

INDUSTRIAL TRAINING PRESENTATION

Prepared and Presented By:

1. Muhd Waffi Qayyum Bin Din
2. Yogaruban A/L Ganason

Company Supervisor: Miss Nur Intan Syaziera

Faculty Supervisor: Dr. Khatibsyarbini

About Company



- 01** Innates PLT is a spin-off company from Universiti Teknologi Malaysia (UTM), established to provide Internet of Things (IoT) solutions for the Industrial Revolution 4.0 (IR4.0).
- 02** The company's core competency is in IoT security solutions, with a strong focus on delivering fail-proof, fool-proof, and future-proof products.
- 03** Innates PLT aims to integrate IoT across various sectors, including manufacturing, retail, healthcare, and smart cities, to enhance operational efficiencies, improve quality of life, and offer convenience.

Company Mission and Vision



Mission

To provide hardware and software solutions, integrating with existing product security systems embedded with IoT solutions.

To offer solutions that address resource inefficiency, environmental concerns, and security issues.

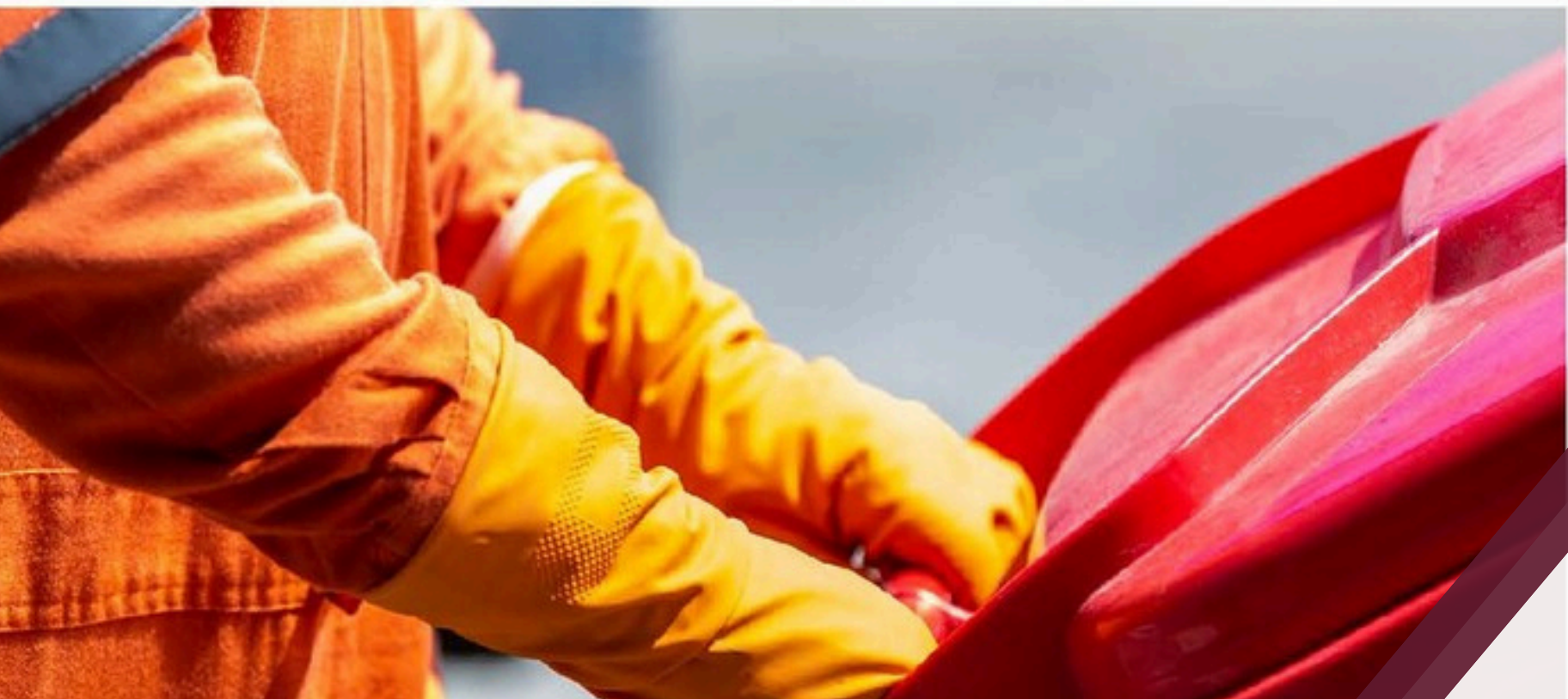


Vision

To be recognized as a leading-edge solution provider that transforms businesses through the power of the Internet of Things (IoT).

Innates PLT Organizational Chart





Project working on:

Scheduled Waste Management System (SWaM)

Project Objectives

01



To create a waste management system that simplifies waste collection, disposal, and monitoring through a single platform for better efficiency.

To enable real-time data entry and synchronization between mobile and web apps, ensuring accurate data and fewer errors.



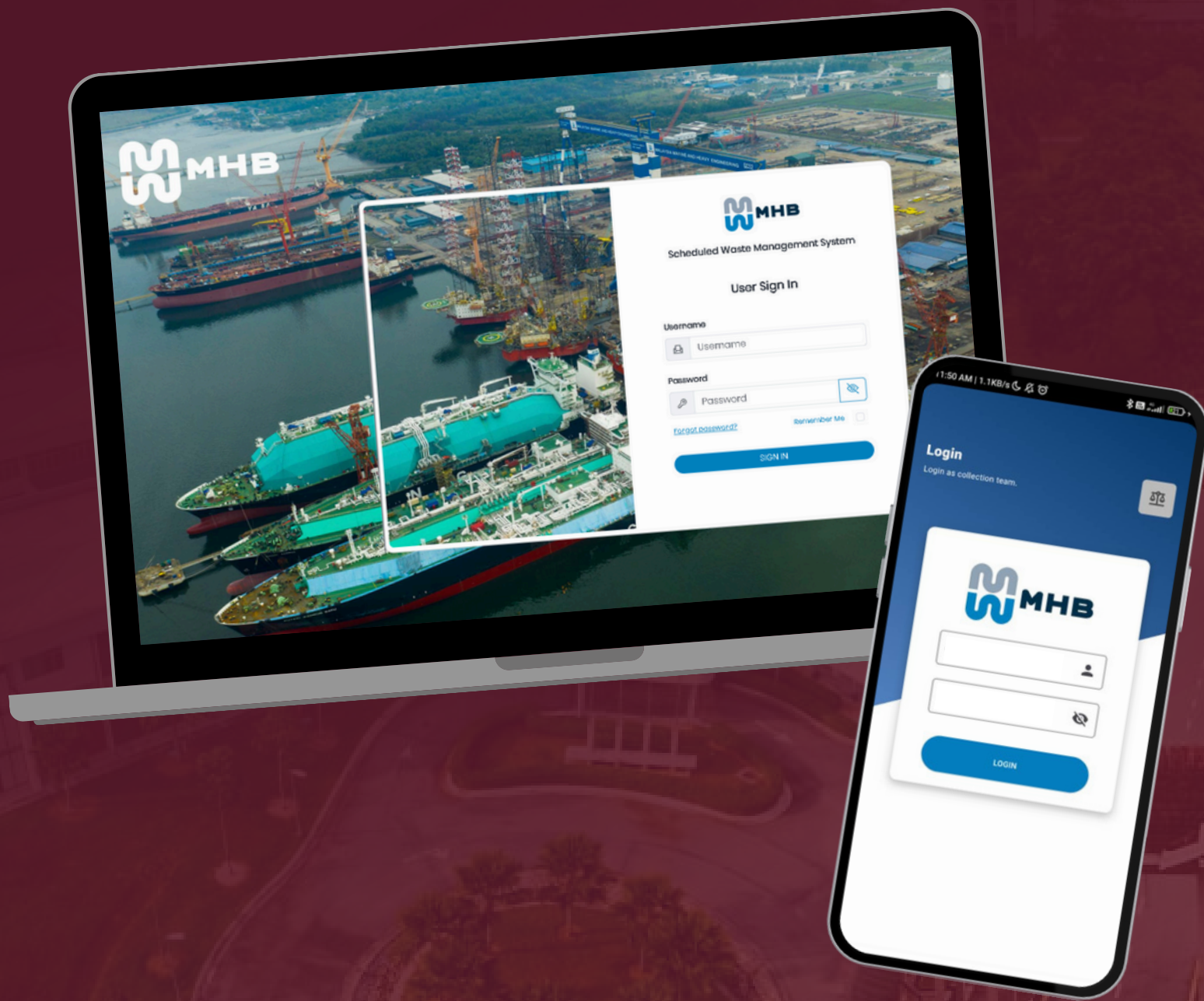
02

03



To improve data management with secure storage and easy-to-use interfaces for mobile and web platforms.

Scheduled Waste Management System (SWaM)



- **Scheduled Waste Management System (Swam) is proposed to MHB**
- **The system consists of 3 type of users:**
 - **Collection , Disposal , Admin team**
- **The main objective is to streamline the process of waste management starting from the collection until disposal**
- **This system also allow live data monitoring for the admin team**
- **This system includes both web and mobile application**

- **Features**

- **Collection Team (Mobile App)**

- **Submit waste collection report**
 - **Submit Non-Compliance report**

- **Disposal Team (Mobile App)**

- **Submit weighing report**

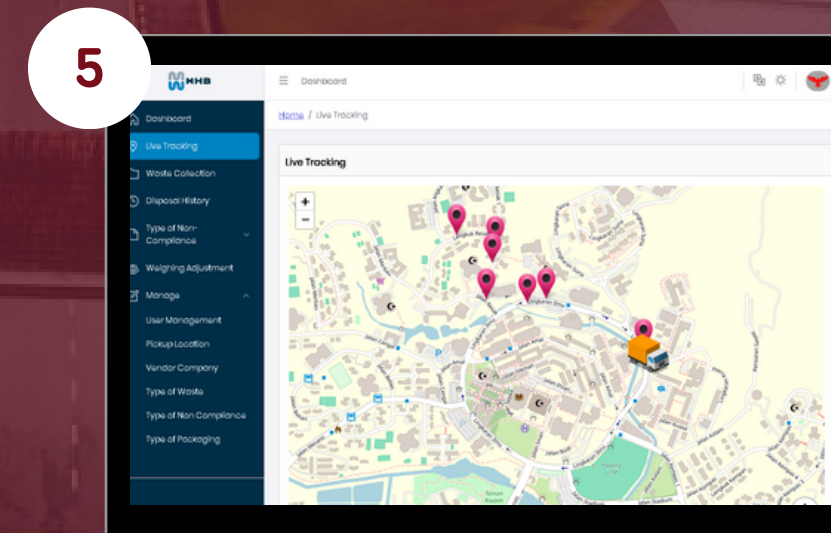
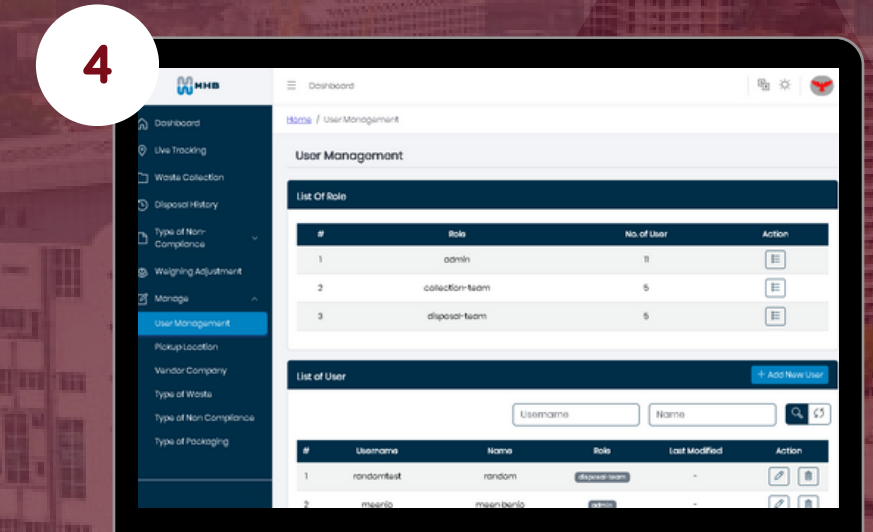
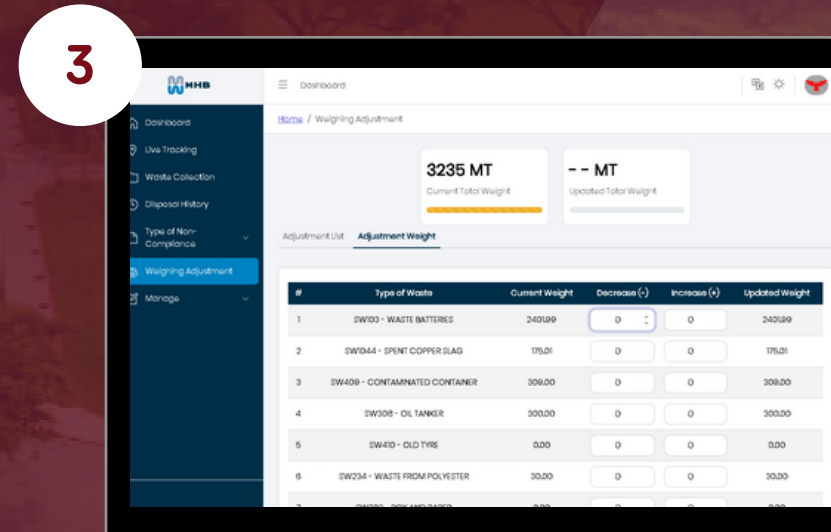
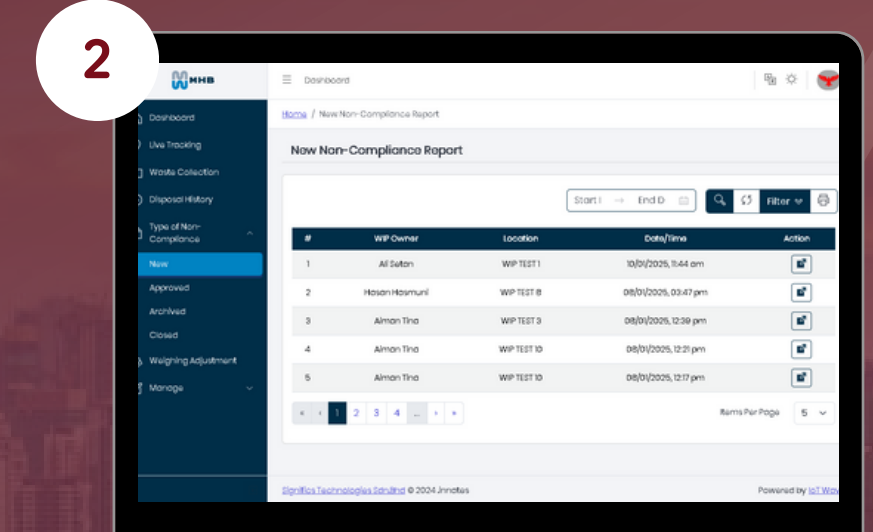
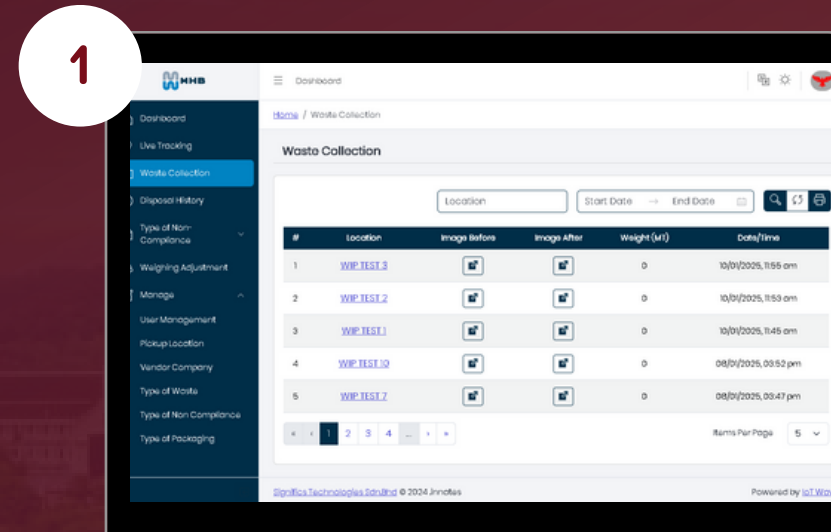
- **Admin Team (Web App)**

