



CEFIA
Cleaner Energy
Future Initiative
for ASEAN
ASEAN+3

Feb 13th 2025

**The 7th Government Private Forum on the Cleaner Energy
Future Initiative for ASEAN (CEFIA)**

CEFIA RENKEI Control Flagship Project

RENKEI Control

RENKEI Control Working Group

Azbil Corp.

Lee Peoy Ying

JEITA

**Japan Electronics and Information Technology
Industries Association**

RENKEI Control

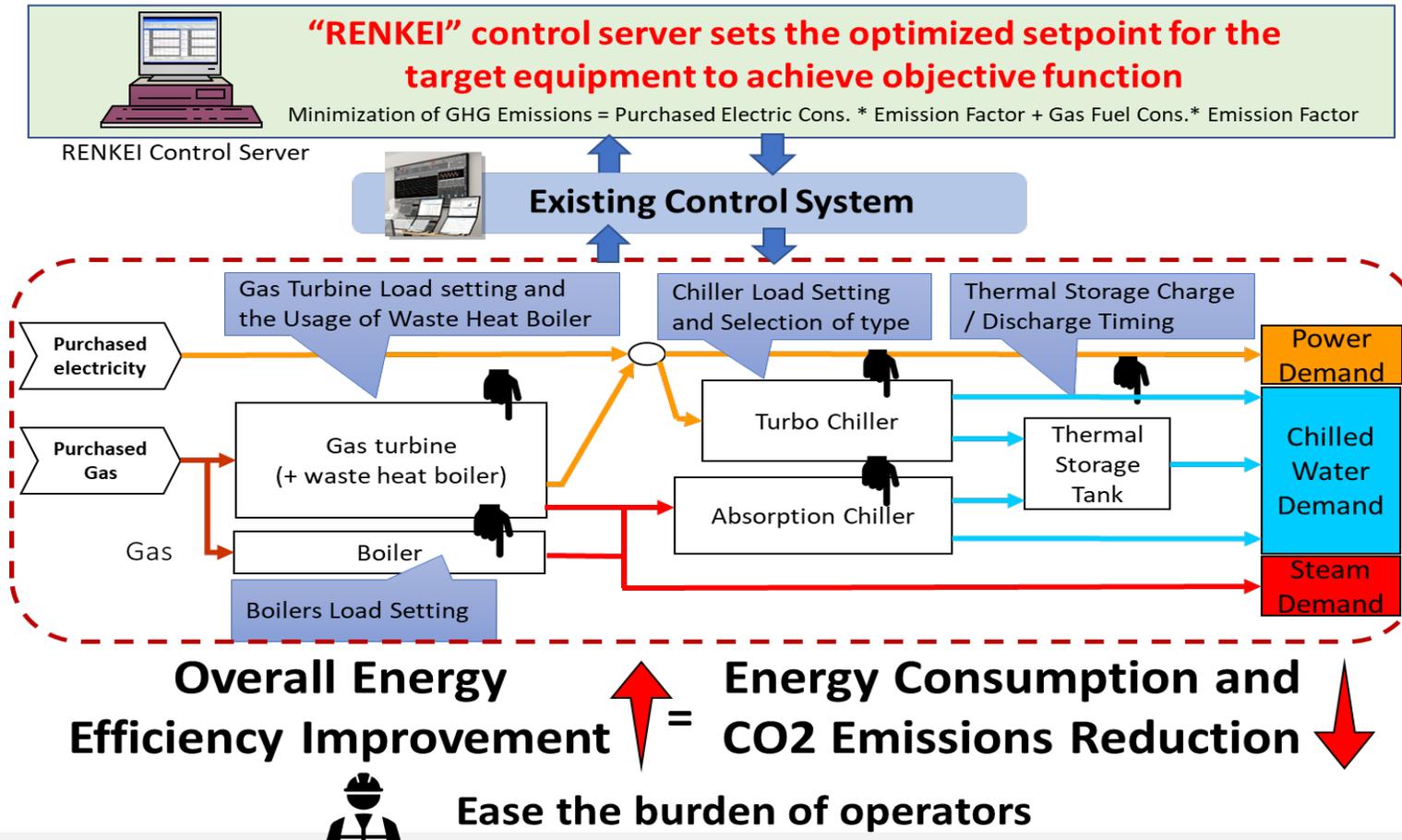
- **What is RENKEI Control?**
- **4 Years Collaboration and Activities Summary FY2020-FY2023**
- **FY2024 Progress**

- ➔ **What is RENKEI Control?**
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What is RENKEI control?

