

**SRI LANKA INSTITUTE OF  
INFORMATION TECHNOLOGY**



**SMART SYSTEM FOR OPTIMIZED ORGANIC CROP  
ROTATION USING PRECISION AGRICULTURE DATA**

**ID No: IT20151874**

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**Batch: Software Engineering**

**Project ID: 2023-113**

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1. Microsoft Teams Calls

1.1 Teams calls with research Team

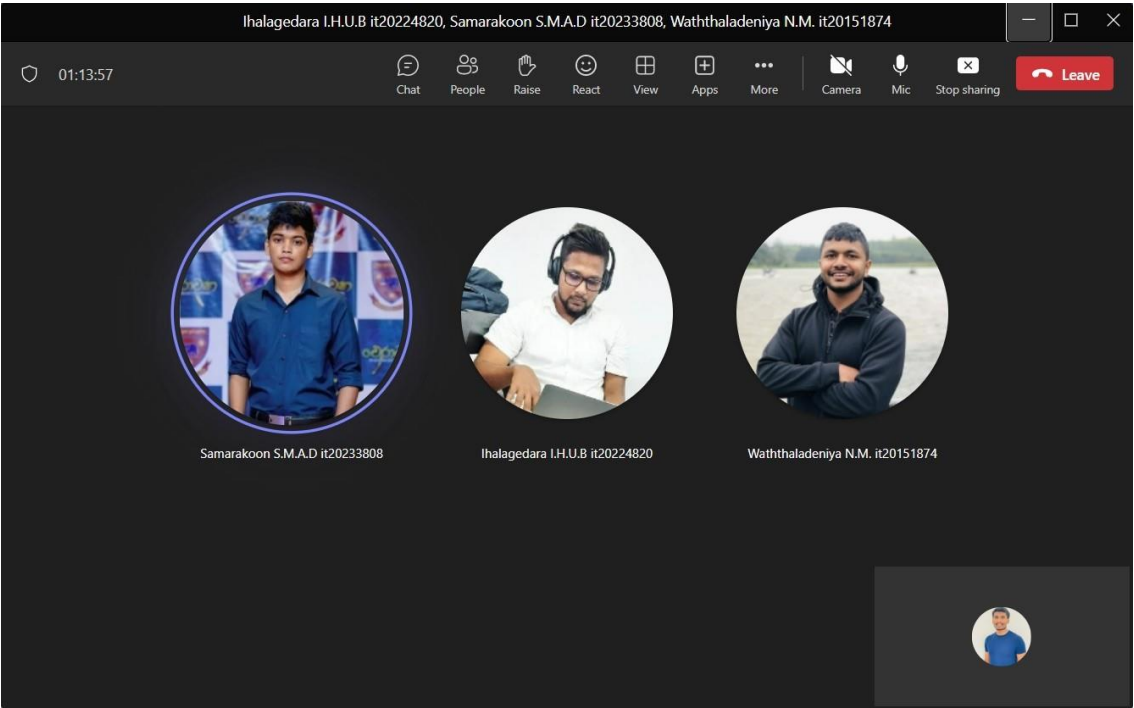


Figure 1 Teams call 1 with Research team

