

WEBINAR TALK ON ENGINEERING RESILIENCE: EXTENDING THE LIFE OF AGEING OFFSHORE FACILITIES THROUGH STRUCTURAL MONITORING

Date : 11 October 2025 (Saturday)

Time : 9.00 am - 11.00 am

Platform : Zoom Webinar

Registration Fees:

- Student Member : **FOC**
- IEM Member : **RM 15.00**
- Non-Member : **RM 70.00**

Synopsis:

As offshore facilities including platforms, pipelines, risers, and subsea structures continue to operate beyond their original design life, ensuring overall structural integrity becomes critical to maintain safe and efficient operations. This talk explores the concept of engineering resilience across ageing offshore facilities, highlighting the vital role of structural monitoring and data-driven integrity management.

The session will discuss the application of structural health monitoring (SHM) technologies, dynamic response assessment and digital diagnostic tools to support life extension strategies. By integrating real-time monitoring systems with advanced analytics, operators can detect early signs of degradation, manage fatigue, optimize maintenance schedules, and reduce operational risks across multiple facility components.

Case studies from various offshore assets will be presented to demonstrate how monitoring-driven approaches enhance decision-making and align with regulatory and industry standards. The talk offers practical insights into implementing monitoring solutions for holistic offshore facility management—shifting from reactive maintenance to proactive integrity assurance in ageing offshore environments.

Speaker: Assoc. Prof. Ir. Ts. Dr. Mohd Khairi Abu Husain



Mohd Khairi Abu Husain is currently an Associate Professor at Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia. He received his undergraduate and PhD degrees from the University of Liverpool, UK. He is also a registered Professional Engineer with the Board of Engineers Malaysia (BEM), the Professional Technologist with the Malaysia Board of Technologists (MBOT), the Chartered Engineer and a Chartered Marine Engineer with The Institute of Marine Engineering, Science and Technology (IMarEST, UK). Presently, he serves as a Deputy Director of the UTM Innovation and Commercialisation Centre (UTM ICC) and a Co-Founder of ACTS Smart Solutions Sdn Bhd (UTM's registered spin-off company and an award recipient for the Malaysia Commercialisation Year 2023 (MCY2023)), provides technical consulting services to evaluate offshore platform reliability and performance. His research specialises in offshore structure modelling, hydrodynamic wave loading simulation, reliability and risk assessment of offshore structures and structural health monitoring.