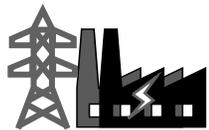
The Purpose of RENKEI Control...

- to solve customer management issues (environmental problems) as well as energy saving (cost saving)
- to provides energy users with opportunities to achieve energy performance improvement without having to go through a major renewal or significant changes in existing facilities



Applicable Optimization by RENKEI Control

	Category	Applicable Optimization by RENKEI Control
1	Utility Plant	<ul style="list-style-type: none"> ▪ Boiler Plant Optimization ▪ Turbine Plant Optimization ▪ Boiler Turbine Plant Optimization ▪ Co-Generation Plant Optimization ▪ Chilled Water Plant Optimization ▪ Air Compressor Plant Optimization
2	Utility Plant and Demand Side	<ul style="list-style-type: none"> ▪ HVAC system in building side ▪ District Cooling Plant Optimization with Demand Prediction for Building Side ▪ Utility Plant and Manufacturing Plant Total Optimization ▪ Smart City (Power and Heat) Total Optimization



Utility Plants in many kind of industry.
(Steam, Hot Water, Chilled Water, Electricity, Cogeneration)



District Cooling Plant for Buildings

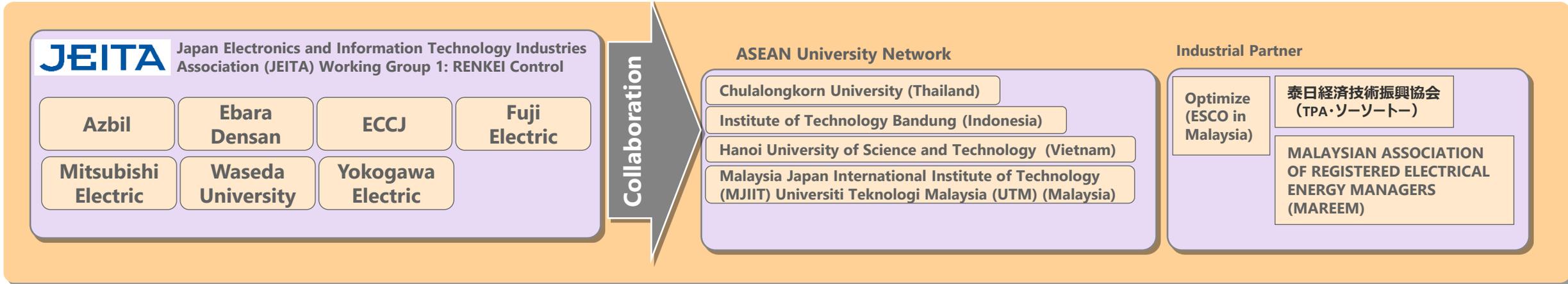


Smart City

Energy Supplier Energy Consumers

- What is RENKEI Control?
- ➔ ■ 4 Years Collaboration and Activities Summary FY2020-FY2023
- FY2024 Progress

4 Years Collaboration and Activities Summary FY2020-FY2023



Content



JEITA

- What is RENKEI Control?
- 4 Years Collaboration and Activities Summary FY2020-FY2023
- ➔ ■ FY2024 Progress

RENKEI Control Training Program Course for Energy Auditor and Energy Manager

Lectures :

- Malaysia Energy Efficiency Direction
- Introduction to RENKEI Control
- RENKEI Control for Air Compressors
- RENKEI Control for BTG
- Feasibility Study Concept for Air Compressors through Software Demonstration



RENKEI Control Fundamentals Structure:

- Measurements and Control
- Mechanism of Equipment
- Efficiency Calculation
- RENKEI Control Strategies

Hands-On:

- Feasibility Study Workshop for BTG by using Excel

RENKEI Control Training Program Course for Energy Auditor and Energy Manager

RENKEI Control Assessment Tool

RENKEI CONTROL ASSESSMENT FORM

What is RENKEI Control?

