

**RATED ONE OF THE BEST COURSES ATTENDED!**

# **PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (PEFOD 2019)**

**Provide an overview of the fundamental operations in exploration, drilling, production, processing, transportation, and refining oil and gas.**

**6<sup>th</sup> – 10<sup>th</sup> May 2019 – Ho Chi Minh | Vietnam**



**“One of the best course I’ve attended” - Murphy Oil – Deputy Planning Manager**

**“Very experienced trainer” - Carigali HESS – Business Planning**

**“All you need to know about petroleum engineering is here”- GM Upstream Technical services – Petronas**

**“Very useful to bridge between technical & non-technical team! - Logistic coordinator – Petrofac**

**“Thumbs up. Very interesting! - Shared Service manager - PCPP OPERATING COMPANY**

**“Very Knowledgeable and patience trainer! – Senior Business Analyst – Repsol**

**“Very good training and easy to understand! – Petroleum Economics Manager - Petronas**

# PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (5 Days)







The industry faces new challenges in current low prices, where reducing the operational costs and preventive techniques play major roles.

This 5-day course is intended for professionals with a non-petroleum engineering degree, who currently work in/with, or wish to work in/with, the Petroleum Industry or simply wish to learn about this major industry.

The course will address the story of oil from its origin to the end user. The objective is to provide an overview of the fundamental operations in exploration, drilling, production, processing, transportation, and refining of oil and gas. Participant will have a well-balanced knowledge of petroleum engineering. Furthermore, participant will be able to appreciate their role in the industry as well as others and perform their job more efficiently, have more meaningful and educated communication with other colleagues, be more efficient/ effective in meetings and discussion.

Participant coming from non-petroleum industry will learn about industry different elements and how they work. This will enable them to have a more efficient conversation with their clients (oil industry), evaluate risk, gain trust/respect from their clients, advise them better and more effectively, understand relevant abbreviation and terminologies. **Cost reduction techniques from the points on flow in reservoir, wellbore and flow assurance that can result in significant savings will also be discuss.**

The training starts from basic level and aim to give good understanding without being too technical.

 <b>Geology</b>	Learn about the mechanism involved and conditions required for hydrocarbon reservoir formation and techniques used to find them.
 <b>Drilling</b>	How to access and evaluate hydrocarbon reservoir while minimizing risks and maximizing the economy, casing design and cementing.
 <b>Production</b>	Learn about nodal analysis, well design and safety measures, wireline services, perforation, artificial lift, formation damage, various production problems, workover, advanced well, smart completions, etc.
 <b>Reservoir</b>	Discuss reservoir fluids and rock, production mechanism, primary and secondary recovery, enhanced oil recovery techniques (EOR), fluid sampling and laboratory testing, reservoir simulation, well testing.
 <b>Processing</b>	Learn about oil & gas processing (separating water, oil & gas), dehydration, water treatment, offshore developments, environmental impact.
 <b>Flow Assurance</b>	Avoiding interruption to economical and safe production from reservoir to end user, asphaltene, wax, hydrates, scale, corrosion, emulsion.
<b>Additional Topics</b>	Intelligent pigging, high pressure high temperature reservoir, heavy oil, unconventional reservoirs, minimizing the emission of greenhouse gases to atmosphere.

## Attend this course to Master:

- Understand all main aspect and learn a well – balance knowledge of Petroleum Engineering.
- Better appreciate the connection among various sections, industry role and communicate more efficiently.
- Better visualize the different elements, how it works, evaluate risks, gain trust/ respect and be able to advice the relevant industry more effectively.
- The relevant abbreviations and terminologies.
- Create more opportunities and execute more efficiently.
- Cost reduction techniques: The points on flow in reservoir, wellbore and flow assurance are things that can result in significant savings.
- Gain valuable insights on the Petroleum industry with recent developments that impact the industry process.

## “How can this course help you to Reduce Operational Cost”

**Non-technical disciplines:** Improves their understanding of the industry, therefore, better and more efficient communications, better collaboration and harmony, reducing time, improving efficiency, more enjoyable working environment, positive thinking/approach, better appreciation of different roles and responsibilities, etc. All of these will result in cost reduction, better usage of resources, and high efficiency.

