

Half-Day Hands-on Workshop on "Air System Design for Processing Facility"



SPEAKER:

Ir. ANWAR AHMAD

ORGANIZED BY
CHEMIICAL ENGINEERING TECHNICAL DIVISION (CETD)

Date: 19 November 2022, Saturday

Venue : C&S and TUS Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya

Time : 9.00 a.m. – 1.00 p.m.

BEM Approved CPD/PDP Hours: 3.0 REFERENCE NO.: IEM22/HQ/422/W

CLOSING DATE: 11 November 2022

OR if the Course Reach its Target Registered Participants
NO <u>ONLINE</u> Registration
will be allowed after the Closing Date

LIMITED SEATS

'FIRST-COME-FIRST-REGISTRATION BASIS'

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

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SPEAKERS

Ir. Anwar Ahmad is a registered Professional Engineer with Practicing Certificate (PEPC) with Board of Engineer, Malaysia (BEM), Chartered Engineer from Engineering Council, UK, Corporate Member with Institute of Engineers, Malaysia (IEM), and Corporate Member with Institute of Chemical Engineers, UK (IChemE) UK with more than eighteen (18) years of experience in process engineering in oil and gas industry.

Responsible to carry out detailed process engineering tasks such as development of PFDs, UFDs, P&IDs, heat and material balance (process simulation), equipment sizing, relief and blowdown analysis, and hydraulic calculations. Also involved in various safety review such as Process Safeguarding Diagram, HAZOP, and SIL workshop.

Experienced in process simulations (Hysys, PetroSim, and VMGSim/iCON), heat exchanger rating software (HTRI), flare network backpressure software (FlareNet/Aspen Flare System Analyzer), and flare radiation study software (FlareSim). Familiar and experienced in using oil and gas industry standards (API,

ASTM, etc.) and company standards such as Petronas' PTS, Shell's DEP and Iranian Petroleum Standard. Familiar with Exxon's DIM.

In addition to the greenfield design works, he has extensive experience in modification and revamp jobs where the executions are reviewed not only from design perspective but as well as enhanced operation approaches. Mainly the revamp jobs are executed from operability, constructability, maintainability, and reliability. The works are executed to ensure all the safety related documents are captured such as Safeguarding Memorandum, Relief and Blowdown (PSVs and BDVs), Safe Chart (for new installed equipment), Piping and Instrumentation Diagram, Cause and Effect Matrix, etc. This is also executed based on site visit findings to ensure the latest as-built information are recorded and considered when performing the debottlenecking or revamp study.

He is one of committee member of Chemical Engineering Technical Division of IEM actively participating in IEM activities, talks, university's competition as part of panel team, and actively supporting universities within Malaysia being a industrial advisor.

SYNOPSIS

This Air System Design is mainly for the application of offshore platform and applicable for onshore facilities as well which having similar requirements.

This course is about determining the proper compressor capacity (supply) to install to satisfy the system compressed air usage (demand) is a vital and fundamental that is often misunderstood. It is very important to understand that the flow requirements of all pneumatic users; the amount of compressed to a desired pressure, required quality (mainly from moisture free quality) required to operate valves (control valves, shutdown valves, blowdown valves, etc.), pneumatic tools, nitrogen generator, and other utility consumptions. Determining the total demand of a compressed air system can be a complicated and oftentimes confusing task, especially in large systems with many end users.

Understanding our constituents of demand is the first step to properly sizing the air system by considering all users which later ultimately will dictate the sizing requirement of air compressor, air receiver vessel, dryer package, instrument air (IA) receiver, and nitrogen generator package. Increases in the demand of a current facility from new users or sizing of air system for new facility which is mainly for calculating the demand of compressed air system can be difficult due to the fluctuating demand of each air-consuming application. Nonetheless, understanding demand begins with summing the average air consumption of each user and putting some margin by investigate continuous and/or intermittent users for the optimum design.

The primary goal of a compressed air system is to deliver a reliable supply of clean, dry, compressed air at a stable pressure to every end user within the compressed air system, at the lowest cost possible. Many factors must be considered when designing a compressed air system to ensure its efficiency, reliability, and safety.

By attending this course, all attendees should be able to relate the requirements of air demand to cover all the users inclusive of direct (utility air) and indirect users (instrument air and inlet to nitrogen generator) which will be the basis for sizing of comprehensive design for new facility or existing facility.

<u>Target Group</u>: Project Mangers, Engineers (e.g., Process/Chemical engineers, Instrument engineers, Mechanical engineers, discipline engineers) any party involving in asset and facility engineering dealing with Air System Design and Operation.

TENTATIVE PROGRAMME

08:30 - 09:00	Registration	
09:00- 10:30	Chapter 1: Definition of Air System Chapter 2: Basis and Assumptions Chapter 3: Air Demand Estimation	
10:30 - 11:00	Tea Break	
11:00 - 13:00	Chapter 4: Users of Compressed Air Chapter 5: Configuration of Air System Chapter 6: Configuration of Instrument Air System Chapter 7: Configuration of Nitrogen System Q&A	
13:00	End of workshop	

^{*}IEM reserves the right to postpone, reschedule, allocate or cancel the course

REGISTRATION FORM

Half-Day Hands-on Workshop on "Air System Design for Offshore Platform"

held on 19 November 2022, C&S and TUS Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya Organized by Chemical Engineering Technical Division (CETD)

	ONLINE (Log-in for registration & payment: www.myiem.org.my/member/login.aspx)	Normal Fee	
IEM Student Member	80.00	100.00	
IEM Graduate Member	150.00 180.00		
IEM Corporate Member	250.00	300.00	
Non-IEM Member	400.00	500.00	

No	Name(s)	Membership No.	Grade	Fee (RM)
SUB TOTAL				

PAYMENT DETAILS:

<u>FULL PAYMENT</u> 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 <u>ONLINE REGISTRATIONS</u>, please note that payment **MUST** be made **BEFORE the closing date**. If payment is not received within the stipulated time, the registration automatically cancels.

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.