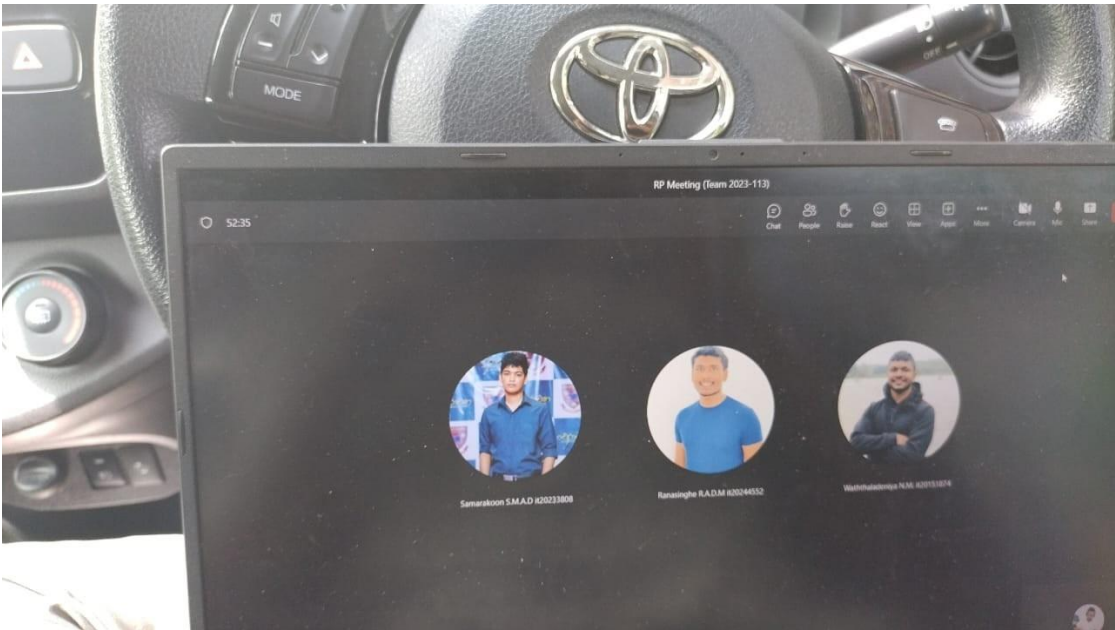


Figure 2 Teams call 2 with research Team

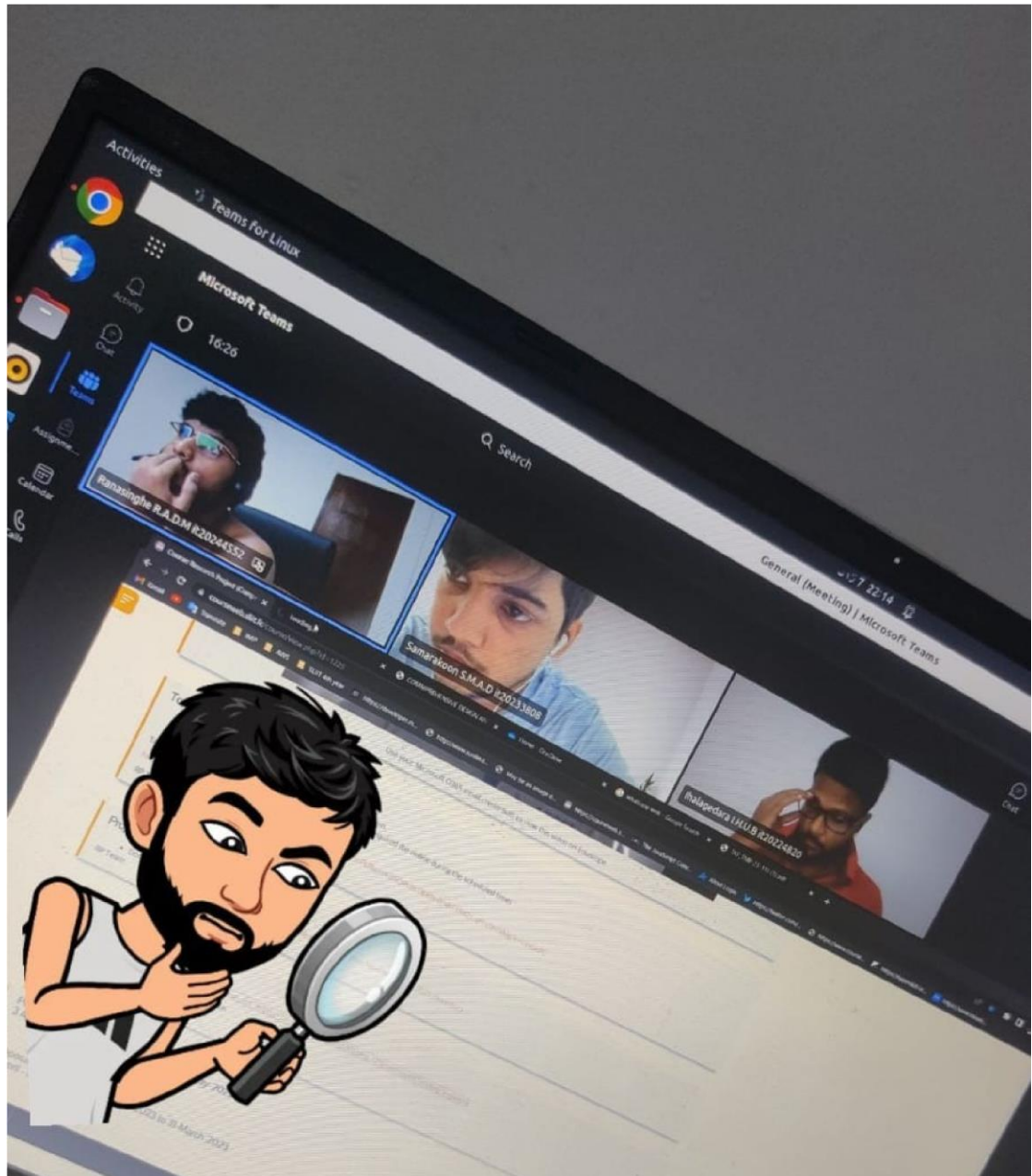


Figure 3 with research Team

## 1.2 Teams call with supervisor.

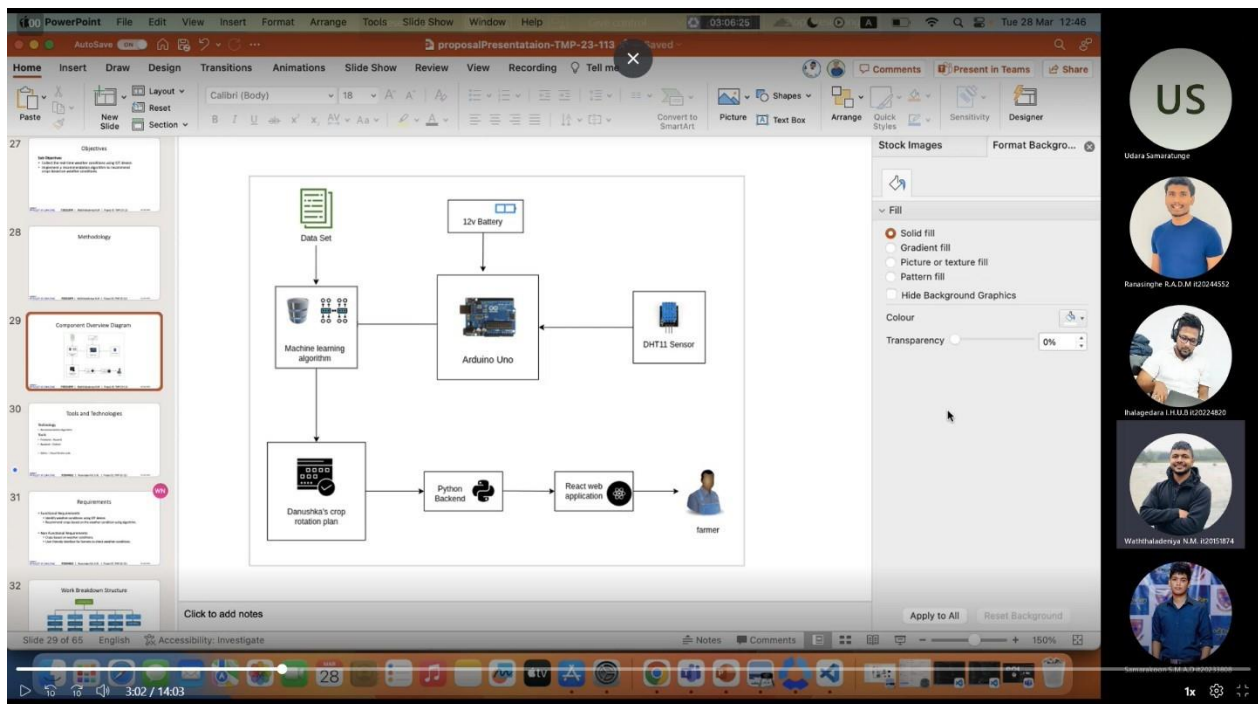


Figure 5 Teams call 1 with Supervisor

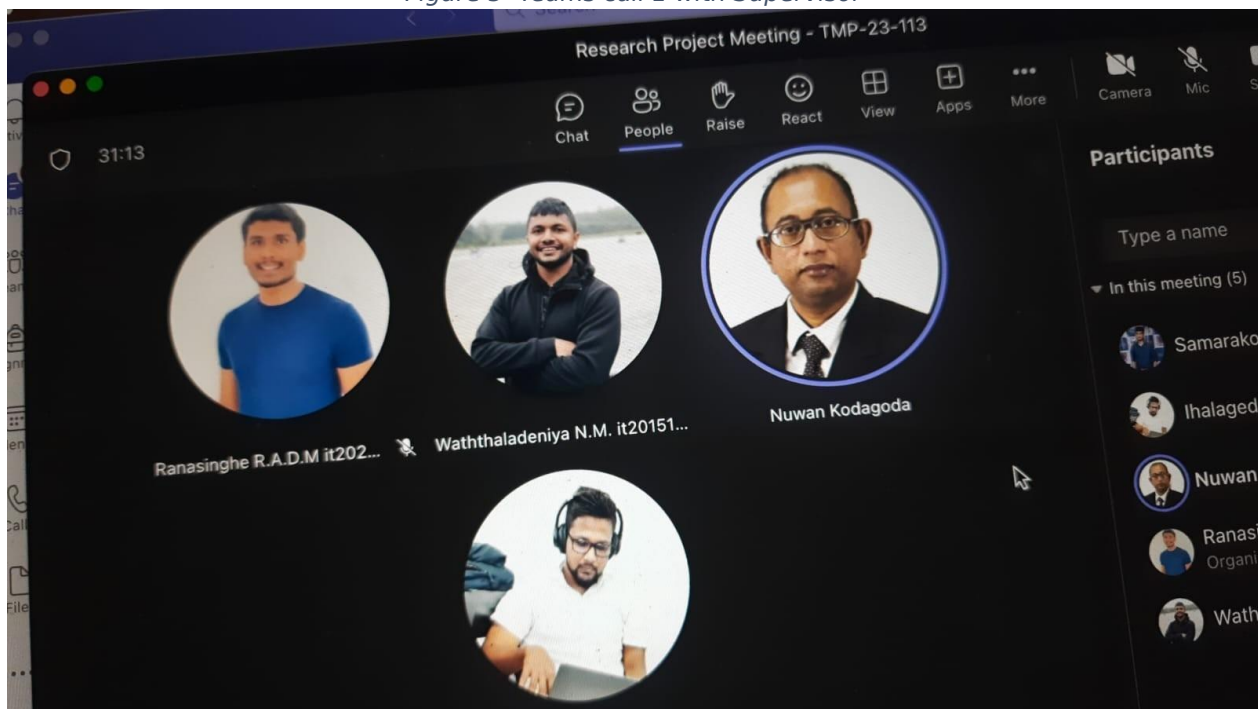
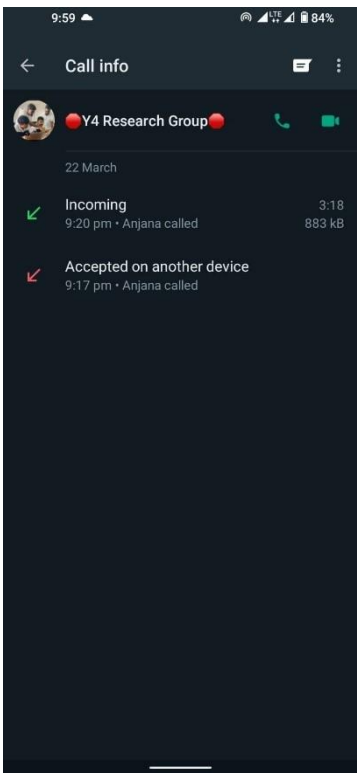
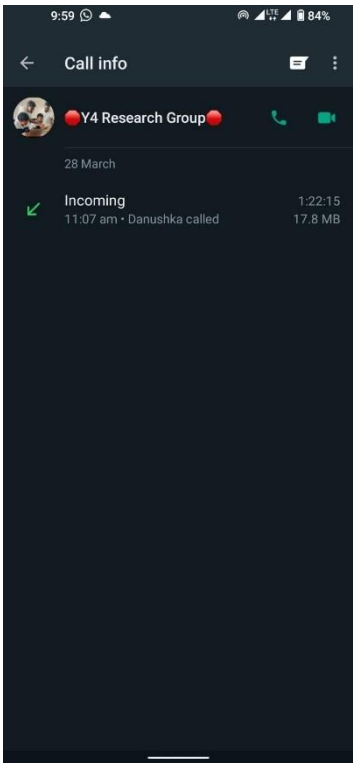
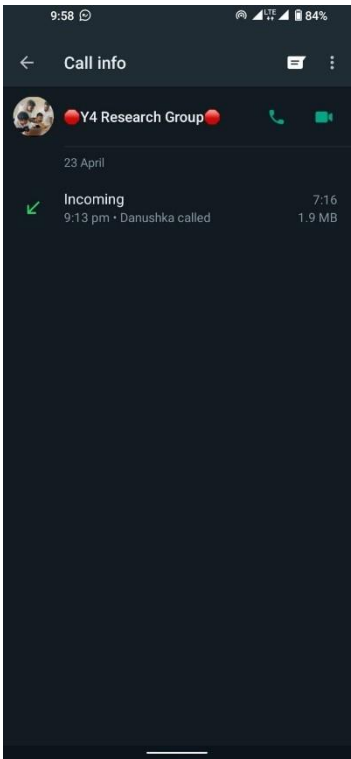