**Technical disciplines:** Learn more about their own disciplines, as well as other disciplines to perform their jobs better. With the current low oil prices, the main expenditure is in operational costs, hence reducing the operational costs will improve the economics. This course will address, better performance from reservoirs and wells, as well as addressing flow assurance issues, hence providing opportunity for reducing operational costs.

# PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (5 Days)

## This program is intended for:

Professionals coming from other disciplines (Technical/Non-Technical) who wish to enhance their existing skills set and increase their understanding on fundamental operation of petroleum engineering to support their employment and career progression in the oil & Gas industry.

Legal – Accounting – Business Development Strategies –Service Providers to Oil & Gas industries - General Management (Chemical/Technology/Materials/Providers/Developers) --- Commercial – Finance – Finance & Administration - Government Agencies - Marketing & Publicity – Investment – Supply Chain – Logistic – Journalist – Tender / contract – Planning & Budgeting- Marine & Offshore – Engineering Services – Technical disciplines (Production, Drilling, Project, HSE, Exploration, E&I, Facilities, Researcher, Rotating)- instructor of other relevant topics who wish to know more about petroleum engineering. Human resources personnel who need to understand terminology and buzzwords on resumes

## PAST NON –TECHNICAL DELEGATES

Operation Planner, Senior Corporate Strategy Analyst ,New Ventures Executive , Business planning Executive/ Manager , Manager Budget & Performance Reporting , Planning & scheduling Executive , Production Admin supervisor , Logistic coordinator , Production Engineer ,Lead IT subsurface, Senior finance manager, Account representative, senior admin specialist, Data entry/Document controller, Procurement executive, planning analyst, Delivery Assurance, Account Manager,

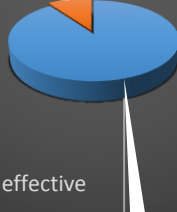
## PAST TECHNICAL DELEGATES

Lifting Executive , Head of IC, Flow Assurance Engineer , Head of facilities ,Geoscientist , Production Executives , Manager Operation services , Technical Data Executive , Head of project , Instrument Engineer , Production Data Executive , Lab Executive , Operation Manager , Subsurface Data Manager, Project engineer, occupational health coordinator, Technical assistant, Drilling HSE coordinator, GM process, Upstream technical services, Shared services manager, HSE executive, executive rotating, Facilities Manager. Material Analyst, Operation support, Field service engineer,

### Past Non-technical delegates rating on the effect on training

10%

Effective Fairly effective

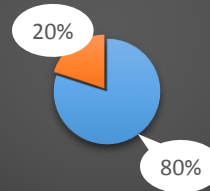


### Past technical delegates rating on the effect on training

20%

80%

Effective Fairly effective



“

All you need to know about petroleum engineering is here.”