RENKEI Control is an optimization strategy that links multiple pieces of equipment to collaborate together for the optimum use of energy through control.

Objective :

This assessment form is developed to assist in evaluating the potential of RENKEI Control for utility systems based on their configurations.

***Before using this assessment form, please select your country and fill in the currency conversion rate to obtain the appropriate reference for RENKEI Control potential evaluation**

Utility system :

[Boiler System](#)

[Boiler and Turbine Generation \(BTG\) System](#)

[Air Compressor System](#)

[Chiller System](#)

HomeBoilersBTGCompressorsChillers+

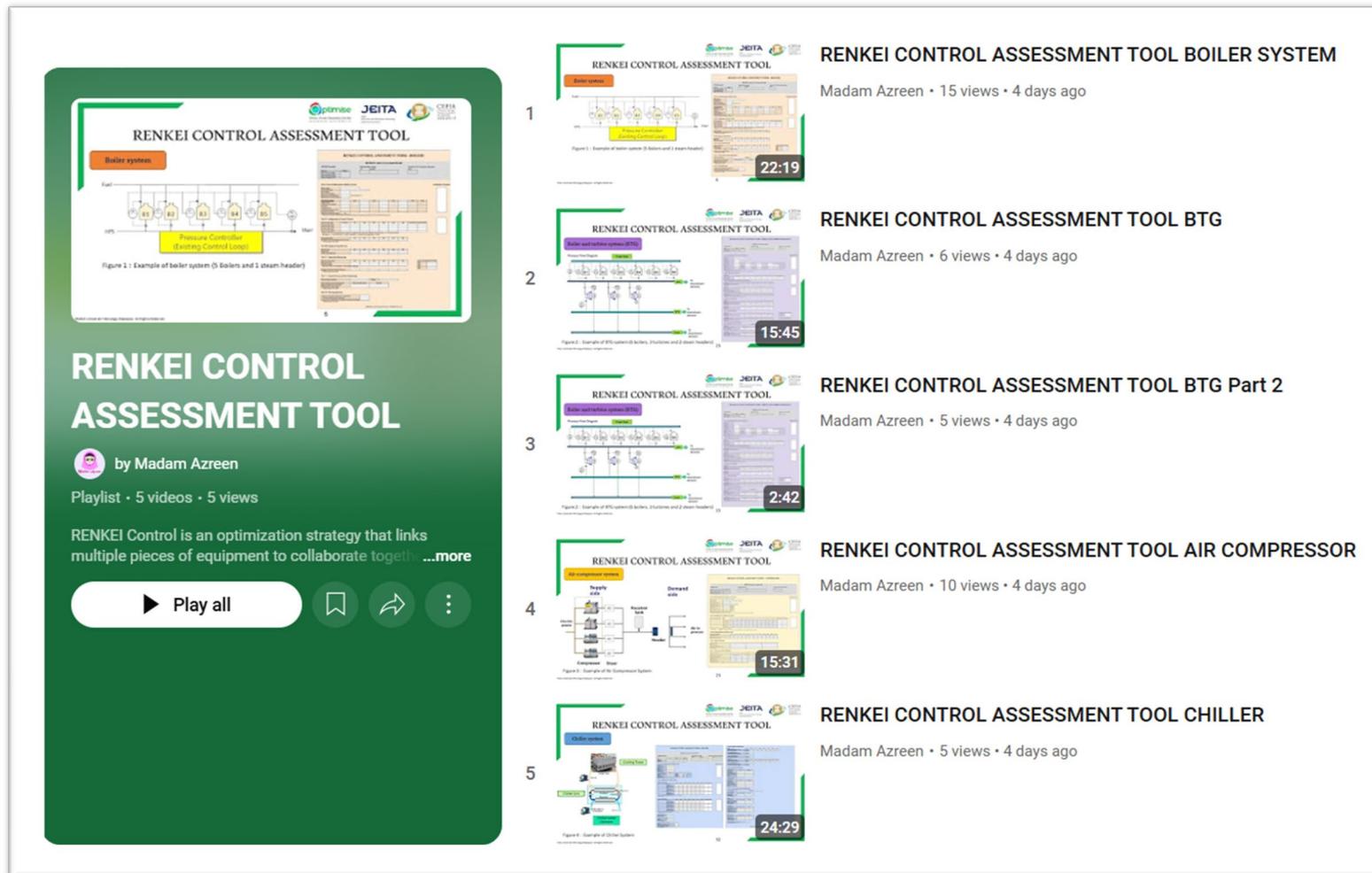
RENKEI Control Assessment Tool



<https://shorturl.at/Q1ans>

RENKEI Control Training Program Course for Energy Auditor and Energy Manager

RENKEI Control Assessment Tool Tutorial



RENKEI CONTROL ASSESSMENT TOOL

Boiler system

RENKEI CONTROL ASSESSMENT TOOL

Pressure Controller (Excess Control Loop)

Figure 1 : Example of boiler system (2 Boilers and 1 steam header)

RENKEI CONTROL ASSESSMENT TOOL

by Madam Azreen

Playlist • 5 videos • 5 views

RENKEI Control is an optimization strategy that links multiple pieces of equipment to collaborate together...more