- **Manage User, Waste, Pickup Location, Non-compliance report, Waste collection Activities**
 - **Monitor Collection Lorry Live location**



Main Role & Task

- In this project, I have been assigned to join the Frontend Web Development team.
- My main task is to develop the UI/UX based on a mockup design for Admin Team
- Integrate each module with its backend
- Modules that I have developed:
 - Waste Collection,
 - Type of Non-Compliance,
 - Weighing Adjustment,
 - Manage,
 - Live Tracking,



Hardware & Software used

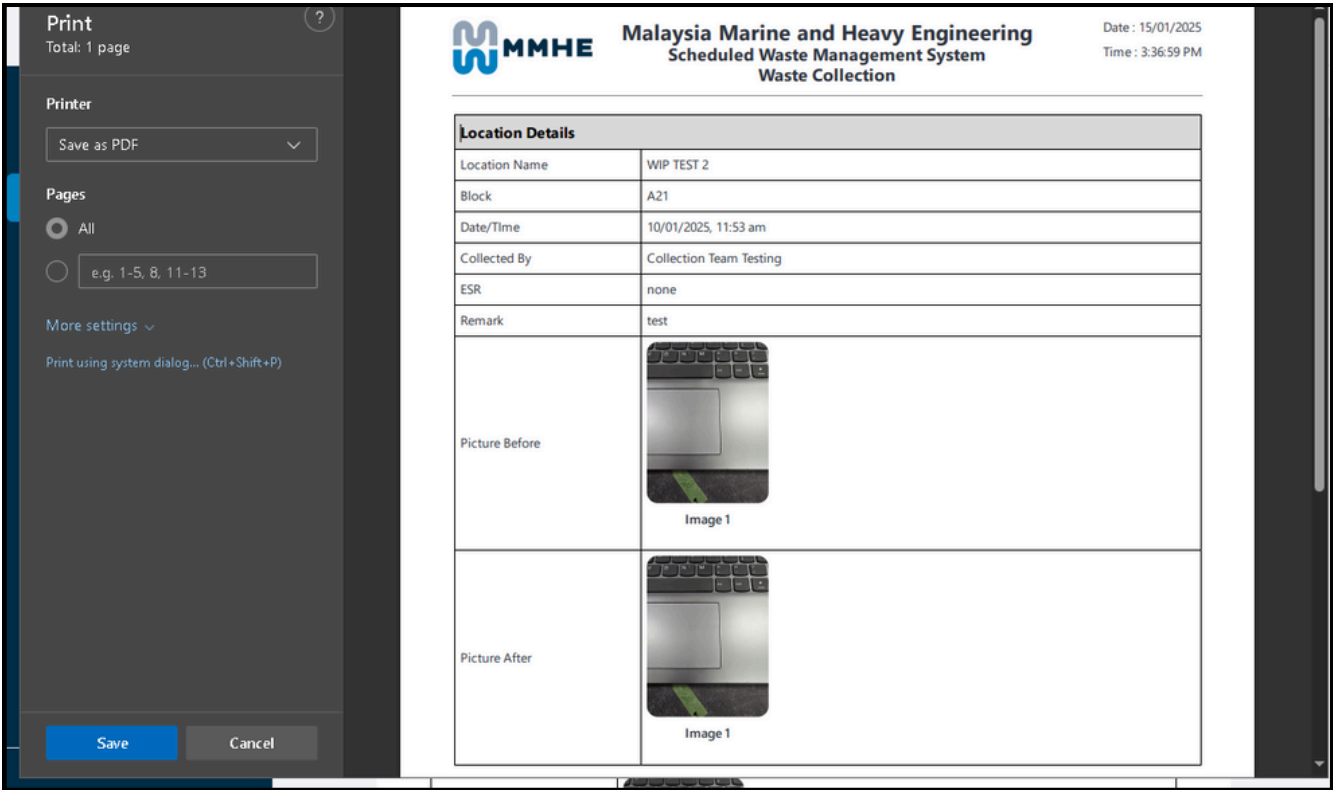
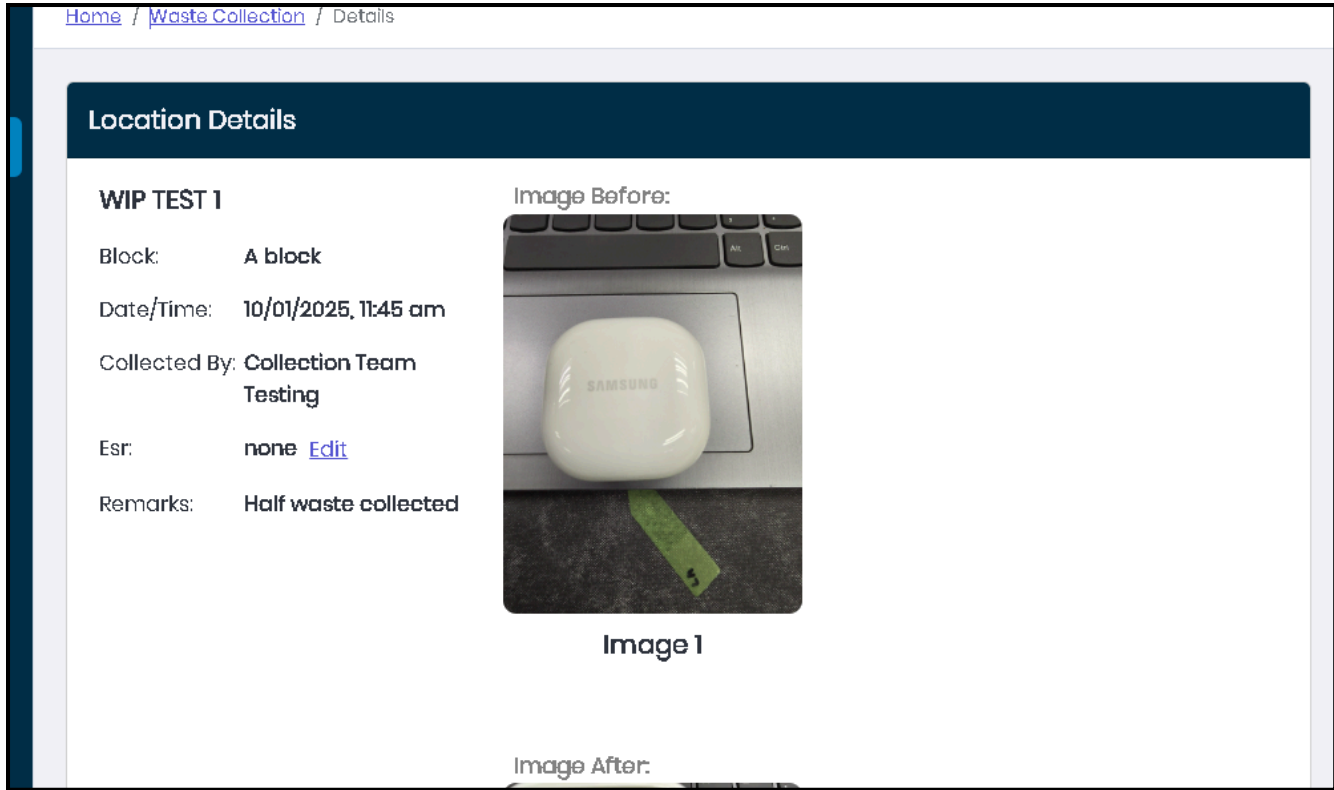
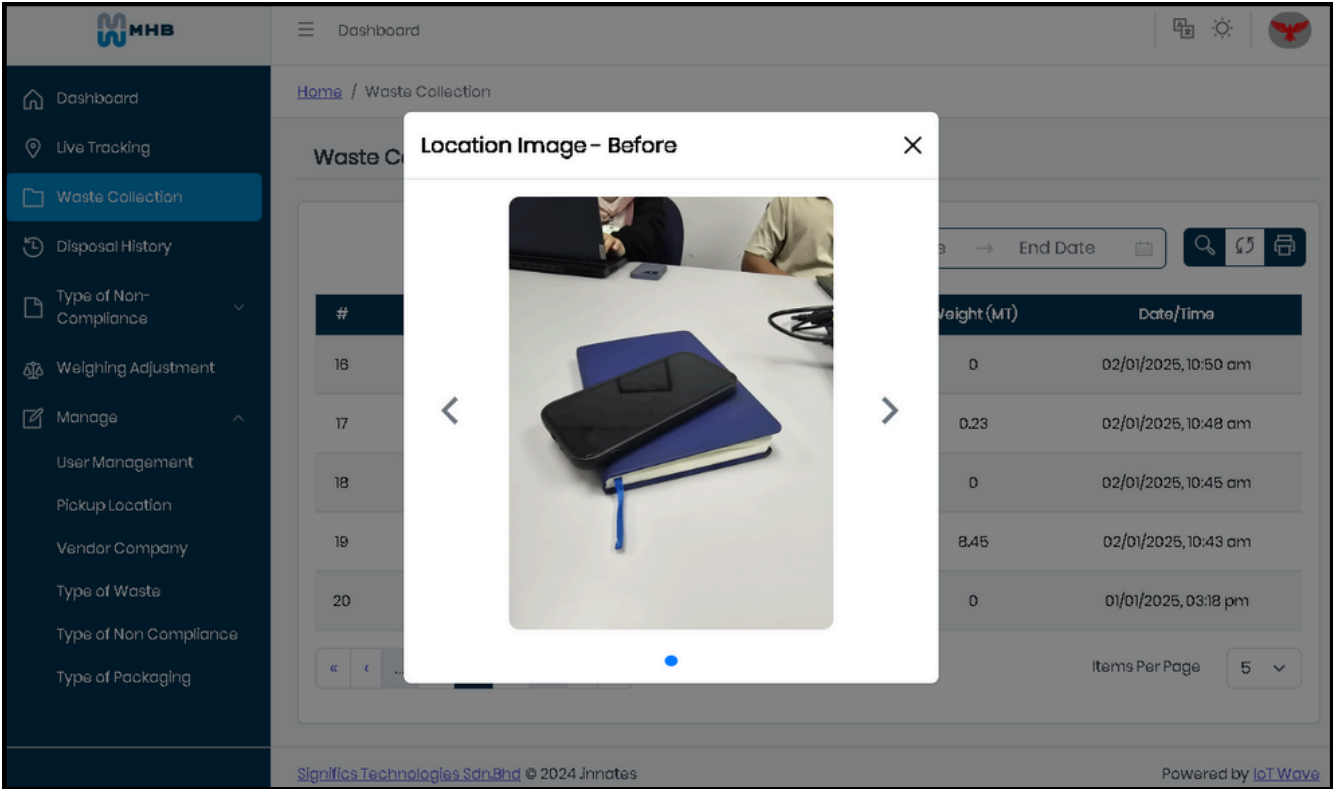
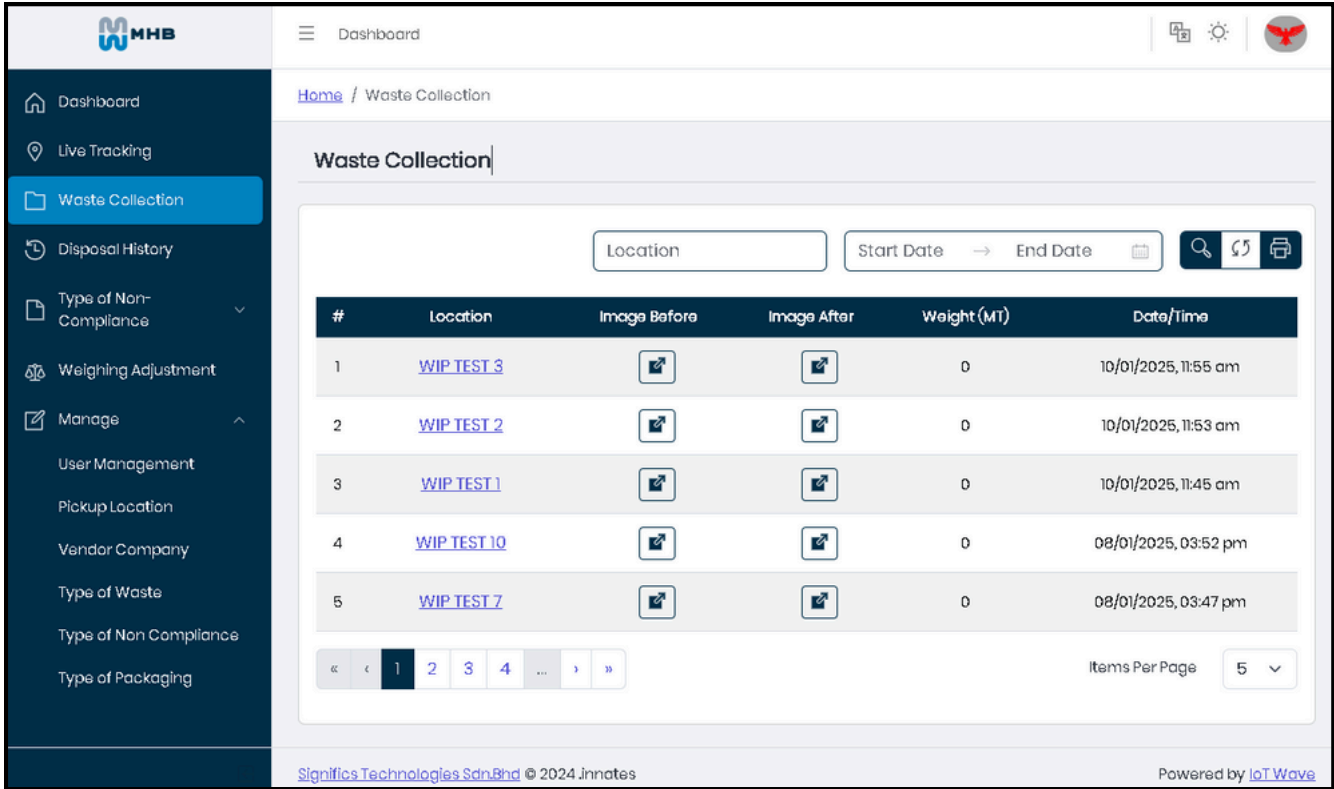
Hardware