Figure 6 Teams call 2 with Supervisor

2. Whats App calls





### 3. Research Paper Publication

From: SETCMS <[ismsit2023@set-science.com](mailto:ismsit2023@set-science.com)>  
 Date: Sun, Oct 1, 2023 at 2:03 AM  
 Subject: ISMSIT2023 - Acceptance Letter  
 To: <[it20244552@my.sliit.lk](mailto:it20244552@my.sliit.lk)>

Dear Sir/Madam,

We are pleased to inform you that your paper has been ACCEPTED at ISMSIT2023.

The acceptance letter of your submission has been sent.

**NOTE: At least one author is required to register for each paper. You can visit our website for registration details.**

On behalf of the organization committee we would like to congratulate you.

Best Regards,

One attachment • Scanned by Gmail ⓘ



7th International Symposium on Multidisciplinary  
 Studies and Innovative Technologies  
 October 26-28, 2023, Ankara, Turkey (Hybrid)



Sep 30, 2023

#### INVITATION LETTER

Dear Danushka Ranasinghe,

To Whom It May Concern,

We are pleased to invite you to present your paper at "[International Symposium on Multidisciplinary Studies and Innovative Technologies](#)" which will take place in Ankara, Turkey, Oct 26, 2023 -Oct 28, 2023.

Scientific Committee of ISMSIT2023 summarized your paper details below.

**Paper Title** : Smart System to Optimize Organic Crop Rotation Using Precision Agriculture Data

**Paper ID** : 79

**Paper Authors** : Danushka Ranasinghe

For indexing, papers to be published in IEEE Xplore will be submitted to various international databases such as SCOPUS, Inspec, and Google Scholar.

ISMSIT 2023 is supported by Tokat Gaziosmanpasa University and [IEEE Turkey Section](#).

For the IEEE Xplore publishing option, you must complete the [Camera-Ready Submission process](#) by October 15, 2023.

Thank you in advance for your contribution toward to success of ISMSIT2023. We look forward to your participation to [ISMSIT2023](#) in Ankara, Turkey.

Best Regards,

Ebubekir Yasar  
 On behalf of the organizing committee  
 Symposium Chair

Zoom Meeting interface showing a presentation slide. The slide title is "CONCLUSION". The content of the slide is:

This research introduced a Smart System for Optimized Organic Crop Rotation, leveraging IoT, ML, and cloud computing to tackle challenges in organic farming. Also, a Real-time soil health analytics component, climate-sensitive data processing component and a cloud-based pest and disease identification model acts as a bridge between conventional and modern farming approaches, propelling the agricultural sector towards sustainability.

The slide also features logos for ISMSIT 2023, IEEE Turkey Section, and the 7th International Symposium on Multidisciplinary Studies and Innovative Technologies (October 26-28, 2023, Radisson Blu Hotel, Ankara, Turkey (Hybrid)).

Zoom Meeting interface showing a presentation slide. The slide title is "Thank You". The content of the slide is:

Authors - Danushka Ranasinghe, Anjana Samrakoon, Upendra Ihalagedara, Madusanka Waththaladeniya, Udara Samaratunge, Nuwan Kodagoda

The slide also features the SLIIT UNI logo (The Knowledge University).

At the bottom of the slide, the text "Smart System to Optimize Organic Crop Rotation Using Precision Agriculture Data(Paper ID - 79)" is visible.