▶ Play all

- RENKEI CONTROL ASSESSMENT TOOL BOILER SYSTEM**
Madam Azreen • 15 views • 4 days ago
22:19
- RENKEI CONTROL ASSESSMENT TOOL BTG**
Madam Azreen • 6 views • 4 days ago
15:45
- RENKEI CONTROL ASSESSMENT TOOL BTG Part 2**
Madam Azreen • 5 views • 4 days ago
2:42
- RENKEI CONTROL ASSESSMENT TOOL AIR COMPRESSOR**
Madam Azreen • 10 views • 4 days ago
15:31
- RENKEI CONTROL ASSESSMENT TOOL CHILLER**
Madam Azreen • 5 views • 4 days ago
24:29

YouTube Playlist



<https://shorturl.at/8Ea4N>

November 18th 2024 Webinar

- Date : 2024 November 18th (Monday)
- Time : 2:30 ~ 4:30 PM
- Form : Online Webinar
- Purpose : Brief Introduction of RENKEI Control and promoting our upcoming seminar for Energy Auditors.
- Registered Participants : 131 persons
- Attended Participants : 107persons



13th ENERGISE Talk Series

Real-time Optimisation of Utility Network Energy Efficiency with RENKEI Control

Live Webinar

Key Highlights

- ✓ Overview Of Energy Efficiency Conservation Act
- ✓ Real-Time Energy Efficient Operation With RENKEI Control Technology
- ✓ Successful RENKEI Control Projects In Energy Minimisation
- ✓ Measuring And Verifying Energy Savings From RENKEI Control
- ✓ 2-Days 'RENKEI Control For Energy Auditors' Seminar Preview

