

# 8 CDP points

SUBJECT TO ST APPROVAL

## THERMAL ENERGY FOR NON-PROCESS ENGINEER (10-PRO)

6 - 7 March 2024

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## Course overview

Under the Energy Efficiency Conservation Act (EECA) enacted in October 2023, both electrical and thermal energy consumption and utilisation will be reported to the Energy Commission. This significant legislation represents a key component of the National Energy Transition Roadmap (NETR) and aims to promote conservation and efficient energy use. Under this new Act, the companies are required to appoint an in-house energy manager (Registered Energy Manager, REM) to manage the energy use in the industry/facilities. Therefore, the engineer or manager must be equipped with thermal energy knowledge to run the plant efficiently. Therefore, competent thermal energy personnel are expected to multiply as it is a new and emerging occupation that contributes significantly to future energy security and emission reductions. In addition, this competency is essential due to the government's commitment to reduce its greenhouse gas (GHG) emissions intensity of GDP by 45% by 2030 relative to the emissions intensity of GDP in 2005.

This training will provide the key fundamentals and principles of thermal energy and actions towards efficient use of energy to non-process engineers such as electrical engineers, mechanical engineers, environmental engineers, accountants, and managers, as well as a refresher for practising process engineers. The training will be conducted with hands-on exercises with simple examples to enhance the understanding of thermal energy. By attending this course, participants will acquire fundamental thermal energy knowledge and could advise companies on identifying energy-saving potentials, which leads to more cost savings.



RM2,000  
(normal fees)

RM2,100  
(HRDC fees)

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# Course Schedule

## Day 1

TIME	AGENDA
8:30 a.m - 9:00 a.m	Registration
9:00 a.m - 9:15 a.m	Welcoming Remarks
9:15 a.m - 9:45 a.m	Global & National Energy Landscape & Current Policy
9:45 a.m - 10:30 a.m	Introduction to Thermal Energy (Part 1)
10:30 a.m - 10:45 a.m	Break
10:45 a.m - 11:15 a.m	Working Session 1
11:15 a.m - 12:45 a.m	Introduction to Thermal Energy (Part 2)
12:45 a.m - 1:15 a.m	Working Session 2
1:15 p.m - 2:15 p.m	Lunch
2:15 p.m - 3:45 p.m	Application of Thermal Energy
3:45 p.m - 4:00 p.m	Break
4:00 p.m - 4:45 p.m	Fuel and Combustion (Part 1)
4:45 p.m - 5:00 p.m	Wrap up Day 1

## Day 2

TIME	AGENDA
8:30 a.m - 9:00 a.m	Registration
9:00 a.m - 9:15 a.m	Recap Day 1
9:15 a.m - 10:45 a.m	Fuel and Combustion (Part 2)
10:45 a.m - 11:00 a.m	Break
11:00 a.m - 11:30 a.m	Working Session 3
11:30 a.m - 1:00 p.m	Steam system (Part 1)
1:00 p.m - 2:00 p.m	Lunch
2:00 p.m - 2:45 p.m	Working Session 4
2:45 p.m - 3:45 p.m	Steam system (Part 2)
3:45 p.m - 4:00 p.m	Break
4:00 p.m - 4:30 p.m	Working Session 5
4:30 p.m - 4:45 p.m	Wrap up Day 2
4:45 p.m - 5:00 p.m	Closing & Certificate Ceremony

# In this course, you will:

- Understand the basic principles of thermal energy;
- Develop and understand mass and energy balances of processes;
- Enhance the efficient use of energy;
- Understand the concept of heat recovery;
- Identify potential energy-saving measures; and
- Understand the environmental responsibility of process engineers.

## This course is designed for:

Non-process engineers such as electrical engineers, mechanical engineers, environmental engineers, managers, accountants, or any related positions that require an understanding of the principles of thermal energy and enhancing the efficient use of energy in industries or facilities



## Speaker 1

Prof. Ir. Dr. Haslenda Hashim

## Speaker 2

Dr. Muhammad Afiq Zubir