Hardware	Specification
Processor	Intel(R) Core (TM) i7-6600U CPU @ 2.60GHz 2.81 GHz
RAM	12 GB
Storage	237 GB

Software

Software	Specification
Operating System	Windows 10 Enterprise Version 22H2
Source-Code Editor	Visual Studio Code
Programming Language	Typescript
Programming Library	React
Component Library	Core-UI

01 Waste Collection Module



02 Type of Non-Compliance

MHB

Dashboard

Home / New Non-Compliance Report

New Non-Compliance Report

Start I → End D

Filter

#	WIP Owner	Location	Date/Time	Action
1	Ali Setan	WIP TEST 1	10/01/2025, 11:44 am	
2	Hasan Hasmuni	WIP TEST 8	08/01/2025, 03:47 pm	
3	Alman Tina	WIP TEST 3	08/01/2025, 12:39 pm	
4	Alman Tina	WIP TEST 10	08/01/2025, 12:21 pm	
5	Alman Tina	WIP TEST 10	08/01/2025, 12:17 pm	

1 2 3 4 ...

Items Per Page 5

Signific Technologies Sdn Bhd © 2024 Innates

Powered by IoT Wave

MHB

Dashboard

Home / New Non-Compliance Report / Details

Non-Compliance Details

Non-compliance: YES

WIP Owner: Ali Setan

Location: WIP TEST 1

Date/Time: 10/01/2025 11:44:43 am

Non-Compliance Details:

Housekeeping and Maintenance

Kawasan berseпах



Signific Technologies Sdn Bhd © 2024 Innates

Powered by IoT Wave

MHB

Dashboard

Home / New

Approval Complete

Report has been approved

Remarks:

APPROVE REPORT

ARCHIVED REPORT

Signific Technologies Sdn Bhd © 2024 Innates

Powered by IoT Wave

Print

Total: 1 page

Printer

Save as PDF

Pages

All

e.g. 1-5, 8, 11-13

More settings

Print using system dialog... (Ctrl+Shift+P)

Save

Cancel

MHB

Malaysia Marine and Heavy Engineering

Scheduled Waste Management System

Non-Compliance Report

Date: 15/01/2025

Time: 3:56:30 PM

Compliance Details

Non-Compliance	YES
WIP Owner	Ali Setan
Location	WIP TEST 1
Date/Time	10/01/2025, 11:44 am
Level of issue	-

Housekeeping and Maintenance

Kawasan berseпах



Remark

Signific Technologies Sdn Bhd © 2024 Innates

Powered by IoT Wave

03 Weighing Adjustment Module

MHB

Dashboard

Home / Weighing Adjustment

3235 MT

Current Total Weight

-- MT

Updated Total Weight

Adjustment List

Adjustment Weight

#	Reference No.	Previous Weight	Updated Weight	Submitted By	Submitted Date/Time
1	7280423484327600128	3236.00	3235.00	Admin Collection Team	02/01/2025, 11:23 am
2	7280423402270236672	3228.00	3236.00	Admin Collection Team	02/01/2025, 11:23 am
3	7280423070916026368	3220.00	3228.00	Admin Collection Team	02/01/2025, 11:22 am
4	7275411407489867776	3557.01	3220.00	Admin Collection Team	18/12/2024, 03:27 pm
5	7275001079270612992	3357.00	3557.01	Admin Collection Team	18/12/2024, 12:17 pm

Dashboard

Live Tracking

Waste Collection

Disposal History

Type of Non-Compliance

Weighing Adjustment

Manage

User Management

Pickup Location

Vendor Company

Type of Waste

Type of Non-Compliance

Type of Packaging

MHB

Dashboard

Home / Weighing Adjustment / Previous Adjustment Data

3235 MT

Current Total Weight

-- MT

Updated Total Weight

Adjustment List

Adjustment Weight

#	Type of Waste	Current Weight	Decrease (-)	Increase (+)	Updated Weight
1	SW103 - WASTE BATTERIES	2401.99	0.00	0.00	2401.99
2	SW1044 - SPENT COPPER SLAG	175.01	0.00	0.00	175.01
3	SW409 - CONTAMINATED CONTAINER	310.00	1.00	0.00	309.00
4	SW308 - OIL TANKER	300.00	0.00	0.00	300.00
5	SW410 - OLD TYRE	0.00	0.00	0.00	0.00
6	SW234 - WASTE FROM POLYESTER	30.00	0.00	0.00	30.00
7	SW203 - BOX AND PAPER	0.00	0.00	0.00	0.00

Dashboard

Live Tracking

Waste Collection

Disposal History

Type of Non-Compliance

Weighing Adjustment

Manage

MHB

Dashboard

Home / Weighing Adjustment / Previous Adjustment Data

3235 MT

Current Total Weight

4135 MT

Updated Total Weight

Adjustment List

Adjustment Weight

#	Type of Waste	Current Weight	Decrease (-)	Increase (+)	Updated Weight
1	SW103 - WASTE BATTERIES	2401.99	0	1000	3401.99
2	SW1044 - SPENT COPPER SLAG	175.01	100	0	75.01
3	SW409 - CONTAMINATED CONTAINER	309.00	0	0	309.00
4	SW308 - OIL TANKER	300.00	0	0	300.00
5	SW410 - OLD TYRE	0.00	0	0	0.00
6	SW234 - WASTE FROM POLYESTER	30.00	0	0	30.00

Dashboard

Live Tracking

Waste Collection

Disposal History

Type of Non-Compliance

Weighing Adjustment

Manage

Print

Total: 1 page

Printer

Save as PDF

Pages

All

e.g. 1-5, 8, 11-13

More settings

Print using system dialog... (Ctrl+Shift+P)