GM – Upstream Technical service - PETRONAS

<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• A brief history</li> <li>• Origin of petroleum</li> <li>• Plate tectonics</li> <li>• Units in petroleum engineering</li> <li>• Overview of the industry</li> </ul> <p><b>Geology</b></p> <ul style="list-style-type: none"> <li>• Petroleum geology and geophysics</li> <li>• Fluid migration</li> <li>• Reservoir formation</li> <li>• 2, 3 and 4D seismic</li> <li>• Videos: Rock types, source rock, mechanism for reservoir rock formation, tectonic activities, seismic.</li> </ul>	<p><b>Drilling</b></p> <ul style="list-style-type: none"> <li>• Drilling operations (onshore, offshore)</li> <li>• Rig components</li> <li>• Top drive</li> <li>• Formation pressure</li> <li>• Leak off test</li> <li>• Drilling problems</li> <li>• Coring</li> <li>• Casing design</li> <li>• Cementing</li> <li>• Cement log (CBL/VDL)</li> <li>• Directional drilling</li> <li>• Underbalance drilling</li> <li>• LWD</li> <li>• MWD</li> <li>• Videos: Main elements of rotary drilling, well safety and blow out, offshore drilling, directional drilling, underbalanced drilling, drill stem test.</li> <li>• Case study: Blow out in Canada and USA</li> </ul>	<p><b>Production</b></p> <ul style="list-style-type: none"> <li>• Field development (onshore, offshore)</li> <li>• Logging (open/cased hole)</li> <li>• PLT</li> <li>• Production technology</li> <li>• Inflow Performance</li> <li>• Vertical lift</li> <li>• Flow through chokes</li> <li>• Nodal analysis</li> <li>• Well completion</li> <li>• Downhole and surface components</li> <li>• Perforation</li> </ul>
<p align="center"><b>PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (5 DAYS)</b></p>		
<p><b>Continue – Production</b></p> <ul style="list-style-type: none"> <li>• Intelligent wells</li> <li>• Wireline operations</li> <li>• Well intervention</li> <li>• Workover</li> <li>• Coiled tubing</li> <li>• Abandonment</li> <li>• Well Integrity Management</li> <li>• Artificial lift</li> <li>• Formation damage</li> <li>• Well test</li> <li>• Well stimulation</li> <li>• Sand control</li> <li>• Cost reduction: Factors controlling flow and pressure drop in the wellbore.</li> <li>• Videos: Expandable screen, perforation, wireline logging, flow measurements.</li> <li>• Case studies: Single zone and multiple zone completions, Smart completion in Canada, USA</li> </ul>	<p><b>Reservoir Engineering</b></p> <ul style="list-style-type: none"> <li>• Reserve estimation</li> <li>• PVT and phase behavior</li> <li>• Equation of State</li> <li>• PVT tests and reports</li> <li>• Properties of reservoir fluids (density, viscosity, IFT)</li> <li>• Reservoir rock properties</li> <li>• Production mechanisms (primary, secondary, EOR/IOR)</li> <li>• Material balance</li> <li>• Reservoir simulation</li> <li>• Cost Reduction: Factors affecting flow in reservoir.</li> <li>• Videos: PVT tests, reservoir simulation, EOR techniques-gas injection</li> <li>• Case study: A North Sea reservoir</li> </ul> <p><b>Processing</b></p> <ul style="list-style-type: none"> <li>• Oil production</li> <li>• Processing and treatment</li> <li>• Gas production and processing</li> <li>• Gas/oil transportation</li> <li>• Videos: Oil and gas processing</li> <li>• Case Study: Foaming Problem in an Acid Gas Removal</li> </ul>	<p><b>Flow assurance</b></p> <ul style="list-style-type: none"> <li>• Hydrates</li> <li>• Scale</li> <li>• Wax</li> <li>• Asphaltene</li> <li>• Corrosion</li> <li>• Slugging</li> <li>• Pigging</li> <li>• Cost reduction: Securing uninterrupted and economical flow of reservoir fluids from reservoir to end users.</li> <li>• Cost reductions: Latest developments in evaluating risks and prevention techniques</li> <li>• Videos: Hydrates, wax</li> <li>• Case Studies: Hydrate problems in an offshore field, pipeline blockage due to wax</li> </ul> <p><b>Additional topics</b></p> <ul style="list-style-type: none"> <li>• Intelligent pigging</li> <li>• Heavy oil</li> <li>• Unconventional reservoirs</li> <li>• CO<sub>2</sub> capture transport and storage</li> <li>• Digital fields</li> <li>• Refining</li> <li>• End products and their usage</li> <li>• Environment</li> <li>• Videos: Intelligent pigging</li> </ul> <p>End of course</p>



# PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (5 Days)

## Past clients includes:

Advanced Drilling fluids, Baker Hughes, Herriott – Watt University, Petromar Angola, Talisman-Energy, OMV, Petrofac Malaysia, KPOC, Murphy Oil, Asia Connecting centre, Caerketton Ltd, James Walker, Rothschild, TNK-BP, Halliburton Energy Services, Petronas Carigali, Lundin Petroleum, Petronas Research, ATP Oil & Gas Corporation (ATP), Crondall Energy consultants, Kosmos Energy Ghana HC, Maersk Oil and Gas, Weatherford, Petroliaam Nasional Berhad, Newfield Peninsula Malaysia Inc, PCPP operating company, Senergy, Repsol Malaysia, JX Nippon, Neural oilfield, Lam son Joc and many more.