18 NOVEMBER 2024
Monday
2.30PM - 4.30PM MYT (UTC +8)
LIVE ON
Microsoft Teams

Register Now → bit.ly/ENERGISE13th

Featured Speakers



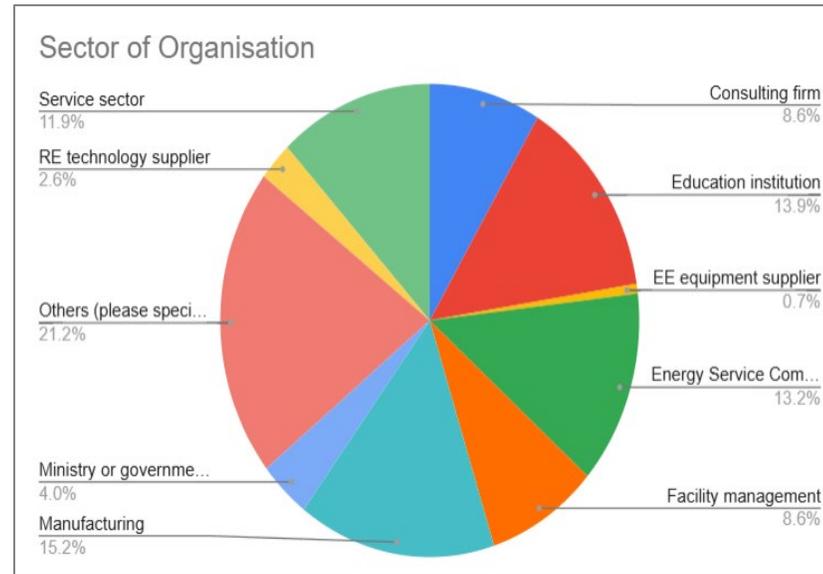
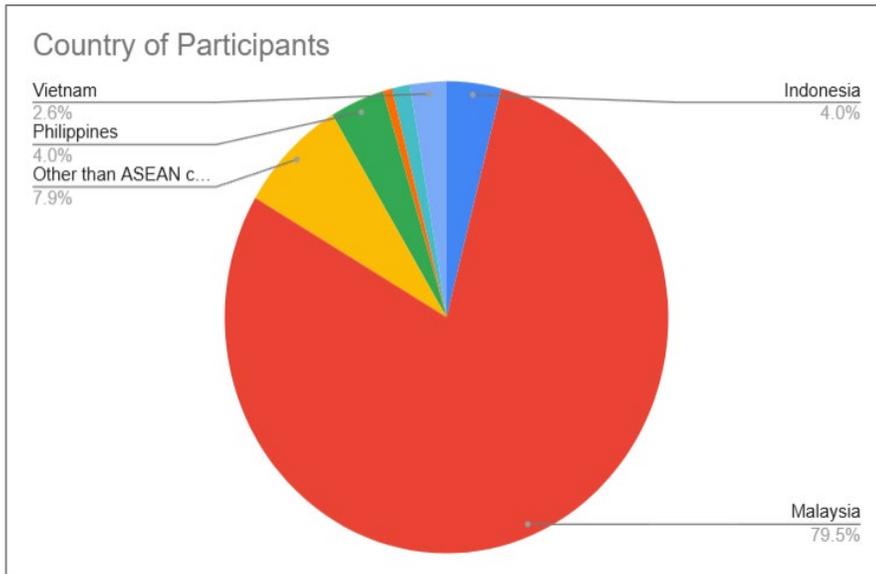
LEE PEOW YING
Engineer, Advanced Solution Department, Azbil Corporation (Japan)



TOMOYUKI IKEYAMA
Technology Researcher and Energy Management Specialist, External Affairs & Technology MK Center, Yokogawa Electric Corporation (Japan)

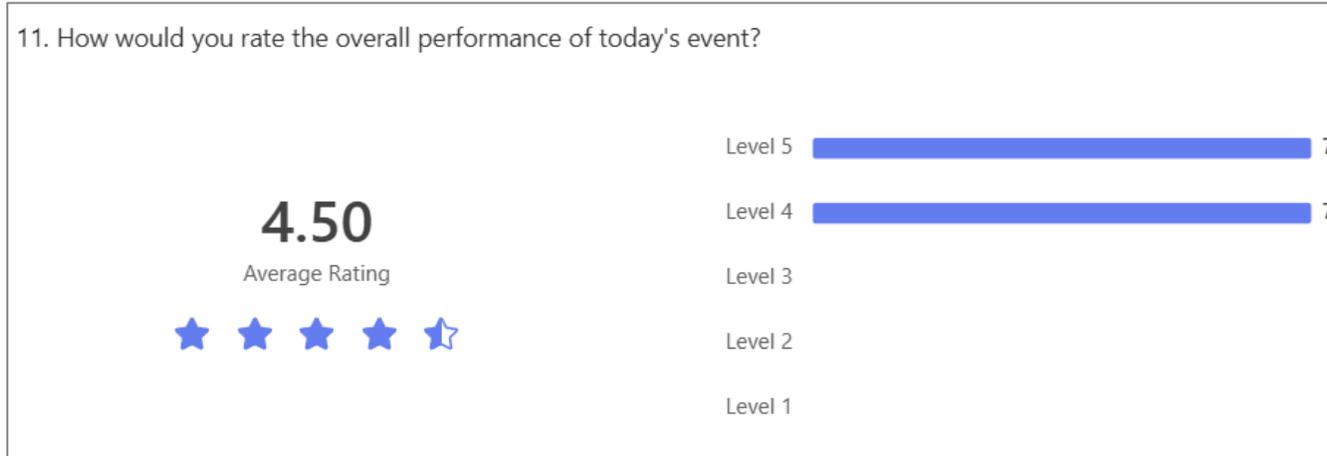


PROF. IR. TS. DR. SHARIFAH RAFIDAH WAN ALWI
Director of R&D, Optimal Systems Engineering Sdn Bhd, Professor in Process Systems Engineering, Universiti Teknologi Malaysia