Save

Cancel

MHB

Malaysia Marine and Heavy Engineering

Scheduled Waste Management System

Adjustment Weight

Date: 15/01/2025

Time: 4:07:16 PM

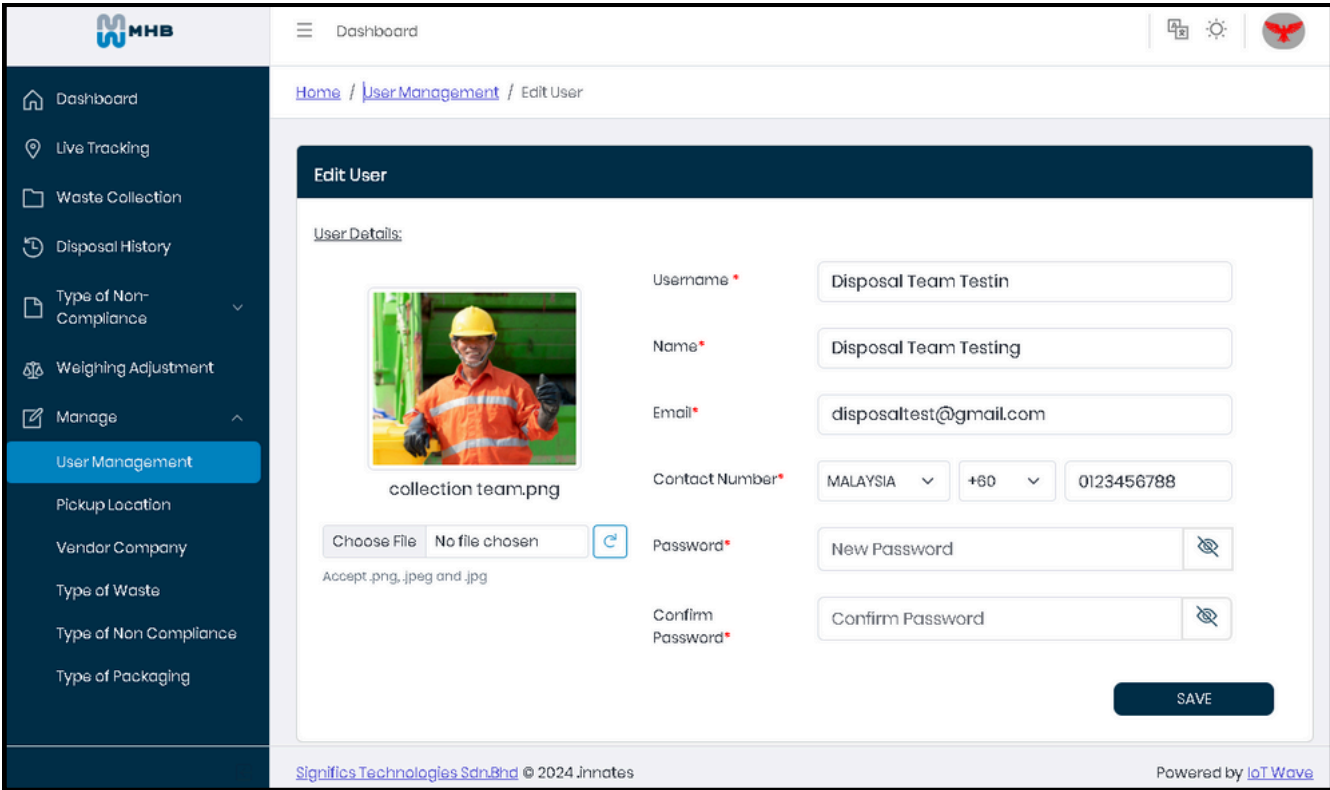
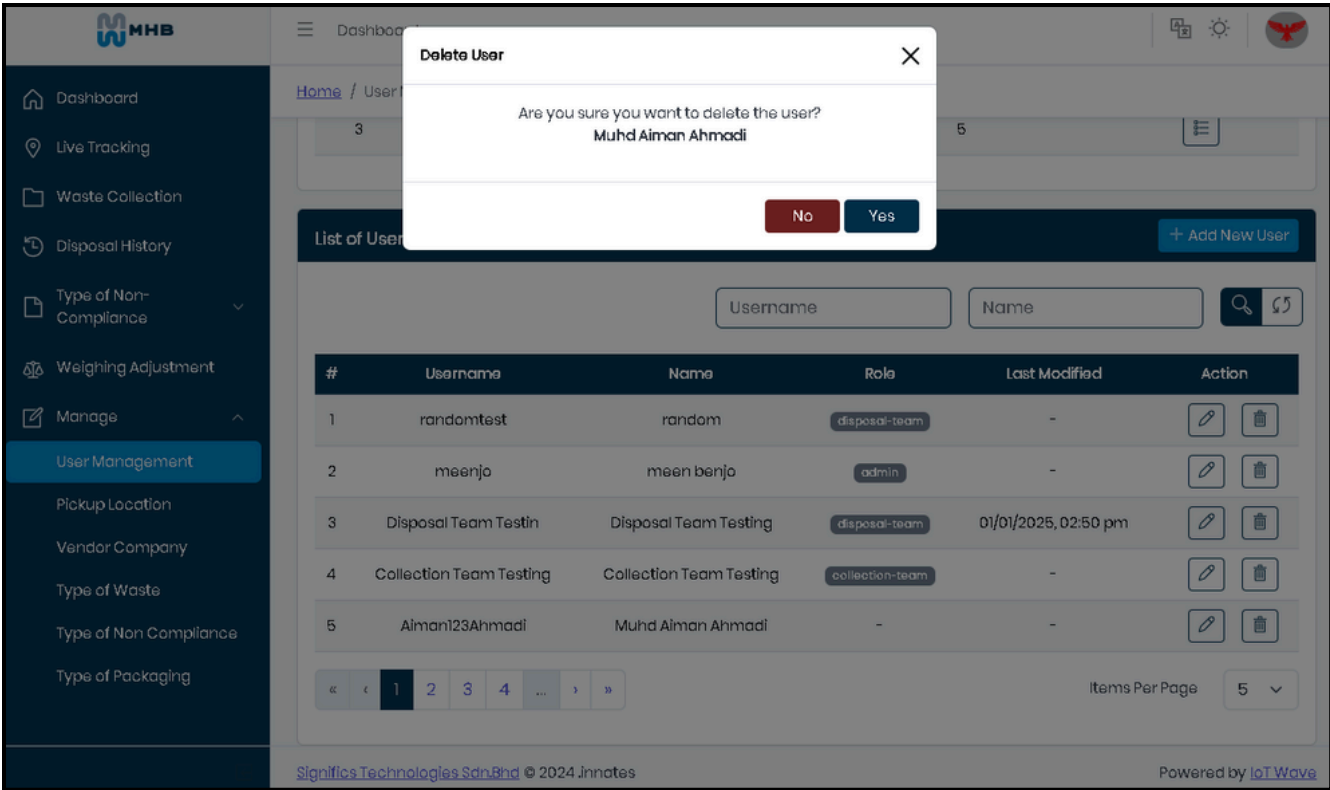
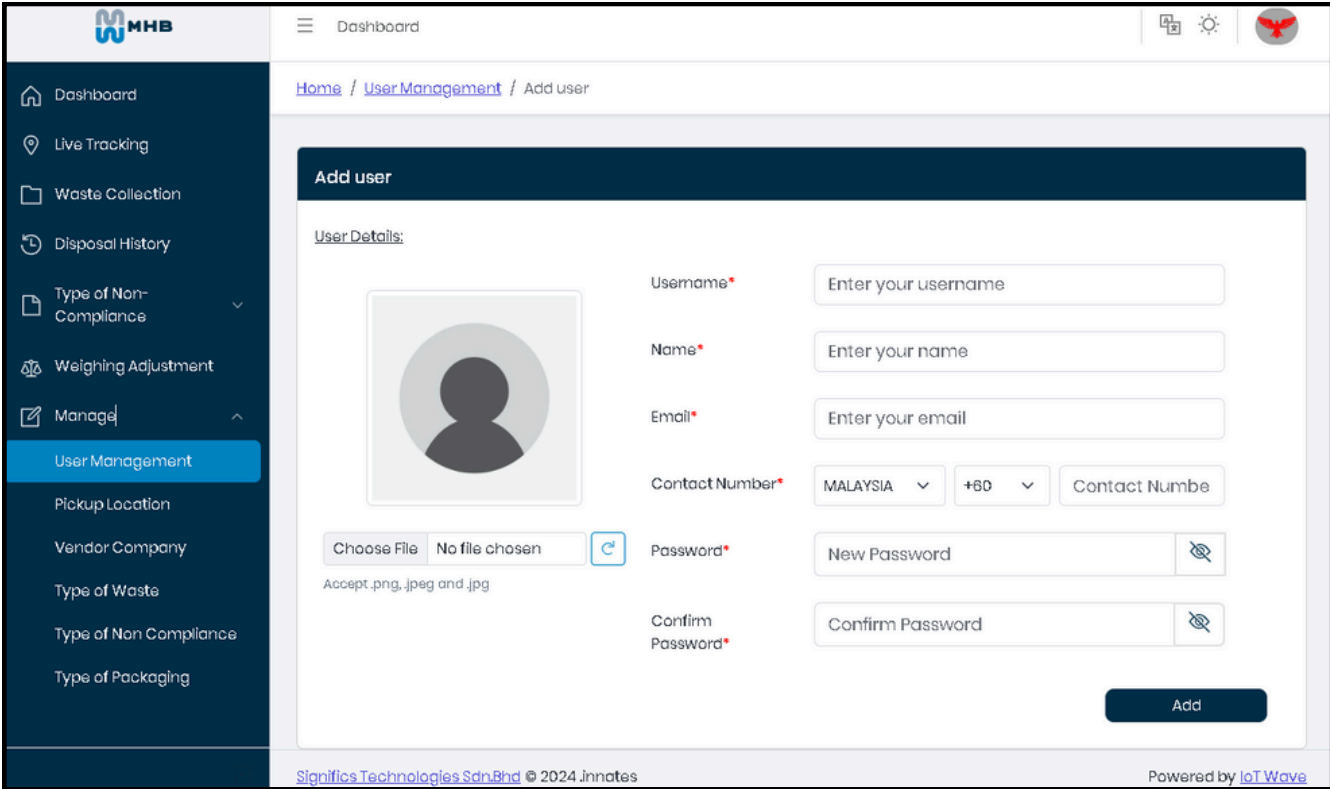
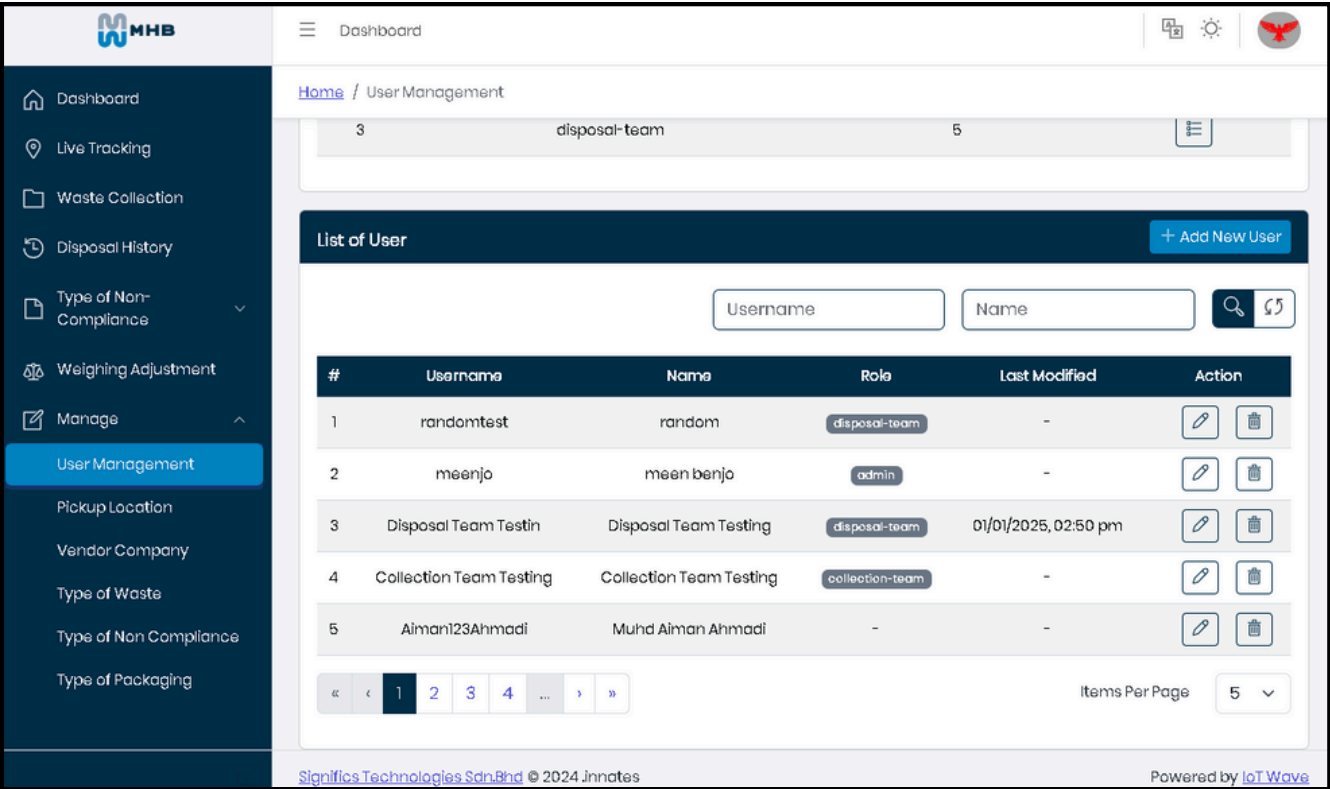
DETAILS

Submitted Date/Time	2025-01-02T03:23:42.000Z
Submitted By	Admin Collection Team
Previous Weight	3236.00
Updated Weight	3235.00
Remarks	adjustment