4. Emails and planned Teams Events

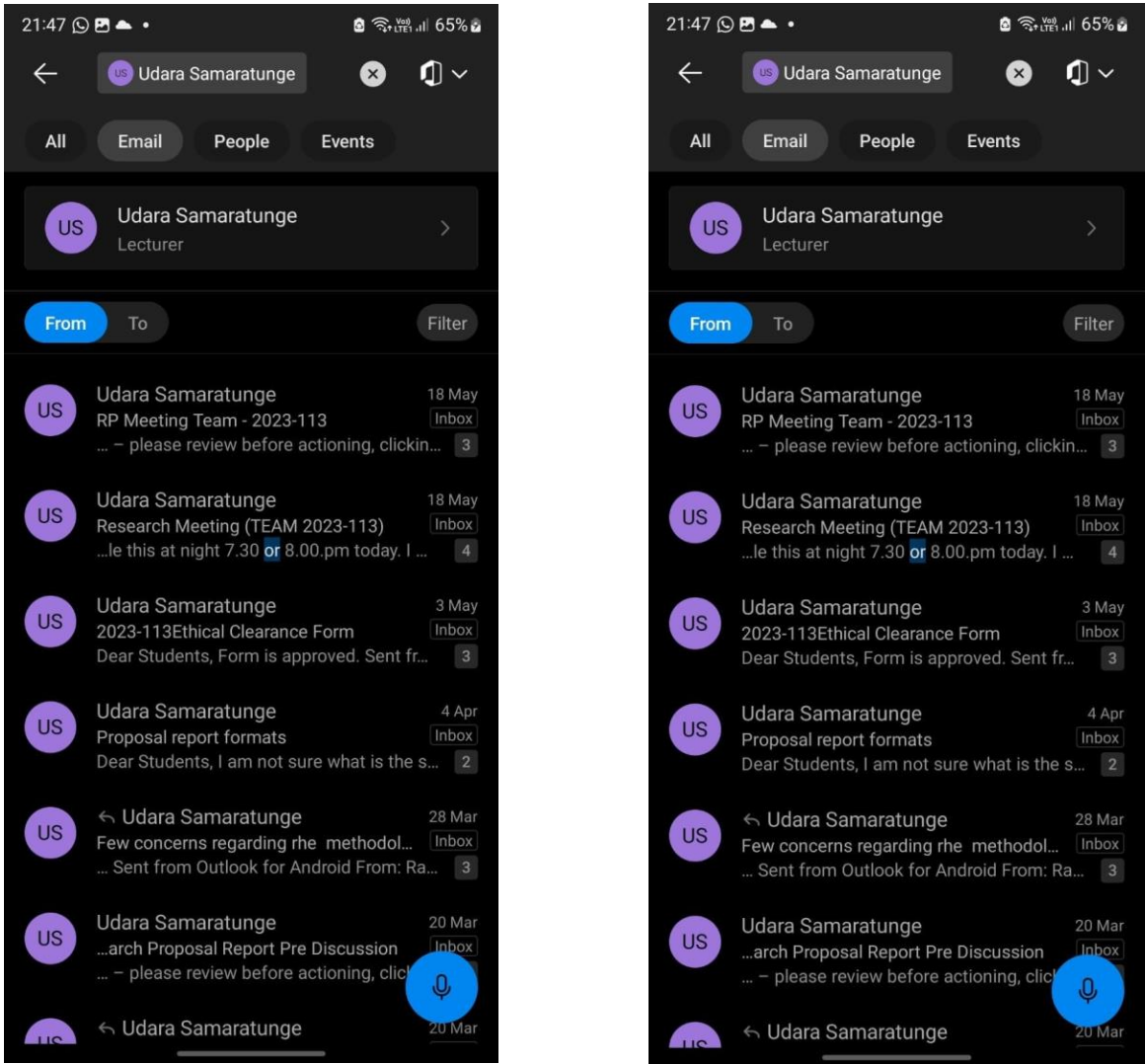


Figure 9 Email and Teams event

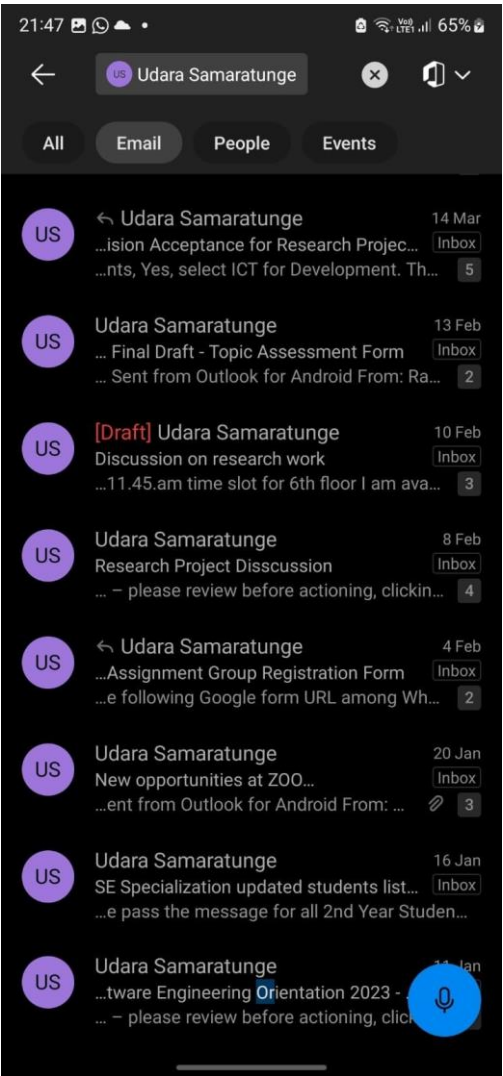
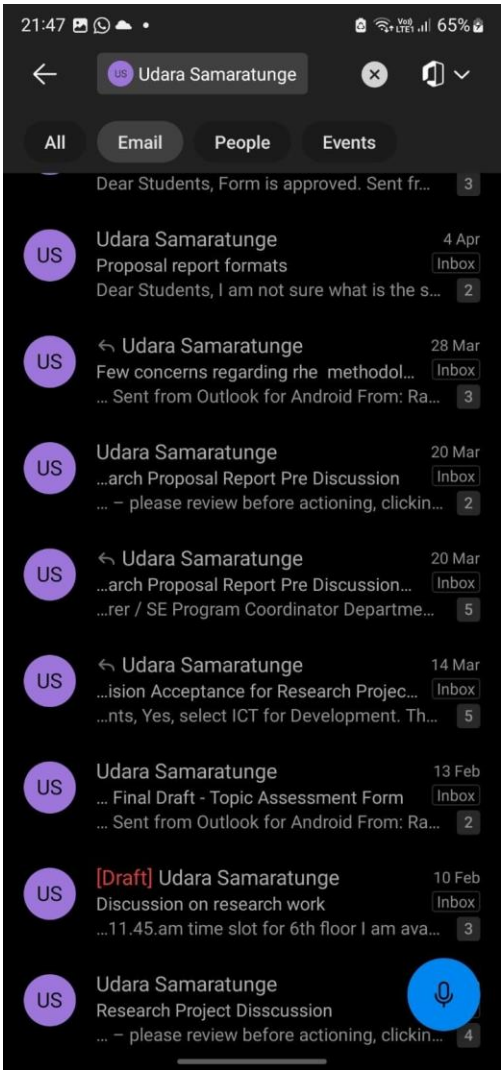


Figure 9 Email and Teams event

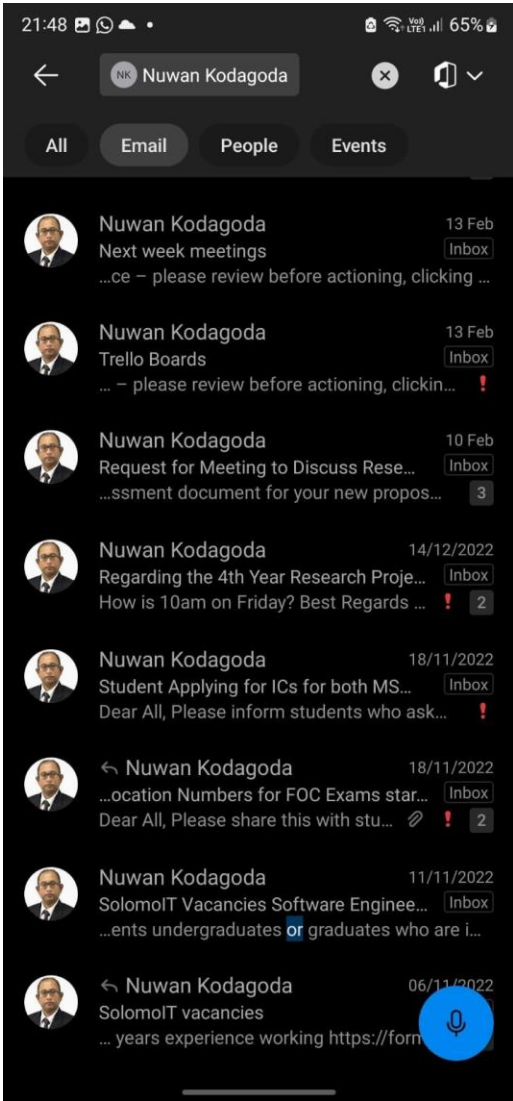
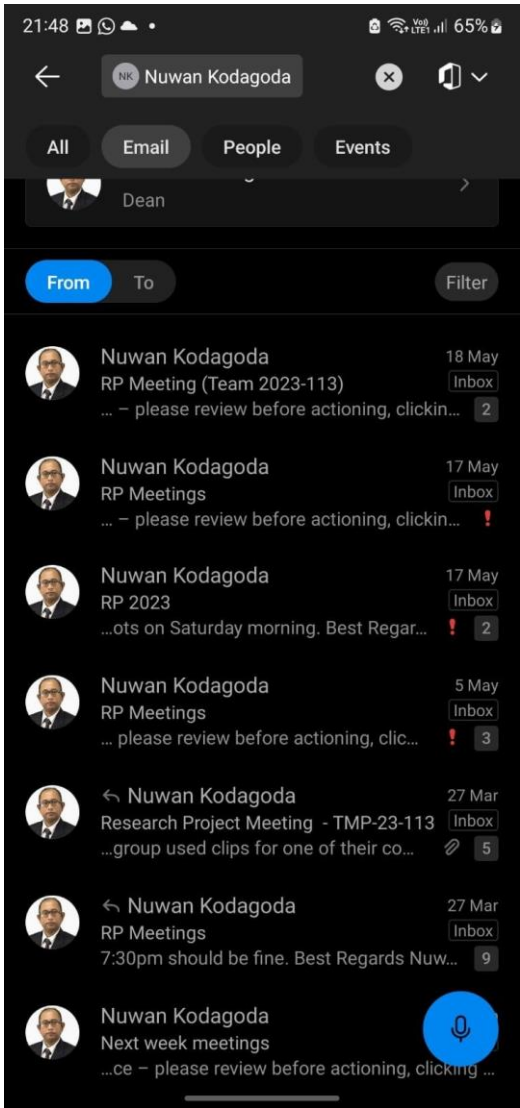


