



The Institution of Engineers, Malaysia

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TALK ON

"Automotive Aerodynamics and Hydrodynamics"

Organised by the Mechanical Engineering Technical Division, IEM
BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/507/T

Date : 14 December 2016 (Wednesday)
Time : 5.30 pm – 7.30 pm (Refreshments will be served at 5.00pm)
Venue : C&S & TUS Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya, Selangor
Speaker : Ir. Azmir Bin Mohd Isa

SYNOPSIS

Students and young engineers are often unaware of the expectations from the automotive industry when the industry engage in consultancy or require Aerodynamics work in-house. Aerodynamics are often thought of as reducing drag, or making the car goes faster or more efficient. More often than not, this accounts to a small amount in the total engineering value of a land vehicle, except for motor sports vehicle. A higher demand from the industry is on the skills and knowledge related to airflow management inside the engine bay, i.e. cooling although nevertheless this still falls within the realm of aerodynamics. As technology grows in Malaysia, more iterations in the computer simulation models are made and required before arriving at a certain mature design of the front side of a vehicle, especially passenger cars, where the aesthetics value is arguably higher than the engineering value, from the end-customers viewpoint. There are conflicts along the way in integration with other aspects of engineering such as hydrodynamics of the design of a vehicle. Abroad, such integration work is very common in the process of a vehicle design and production however, to follow this process requires a lot of investment in R&D, which in Malaysia is limited to one or two companies. Students, lecturers and aspiring engineers can be made aware of the industry expectations and furnish themselves during the years at universities and beginning career with skills and knowledge related to this demand. This talk discusses on the skills, knowledge, expectations, routine problems, dilemmas, conflicts, etc in the industry on performing this engineering task.

BIODATA OF SPEAKER



Ir. Azmir has more than 19 years of experience in Automotive Design, Engineering, CAE, CFD, R&D, Research, Formula 1, Consulting and Training. His experience in Automotive involved designing the power steering system and cooling system from scratch, ground up to mass-production. From a generalist role in engineering design to very detail specialist role in CFD analyses of the systems. He is also experienced in project management, shown in a first-ever in Malaysia, a successful collaborative research involving a corporate organisation, multiple government ministries, government research institutions and multiple universities which ultimately secured a multi-million funding from MOSTI in 2009 for such purpose. In 2010, he pursued a much deeper involvement as a CFD specialist in F1 Aerodynamics in the UK. He is now back in Malaysia as a consultant and trainer, providing engineering services to customers in the passenger car or F1 industries.

Ir. Dr. Kannan M. Munisamy
Chairman
Mechanical Engineering Technical Division, IEM

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- Preferential admission to talk shall be accorded to IEM members (pre-registration and online registration are NOT required). Telephone and/or fax reservation will NOT be entertained.
- Non members may also attend the talk but will need to pay a registration fee of RM50 and an administrative fee of RM15. GST is inclusive.
- For members of affiliated organisations, there will be no registration fee payable. However, they are requested to produce their membership card as proof of membership. For the list of affiliated organisations, please refer to IEM website at www.myiem.org.my under International/MoU.
- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- IEM members are required to produce membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.
- *IEM members who fail to produce their membership cards will be charged a fee of RM25.00. GST is inclusive.*

ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of RM15 is payable for talks organized by IEM. GST is inclusive.
- The fee would be used to cover overhead costs, building maintenance expenses as well as contribute to Wisma IEM Building Fund.
- All contributions will be deeply appreciated by IEM.
- Student Members are however exempted.

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