

## Appendix 4.2

# Customizable Indoor Tracking System (ITS) for ASEAN Smart Facilities Technical Training on Indoor Tracking System (ITS) for PoC Development

## Report/Minutes Form

### I. Organizer:

Name:	David Banjerdpongchai
Position:	Local leader – Chulalongkorn University
Institution:	Chulalongkorn University

### II. Program:

Date: 25 - 26 February 2026

Venue: Dept. of Electrical Engineering, Faculty of Engineering, Chulalongkorn University

#### **Program Agenda:**

This meeting event shall focus on a 2-Full Day ITS Technical Training Plan

#### Day 1 (25<sup>th</sup> Feb)

- 930am – 9:45am: Kick-off and objectives (Dr Choong)
- 945am – 1030am: Introduction to ITS (Chris & Putri)
- 1030am – 11am: Tea Break
- 11am – 12pm: Configuration of UWB Devices (Chris and Ayuni)
- 12pm – 130pm: Lunch
- 130pm – 3pm: Configuration of Location Server (Putri and Ayuni)
- 3pm – 3:30pm: Tea Break
- 3:30pm – 5pm: Hands-on Practical – Lab Deployment
  - Track A Hardware – UWB Infra deployment setup (Chris & Ayuni)
  - Track B Software – Server and network readiness (Putri and Ayuni)
- 5pm – 530pm: Q&A and conclusion (Dr. Choong)

#### Day 2 (26<sup>th</sup> Feb)

- 930am – 1030am: Procedures for Site Survey, Mapping and Deployment
  - Track A Deployment/Infra: Site survey and mapping data  
Capture: Walkthrough, measurements, zone boundaries,

- Track B
  - mounting constraints, photos, safety restriction (Chris and Ayuni)
  - APIs & data interaction workshop: API endpoints/auth, sample calls, payload schema, event logic mapped to partner use-case (Putri)
- 1030am – 11am: Tea Break
- 11am – 12pm: Continue the parallel tracks as above (Chris, Putri and Ayuni)
- 12pm – 130pm: Lunch
- 130pm – 3pm: Project-dedicated discussion and consultation for targeted production site (All)
- 3pm – 3:30pm: Tea Break
- 3:30pm – 5pm: Q&A, Summary and Conclusion (All)

### III. Participants:

No.	Name	Organization
1	Dr. Choong Khong Neng	MIMOS Berhad
2	Chrishanton Vethanayagam	MIMOS Berhad
3	Putri Shahnim Khalid	MIMOS Berhad
4	Nurul Ayuni Safra Mat Daud	MIMOS Berhad
5	David Banjerdpongchai	CU
6	Manop Wongsaisuwan	CU
7	Sivasamy Ramasamy	CU
8	Emmanuel Agabi	CU
9	Rep for Company #1 - Potential industrial collaborator	Swift Dynamics
10	Rep for Company #2 - Potential industrial collaborator	Swift Dynamics

*(Note: please add participants list if there are a lot of people participated the event)*

### IV. Summary of the activities corresponding to the objectives.

#### 1. Briefly describe the objectives of the event.

- Host the first physical meeting to discuss ITS-based use-cases for identified industries under the ASEAN IVO Phase II program.
- Conduct 2 full-day technical parallel training of the Indoor Tracking System (ITS) core technology that shall be utilized to develop specific industrial-driven applications.
- Set up lab ITS deployment to facilitate R&D towards supporting the use-case and applications.

#### 2. Describe the activities corresponding to the objectives.

- Conducted a physical kickoff session to align all participants on the purpose of the ASEAN IVO Phase 2 ITS scope and the expected PoC direction. Facilitated partner engagement involving Chulalongkorn University (CU) team members and a potential industrial collaborator (Swift Dynamics) to support industry relevance and future PoC adoption.
  - Delivered structured training modules covering:
    - ITS overview and system introduction, including concept briefing and platform orientation.
    - UWB devices configuration to prepare anchors/tags and validate device setup readiness.
    - Location server configuration and system readiness checks (server and network preparation).
    - Conducted Hardware/Deployment training: UWB infrastructure deployment setup and procedures for site survey/mapping data capture (walkthrough, measurements, zone boundaries, mounting constraints, photos, safety restrictions).
    - Conducted Software/APIs training: API and data interaction workshop, including endpoints/authentication, sample calls, payload schema, and mapping event logic to partner use-cases.
    - Concluded both days with Q&A and wrap-up sessions to confirm understanding, capture issues, and outline next steps. Setup lab ITS deployment to facilitate R&D towards supporting the use-case and applications.
  - Conducted hands-on lab setup activities to validate end-to-end setup of the ITS environment (hardware installation plus server/network readiness). Both CU and industrial partner (Swift Dynamics) have also shared their use cases based on the ITS capabilities that was demonstrated throughout the training.
3. Describe, in detail, if there are changes in the work plan, project schedule, budget allocation, etc. from the initial proposal.
- Work plan / schedule: No major changes. The 2-day technical training and consultation were executed as planned according to the agenda.
  - Budget allocation: No change to the approved hosting scope for this event.
  - Clarifications / refinements: Both the deployment and APIs/data interaction sessions were emphasized as to speed up partner readiness for PoC preparation and to ensure both infrastructure and software integration capabilities are developed in tandem.