Figure 9 Email and Teams event

## 5. Trello Planner

### 5.1 Planner Board

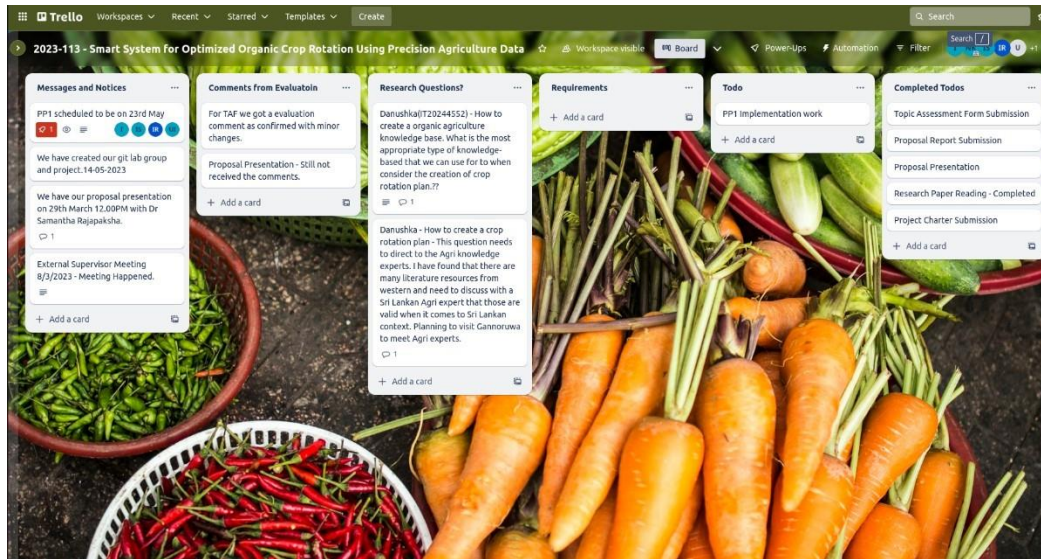


Figure 10 Planner board part1

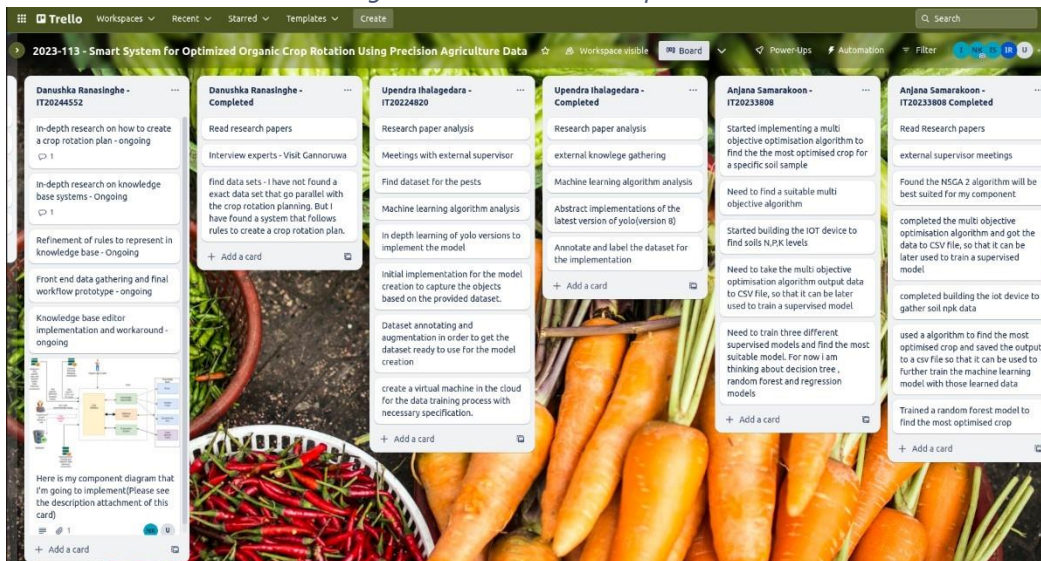


Figure 11 Planner Board part2



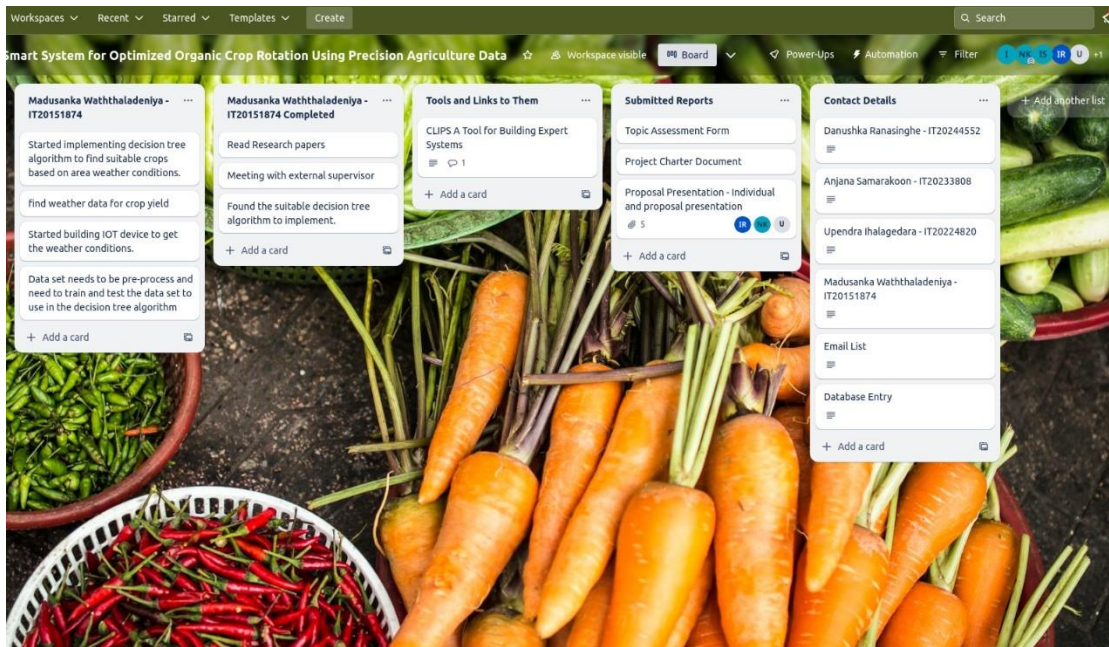
