

## **TWO-DAY COURSE ON “UNDERSTANDING PROCESS CONTROL FOR OIL & GAS PRODUCTION OPERATORS, TECHNICIANS AND ENGINEERS”**

### **SPEAKER :**

**Assoc. Prof. Dr. Syamsul Rizal Abd. Shukor  
Professor Ir. Dr. Zainal Ahmad  
Ir. Dr. John Eow**

**Date : 10 – 11 November 2020 (Tuesday & Wednesday)  
Rescheduled from 11-12 August 2020**  
**Venue : Auditorium Tan Sri. Prof. Chin Fung Kee, 3<sup>rd</sup> Floor, Wisma IEM, PJ**  
**Time : 9.00 a.m. – 5.30 p.m.**

**BEM Approved CPD/PDP Hours: 14 Hours  
(IEM20/HQ/050/C)**

**CLOSING DATE:  
3 NOVEMBER 2020**

*OR if the Course Reach its  
Target Registered Participants  
NO ONLINE Registration  
will be allowed after the Closing Date*

**LIMITED TO 50 SEATS ONLY  
‘FIRST-COME-FIRST-  
REGISTRATION BASIS’**

**Organized by:  
Oil Gas and Mining Technical Division (OGMTD), IEM**

#### **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.

**“IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion’.  
For intending participants who choose to ‘walk in without prior registration’,  
IEM SHALL NOT be responsible for any direct or consequential losses”.**



## SPEAKERS

**Associate Professor Dr. Syamsul Rizal Abd. Shukor** is an Associate Professor and Deputy Dean of the School of Chemical Engineering at Universiti Sains Malaysia (USM). He received his B.Eng (Hons) in Chemical Engineering from University of Bradford, UK in 1997. In 2000, he was conferred M.Sc (Chemical Engineering) by USM. He received his PhD in Chemical Engineering from University of Newcastle-upon-Tyne, UK and specializes in process control and simulation. His research areas are in process control and simulation, process intensification systems, and hydrodynamics of fluid flow in microchannels. He has conducted various training, workshops, seminars, short courses and consultation for chemical & process industries in process control and separation technologies. He has also participated in the Gas Treatment Plant Project Onshore Gas Terminal in Turkmenistan under PETRONAS Carigali, Acid Gas Removal Unit (AGRU) project in TNBR Sdn. Bhd., as well as handling process safety management (PSM) of PETRONAS Sarawak Operation (SKO). He is an active member of Society of Engineering Education Malaysia, Malaysian Automatic Control Engineers Society, and the President of Malaysia Process Control (MyPC) Society. He also a corporate member of IEM.

**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.

**Dr. John Eow** is a Chartered Engineer (UK) and a Professional Engineer (BEM), with more than 16 years' experience in the Oil & Gas industry, having worked with offshore sand separation, produced water treatment, crude oil dehydration-desalting, seawater treatment & injection, and gas processing technologies and equipment.

John is also a HAZOP facilitator for oil & gas companies. He also conducts lectures and training in chemical and process engineering at Singapore Institute of Technology. John obtained 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 water-oil separation technology. Over the years, he has worked as a 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), and EDES Technology Malaysia. His experiences cover a wide range from Technical and Commercial Proposal to Detailed Engineering to Commissioning to Production Improvement & Troubleshooting for oil & gas processes and technologies. He has also conducted technical training and process 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.

## **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 process 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.

## TENTATIVE PROGRAMME

TIME (DAY 1)	PROGRAMME
08:30 - 09:00	Registration and Welcome Coffee / Tea
09:00 - 10:30	Introduction to the Oil & Gas Production Processes (Part 1)
10:30 - 10:45	Tea Break
10:45 - 12:15	Introduction to the Oil & Gas Production Processes (Part 2)
12:15 - 13:00	The Basics of Process Control
13:00 - 14:00	Lunch
14:00 - 16:00	Final Control Elements
16:00 - 16:15	Tea Break
16:15 - 17:30	Summary / Q&A / Feedback
17:30	Adjournment

TIME (DAY 2)	PROGRAMME
08:30 - 09:00	Registration and Welcome Coffee / Tea
09:00 - 10:30	Controller algorithm
10:30 - 10:45	Tea Break
10:45 - 12:15	Controller tuning
12:15 - 13:00	Hands-on / Exercises / Workshop
13:00 - 14:00	Lunch
14:00 - 16:00	Multiple Control Loops
16:00 - 16:15	Tea Break
16:15 - 17:30	Hands-on Workshop; Summary/Q&A/ Feedback
17:30	Adjournment

**\* IEM reserves the right to postpone, reschedule, allocate or cancel the course**

## REGISTRATION FORMS

TWO-DAY COURSE ON  
"UNDERSTANDING PROCESS CONTROL FOR OIL & GAS PRODUCTION OPERATORS, TECHNICIANS AND ENGINEERS"  
**10-11 NOVEMBER 2020**

Fax: 03-7957 7678

Email: [suriani@iem.org.my](mailto:suriani@iem.org.my)

**REGISTRATION FEE : 6% GST EFFECTIVE 01 MARCH 2019**

	<b>ONLINE</b>
IEM Student Member	<b>150.00</b>
IEM Graduate Member	<b>600.00</b>
IEM Corporate Member	<b>700.00</b>
<b>Non-IEM Member</b>	<b>1400.00</b>

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
+ 6% SST				
<b>TOTAL PAYABLE</b>				

**PAYMENT DETAILS :**

**FULL PAYMENT must be settled before commencement of the seminar**, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. The Registration Fee includes lecture notes, refreshment and lunch.

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **BEFORE** the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person : \_\_\_\_\_ Designation : \_\_\_\_\_

Name of Organization : \_\_\_\_\_

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

Telephone No. : \_\_\_\_\_ (O) Fax No : \_\_\_\_\_ (O)

Handphone : \_\_\_\_\_ (HP) Email: \_\_\_\_\_

Signature & Stamp \_\_\_\_\_

Date \_\_\_\_\_

**TERMS & CONDITIONS:**

● **ONLINE REGISTRATIONS ONLY through IEM Portal**

- ONLINE PAYMENT is applicable [via RHB and Maybank2u – Personal Saving & Personal Current ; Credit Card - Visa/Master.
- The Organising Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.

**For further details, kindly contact:**

The Institution of Engineers, Malaysia  
Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya,  
Selangor

Tel : 603-7968 4001/2 Fax : 603-7957 7678 Email : [suriani@iem.org.my](mailto:suriani@iem.org.my)