

Organised by:  
Oil, Gas and Mining Technical Division, IEM

# Webinar Talk on ARTIFICIAL INTELLIGENCE (AI) IN OIL & GAS: HOW DIGITAL TECHNOLOGIES ARE TRANSFORMING THE ENERGY INDUSTRY

*From Exploration to Production, discover how Artificial Intelligence is reshaping the oil and gas industry and learn why engineers must be ready for the next wave of digital transformation.*



8 AUGUST 2026, SATURDAY



Ir. ABDUL RAZAK YAKOB

**BEM APPROVED CPD: APPLYING**  
**REF. NO: APPLYING**



9.00AM - 11.00AM



**SYNOPSIS**

Artificial Intelligence (AI) is rapidly changing the way the oil and gas industry operates, enabling organisations to improve efficiency, enhance decision making, reduce operational risks, and maximise the value of their data. As the industry faces increasing pressure to optimise costs, improve sustainability, and manage complex operations, AI and digital technologies have emerged as powerful tools to support engineering and business objectives across the entire energy value chain.

This two hour introductory talk provides participants with a practical overview of how AI is being applied in the oil and gas industry today. The session will explore the evolution of digital technologies, from traditional automation and data analytics to modern AI, machine learning, and generative AI applications. Participants will gain insights into how these technologies are transforming exploration, drilling, production, maintenance, health and safety, and asset management activities.

The session will also discuss the future role of engineers in an increasingly digital environment and identify the skills required to remain relevant in the evolving energy landscape. Designed for engineers, technical professionals, managers, and students, this programme serves as an ideal introduction to AI in the oil and gas sector and provides a preview of more advanced applications covered in the full day training programme.

## SPEAKER'S PROFILE

**Ir. Razak Yakob** is a Professional Engineer with Practising Certificate, specialising in drilling engineering, well operations, digitalisation, and engineering management. With more than two decades of industry experience, he has been involved in various aspects of well planning, drilling operations, project management, technology implementation, and competency development.

In addition to his industry contributions, he is actively involved in engineering professional development and capacity building programmes. He regularly delivers technical training, industry seminars, and professional development courses.

Razak is currently pursuing advanced research in Artificial Intelligence and well digitalisation, focusing on the application of AI technologies to improve data quality, knowledge management, and operational effectiveness in upstream oil and gas operations. His research combines engineering expertise with modern digital technologies to address real industry challenges and support the future development of intelligent engineering systems. Razak is the IEM's Vice President 2022/2024, 2025/2027 and BEM's Board Member 2026.