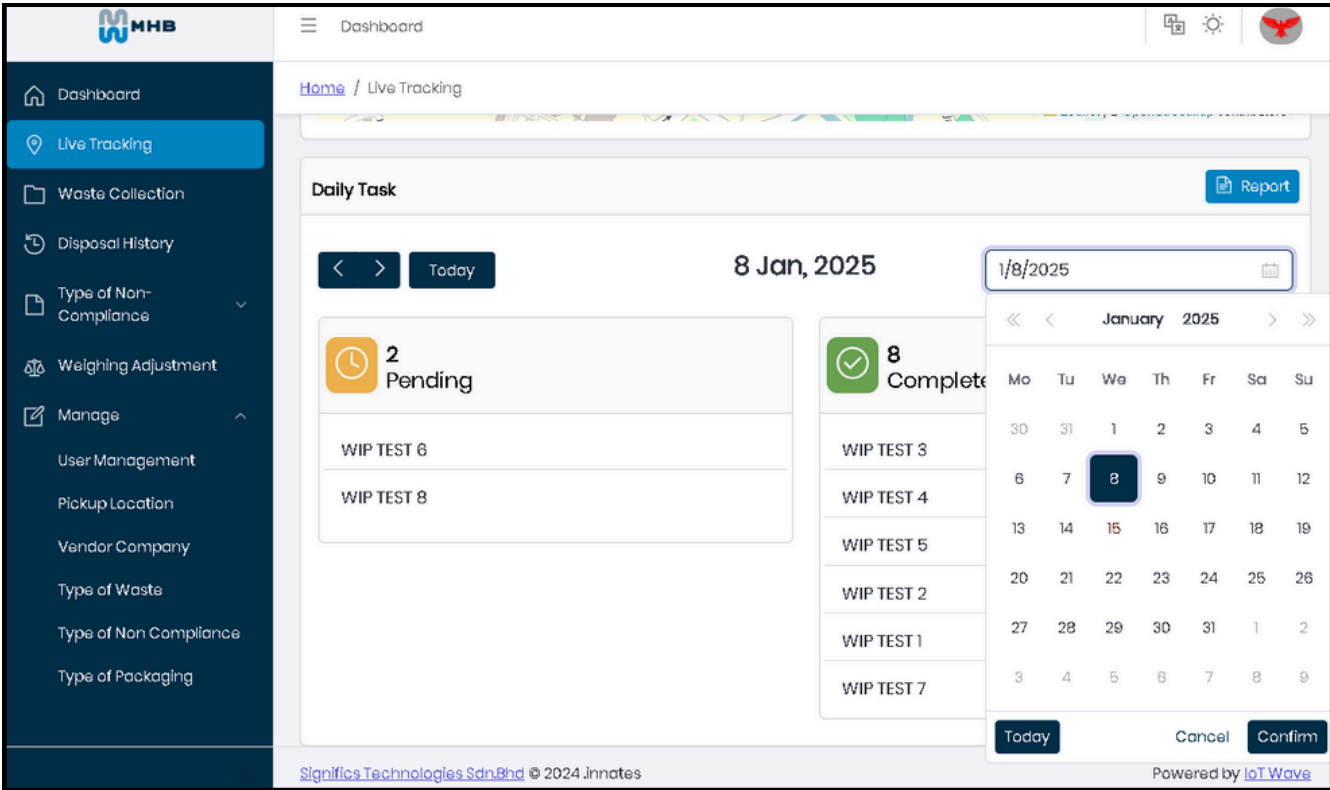
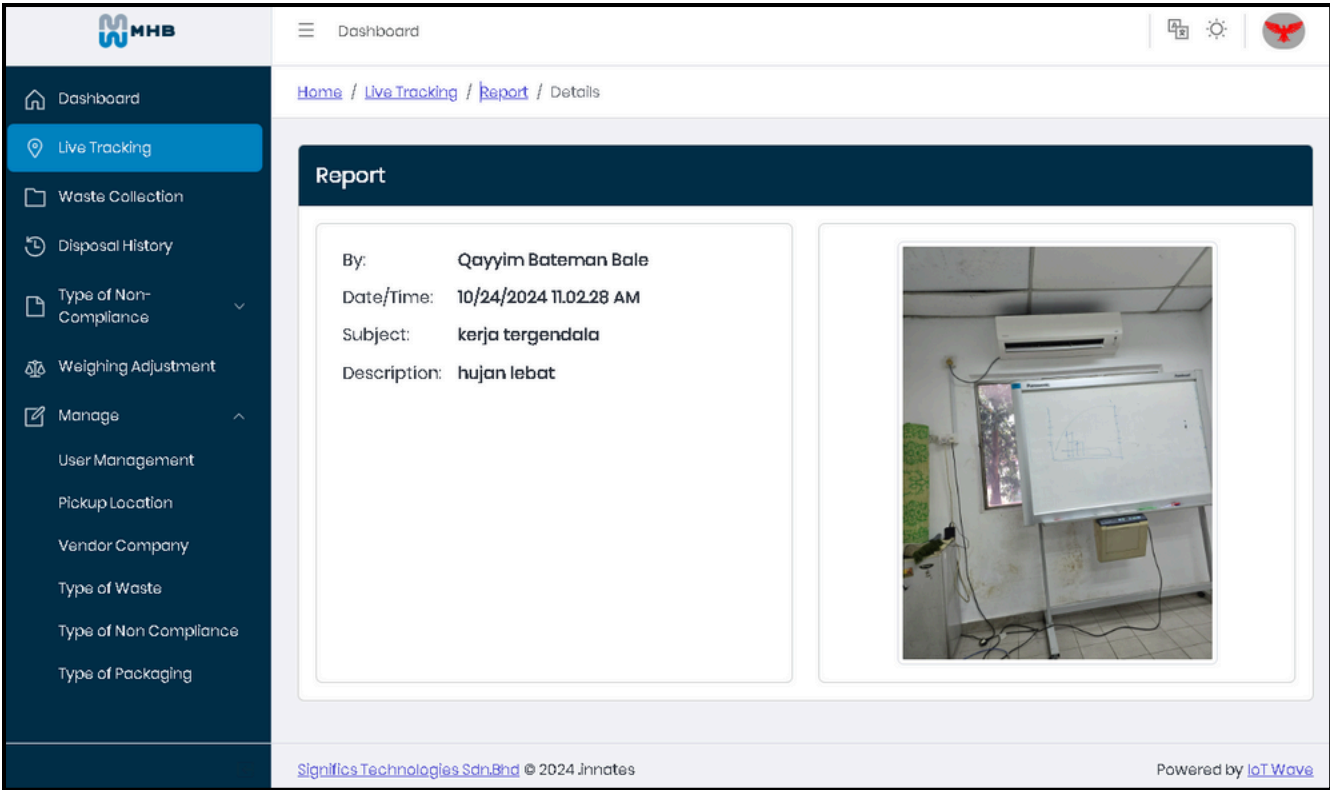
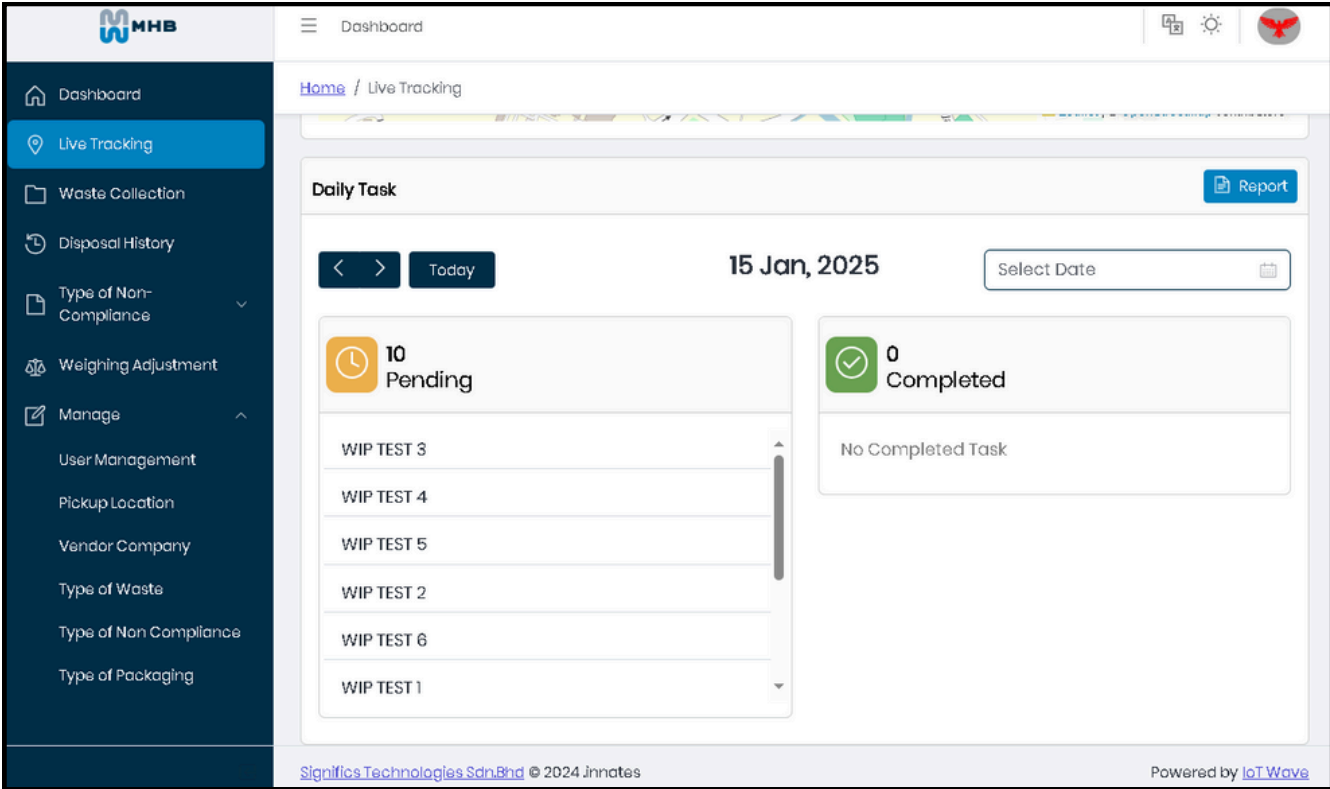
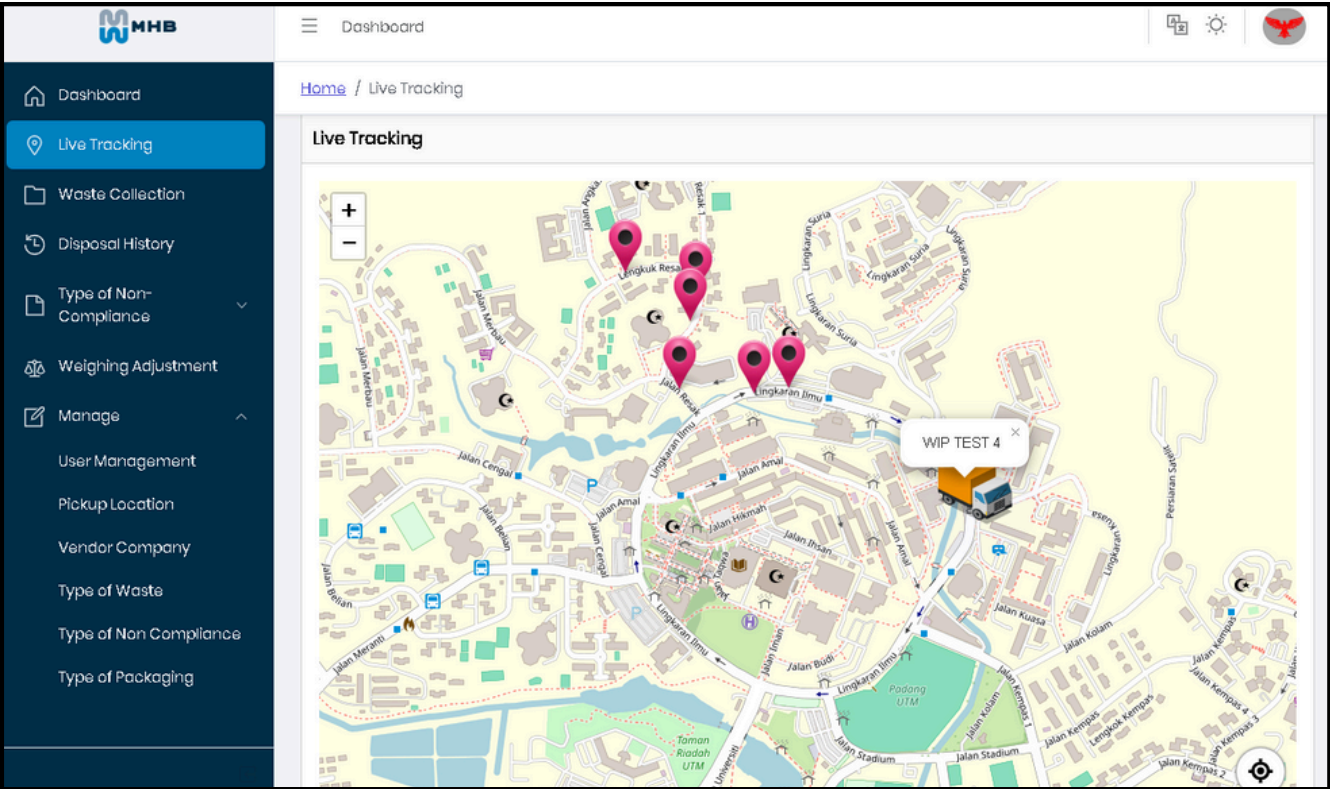
ADJUSTMENT WEIGHT

#	Waste Code	Current Weight(MT)	Decrease(-)	Increase(+)	Updated Weight(MT)
1	SW103 - WASTE BATTERIES	2401.99	0	0	2401.99
2	SW1044 - SPENT COPPER SLAG	175.01	0	0	175.01
3	SW409 - CONTAMINATED CONTAINER	310.00	1	0	309.00
4	SW308 - OIL TANKER	300.00	0	0	300.00
5	SW410 - OLD TYRE	0.00	0	0	0.00
6	SW234 - WASTE FROM POLYESTER	30.00	0	0	30.00
7	SW203 - BOX AND PAPER	0.00	0	0	0.00
8	SW1048 - SPENT GARNET	8.00	0	0	8.00
9	SW1070 - DRUM BARRELL	10.00	0	0	10.00
10	SW309 - OILY WATER	1.00	0	0	1.00

04 User Management Module



05 Live Tracking Module



Side Task



◀ Participated in User Acceptance Testing (UAT) with user

Participated in Developing User Manual For ▶
different project





KELAH FISH FARMING SYSTEM

Project Objectives

01



To design and develop an Internet of Things (IoT)-based Kelah fish farming system

To develop an IoT-enabled monitoring system for real-time tracking and management of water quality parameters such as temperature, pH levels, ammonia concentration, and water flow.



02

03



To create a user-friendly mobile apps for viewing the real-time water quality data and alert the user when there is abnormal activities on pond.

Kelah Monitoring System (KMS)



- **Kelah Monitoring System (KMS) is proposed to make the fish pond owner able view the live data of the pond water quality.**
- **Provide notification alert when there are blackout at the pond location.**
- **Able to register the Aqua Farm, Ponds and the IoT system for each pond.**
- **Provide historical data of each sensor and pond readings.**
- **Provide notification when there are detection such as oxygen failure, and when any human and animal intruder entering the pond.**

Main Role and Task



- **Assigned as Frontend Mobile Developer Intern.**
- **Develop UI/UX for this KMS based on mock-up design prepared.**
- **Develop live data monitoring screens.**
- **Develop aqua farm and sensor registration features.**
- **Implement Notification Alert**
- **Integrate KMS with RESTful API**

