IEM
The Institution of Engineers, Malaysia

VIRTUAL HALF DAY COURSE ON

INTRODUCTION TO AN AUTOMOTIVE PRODUCT DESIGN & DEVELOPMENT

Organised by :
Education Engineering Technical Division, IEM

BEM Approved CPD : 4 **Re. no : IEM22/HQ/505/C (w)**

DATE : 25 FEBRUARY 2023, SATURDAY
(Rescheduled from 31 JANUARY 2023)

TIME : 9.00AM - 1.00PM

ONLINE PLATFORM

SPEAKER :
Ir. Ts. SUKHAIRUL NIZAM BIN ABDUL RAZAK

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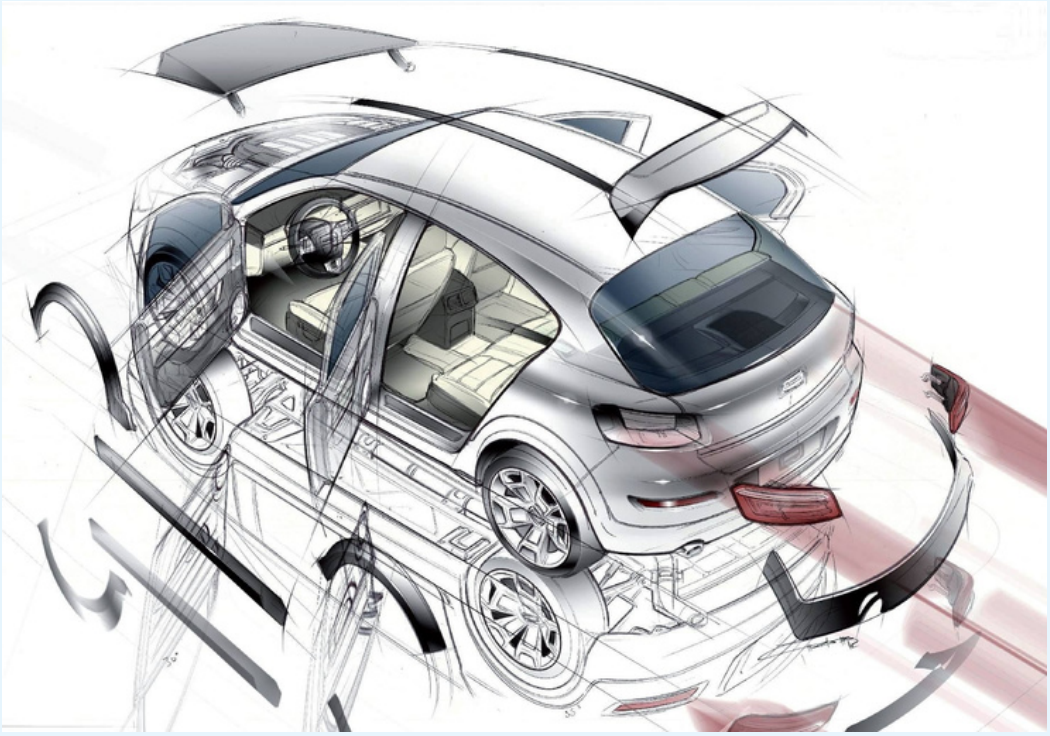
CLOSING DATE:
15 FEBRUARY 2023

	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

Register Online at www.myiem.org.my

COURSE SYNOPSIS

The Automotive design and development process is based on the Mechanical design and development processes starting from product planning to detail engineering design. This workshop will provide valuable assistance and education to an automotive design engineer as well to engineering students that probably will enter to the industry as automotive design engineer. This workshop will cover the key aspects of the design stages and key activities carried out along with major milestones of car development.



WHY SHOULD YOU ATTEND THIS SEMINAR ?

This seminar will cover the key aspects of the design stages and key activities carried out along with major milestones of car development. Concepts covered:

- Concept of Concurrent engineering and how teams are formed in cross functional setup
- Major milestones at each stage
- The nature of product development and types of product development
- How concepts are developed and differences between industrial design and engineering design
- What are ergonomic analyses and H point. Importance in establishing the concept
- What is Vehicle architecture and types of Vehicle construction and types of Suspension used in different types of vehicles
- What are vehicle platforms and modular designs. Importance of standardization
- Activities in Systems design – Interfaces and Integration of complex systems
- Activities in Detail design phase including DFMEA, DVP preparation and Concern resolution
- What is BOM, PLM and engineering release

This seminar is useful for Design engineering aspirants in automotive industry or for anyone interested in gaining insights how cars are developed in industry.

