

TALK ON "SUSTAINABLE RECYCLING FOR FUTURE AUTOMOTIVE STRUCTURES"

Organised by the Engineering Education Technical Division, IEM in collaboration with
Engineers Australia Malaysia Chapter (EAMC), and Institute of Mechanical Engineers Malaysia Branch (IMechE)

BEM Approved CPD/PDP: 2 Ref: IEM19/HQ/159/T

Date : 24 July 2019 (Wednesday)
Time : 5.30 p.m. – 7.30 p.m.
Venue : Auditorium Tan Sri Prof. Chin Fung Kee
3rd Floor Wisma IEM, Petaling Jaya, Selangor
Speaker : Assoc. Prof. Dr. Mohd Khir Mohd Nor

SYNOPSIS

The continuous search for lighter materials in the automotive industry is justified by the environmental advantage deriving from the reduction of fuel consumption and, therefore, lower CO₂ emissions throughout the vehicles' use phase. However, a correct evaluation of the environmental effects related to the choice of "light" materials should involve not only the use but the whole life of the vehicle, even at the early stage of materials selection. Vehicle light-weighting, poses a threat to effective automotive climate policy. Light-weighting can increase total climate impact and defeat the purpose of the Automotive Environmental Policy since the increase in emissions from vehicle production can be larger than the emissions saved due to improved fuel economy. Recycling of aluminium alloys adopted in automotive structures is a great option to save thousands of energy and prevent tons of CO₂ from being released to the atmosphere. In Malaysia, this is a massive challenge in terms of awareness and to get the appropriate applications fulfilled by such materials. The talk, therefore, will give an insight into the current development on this area from the applied mechanics point of view. The talk also aims to illustrate the current achievement and findings including the on-going strategies over the past years.

SPEAKER BIODATA



Mohd Khir currently serves as an associate professor in the Mechanical Failure Prevention and Reliability Research Centre (MPROVE) at Universiti Tun Hussein Onn Malaysia (UTHM). He received his bachelor degree from Universiti Teknologi Malaysia in 2006 and obtained his PhD in Structures, Crashworthiness and Impact from Cranfield University, United Kingdom in 2012. His research involves predicting the non-linear behaviour of materials undergoing large deformations and high impact velocity. He also focusing on analysis

for the crash safety of aircraft and automotive vehicles where he leads a research collaboration between UTHM and a local national car manufacturer. His research direction currently contributes to the energy and cost savings to provide major economic and environmental benefits.

Ir. Assoc. Prof. Dr. Mohammed Thariq Hameed Sultan
Chairman
Engineering Education Technical Division
Session 2018 / 2019

ANNOUNCEMENT TO NOTE

FEES

(Effective 1st October 2017)

Members

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| Registration Fee : | NO |
| CHARGE | |
| Administrative Fee : | |
| <u>Online</u> | RM15 |
| <u>Walk In</u> | RM20 |

Non-Members

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| Registration Fee : | RM50 |
| Administrative Fee : | RM20 |

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- To secure your seat, kindly register online at www.myiem.org.my

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