## Comments from past participants:

"All you need to know about petroleum engineering is here!"

"Videos and pictures were very useful to understand, the course was flexible to cover the discussion points we were interested in"

"The course gives in-depth knowledge for non-engineering specialists"

"Very informative; now I have much better understanding about Petroleum Engineering. Prof. Tohidi clearly has very extensive knowledge about the subject"

"Very high level of the teacher knowledge, a lot of information on each subject, every question answered to maximum extend"

"Very interesting course & make it easy to understand the petroleum engineering."

"Excellent Facilitator & Good Course"

"I liked the balance between theory and practice with films/videos"

"Very interesting and well presented. The course will definitely improve my understanding of the technical aspects which I discuss with various department specialists (wells, subsurface and projects in particular)"

"Worth the time and money spent for a 5 days course."

"Set of questionnaires at the start of the following day really help reinforced understanding topics learned."

"Very good knowledge & very experience sharing" "

"The course give a lot of useful new learning which will definitely enhance my support/Role in my work"

"Highly recommended programme for those non- PE in the upstream business"

"Very good and highly qualified and passionate facilitator"

"Excellent course. Covered in good detail most of the Petroleum topics that are important for me. In general, I thought the technical balance was just right, in that it challenged me and improved my knowledge"

"Videos were very useful to help understand difficult technological stuff"

"The course gave information on topics of exactly expected level. Not too much detailed and at the same time it is covering all major issues"

"The level of details - very digestible! Well taught. Easy to ask questions and questions were answered very well"

"Broad range of topics covered, drilling (Day 2) extensively useful & Days 4 & 5 (details on processing facilities) very thorough"





### Bahman's expertise

- 30 years of experience and research interest in PVT phase behaviour and properties of reservoir fluids and CO<sub>2</sub>-rich system, gas hydrates and flow assurance.
- Managing Director, Hydrafact Limited
- Director of centre for gas hydrates research (C-FAR) at institute of petroleum engineering, Heriot-watt University.
- Published more than 300 papers and holds 9 patents mainly in gas hydrates and PVT.
- SPE distinguished lecturer with his talk entitled, "Gas hydrates: Friend or Foes?".
- Extensive hands on experience as production engineering with major oil companies.
- Managed more than 500 relevant projects for various oil & gas companies: Total, Bp, Statoil. Shell, Talisman, Chevron, INPEX, Tullow oil, Petronas, Petrobras, Dolphin Energy, Saudi Aramco, BG Group, DNO, Schlumberger, Dana, DONG Energy, Halliburton, Cameron and others.

Hydrafact is an oil & gas knowledge-based, spin-out company from Heriot-Watt University. It offers a comprehensive range of technical and scientific services in the fields of hydrates, flow assurance, PVT, phase behaviour and properties of reservoir fluids and CO<sub>2</sub>-rich systems

- Consultancy - offering a wide range of consultancy services both experimental and/or modelling.
- Software - HydraFLASH® is a state-of-the-art Hydrate and PVT software package. It has been ranked the best in two independent evaluations and is currently used by several major operators.
- New Technology - Commercialisation of IP - Hydrafact commercialises relevant IP (mostly developed at Heriot-Watt University). The latest example is HydraCHEK®, a device to monitor hydrate inhibition and safety margins by downstream measurement of hydrate inhibitor concentrations. More recently Hydrafact has developed a technology for removing Kinetic Hydrate Inhibitors (KHI) from produced water.
- Manufacture/supply of laboratory testing equipment - temperatures ranging from -90 °C to +350 °C and pressure up to 3,000 bars
- Managed more than 300 relevant projects for various oil & gas companies: Total, Bp, Statoil. Shell, Talisman, Chevron, INPEX, Tullow oil, Petronas, Petrobras, Dolphin Energy, Saudi Aramco, BG Group, DNO, Schlumberger, Dana, DONG Energy, Halliburton, Cameron and others.

