



By :  
**Ir. Razak Yakob**

**INTRODUCTION TO  
DRILLING ENGINEERING  
AND OPERATIONS (2 DAYS)**

BEM APPROVED CPD HOUR : TBA  
REFERENCE NO. : TBA

DATE / TIME :

**8th-9th April 2021  
9.00 am – 5.30 pm**

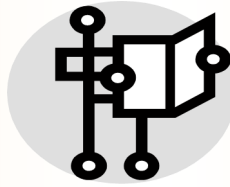
VENUE :  
**TBA**

Registration Fees	
Normal	RM 1700
ANSARA / MOGEC Members	RM 1500



**HRDF - SBL CLAIMABLE**

## Training Summary

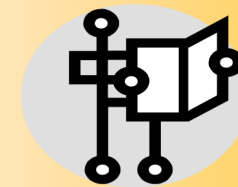


### PROGRAMME SYNOPSIS

The 2-day course shall provide a simple way of understanding the operations and terminology used in drilling and completion of the oil or gas well. It is intended for non-drilling personnel who are involved with the drilling industry or oil and gas industry in general. This includes technical and non-technical professionals such as contractors providing services for drilling operations, administrative and support staff, environmental professionals and others who are interested to have an overview of the Drilling Engineering. No prior experience or knowledge of the drilling operations and technical is required. The course shall provide participants with better understanding of the various issues that a Drilling Engineer has to handle in daily operations.



## Training Summary



### LEARNING OUTCOMES

#### Who Should Attend

People who work closely with or provide services to the Drilling Engineers:

- Other Engineering Disciplines in a Project
- Project Manager and Project Engineer
- Project Planner
- Cost Controller
- Document Controller
- Accountant / Finance
- Contractors/Service Providers for Drilling Operations
- Procurement & Contracts Analyst

#### Course Objectives

- **Able to make better decision**  
Each individual in a team must be able to make decision within their work areas. Understanding work beyond their areas will help them to make better and more informed decision.
- **Better interaction between team members**  
It is important for members in the team to be able to understand each other and able to communicate more effectively to ensure the success of the team.
- **Better work performance**  
When the members understand each other, they can work better to achieve the project/organization goals. It will increase their work performance and working ensuring environment with minimal stress.

## Trainer Profile



Ir. Razak Yakob is a Drilling Engineering Consultant and a part time Lecturer for Petroleum Engineering. Razak has been in the oil and gas industry for more than 20 years, working for various multi-national and local companies. His core expertise is in Drilling Engineering with the working experiences spanning from development and exploration, technical support, training, competency development, finance and consultancy. Razak is a Professional Engineer with Practicing Certificate and an IEM Council Member. He is also Secretary/Treasurer for the Oil, Gas and Mining Technical Division.

## Schedule

### DAY ONE

The first day shall focus on understanding the oil and gas industry in general, followed by the basics of petroleum geology. Then the participants are brought into the basics of Drilling Engineering and Operations.

- 1) Petroleum Introduction
- 2) Drilling Engineering
  - a. Major Responsibilities
  - b. Drilling Project Management
- 3) Oil & Gas Projects
  - a. Exploration vs Development
  - b. Partial or Full Field Development
  - c. Oil and Gas Projects in South East Asia - the major players and regional hubs
- 4) Life of Field
  - a. From Well Proposal to Well Abandonment
- 5) Well Design Process
  - a. The well design cycle from gathering of data to the report close out.
- 6) Drilling Major Contracts
  - a. Drilling Rig Contract
  - b. Drilling Services Contract
  - c. Other Supporting Services Contracts
- 7) Drilling Rigs - Components and Functions
  - a. Major Drilling Rig Components
  - b. Their functions
- 8) Well Control Equipment
  - a. Types
  - b. Components and Functions

### DAY TWO

The second day builds on the concepts and basics presented on the first day. This is the heart and soul of a Drilling Engineer's work which includes the Drilling HSE. The other element of Drilling Engineering that is important is the Cost. This is because a Drilling Engineer is entrusted with millions USD to drill and complete just one well.

- 1) Drilling Bits
  - a. Types and Choosing the bit
  - b. Bit Dull Grading
- 2) Drill String and Bottom Hole Assemblies
  - a. The Components and their functions
- 3) Directional Drilling
  - a. Types of well trajectory
  - b. Elements Consideration in Creating well trajectory
  - c. Creating well trajectory
- 4) Drilling Fluids
  - a. Function of Drilling Fluids
  - b. Types of Drilling Fluids
  - c. Additives in Drilling Fluids and their functions.
- 5) Casing and Tubing
  - a. Function of tubulars
  - b. Casing Design
  - c. Tubing Design
- 6) Cementing
  - a. Function of Cementing
  - b. Types of Cementing
  - c. Additives in Cementing and their functions
- 7) Formation Evaluation
  - a. What is formation evaluation?
  - b. Why is it important?
- 8) Completion
  - a. Types of completion
- 9) Wellhead & Christmas Tree
  - a. What is Wellhead?
  - b. What is Christmas Tree?
  - c. Their functions
- 10) Drilling HSE
  - a. Why is it important?
  - b. What do we track?
- 11) Well Cost Estimates
  - a. Major Component of a Well Cost
  - b. Authorization of Expenditure
- 12) Open Discussion and Conclusion
- 13) Course Evaluation

## REGISTRATION FORM

**Tel :** 603-80624671 **Fax :** 603-21611489

**Email :** training@igl.com.my

**Website:** http://www.igl.com.my

Name of Organisation:

Address:

Email:

Phone number :

Tel (Office) :

Tel (Fax) :

Contact

Person :

Designation :

ANSARA / MOGEC Member

YES / NO

NAME	Reg. Fee (RM)
<b>TOTAL PAYABLE</b>	

Enclosed herewith a crossed cheque No. .... for the sum of RM ..... issued in favour of "IGL Services Sdn Bhd (Maybank/562777220149) and crossed 'A/C payee only'. I/We understand that the fee is not refundable if I/we withdraw after my/ our application is/are accepted by the Organizing Committee but substitution of participant will be allowed. If I/we fail to attend the workshop, I/we will still pay the registration fee in full.

## **IGL SERVICES SDN BHD**

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12 Jalan Yap Kwan Seng  
50450 Kuala Lumpur