

PHYSICAL 2 DAYS SEMINAR ON

UNDERSTANDING PROCESS CONTROL FOR OIL & GAS PRODUCTION OPERATORS, TECHNICIANS AND ENGINEERS

BEM APPROVED CPD: 14

REF NO: IEM25/HQ/440/S

ORGANISED BY: OIL, GAS AND MINING TECHNICAL DIVISION, IEM

Date : 1 & 2 December 2025 (Monday & Tuesday)

Time : 9.00 am - 5.30 pm

Venue : Wisma IEM, PJ

Speakers: 1) Assoc. Prof. Ir. Dr. Syamsul Rizal Abd. Shukor

2) Prof. Ir. Dr. Zainal Ahmad

3) Ir. Dr. Eow John Son



HRD Corp Serial No:
Applying
Approved Duration:
Applying

REGISTRATION FEE'S (subject to 8% SST)

	ONLINE FEE (NON HRDF Claimable) (Log-in for registration & payment: www.myiem.org.my/member/login.aspx)	NORMAL FEE (HRDF Claimable) (By Email : Payment by cash, credit card, Quotation & Invoice)
IEM Student Members	280.00	330.00
IEM Graduate Members	600.00	650.00
IEM Corporate Members	900.00	950.00
Non-IEM Members	1700.00	1750.00

I. SYNOPSIS

The oil & gas production processes (such as sand separation, produced water treatment, seawater filtration, crude oil and gas treatment) require reliable monitoring and control strategy to maintain optimum operational performance. Moreover, process operations are always being affected by disturbances, which negatively affect product quality and cause unplanned production shutdown. Therefore, a good understanding and competency on the major oil & gas production process operations and control are vital for the production personnel. This 2-day course is designed to educate the participants on the engineering design and process control practices in the oil & gas production processes, such as sand separation, produced water treatment, and crude oil desalting.

The course will cover the following major topics:

- Introduction to Oil & Gas Production Processes (such as offshore sand separation, produced water treatment, crude oil treatment, etc.);
- The Basics of Process Control;
- Process Characteristics: Static and Dynamic;
- Final Control Elements;
- Controller Algorithm and Controller Tuning;
- Single & Multiple Control Loops.

Upon completion, the participants will be able to understand the process control fundamentals related to oil & gas production processes. Moreover, they will have the basic knowledge to apply the process control concepts in monitoring their production process performance, and for better controller tuning to optimize their production outputs.



2. COURSE SCHEDULE & OUTLINE (2 DAYS)

TIME/DAY	DAY 1	DAY 2
08.30 - 09.00	Registration	Registration
09.00 – 10.30	Introduction to the Oil & Gas Production Processes (Part 1)	Controller algorithm
10:30– 10:45	Tea Break	Tea Break
10:45– 12:15	Introduction to the Oil & Gas Production Processes (Part 2)	Controller tuning
12:15 – 13:00	The Basics of Process Control	Hands-on / Exercises / Workshop
13:00– 14:00	Lunch	Lunch
14:00– 16:00	Final Control Elements	Multiple Control Loops
16:00– 16:15	Tea Break	Tea Break
16:15– 17:30	Summary / Q&A / Feedback	Hands-on Workshop; Summary/Q&A/ Feedback
17:30	End of Day 1	End of Day 2

Cancellation Policy

No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

Personal Data Protection Act

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at <http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.

