

## Webinar Talk on Overview of Heat Exchangers - The Oil & Gas Industry Experience

CPD Hours: 2 CPD Ref No: IEM23/HQ/120/T(w)

Organised by: Oil, Gas and Mining Technical Division

## **SYNOPSIS**

The oil and gas industry relies heavily on heat exchangers to manage the temperature of various process streams in Refinery and Petrochemical Plants. Different types of heat exchangers are used for different applications, such as shell-and-tube exchangers, plate-and-frame exchangers, and finned-tube exchangers. The industry depends on heat exchangers as a critical component in the Plants' processes. As such, companies invest in ensuring the proper design, fabrication, construction, maintenance, and inspection of their heat exchangers to ensure optimal performance and safety.

Heat exchangers consist of several parts, including the shell, tubes, baffles, headers, and tube sheets. These parts were designed and fabricated in accordance with various codes and standards, such as the ASME Boiler and Pressure Vessel Code, API standards, and ISO standards. Maintenance of heat exchangers is critical to ensure efficient and reliable operation. Routine maintenance activities include cleaning, inspection, and repair of damaged parts. Inspection of heat exchangers can be performed using various non-destructive testing techniques, such as visual inspection, ultrasonic testing, and radiography.

## **SPEAKER**

## Ir. Alzakri Ekhwan, PEng

Group Technical Authority & Custodian, Mechanical Static Unfired Group Technical Solutions PETRONAS

**Ir. Alzakri Ekhwan** is the Custodian Static Unfired of Group Technical Solutions, PETRONAS. He graduated with a Bachelor of Engineering in Mechanical Engineering degree from University of Bath, UK in 1993.

With 30 years of work experience in PETRONAS, Alzakri has engineering practices as a Maintenance and Inspection Engineer in Petrochemical Plant and Refinery. He is also experienced in downstream capital projects as Lead Mechanical Engineer and Field Engineering Manager for MG3 Lube Base Oil (MG3) Project and Hydrogen Processing Unit 2 (HPU-2) Project.

In his role, he has provided technical leadership role in the implementation of mechanical digital solutions across PETRONAS Assets which creates better synergy between digital and business domains, focusing changes on people, process and tool.

He is a registered Professional Engineer and ASEAN Chartered Professional Engineer. He is also certified as First Grade Steam Engineer, API 653 Storage Tank and API 510 Pressure Vessel Inspection, EN-1591-4 bolted connections and ECITB Hydraulically Torque & Tension Bolted Connection Inspection. He is currently an Industry Advisor Panel for Faculty of Mechanical, Monash University, Adjunct Lecturer and Final Year Project Examiner for Universiti Teknologi PETRONAS (UTP).



Wednesday I 10 May 2023 I 5PM - 7PM

**Registration Fee:** 

Student Member: Free | IEM Member: RM15 | Non-Member: RM70