Director of Centre for Gas Hydrate Research and the Centre for Flow Assurance Research (C-FAR) at Institute of Petroleum Engineering, Heriot-Watt University with several projects on various aspects of gas hydrates and flow assurance, and phase behaviour and properties of reservoir fluids and CO<sub>2</sub>-rich systems

- Leads Hydrate and Phase Equilibria Research Group at Institute of Petroleum Engineering, Heriot-Watt University.
- Research interests include PVT phase behaviour and properties of reservoir fluids and CO<sub>2</sub>-rich systems, gas hydrates, flow assurance, and reducing the emission of greenhouse gases.

His teaching activities included Petroleum Engineering and Production Technology, as well as offering several short courses to the industry (including: Flow Assurance and Gas Hydrates, PVT and Phase Behaviour of Reservoir Fluids, and Petroleum Engineering for other Disciplines). He has published more than 200 papers and holds 9 patents mainly in gas hydrates and PVT. He was SPE Distinguished Lecturer in 2004-2005 with his talk entitled, "Gas Hydrates: Friend or Foes?". Bahman is a Professor at the Institute of Petroleum Engineering, Heriot-Watt University and a visiting Professor at Qatar University. Bahman is a member of the Society of Petroleum Engineers and a member of the EPSRC (the UK Engineering and Physical Science Research Council) Peer Review College for 2006-2009 and 2010-2013 and former member of editorial board of Journal of Chemical Engineering Research and Design (2009-12).

Instructor, AIT and Production Engineer (National Iranian Oil Company) NIOC (1984-1991)

After graduation (BSc in Chemical Engineering from Abadan Institute of Technology, Iran), he joined National Iranian Oil Company (NIOC) in 1984 where he worked as Production Engineer as well as University Lecturer for seven years. Bahman Tohidi joined Heriot-Watt University in 1991 and graduated with a PhD in Petroleum Engineering in 1995 with his doctoral work on the phase behaviour of water-hydrocarbon systems and gas hydrates. He started his employment at Heriot-Watt University in January 1994 working in both Hydrate and Reservoir Fluids research projects.



PETRO1 provides Oil & Gas Trainings & Consultancy services ranging from Petroleum Engineering, Exploration & Production, Subsurface and business related activities in the oil & gas industry. We had successfully made impact to petroleum professional mainly the Top 50 Oil & gas players in the Asia Pacific Region.

- |                         |                              |   |
|-------------------------|------------------------------|---|
| ▪ Total E&P             | ▪ Petrofac                   | ▪ SGS                                   |
| ▪ Petronas              | ▪ Keppel Corporation         | ▪ PTT EP                                |
| ▪ Murphy Oil            | ▪ Singapore refining Company | ▪ Halliburton                           |
| ▪ JX Nippon             | ▪ Salamander Energy          | ▪ Brunei LNG                            |
| ▪ Scomi Oil             | ▪ Binh Son Refining Vietnam  | ▪ Shell Chemical                        |
| ▪ Hess                  | ▪ PTT Global                 | ▪ Worley Parson                         |
| ▪ Saipem                | ▪ Newfield                   | ▪ China university of petroleum Beijing |
| ▪ Clough                | ▪ Atkins Australasia         | ▪ Thailoil                              |
| ▪ Mubadala Petroleum    | ▪ Brunei Methanol            | ▪ Aker Solutions                        |
| ▪ Bureau Veritas        | ▪ Curtin univeristy          | ▪ Star Petroleum                        |
| ▪ Pertamina             | ▪ Technip                    | ▪ Jurong Shipyard                       |
| ▪ Peritus international | ▪ Premier Oil                |   |

PETROLEUM ENGINEERING FOR OTHER DISCIPLINES (5 Days)