Mobile Application Development Tools



Flutter

Visual Studio Code

Android Studio

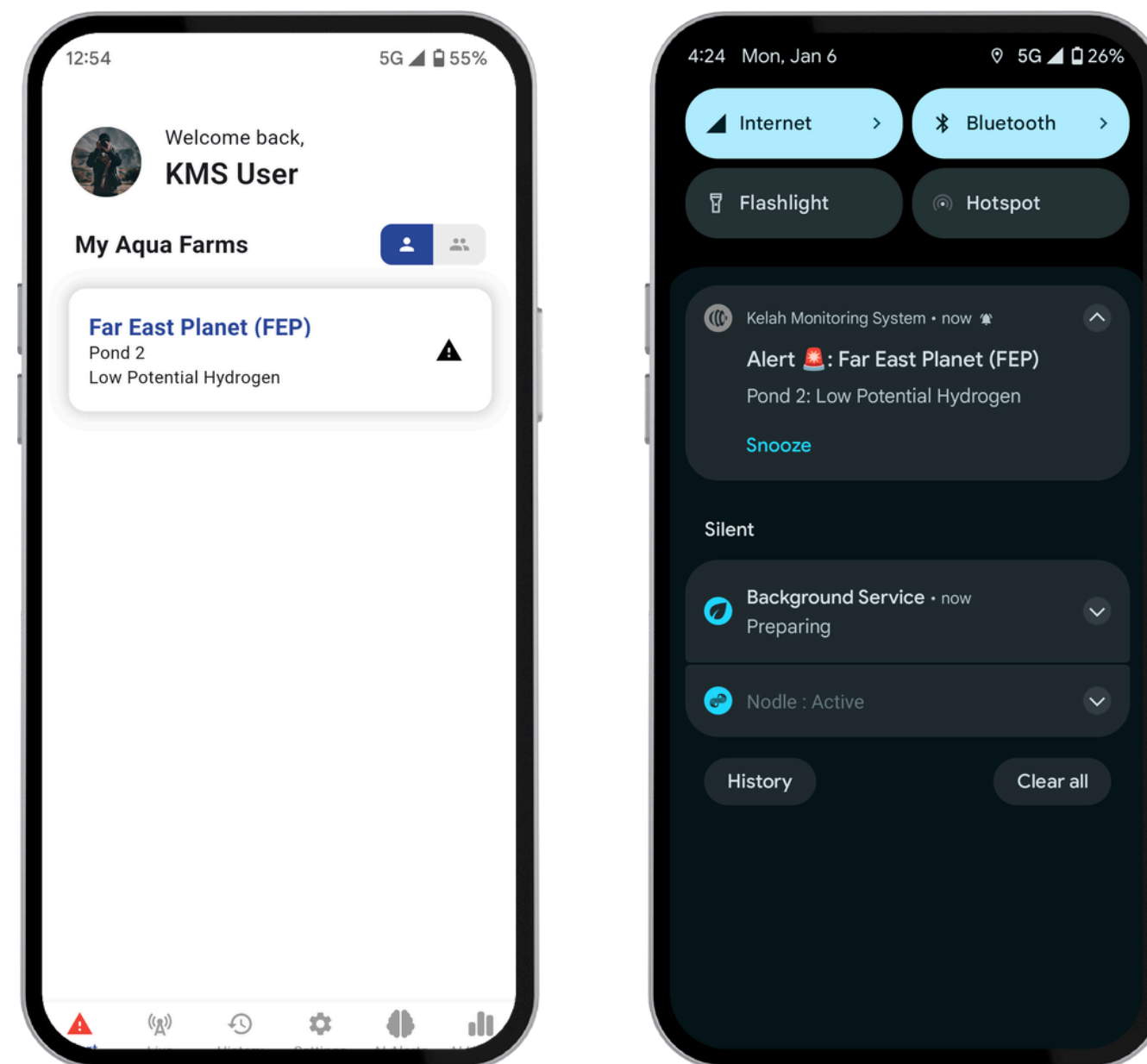
KMS Modules

01 Login Module

The image displays three mobile application screens for the Kelah Monitoring System (KMS). The first screen is the Login page, featuring the KMS logo, a 'Login to Continue' prompt, and input fields for Email and Password. It includes a 'FORGOT PASSWORD?' link and a 'LOGIN' button. The second screen is the 'Forgot Password' page, with a back arrow, the title 'Forgot Password', a prompt to 'Enter your email', an email input field, and a 'RESET PASSWORD' button. The third screen is the 'Registration' page, with a back arrow, the title 'Registration', a subtitle 'New User Registration', a prompt to 'Fill in your details', and input fields for Full Name, Email, Username, Password, and Confirm Password. It features a 'REGISTER' button. All screens show a status bar at the top with the time (12:53 or 12:54), 5G signal, and 55% battery.