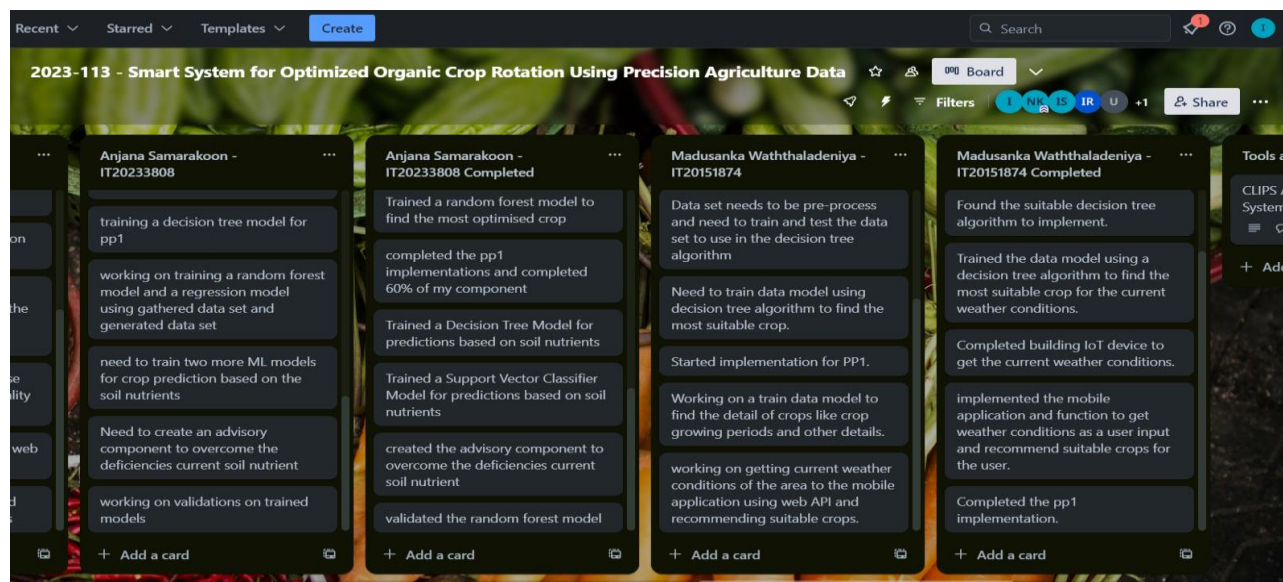


Figure 11 Planner Board part2



5.2 Teams planner Schedule

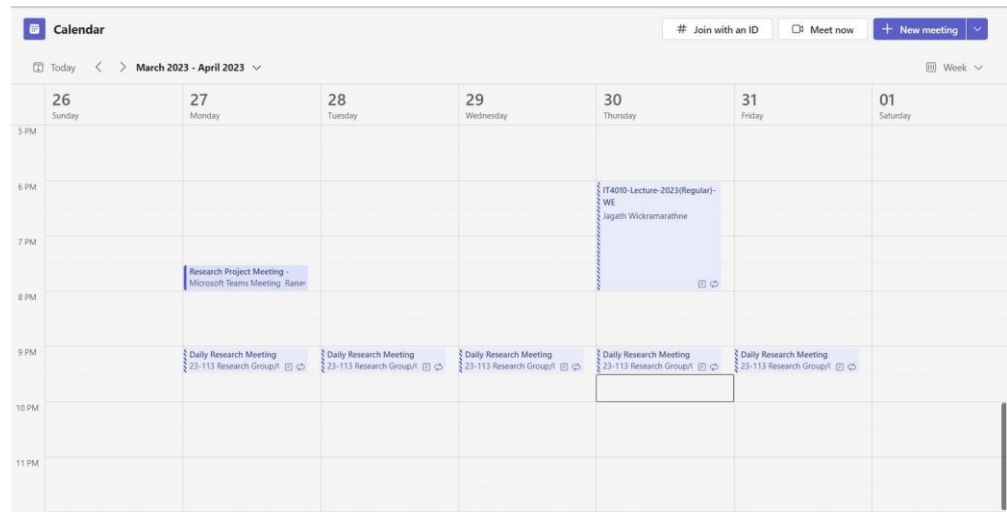


Figure 14 Teams Planner Schedule

5.3 Teams Planner Charts

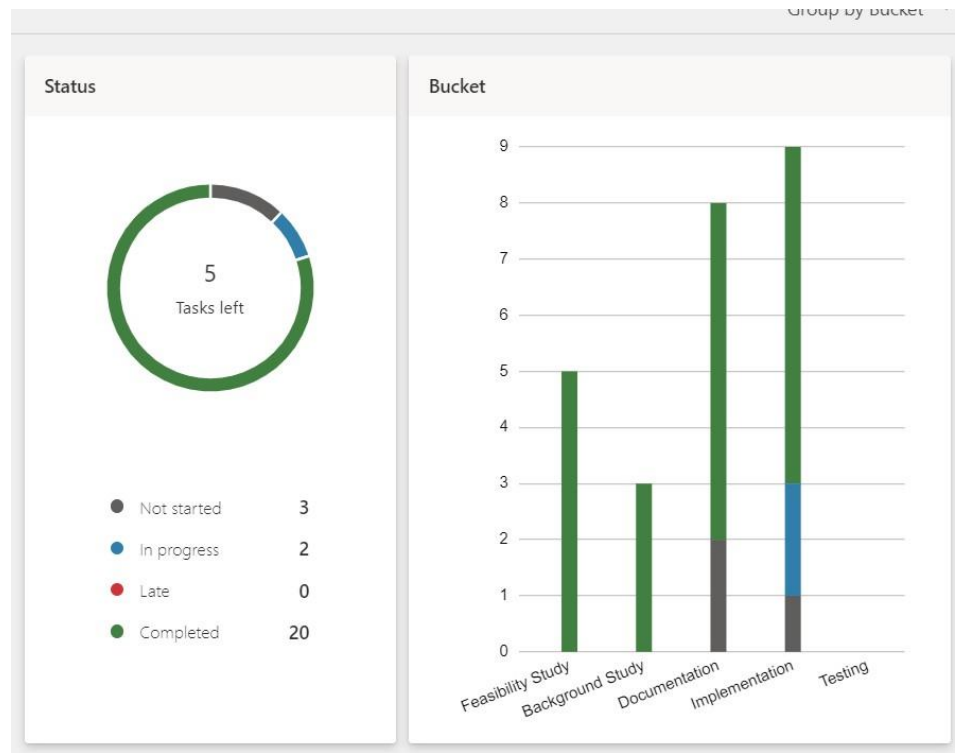
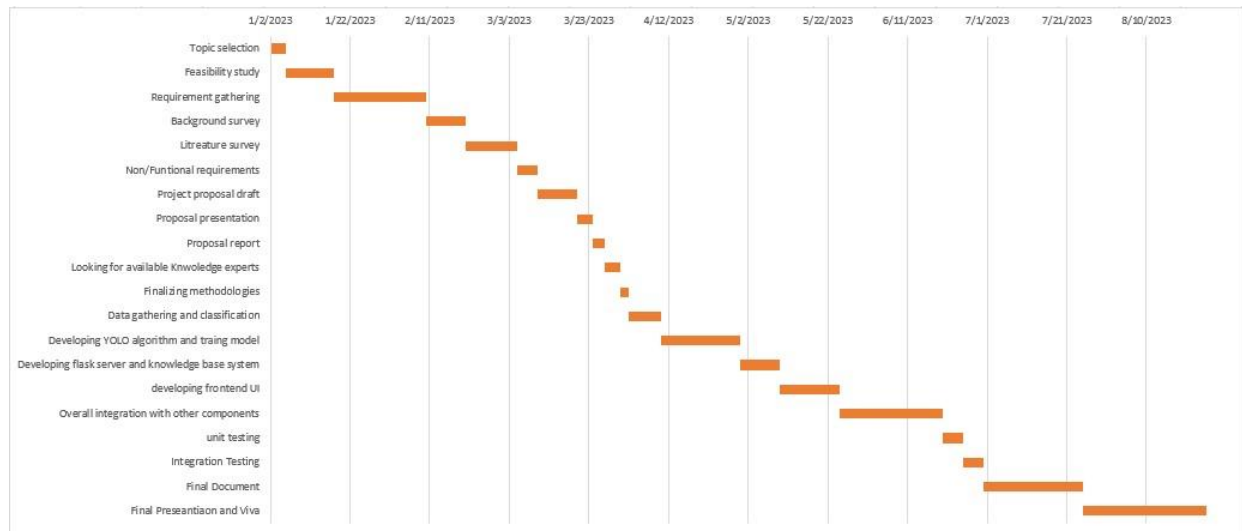


