The Institution of Engineers, Malaysia

VIRTUAL HALF DAY COURSE ON

"THE FUNDAMENTALS OF DRONE TECHNOLOGY: DESIGN, BUILD, FLY & REGULATES"

ORGANISED BY:
ENGINEERING EDUCATION TECHNICAL DIVISION, IEM

BEM APPROVED CPD: 4
REF NO: IEM25/HQ/623/C (W)

SPEAKER:

Ir. Sukhairul Nizam bin Abdul Razak

31 January 2026, Saturday

9.00am - 1.00pm

CLOSING DATE: 24 JAN 2026

	ONLINE (Log-in for registration & payment: www.myiem.org.my/member/login.aspx)	NORMAL FEE (by fax & email) Payment by cash, credit card and bank-in
IEM Student Member	40.00	50.00
IEM Graduate Member	75.00	90.00
IEM Corporate Member	125.00	150.00
Non-IEM Member	240.00	300.00

SYNOPSIS

Drones are transforming industries—from agriculture and emergency response to logistics and surveillance. This comprehensive half-day virtual course provides a detailed introduction to drone technology, starting with the basics and progressing through design, construction, testing, and regulation.

Participants will gain a solid understanding of drone components, aerodynamics, and operational principles. Through structured modules, real-world examples, and practical guidance, you'll learn how to design, build, and certify drones for various applications. Whether you're an enthusiast, engineer, student, or aspiring drone pilot, this course will equip you with the knowledge to enter the fast-growing world of unmanned aerial systems.

KEY TOPICS COVERED FOR THIS WORKSHOP:

1: Introduction to Drones

- What is a drone? Advantages, disadvantages and types.
- Key components and basic working principles.
- Terminology: cruise speed, endurance, range, manual vs. autonomous mode.

2: Designing Your Own Drone

- Translating requirements into specifications.
- Selection drone type and payload.
- Component selection: frame, motors, propellers, flight controllers, power systems and payloads.

3: Building and Testing

- Step-by-step DIY drone assembly.
- Pre-flight and post-flight checks.
- Flight tests and safe first-flight procedures.

4: Regulations and Certification

- Overview of global drone regulations.
- Focus CAAM compliance.
- Latest rules and certification processes.

5: Sector-Specific Drone Design

- Customizing drones for agriculture, emergency response, mining, delivery, monitoring and heavy-lift applications.

6: Becoming a Drone Pilot

- Requirements and knowledge for drone pilots in Malaysia.
- Certification bodies and training pathways.

SPEAKER'S PROFILE

Ir. Ts. Sukhairul Nizam Abdul Razak holds a Bachelor's in Mechanical (Aeronautical) Engineering from UTM Skudai and an MBA from Charles Sturt University, Australia. He is a registered ASEAN Chartered Professional Engineer (ACPE) and a Professional Mechanical Engineer with a practicing certificate (PEPC) from the Board of Engineers Malaysia, in addition to being a certified Professional Technologist (MBOT).

With a career spanning over two decades, he began as a Body Design Engineer in R&D at Proton Manufacturing in 1995, later holding diverse roles including Branch Sales Manager, Warranty Operations Manager, and Head of Division at Proton Edar. He has also contributed to international projects, such as with Accenture Malaysia for the Daimler Group.

His extensive industry experience includes designing and developing automotive components, overseeing anti-corrosion and painting systems, aerodynamic refinement, and crash testing for the national automotive company. Beyond engineering, he specializes in automotive sales training, coaching, and product recall management.

In the academic sphere, he has served as a Senior Lecturer at City University Malaysia, Programme Coordinator at First City University College, and as Regional Director at Leanmax Pro Sdn Bhd. Currently, he is the Managing Director of Enviroklar Tech Sdn Bhd.

With a foundation in aeronautical engineering, Ir Ts Sukhairul Nizam has further pursued drone pilot training and regularly teaches autonomous robotics and drone technology to computer science and engineering students, graduate engineers, blending hands-on industry expertise with modern educational insight.

WHO WILL BENEFIT WITH THIS WORKSHOP:

- Engineering and technology students with an interest in aerospace industries.
- Hobbyists and DIY enthusiasts.
- Professionals in agriculture, logistics, surveillance and emergency services.
- Researchers and educators in UAV technology.
- Aspiring drone pilots and operators.
- Tech developers and startup founders in the drone ecosystem.

Chairman,
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REGISTRATION FORM

VIRTUAL HALF DAY COURSE ON
"THE FUNDAMENTALS OF DRONE TECHNOLOGY: DESIGN, BUILD, FLY & REGULATES"

31 January 2026 (Saturday) **Closing Date : 24 January 2026**

NAME	MEMBERSHIP NO. / GRADE	FEES (RM)
	Sub Total:	
	SST Added 8% :	
	Total Amount Payable :	

FULL PAYMENT must be settled before commencement of the course, 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.)

_____(H) _____(HP)

Email :_____

_____ _____

Signature & Stamp Date