

WEBINAR TALK ON

HUMAN FACTORS ENGINEERING: TRANSFORMING OPERATIONS IN MAJOR OIL AND GAS PROJECTS

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

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SPEAKERS:



Ir. Danaraj Chandrasegaran



Ms. Piryengkasai Gajendran

**Live
Webinar**

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10 AUGUST 2024, THURSDAY

9.00AM - 11.00AM

REGISTRATION FEE :

IEM STUDENT : FOC

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SYNOPSIS

Oil and gas facilities encompass diverse operational requirements, driven by variations in user populations and the intended design of the facilities. While most designs prioritize process requirements, it's crucial to acknowledge the significance of human factors in ensuring efficient operations and safety within these facilities.

Human factors encompass various aspects, including material handling, equipment usability, human-machine interfaces, and personnel management within the facilities. This talk aims to shed light on key human factors topics pertinent to oil and gas operations, such as spatial requirements, human-machine interfaces, and regulatory compliance.

By integrating human factors engineering tools and conducting operational studies during the design development phase, we can bridge any gaps between operational requirements and current design practices. Failing to address these gaps may lead to decreased efficiency, heightened risk exposure, and increased incidents of lost-time injuries throughout the facility's lifespan.

Moreover, there's a growing industry emphasis on reducing manpower in facilities while prioritizing operational needs and safety culture. Hence, early implementation of human factors engineering is essential to address these evolving demands and ensure a reliable and safe facility design.

This presentation aims to provide engineers with a concise overview of human factors engineering implementation in major oil and gas projects, such as production platforms and Floating Production Storage and Offloading (FPSO) units.

SPEAKER'S PROFILES

Danaraj Chandrasegaran M.Eng P.Eng IntPE (MY) CEng CErgHF (UK), is a Chartered Engineer with an honors degree in Mechanical Engineering from the University of Technology Malaysia and a Master of Engineering degree from the University of Malaya. Additionally, he currently serves as a committee member with The Institution of Engineers Malaysia.

Throughout his career as a Mechanical Engineer, Danaraj has amassed diverse experience encompassing front-line project execution, technical roles, training, and management functions. His expertise spans various industries, including building construction, marine, mining, and energy. Notable projects in his portfolio include the Shell Malikai TLP and the Barzan Offshore Project, where he demonstrated his ability to collaborate effectively with vendors and subcontractors, ensuring successful project delivery.

Piryengkasai Gajendran TechCIEHF, is a Risk Management and Human Factors Consultant holding a Chemical Engineering degree from Universiti Teknologi Petronas. With a solid engineering background, she has cultivated extensive expertise in enhancing user roles and interfaces within complex systems, particularly in the oil and gas sector.

With a wealth of experience, Piryengkasai has been actively involved in performing analyses and integration works across all stages of project life cycles. From front-end engineering to detailed design and installation, she has played a pivotal role in ensuring the effectiveness and efficiency of various projects. Notably, Piryengkasai has made significant contributions to major projects such as the Woodside Scarborough FPU and INPEX Ichthys BCM Projects, demonstrating her ability to handle large-scale initiatives with precision and expertise. Additionally, she has participated in a range of Asset Integrity, Risk & Safety, and environmental studies, further enriching her understanding of facility operations and technical aspects.