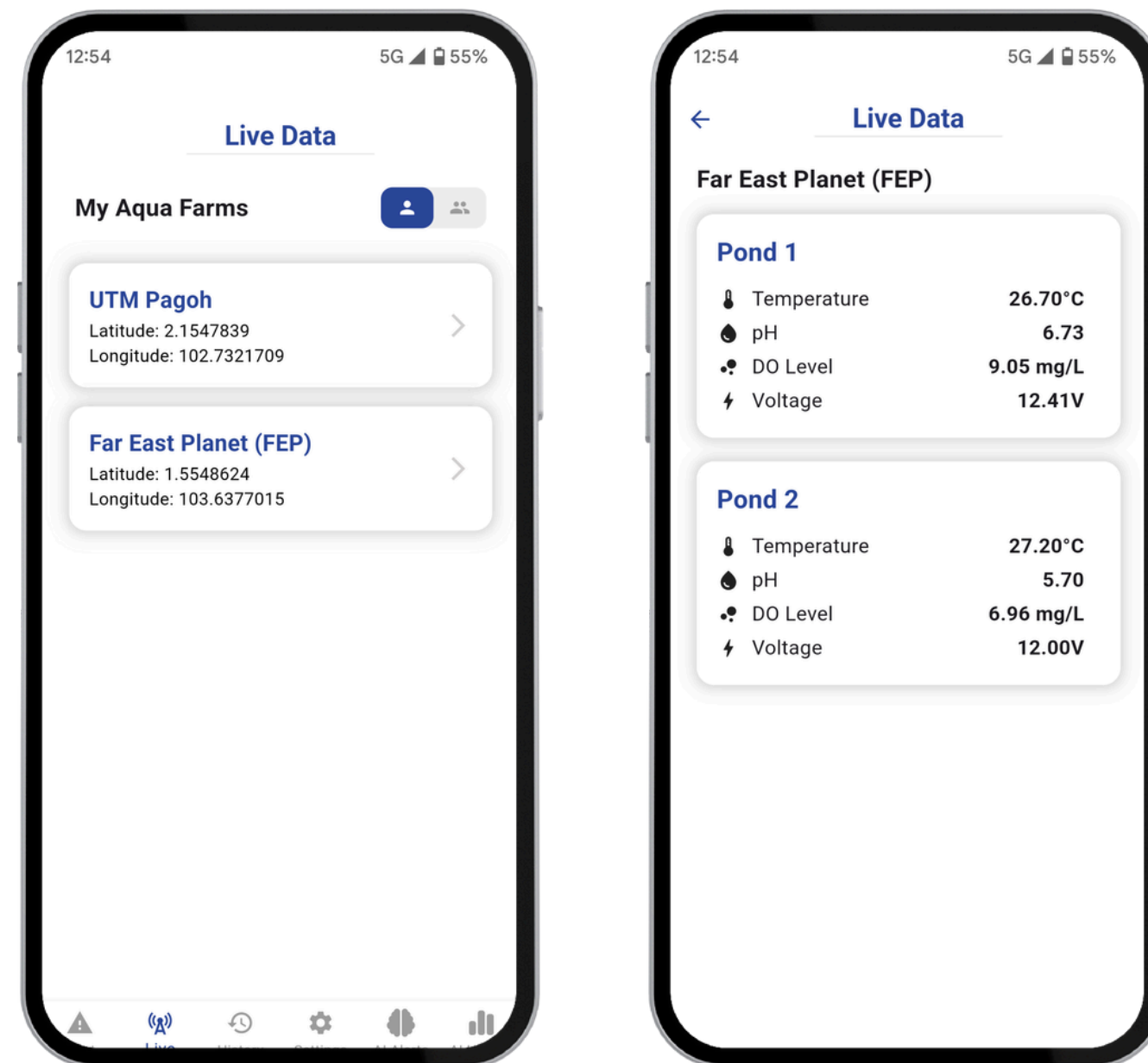
KMS Modules

02 Alert Module



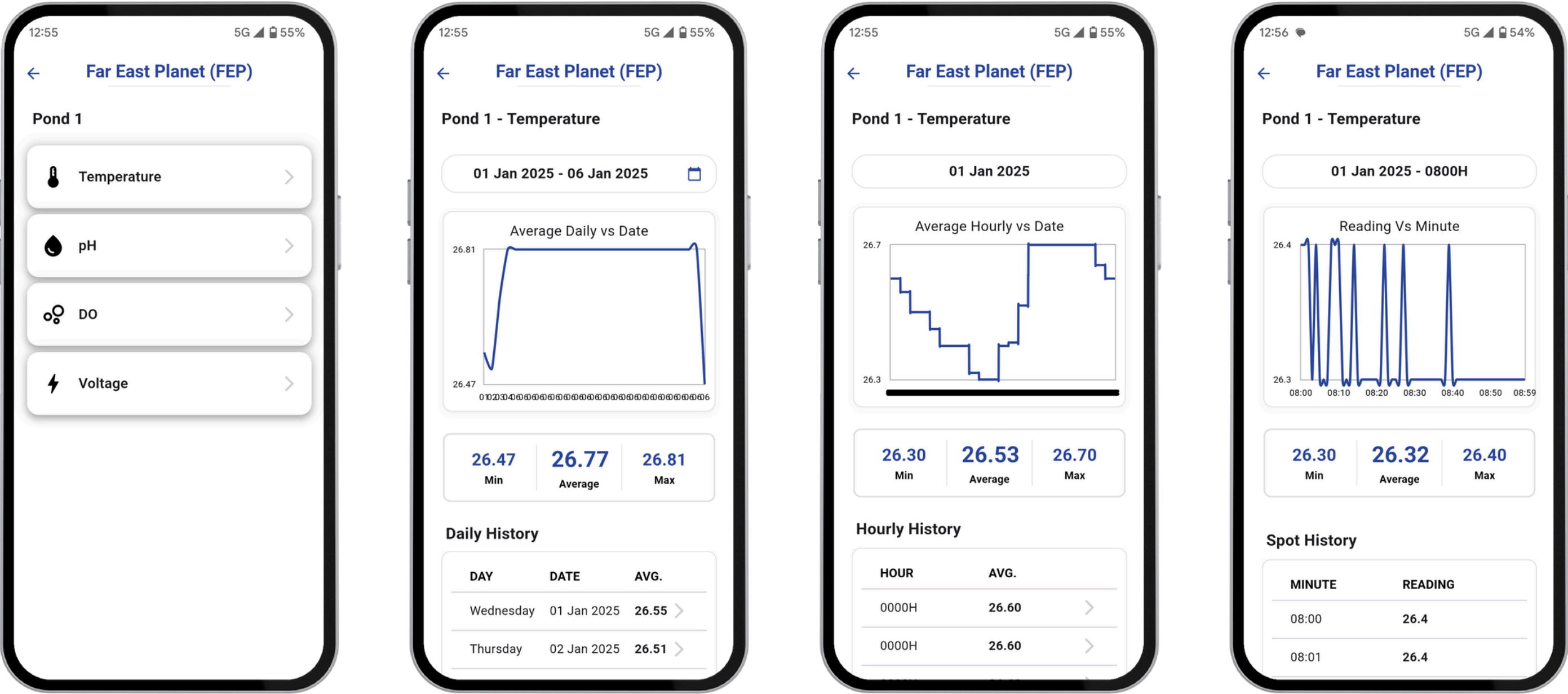
KMS Modules

03 Live Data Module



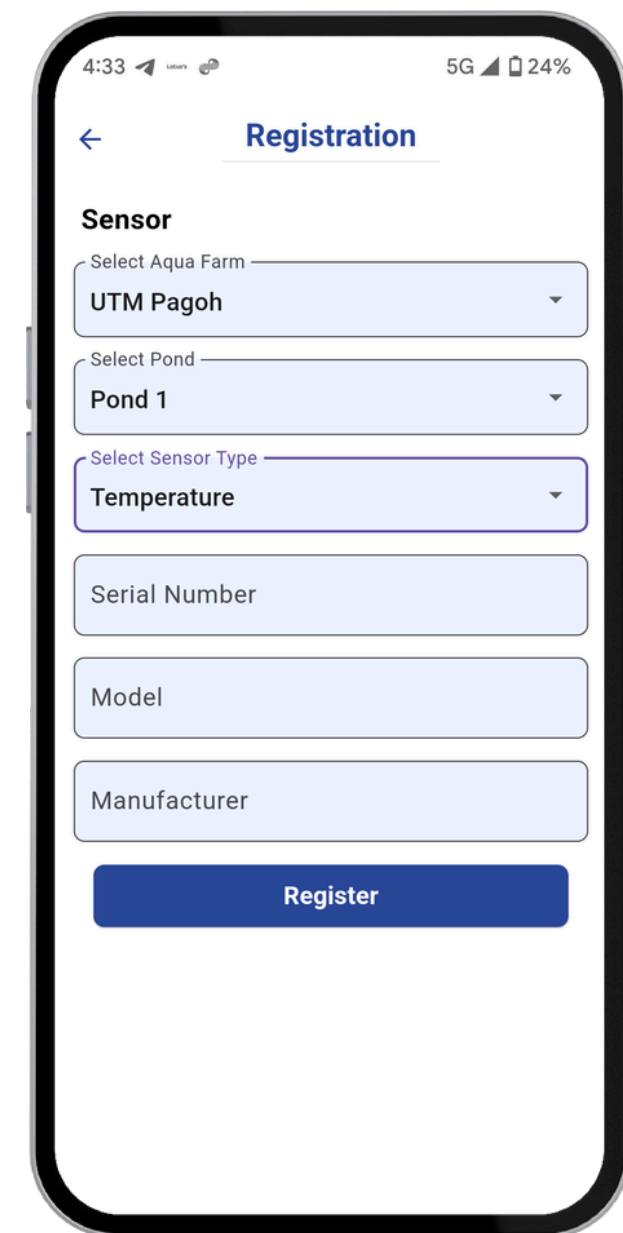
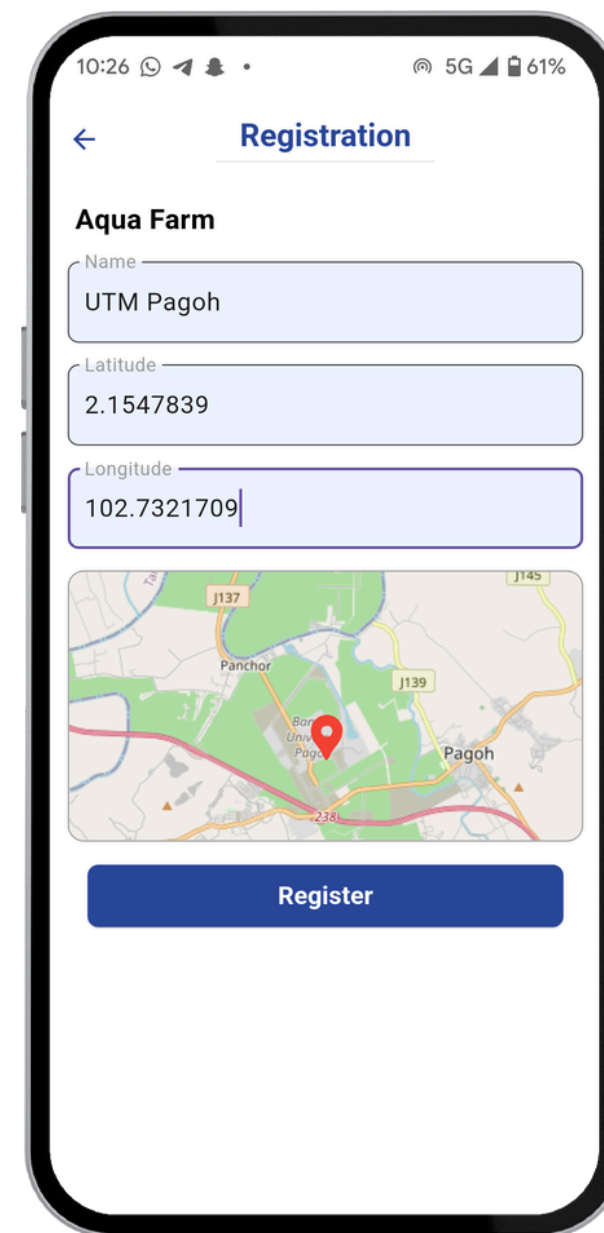
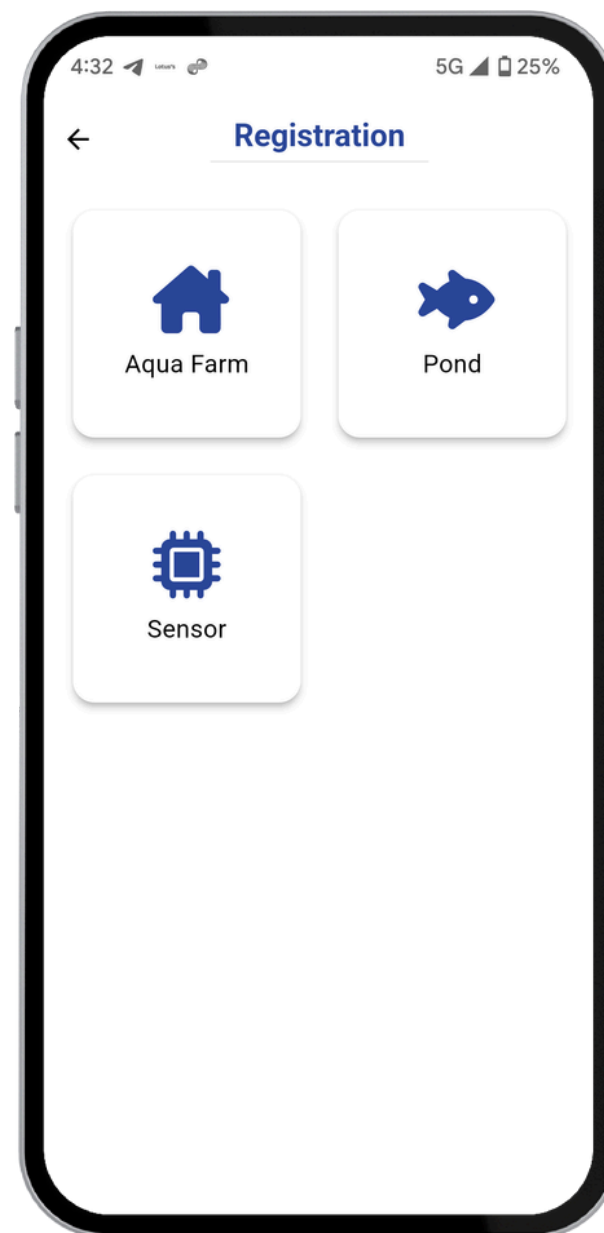
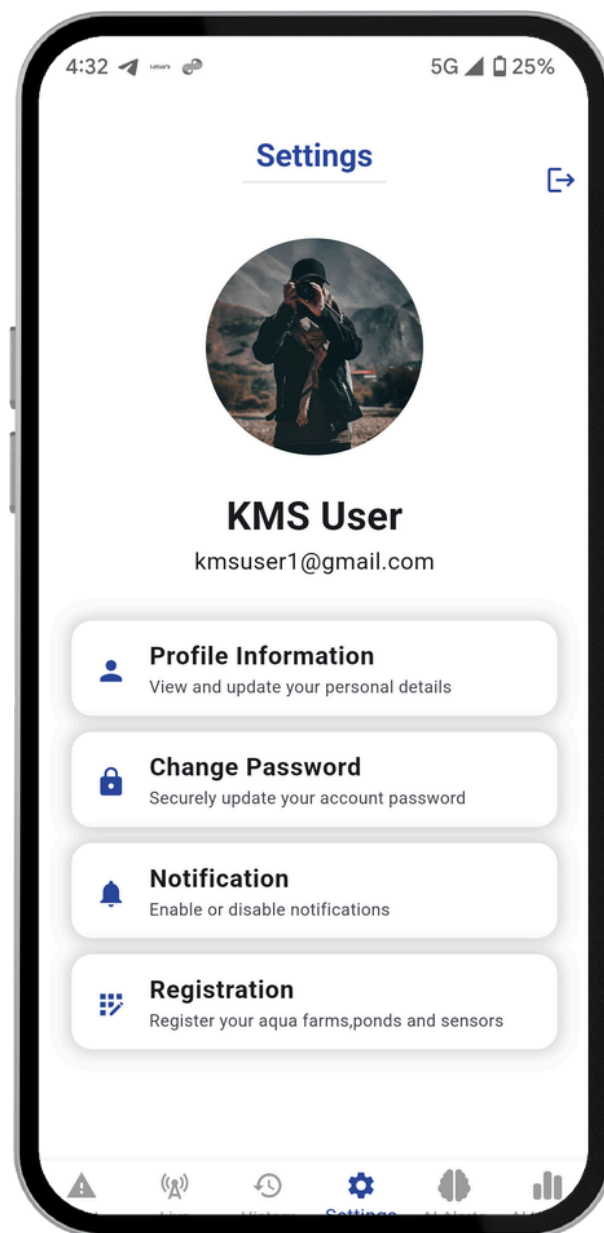
KMS Modules