Figure 15 Teams Planner chart

6. Gannt Chart

Figure 16 Gannt chart





## 7. Work Breakdown Structure

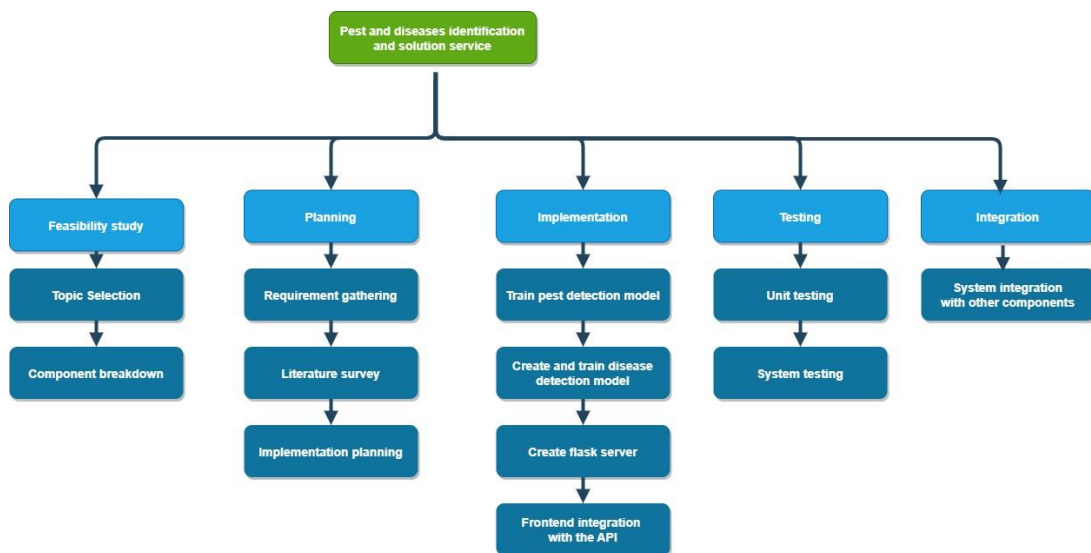


Figure 17 work breakdown structure

## 8. Gitlab Commits

The screenshot displays the GitLab interface for a repository named '2023-113'. The left sidebar contains navigation links for Project overview, Repository, Files, Commits, Branches, Tags, Contributors, Graph, Compare, Issues, Merge Requests, CI/CD, Operations, Analytics, Wiki, Snippets, and Settings. The main content area shows the repository's commit history and the README file.

Repository: 2023-113

You pushed to feature/IT20151874/weatherBasedCropRecommendation-1 1 hour ago

feature/IT20151... 2023-113 / +

History Find file Web IDE Clone

**weather data input page**  
Madusanka-w authored 1 hour ago

Name	Last commit	Last update
■ Crop Rotation Planner-IT2024452	component diagram added	1 week ago
■ Pest Identifier and Protection Suggestioner-IT20224820	Update README.md	1 week ago
■ Soil Analyzer and Optimized Crop Finder - IT20233808	home screen added	3 days ago
■ Weather Analyzer and Crop Recommender-IT20151874	weather data input page	1 hour ago
📄 .DS_Store	home screen added	3 days ago
📄 README.md	Update README.md	1 week ago

**README.md**

**2023-113**

"OrganicFarm Support" – Organic Farming Software Solution for Farmers Who Follows Precision Agriculcuring

**Main Objective**

The main objective of this system is to provide stakeholders with a crop rotation plan by analyzing soil, climate, and pests. It also furnishes them with relevant information regarding soil, climate, and pests to safeguard and enhance the sustainability of their farms.