Registration Form

Petroleum Engineering for other disciplines (PEFOD2019)	3 or more person	Per Person	<b>PROGRAM DETAILS</b> Venue: Ho Chi Minh, Vietnam Date: 6 <sup>th</sup> – 10 <sup>th</sup> may 2019
Full 5 days	USD 3199 ( )	USD 3699 ( )	
<b>TEAM DISCOUNT of 5 or more off 5%</b> <ul style="list-style-type: none"><li>Please note that all registrations must be made at the same time to qualify.</li><li>All team discount are applicable base on 3 or more person price.</li></ul>			<b>STEPS TO REGISTER :</b> Simply fill up the registration form and email it to: Email to : <a href="mailto:harn@petro1.com.my">harn@petro1.com.my</a> Call us : +603 7727 3952 (Harn) FAX : +603 7727 5278
( ) I would like to organize this training on-site and <b>save at least 25%</b> on the total course Fees! Please call +603 7727 3952 for more about our in-house training or email <a href="mailto:ihtraining@petro1.com.my">ihtraining@petro1.com.my</a> (Terms & Conditions apply)			

Delegate Details

1. Name:\_\_\_\_\_Mr☐Mrs☐Ms☐Dr☐

Job Title: \_\_\_\_\_

Email : \_\_\_\_\_

Contact No: \_\_\_\_\_

Department:\_\_\_\_\_

2.Name:\_\_\_\_\_Mr☐Mrs☐Ms☐Dr☐

Job Title: \_\_\_\_\_

Email : \_\_\_\_\_

Contact No: \_\_\_\_\_

Department:\_\_\_\_\_

3.Name:\_\_\_\_\_Mr☐Mrs☐Ms☐Dr☐

Job Title: \_\_\_\_\_

Email : \_\_\_\_\_

Contact No: \_\_\_\_\_

Department:\_\_\_\_\_

Head of Department:\_\_\_\_\_

Invoice Details

Invoice Attention to:\_\_\_\_\_

Company:\_\_\_\_\_

Industry:\_\_\_\_\_

Address:\_\_\_\_\_

Postcode:\_\_\_\_\_Country:\_\_\_\_\_

Telephone:\_\_\_\_\_Fax:\_\_\_\_\_

Email:\_\_\_\_\_

Authorized Signature : \_\_\_\_\_

Credit card Payment

Please Debit my credit card:

☐ VISA☐ MASTERCARD

Card Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Security Code:  Expiry Date:

Named printed on card:\_\_\_\_\_

Signature:\_\_\_\_\_

**Payment Method**  
By Direct Transfer: Please quote invoice numbers on remittance advice.

**ACCOUNT NAME : PETRO1 LIMITED**  
**BANK : MAYBANK**  
**ACCOUNT NO : 715120013353 (USD)**  
**All bank charges to be borne by payers. Please ensure that PETRO1 Limited received the full invoice amount.**

**\* Credit card payment will include a charges 2.8%**

**Payment Policy:** Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Payment is required with registration and must be received prior to the event to guarantee the seat. Payment has to be received 7 working days prior to the event date to confirm registration.

**Venue:** All of our training courses are held in 4 – 5 star venues. The course fee does not include accommodation or travel cost. It's recommended to book the hotel room early as there are only limited room available at the discounted corporate rate.

**DATA PROTECTION**  
The information you provide will be safeguarded by Petro1 that may be used to keep you informed of relevant products and services. We take it seriously when it come s to protection of our client data.

**Cancellation & Substitutions:**  
Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Should you be unable to attend, substitutes are always welcome at no additional cost. Please inform us as early as possible. Payment is non-refundable if cancellation occurs 7 working days prior to event commencement. However a substitute is welcome at no additional charges. If cancellation occurs 5 working days prior to the registration date and there is no substitute, the organizer reserves the right to charge 50% of the total investment from your organization.

PETRO1 Limited is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. PETRO1 Limited shall assume no liability whatsoever in the event this training course is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, war, fire, labor strike, extreme weather or other emergency.

**Walk in Registration:**  
Walk-in participants with payment will only be admitted on the basis of seat availability at the event and with immediate full payment.

**Program Change policy:**  
The organizer reserves the right to make any amendments and/or changes to the workshop, venue, facilitator replacements and/or modules if warranted by circumstances beyond its control.