

Half Day Seminar on “PVC-O: Next-Generation Pipe Material for Resilient Infrastructure”

(Co-organised with Molecor (SEA) Sdn. Bhd.)

Date : Saturday, 9 August 2025
Time : 9:00 a.m. – 1:00 p.m.
Venue : Holiday Villa Johor Bahru City Centre.
Speaker : Mr. Mohd Farid bin Mohamed Nor, Molecor (SEA) Sdn. Bhd.

Synopsis

The evolution of pipe materials has paralleled advancements in fluid conveyance systems—from early metallic pipelines to the adoption of high-performance thermoplastics. In this context, **oriented unplasticized polyvinyl chloride (PVC-O)** represents a **breakthrough in material innovation**, combining polymer science with mechanical processing to produce pipes that are both structurally efficient and operationally resilient. PVC-O is the product of a **biaxial orientation process**, wherein PVC-U is molecularly realigned in both axial and circumferential directions under controlled conditions. This reorientation significantly transforms the base material’s mechanical properties—**increasing tensile strength by up to 2x and impact resistance by over 10x** compared to standard PVC-U. These enhancements are achieved without the need of additives or composite reinforcements, making it a pure and recyclable solution.

This innovation enables:

- **Thinner pipe walls with larger internal diameters**, improving flow rates and reducing pumping energy.
- **High fatigue resistance** under cyclical loading, which is critical for pressure-managed and intermittent water supply systems.
- **Greater ductility and impact tolerance**, reducing the risk of failure during installation and operation.
- **Material and energy efficiency**, aligned with global goals for sustainable infrastructure.

Time	Tentative Programme
8:30 a.m. – 9:00 a.m.	Registration
9:00 a.m. – 9:10 a.m.	Welcome Speech by IEM (SB) Organising Committee
9:10 a.m. – 10:30 a.m.	Session 1
10:30 a.m. – 10:45 a.m.	Coffee Break
10:45 a.m. – 12:30 p.m.	Session 2
12:30 p.m. – 1:00 p.m.	- Case study and Discussion - Question & Answer Session
1:00 p.m.	Closing & End of Talk

About the Speaker:



Mr. Mohd Farid Bin Mohamed Nor is currently the Chief Executive Officer of Molecor (SEA) Sdn. Bhd. in Malaysia and one of the company’s Director. Mr. Farid graduated with a Mechanical Engineering degree from Imperial College London. He is a registered member of the Board of Engineers Malaysia, an Associate Member of the Institution of Mechanical Engineers UK, and an Associate Member of the City and Guild Institute UK. Prior to joining Molecor, Mr. Farid served in various multinational companies over the past 20 years. He began his early career as a structural engineer at Sauber Petronas Engineering in Switzerland, followed by a role in product commercialization at BRP-Rotax GmbH in Austria. He then finally returned home and served in the PETRONAS group of companies for the oil and gas industry, in a leadership role in research, technology, and engineering services and activities.

Participant Fees:

Grade	Online
IEM Members	RM 100.00
IEM Members (age > 60 years old)	RM 60.00
Non-IEM Member	RM 150.00

**EARLY BIRD FOR IEM MEMBERS
BEFORE 5 AUGUST 2025
RM 80.00 NETT**

Closing Date: 5 August 2025

Registration will be on a first-come-first-serve basis. Kindly return the reply slip to the IEM (SB) office before **5 August 2025** together with a non-refundable cheque for the participant fees made payable to **The Institution of Engineers, Malaysia (Southern Branch)**. Alternatively, you could bank-in the participant fees into the **Institution's Maybank Current Account (No. 5-013920-15708)**, and to email both the Bank-in and Reply Slips to the Institution. The Institution requests all members co-operation in ensuring fees are paid in advance to the seminar. Please also be reminded that fees will not be refunded to absent participants who have paid, and to also note that all reservations must be paid despite participant cancellations. Thank you for your continuous support of the Institution.

Chairman, Sub-Committee on Seminar and Technical Talk, IEM (SB)



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To: Hon. Secretary, The Institution of Engineers, Malaysia (Southern Branch) **WhatsApp: 07 – 3363406**

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at Holiday Villa Johor Bahru City Centre.

I wish to attend the above talk. I enclosed herewith a cheque no. for the amount of RM.....as payment for the participant fee.

Name of Member: Membership No: I/C No:
Address: Tel(O):(Fax).....
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Note : Kindly **email to iemsouthern@gmail.com the Reply Slip together with the payment slip** for confirmation.
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