AREAS COVER IN THIS SEMINAR :

Below is the topic will be cover:

- What is the Overall process and workflow. The major milestones
- How product planning and concept development is carried out
- What happens in Automotive Design and styling
- What are Ergonomic analyses and factors considered in establishing initial concept of passenger vehicles
- What is Vehicle Architecture, affect of powertrain design on Vehicle architecture
- What is Vehicle construction. The differences between Monocoque and Body on frame constructions
- What are various types of Suspension and factors in Suspension configuration selection for vehicle
- What are modular platforms. Key characteristic of modular platforms and their benefits
- System Packaging design and importance of Interfaces. Role of integration
- Detail design and Engineering Bill of materials
- What is DFMEA, DVP and concern resolution
- Example of Design of Frame
- Overview of Performance domains and the systems, factors which affect them

WHO WILL BENEFIT WITH THIS WORKSHOP:

- Design engineering aspirants looking to learn more about car design and toward overall automotive development
- Anyone interested in automotive product design and development

SPEAKER'S PROFILE

Ir. Ts. Sukhairul Nizam Abdul Razak received an early education at SMK Methodist ACS Klang Selangor, UTM Skudai in Bachelor of Aeronautical Engineering and MBA from Charles Sturt University Australia. Registered as Asean Chartered Professional Engineer (ACPE), Professional Mechanical Engineer with practicing certificate (PEPC) with Board of Engineers Malaysia and registered as Professional Technologist with MBOT, assessor for EAD (ETAC & EAC) Board of Engineers Malaysia (BEM) and assessor for TTAC MBOT. Started career at Proton's Manufacturing since 1995 as RND's body design engineer follow with other positions in various departments in Proton Edar for nearly 18 years such as a Car Body Design Engineer, Branch Sales Manager, Manager Sales Standard, Manager Warranty Operations, Manager Equipment Tools & Calibration, Head of Division Office and then worked with Accenture Malaysia for Daimler Group's project. Was a Senior Lecturer for City University Malaysia, lecturer for First City University College and as a Director for Enviroklar Tech Sdn Bhd. Ir Ts Sukhairul Nizam has experienced designed, developed automotive components as well managed anti-corrosion and painting development, aerodynamic development, and crash test development for the national car company. Ir Ts Sukhairul Nizam is also specialised in automotive project management, sales training or coaching and managing product recall for automotive industry.

COURSE TIMETABLE

TIME	DESCRIPTION
9.00 am – 10.00 am	• What is the Overall process and workflow. The major milestones • l How product planning and concept development is carried out • What happens in Automotive Design and styling
10.00 am – 11.00 am	• l What are Ergonomic analyses and factors considered in establishing initial concept of passenger vehicles • What is Vehicle Architecture, effect of powertrain design on Vehicle architecture • What is Vehicle construction. The differences between Monocoque and Body on frame constructions
11.00 am – 11.15 am	Break
11.15 am – 12.00 noon	• What are various types of Suspension and factors in Suspension configuration selection for vehicle • What are modular platforms. Key characteristic of modular platforms and their benefits • System Packaging design and importance of Interfaces. Role of integration
12.00 pm – 1.00 pm	• Detail design and Engineering Bill of materials • What is DFMEA, DVP and concern resolution • Example of Design of Frame • Overview of Performance domains and the systems, factors which affect them
1.00 pm	• Conclusion and End of Half Day Workshop

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.

Chairman,
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REGISTRATION FORM

VIRTUAL HALF DAY COURSE ON
INTRODUCTION TO AN AUTOMOTIVE PRODUCT DESIGN & DEVELOPMENT
25 February 2023 (Saturday) -
(Rescheduled from 31 January 2023)
Closing Date : 15 February 2023

No	Name(s)	Email	Membership No.	Grade	Fee (RM)
				SUB TOTAL	
				+ 6% SST	
				TOTAL PAYABLE	

PAYMENT DETAILS :

☐ Cash RM_____

☐ Cheque no._____for the amount of RM_____(non-refundable) .

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

Photocopies are acceptable