## V. Others.



Group Photo



Explanation of UWB-based tracking devices



Explanation of UWB tracking features



Explanation on API call for extracting data for further analysis



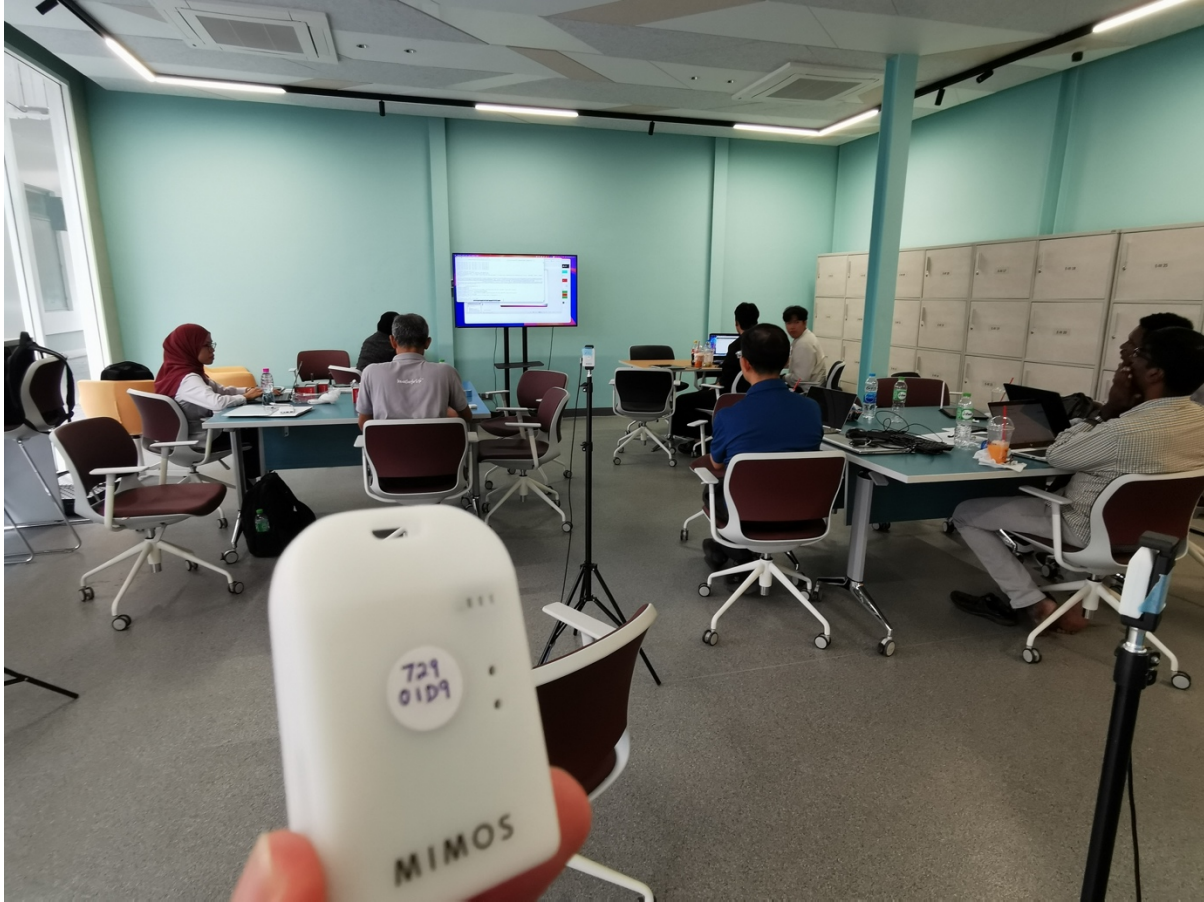
Use case sharing from Industry (Swift Dynamics)



Occupancy tracking for supervisory control



Setup of UWB infrastructure with 4 anchors



An active UWB tag within the coverage of 4 anchors

## VI. Workshop Evaluation Questionnaire

Questionnaires have been compiled as separate PDF file named "Feedback from Participants.pdf".