

# Webinar Talk on Automotive Product Design and Development – “Bumper System”

Organised by:  
Mechanical Engineering  
Technical Division, IEM



**BEM Approved CPD/PDP Hours: 2**  
**Ref No: IEM22/HQ/307/T (w)**

## WHY SHOULD YOU ATTEND THIS WEBINAR?

The automotive product development process for bumper system is based on the mechanical design and development process. The designs need to comply with various standard, regulations or specifications before the components can be manufactured.



**1<sup>st</sup> September 2022 (Thursday)**  
**2.00pm to 4.00pm**

**Presenter:** **Virtual Platform – Zoom**  
*Ir. Ts. Sukhairul Nizam Abdul Razak*

Ir. Ts. Sukhairul Nizam Abdul Razak received an early education at SMK Methodist ACS Klang Selangor, UTM Skudai in Bachelor of Mechanical (Aeronautical) Engineering and MBA from Charles Sturt University Australia. Registered as Asean Chartered Professional Engineer (ACPE), Professional Mechanical Engineer with practicing certificate (PEPC) since 2001 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 established Product Expert & CSTAR for both sales and after sales in all Mercedes Benz's dealership in Malaysia. Was a Senior Lecturer for City University Malaysia, lecturer for First City University College and as engineering design consultant 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 sales training or coaching and managing product recall for automotive industry.

Ir. Dr. Aidil Chee Tahir  
Chairman, Mechanical Engineering Technical Division, IEM

## REGISTRATION FEES

**IEM Students: FOC**  
**IEM Members: RM15 (Online) / RM20 (Offline)**  
**Non-IEM Members: RM70**

### PERSONAL DATA PROTECTION ACT

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# SYNOPSIS

This webinar will provide valuable assistance and education to an automotive design and production engineers that need to design and produce bumper system starting from design concept till components assembly to the car body prior to deliver to the end user.

The purpose of the bumper system is to absorb impact in a minor collision ideally minimizing repair costs. Numerous developments with improvements in materials and technologies anticipated on the design of bumper system as greater focus on functionality for protecting pedestrians from injury. With an effective bumper system development, yourself and team be able to:

- Protect the reputation of the company for developing a good quality of bumper system
- Design complying to the regulatory laws or regulations
- Protect the safety of the end user and public
- Manage the bumper system development with necessary testing procedures with the acceptable development and production cost

## **AREAS COVER IN THIS WEBINAR:**

Below is the topic will be cover:

- Introduction on bumper | Nomenclature
- Material Selection | Designing plastic components for bumper system
- Styling design | Homologation
- Manufacturing Requirements | Aerodynamics
- Computer Aided Design (CAD) | Manufacturing process
- Injection molding | Geometric dimensioning and tolerance (GD&T)
- Assembly | Fasteners

## **WHO WILL BENEFIT WITH THIS WEBINAR**

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