Figure 18 Gitlab master branch

8.1 Commits to the branch

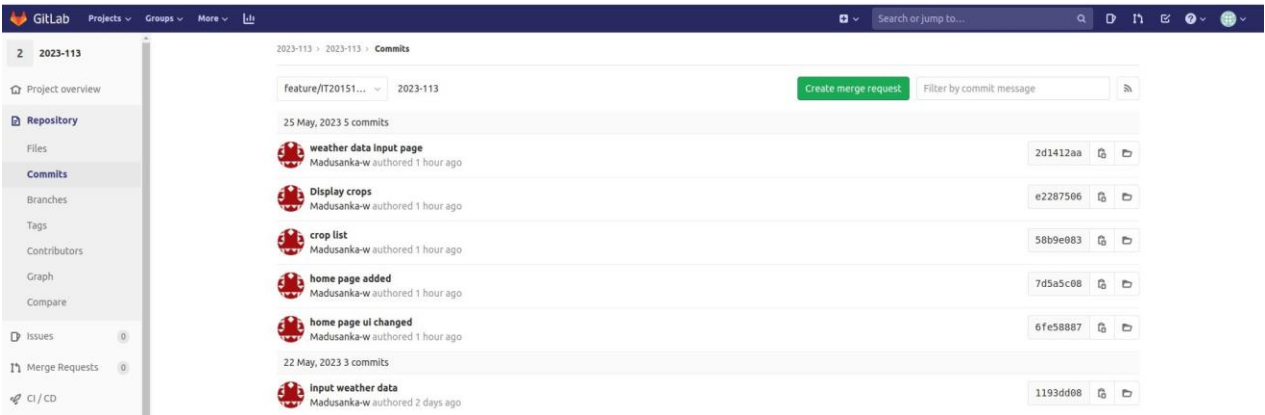


Figure 19 Gitlab IT20233808 branch commit part 1

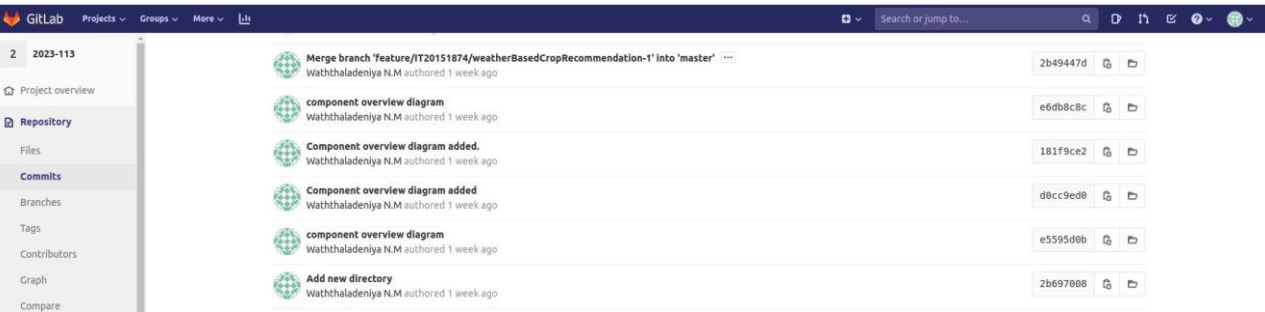
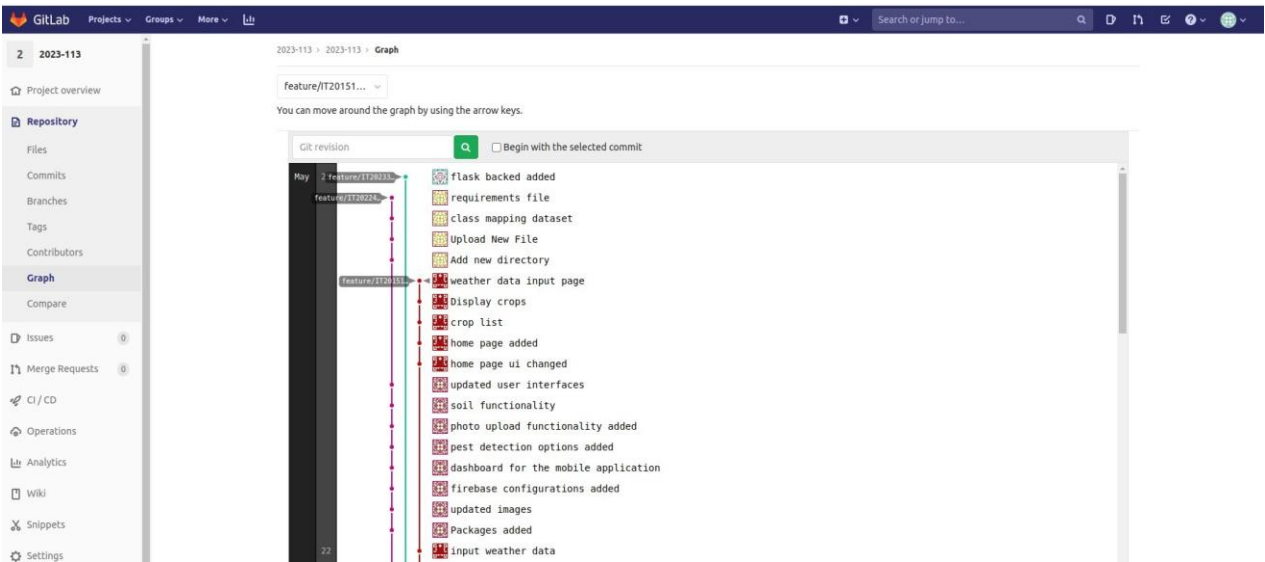
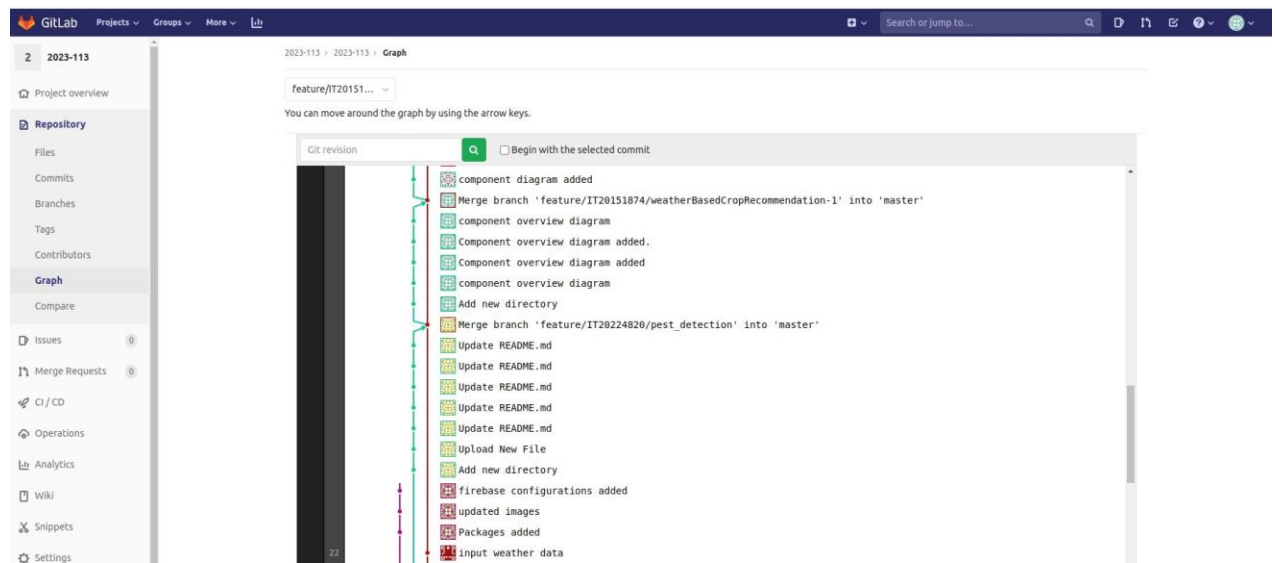


Figure 20 Gitlab IT20233808 branch commit part 2

8.2 GitLab Graph





8.3 Gitlab Contributors

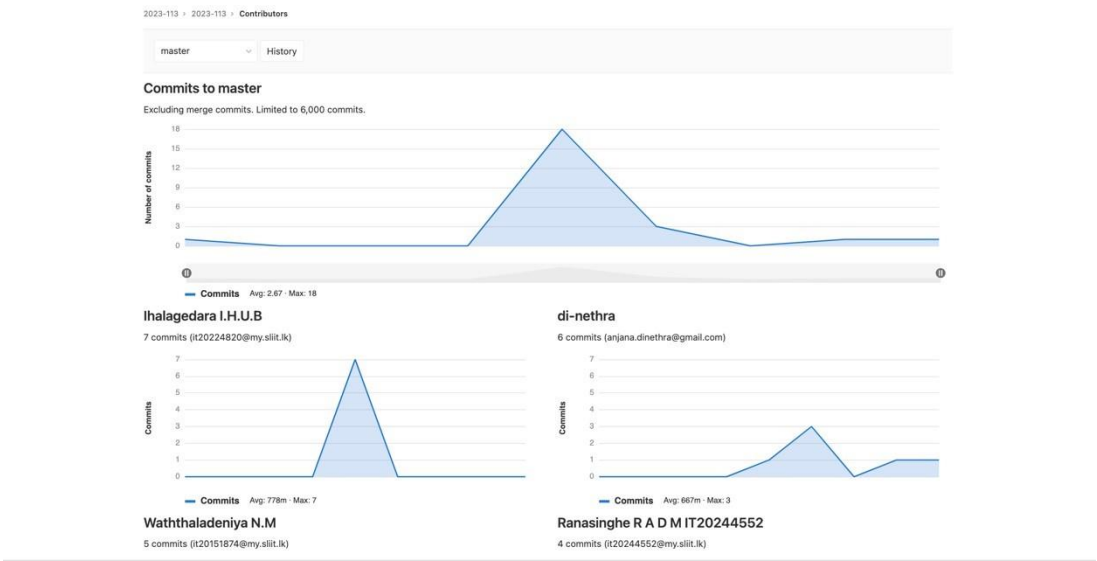


Figure 24 Contributor commit representation