

## Technical Talk on “Human Factors Engineering in Major Oil and Gas Projects”

(Organised by Oil, Gas & Mining Technical Division, IEM)

BEM Approved CPD/PDP: 2 Hours

Ref No: IEM19/HQ/529/T

**Date** : 16<sup>th</sup> November 2019 (Saturday)  
**Time** : 9.00 am to 11.00 am (Refreshments will be served at 8.30 am)  
**Venue** : TUS and C&S Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya  
**Speaker** : Ir. Danaraj Chandrasegaran P.Eng MIEM CEng MIMechE TechCIEHF

### SYNOPSIS

Oil and Gas facilities have diverse operational requirements due to the difference in user populations and the design intent of the facilities. Most facilities design is focused on the process requirements rather than the operations of the facilities. The term human factors covers all handling of materials, equipment, human machine interfaces and managing people within the facilities.

Key human factors topics are touched upon. The operational needs such as spatial requirements, human-machine interfaces and regulatory compliance for the facilities are summarized based on the current practices. Usage of human factors engineering tools and others operational studies in design development activities will be discussed as well.

There is a common aim from operational and process that is to produce a reliable and safe facilities design. Any apparent gap between the operational requirements and current facilities design products may result in low efficiency, higher risks exposure and lost time injuries. And these would be faced by the operator through the facilities life. In addition, there is a growing demand in the industry that stresses lower manning in the facilities, focused on operational needs and safety culture. Therefore, implementation of human factors engineering during early design phase is required in addressing these gaps.

This talk is intended to provide engineers with a brief awareness of human factors engineering implementation relating to major oil and gas projects, such as production platforms and FPSOs.

### BIODATA OF SPEAKER

Danaraj Chandrasegaran P.Eng MIEM CEng MIMechE TechCIEHF. He is a Chartered Engineer and has honours degree in Mechanical Engineering from University of Technology Malaysia. He also holds a MEng degree in Mechanical Engineering from University of Malaya. He also presently a committee member with The Institution of Engineers Malaysia.

Since starting his career as a Mechanical Engineer, Danaraj has had a varied service; both in front line project execution as well as in technical, training, and management functions. His career has a diverse outlook on project execution ranging from building construction, marine, mining and energy industry; as a mechanical engineer. He has worked on several large scale projects worldwide such as Shell Malikai TLP and Barzan Offshore Project. In addition, had delivered many projects successfully collaborating with vendors and subcontractors alike.

**Ir. Roznan Abdul Rashid**

Chairman

Oil, Gas & Mining Technical Division, IEM

### ANNOUNCEMENT TO NOTE FEES

(Effective 1<sup>st</sup> October 2017)

#### Members

Registration Fee : No Charge  
Administrative Fee :

Online : RM15

Walk In : RM20

#### Non-Members

Registration Fee : RM50

Administrative Fee : RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)

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IEM SHALL NOT be responsible for any direct or consequential losses".