Overall Rating of Webinar

Feedback from 14 participants



Jan 15th 2025 Physical and Online Workshop



JEITA

- Date : 2025 January 16th (Thursday)
- Time : 8:30 to 17:30
- Form : Session 1: RENKEI Control Fundamentals and Concept (Online and Physical)
- Session 2: Hands-On Session on RENKEI Control Feasibility Study Analysis (Physical Only)
- Purpose : Seminar targeting energy managers and energy auditors to gain knowledge about RENKEI Control for their own application.

**1-DAY WORKSHOP ON
REAL TIME ENERGY OPTIMISATION
FEASIBILITY ANALYSIS USING RENKEI
CONTROL**

ONLINE MODE
8:30AM - 1:15PM (GMT+8)
(Session 1 Only)

PHYSICAL MODE
8:30AM - 5:30PM (GMT+8)
(Sessions 1 & 2)
(Limited to 50 participants)

WORKSHOP DETAILS:
<https://shorturl.at/su1zh>

CONTACT US:
+6018-7187248
isquity@optimizsystems.my

Note: The physical slot is limited to 50 seats only and targeted for energy managers, energy auditors and company personnel. The online slot is open to all.

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Optimise JEITA
Cleaner Energy Future Initiative for ASEAN+3

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TENTATIVE PROGRAM

DATE: 16 JANUARY 2025 (THURSDAY)

Time	Content
SESSION 1: RENKEI Control Fundamentals and Concept (Online and Physical)	
8:30-8:45	Registration
8:45-9:00	METI Welcoming Remarks and Introduction to CEFIA
9:00-9:15	Malaysia Energy Efficiency Direction
9:15-9:45	Introduction to RENKEI Control
9:45-10:30	RENKEI Control for Air Compressor Systems
10:30-10:45	Q&A Session
10:45-11:00	Break
11:00-11:30	RENKEI Control for Boiler and Turbine Generation (BTG) Systems
11:30-12:15	RENKEI Control - Case Study
12:15-12:45	Building Energy Management System
12:45-13:15	RENKEI Control Assessment Tool
SESSION 2: Hands-on Session on RENKEI Control Feasibility Analysis (Physical only)	
13:15-14:30	Lunch Break
14:30-16:30	Hands-on Working Session on Boiler and Turbine Generation RENKEI Control Feasibility Analysis
16:30-16:45	Break
16:45-17:15	Software Demo for Air Compressor RENKEI Control Feasibility Analysis
17:15-17:30	Q&A and Closing

