

PIPELINE 101: What do you need to know about Pipeline Engineering?

Jointly Organised with Women Engineers Sections, IEM and Oil, Gas & Mining Technical Division

BEM Approved CPD/PDP Hours: 2

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Date : **18th May 2017 (Thursday)**

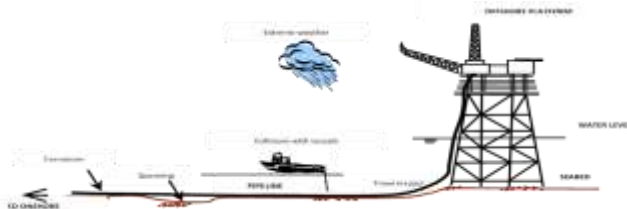
Time : **5.30 pm – 7.30 pm**

Venue : **C&S and TUS Lecture Room, 2nd Floor, Wisma IEM, PJ**

Speaker: **Assoc. Prof. Dr. Zahiraniza Mustafa, CEng, CMarEng, MiMaREST**

SYNOPSIS

Pipelines, a complex civil engineering system, comprising up to a total length of thousands of kilometres, have been the most practical and low price means of transporting hydrocarbon in the offshore oil and gas industry. As the industry expands from shallow towards deeper water depths, the pipelines are required to undergo improvement in material designs simply to withstand changes in the new environments. The transport of crude oil is performed at both elevated temperatures and high pressures. Due to these requirements, not to mention the long distances typically involved, the challenges in the design, transportation and operation are very significant. As the structure operates with time, pipeline is exposed to many types of defects. Some of the typical defects in pipeline include corrosion, extreme weather conditions, collision with vessels, trawl impact and pipeline span.



This short course aims at providing the fundamentals of pipeline engineering for beginners who wish to embark and enhance theoretical understanding in this field. The course covers brief explanation on different types of pipelines, design concepts, route selection, construction, installation and typical problems associated with pipelines.

BIODATA OF SPEAKER



Dr. Zahiraniza Mustafa is an Associate Professor at the Department of Civil and Environmental Engineering, Universiti Teknologi PETRONAS (UTP) for nearly 15 years. She obtained her PhD majoring in Pipeline Reliability from Delft University of Technology, The Netherlands, Master of Science in Water Resources Engineering, from the University of Alberta, Canada and Bachelor of Engineering (Hons.) in Civil Engineering from the Universiti Teknologi Malaysia. Dr. Zahira specializes in the field of pipeline engineering as well as hydraulic engineering, covering the aspects of urban hydraulics and probabilistic structural designs. Her research capability in the pipeline engineering field is portrayed through the cumulative research grant values of RM 2 mil. secured from

various international, national and consultancy resources. She has also developed a software and training module for PETRONAS on the reliability assessment of corroded pipelines using probabilistic approaches. She has internationally expanded her teaching capability in the subject of *Pipeline Engineering and Technology* at Seoul University of Technology, South Korea and is currently a Technical Advisor for a Kolej Kemahiran Tinggi MARA in developing a Diploma program on *Offshore Structure*. Dr. Zahira received a prestigious research grant from the Schlumberger Foundation and currently an Ambassador for the *Faculty for the Future* of the foundation in promoting women into science, technology, engineering and mathematics (STEM) fields. Recently, the Sumitomo Foundation, Japan research grant was awarded to her which aims at comparing and strengthening women involvement in STEM university research between the Malaysian and Japanese.

Ir. Assoc Prof Dr Leong Wai Yie
Chairman
Women Engineers Section, IEM

Ir. Mohd Azwira Mohd Azmi
Chairman
Oil Gas & Mining Technical Division, IEM

ANNOUNCEMENTS TO NOTE:

- Nonmembers may also attend the talk but will need to pay a registration fee of RM50 and an administrative fee of RM15. GST is inclusive.
- 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.

ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of RM15 is payable for talks organized by IEM. GST is inclusive.
- Student Members are however exempted.

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