04 History Module



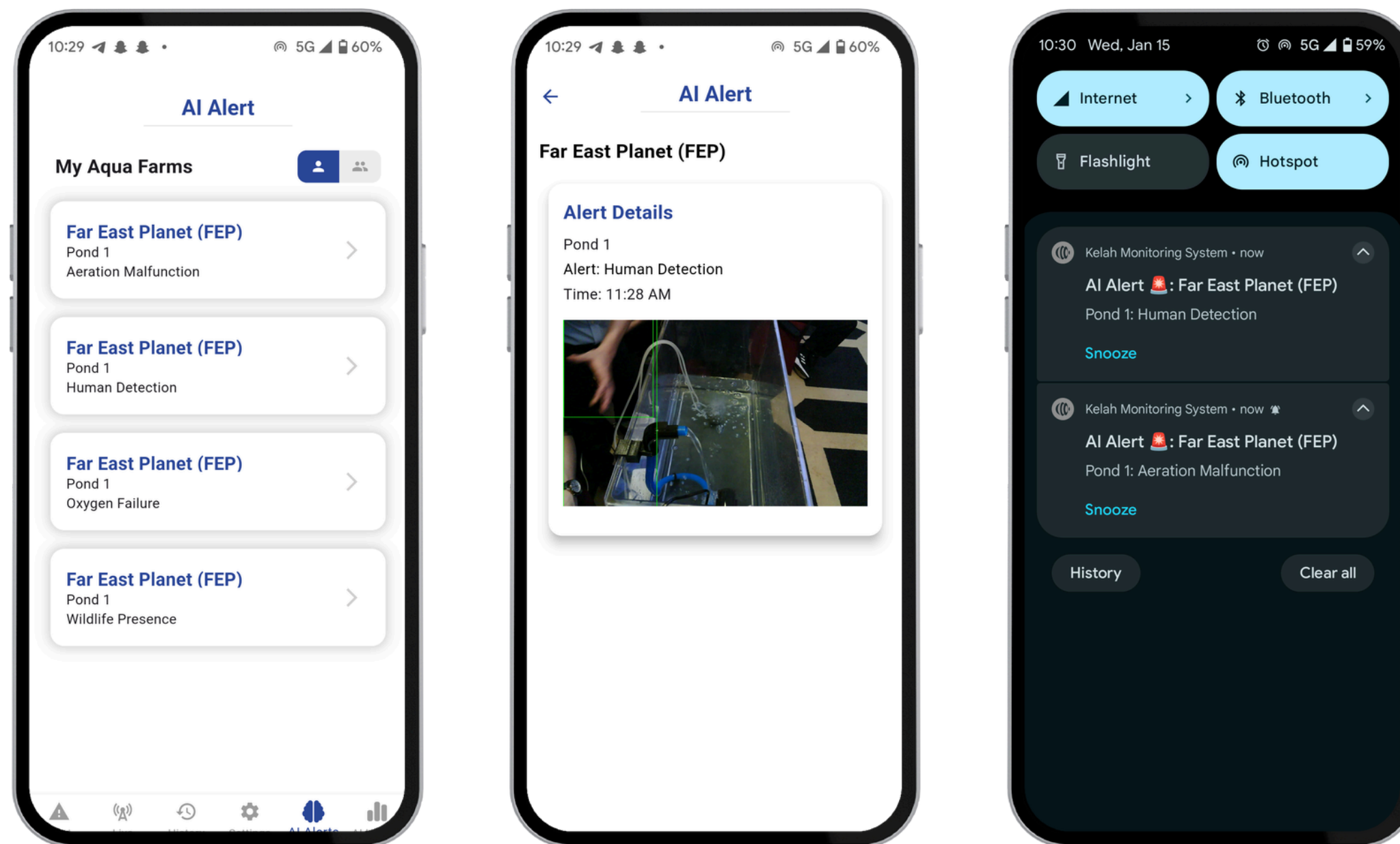
KMS Modules

05 Settings Module



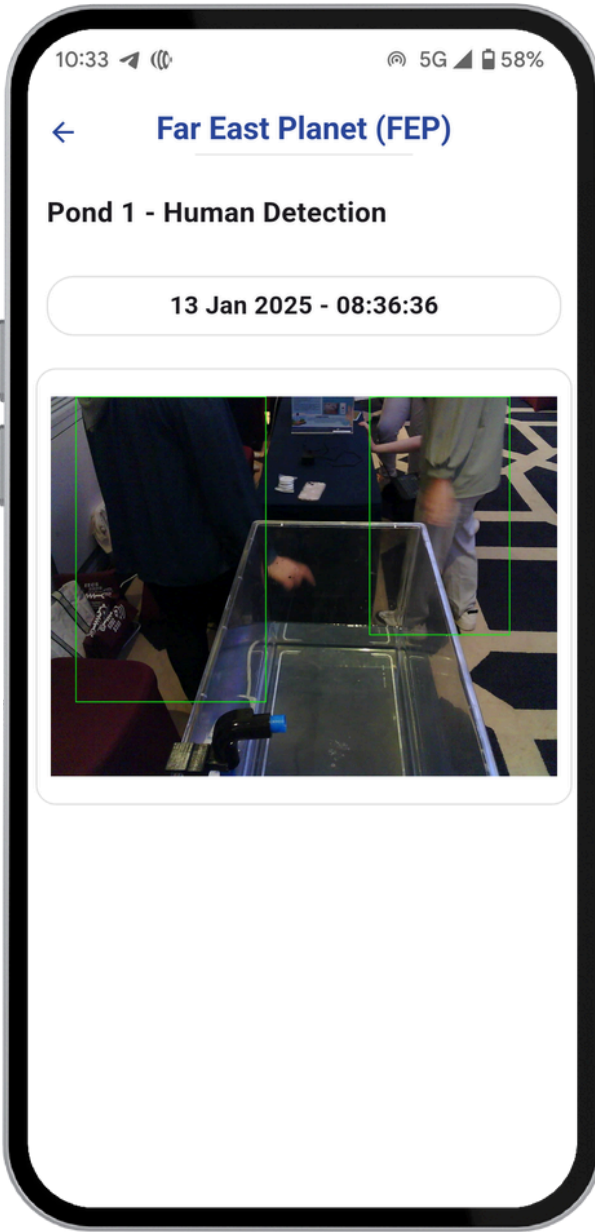
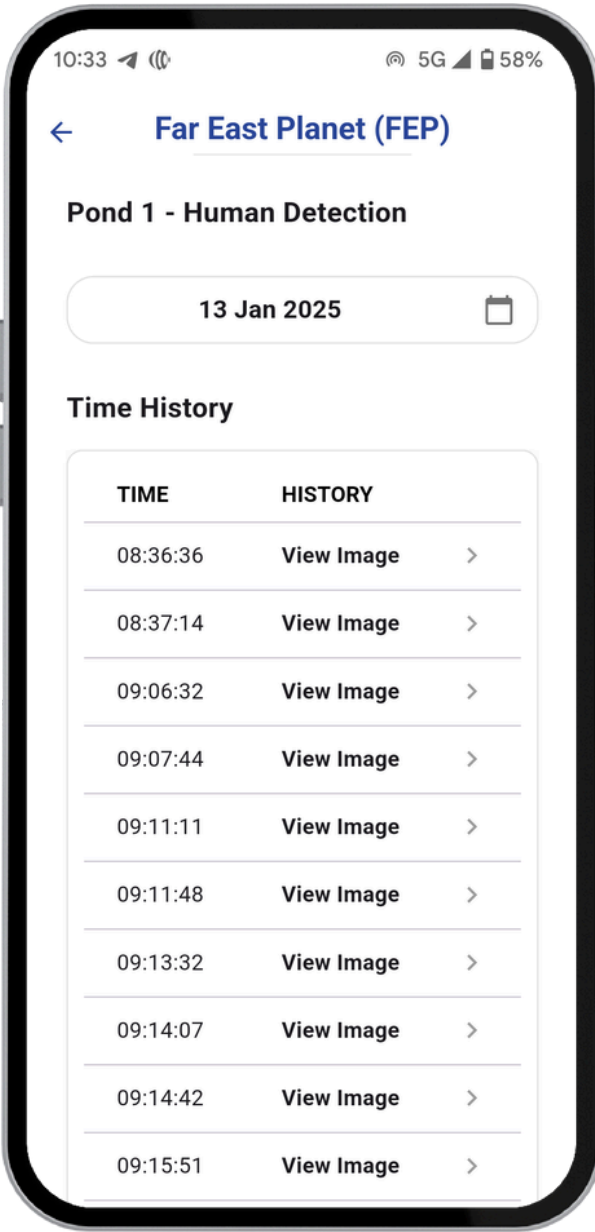
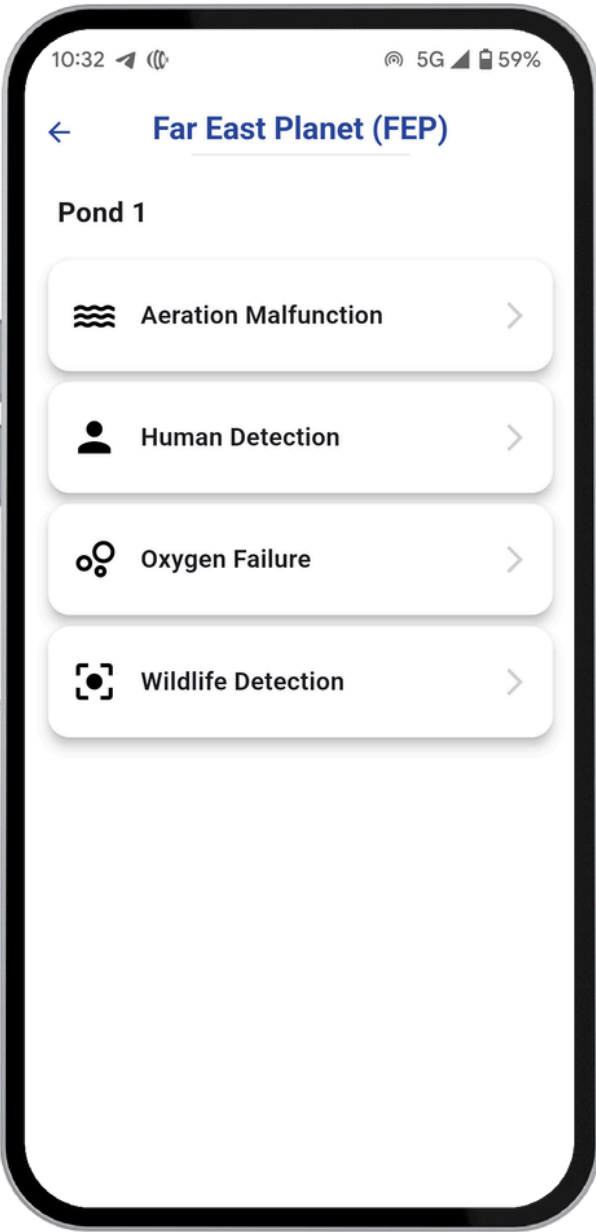
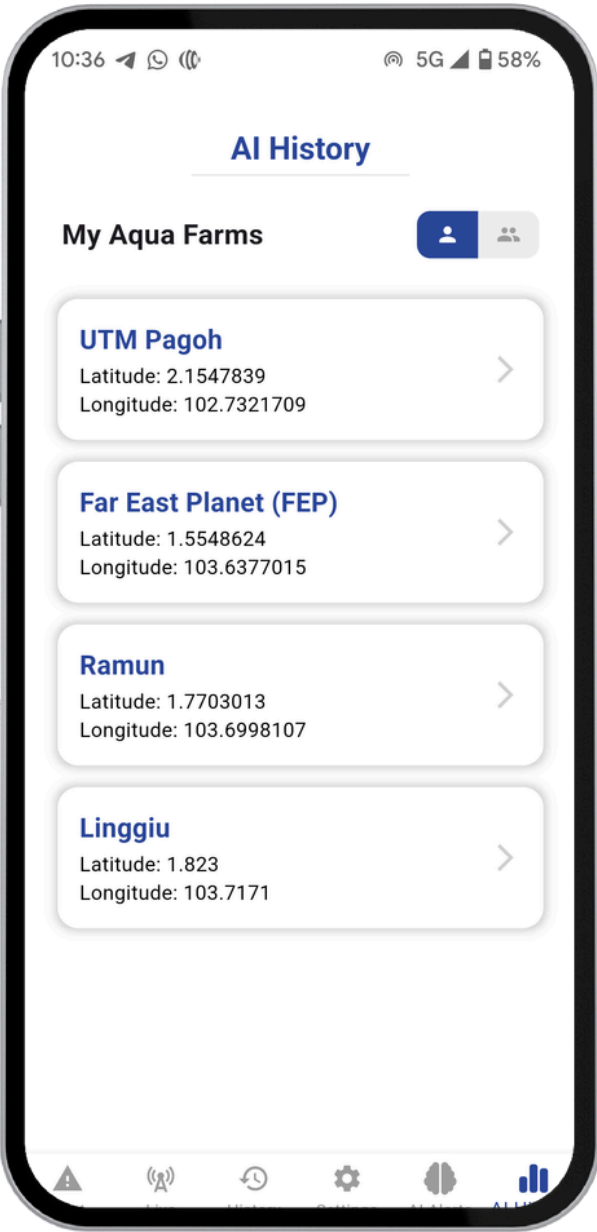
KMS Modules

06 AI Alert Module

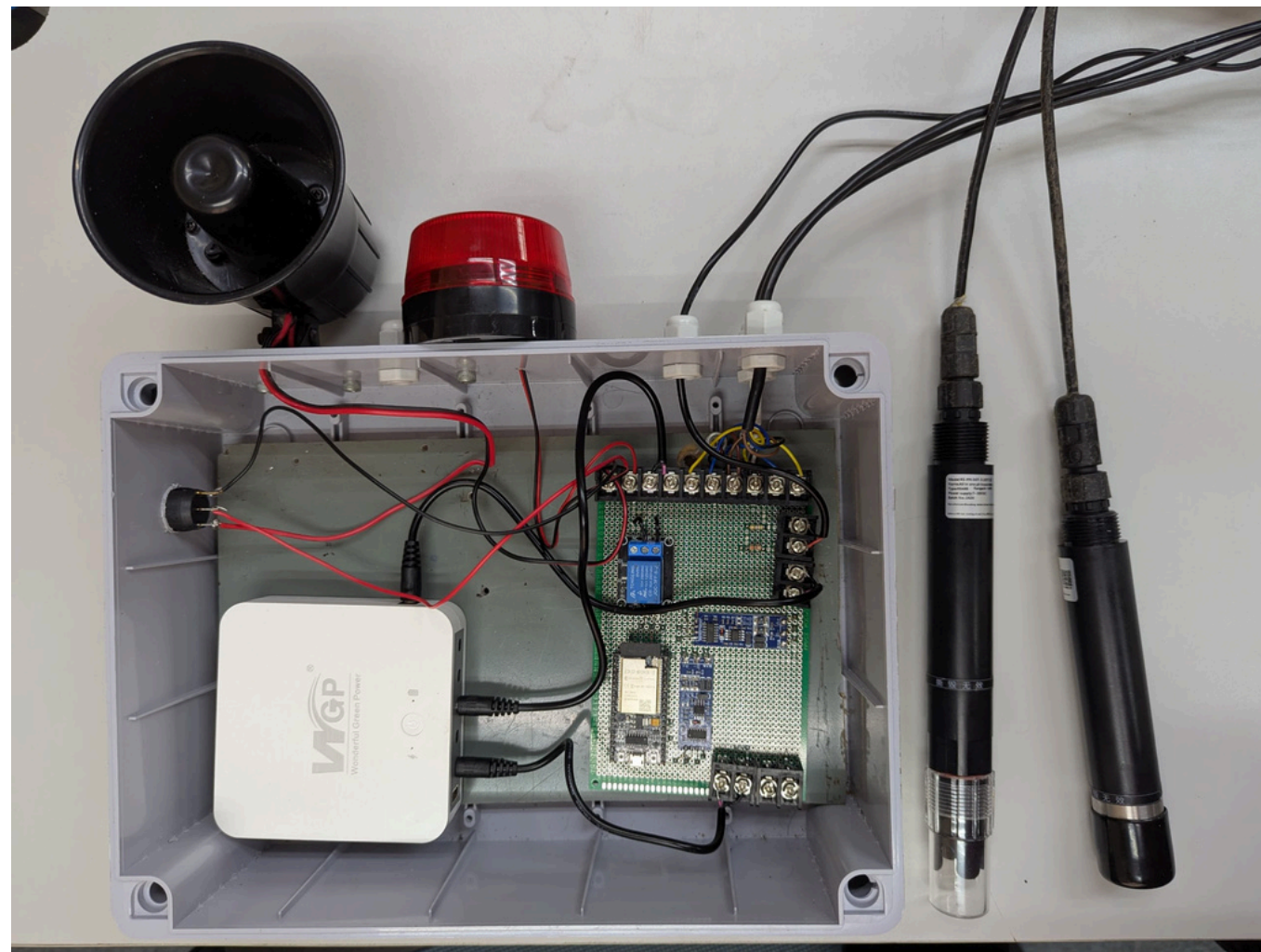


KMS Modules

07 AI History Module

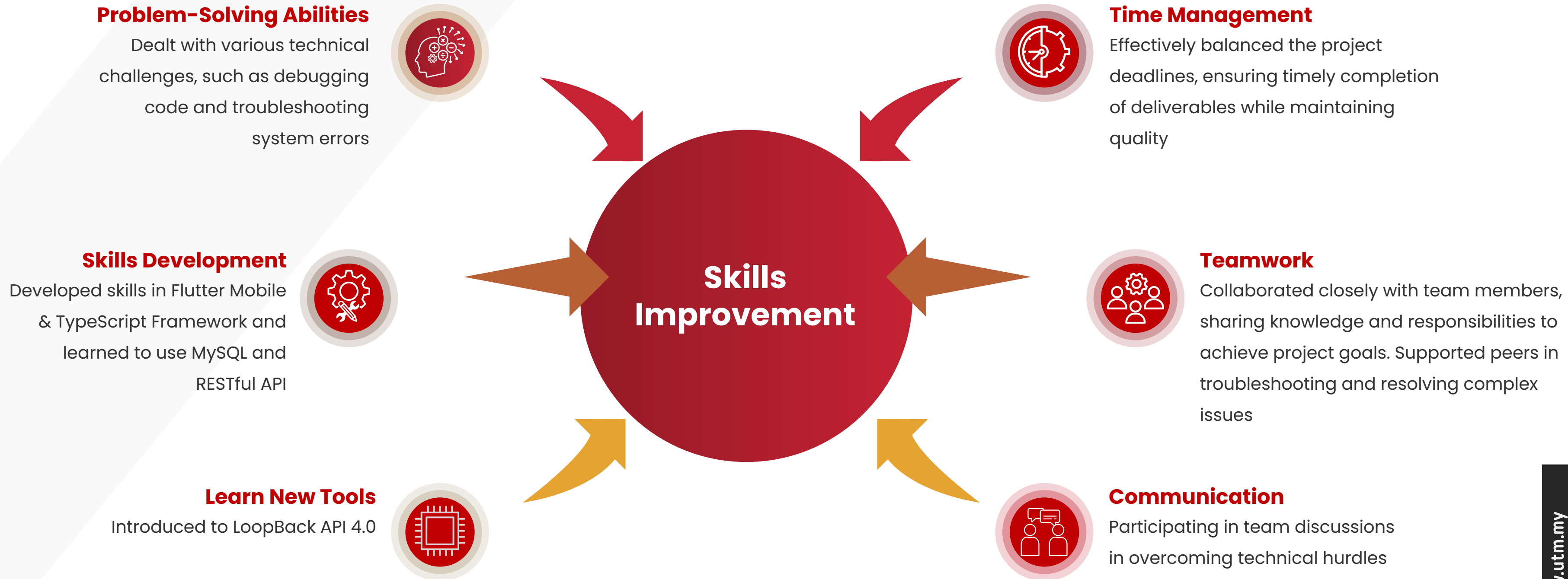


Side Task



- **Modify current IoT hardware code to use mobile API to sensor data to the server and database.**
- **Test the integration with hardware and KMS app.**

Achievement



THANK YOU