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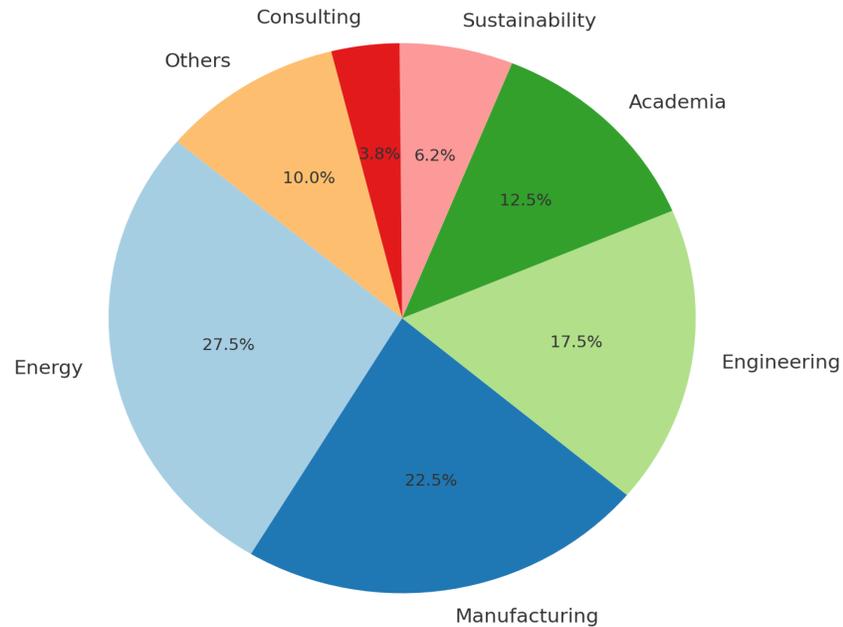
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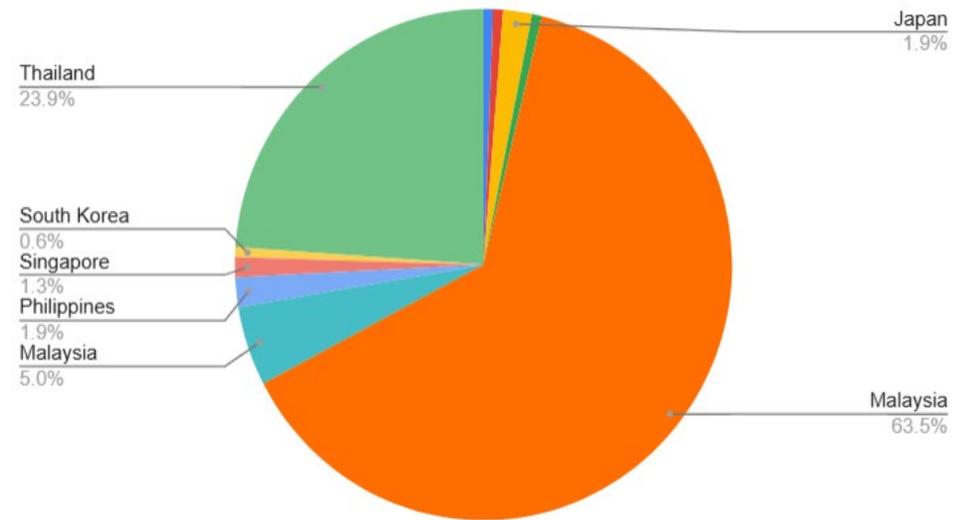


Registered Online Participants: 238 persons
Attended Online Participants : 184 Persons

Category Distribution

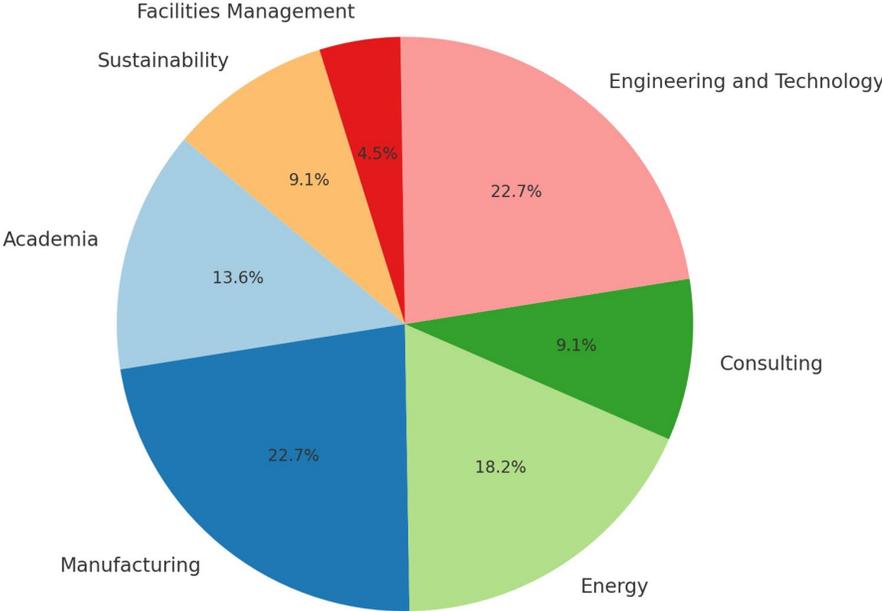


Country - Online Attendees



Registered Physical Participants : 52 Persons
Attended Physical Participants : 22 Persons

