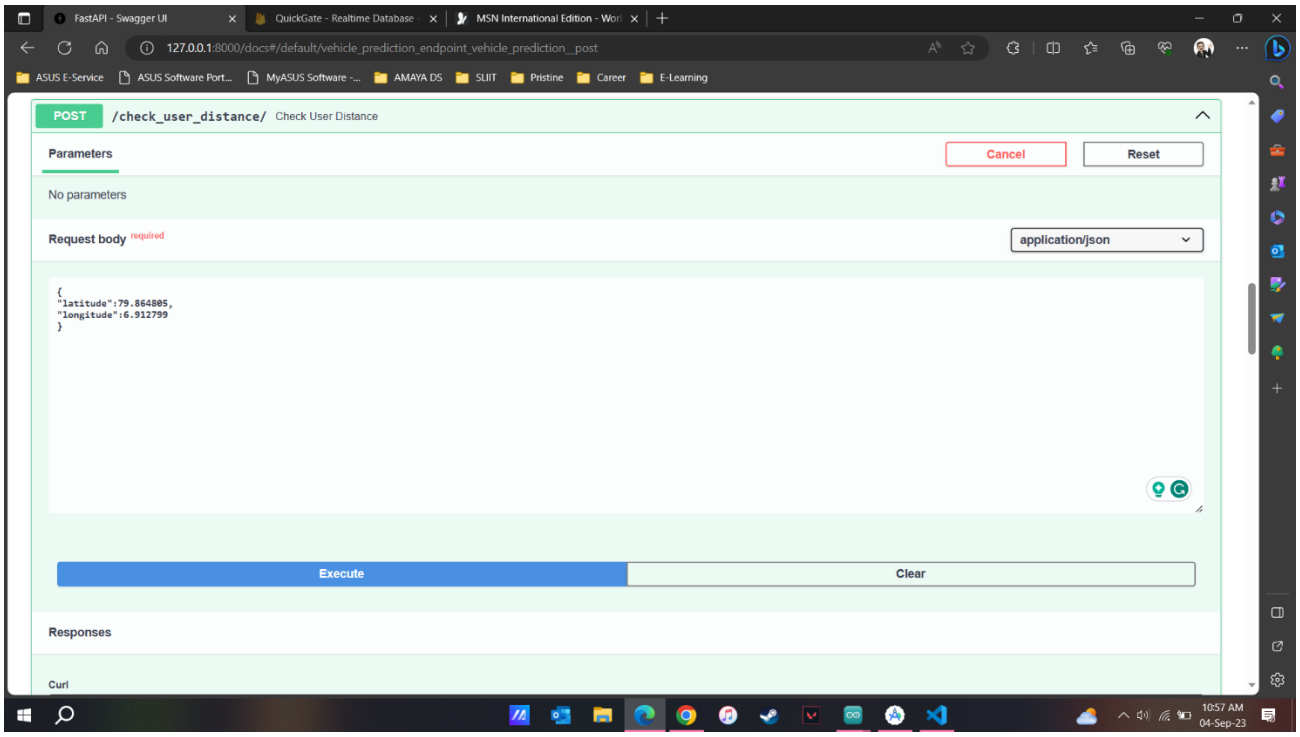


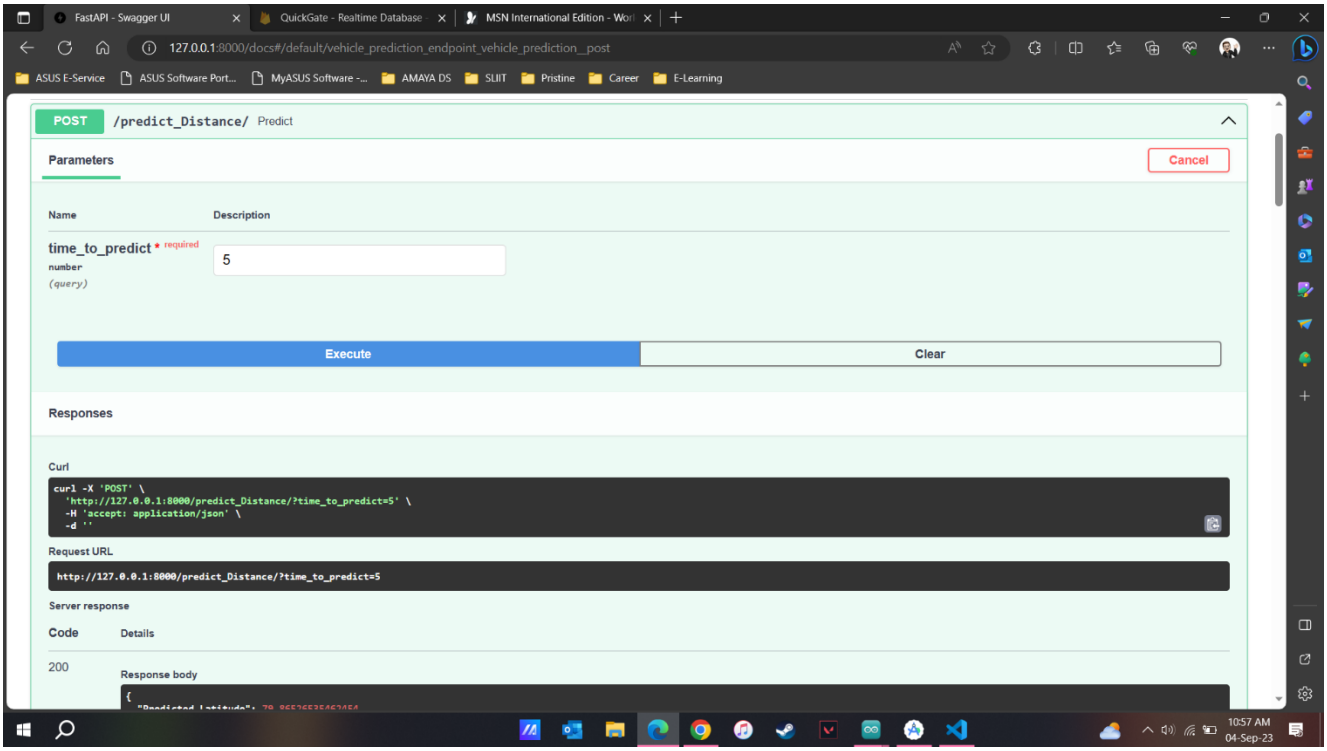
4.2 Defining the Train location and target location.



4.3. IoT devices used for the system

4.4. Distance Prediction display using API


FastAPI - Swagger UI
QuickGate - Realtime Database
MSN International Edition - Wor
127.0.0.1:8000/docs#/default/vehicle_prediction_endpoint_vehicle_prediction__post
POST
/check_user_distance/
Check User Distance
Parameters
Cancel
Reset
No parameters
Request body
required
application/json
{
"latitude":79.864805,
"longitude":6.912799
}
Execute
Clear
Responses
Curl
10:57 AM
04-Sep-23


FastAPI - Swagger UI
QuickGate - Realtime Database
MSN International Edition - Wor
127.0.0.1:8000/docs#/default/vehicle_prediction_endpoint_vehicle_prediction__post
POST
/predict_Distance/
Predict
Parameters
Cancel
Name
Description
time_to_predict
required
number
(query)
5
Execute
Clear
Responses
Curl
curl -X 'POST' \
'http://127.0.0.1:8000/predict_Distance/?time_to_predict=5' \
-H 'accept: application/json' \
-d ''
Request URL
http://127.0.0.1:8000/predict_Distance/?time_to_predict=5
Server response
Code
Details
200
Response body
10:57 AM
04-Sep-23

4.5. Data retrieving to the Firebase Database