BIODATA OF SPEAKER 1

Assoc. Prof. Ir. Dr. Syamsul Rizal Abd. Shukor

Ir. Dr. Syamsul Rizal Abd. Shukor is an Associate Professor at the School of Chemical Engineering, Universiti Sains Malaysia (USM). He earned his B.Eng (Hons) in Chemical Engineering from the University of Bradford, UK, and later obtained his M.Sc and PhD in Chemical Engineering (Process Control) from the University of Newcastle-upon-Tyne, UK. His expertise includes process control, process intensification, and simulation. He is currently the Director of the Centre for Development of Academic Excellence (CDAE) and has previously served as Deputy Dean (Academic, Career, and International) of the School of Chemical Engineering. His research has produced numerous publications in process control, process intensification, and engineering education, alongside extensive involvement in teaching and learning development, curriculum design, and student mentoring. Beyond academia, he has conducted training, workshops, and consultations for the chemical and process industries, with project experience including the Gas Treatment Plant Onshore Gas Terminal in Turkmenistan under PETRONAS Carigali, the Acid Gas Removal Unit (AGRU) with TNBR Sdn. Bhd., and process safety management (PSM) for PETRONAS Sarawak Operations (SKO), among others. He is currently President of the Malaysia Process Control Society (MyPCS), Vice President of the Society of Engineering Education Malaysia (SEEM), Treasurer of the Malaysian Society of Automatic Control Engineers (MACE), a corporate member of IEM, and a panel member of both EAC and ETAC.

BIODATA OF SPEAKER 2

Professor Ir. Dr. Zainal Ahmad

Professor Ir. Dr. Zainal Ahmad is presently the Dean of the School of Chemical Engineering at USM. He received his B.Eng (Hons) in Chemical Engineering from University of Surrey, UK in 1998. He obtained his M.Sc in Applied Process Control (distinction) and PhD from University of Newcastle-upon-Tyne in 2001 and 2005, respectively. He had previously worked as a process engineer in a petrochemical plant before joining USM in 2000. His main research interests include artificial neural network, process modeling, model-based control and neural network applications in chemical processes. He is also a certified trainer from PSMB (TTT/3749), and conduct training, workshops, seminars, short courses and consultation for the chemical & process industries, such as short courses on Aspen simulation, and the Fundamental Process Control and Beyond, Process Control training for UOP and NPK. He also involves in the “AGR System” for Energy and Lab Solution for TNBR.

BIODATA OF SPEAKER 3

Ir. Dr. Eow John Son

Ir. Dr. Eow John Son is a Professional Engineer with PEPC (BEM) and Chartered Engineer (UK), with more than 18 years' experience in the Oil & Gas industry, having worked with offshore sand separation and management, produced water treatment, crude oil dehydration-desalting, seawater treatment & injection, and gas processing technologies and equipment. He is also an Industry Advisor for Universiti Teknologi Malaysia (UTM).

John obtained his Diploma in Chemical Engineering from UTM in 1996, and his B.Eng in Chemical Engineering (1st Class Hons) and PhD in 1998 and 2002, respectively, from the University of Surrey, UK. His PhD work was on electrostatic oil dehydration & desalting technology. Over the years, he has worked as a process engineer & technology specialist with oil & gas technology companies, such as Global Process Systems (Malaysia), Keppel Offshore and Marine (Singapore), Cameron Process Systems (Singapore, Japan and Malaysia), EDES Technology Malaysia, SUEZ Oil & Gas Solutions, FORUM Energy Technologies (F-E-T).

His experiences cover a wide range from Technical and Commercial Proposal to Detailed Process Engineering to Commissioning to Production Improvement & Troubleshooting for oil & gas processes and technologies. He has also conducted technical training and process engineering improvement work for Saudi ARAMCO, SABIC, PETRONAS, Sarawak SHELL, CNOOC, Murphy Oil Sarawak, Husky Oil Energy, GAIL India, Transwater API, CPOC, Boustead-Salcon Water Solutions, etc. John is also an experienced HAZOP and LOPA SIL facilitator for oil & gas, and chemical and process engineering projects.



REGISTRATION FORM

PHYSICAL 2 DAYS SEMINAR ON

UNDERSTANDING PROCESS CONTROL FOR OIL & GAS PRODUCTION OPERATORS, TECHNICIANS AND ENGINEERS

1 & 2 DECEMBER 2025 (MONDAY & TUESDAY) **CLOSING DATE: 15 NOVEMBER 2025**

Email : ezzaty@iem.org.my

REGISTRATION FEE'S (subject to 8% SST)		
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Sub Total:			
SST Added 8% :			
Total Amount Payable :			

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