Industries Represented (Categorized)



Overall Rating of Workshop



17 Feedbacks from Physical Participants

19. How would you rate the overall performance of the training?



34 Feedbacks from Online Participants

13. How would you rate the overall performance of the training?

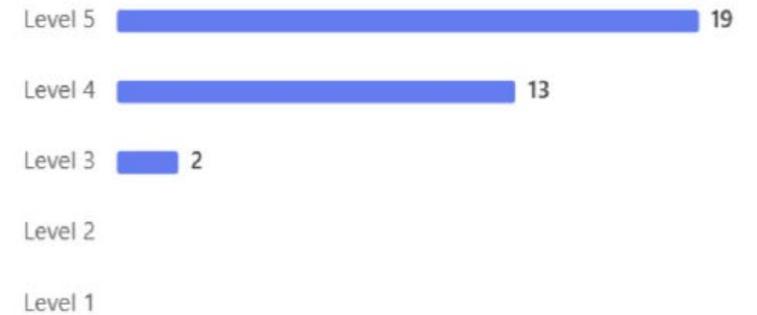
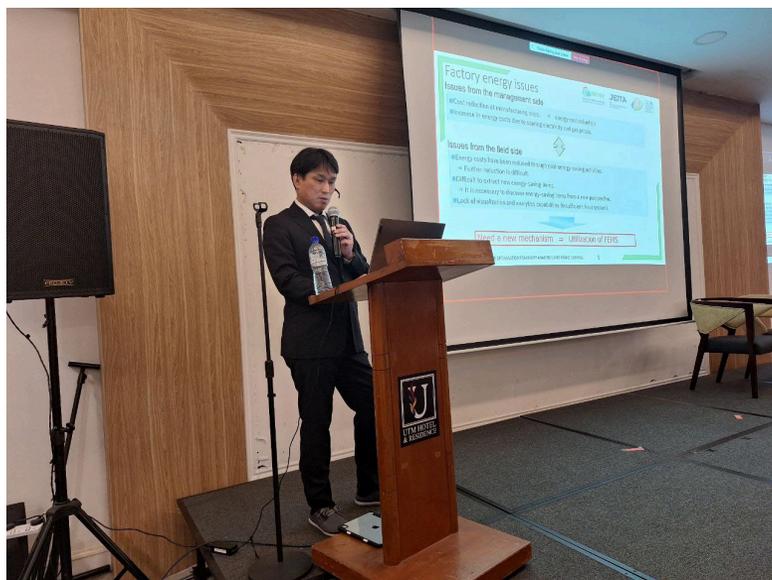
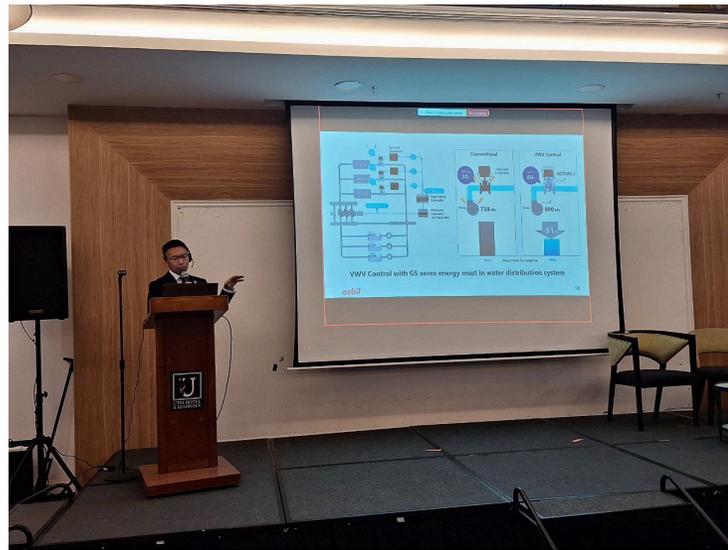


Photo Session (Physical)



Ongoing Capacity Building through E-Learning



JEITA

- **Chulalongkorn University (CU)**
- **Malaysia Japan International Institute of Technology (MJIIT), Universiti Teknologi Malaysia (UTM)**

Thank you for listening