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TECHNICAL TALK ON "FLUID DYNAMICS IN THE BIO-MEDICAL ENGINEERING APPLICATION"

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/040/T**

Date	:	**27 February 2019, Wednesday**
Time	:	**5.30 pm – 7.30 pm**
Venue	:	**Auditorium Tan Sri Prof. Chin Fung Kee** **Third Floor Wisma IEM, Petaling Jaya, Selangor**
Speaker	:	**Assoc. Prof. Ir. Dr. Haji Kamarul Arifin Bin Ahmad**

SYNOPSIS

Fluid dynamics is a major element in Engineering. Recently, it has been widely used in the bio-medical engineering application. In this application, it can be divided into two parts namely the experimental approach and numerical approach. The key element in the experimental fluid dynamics in the bio-medical engineering is the instrument and the material of the model that are used. For example, Partical Image Velocimetry is the key instrument to investigate the fluid flow velocity distribution. Meanwhile the material for the experimental model should be robust and transparent. In the numerical approach, Computational Fluid Dynamics (CFD) is a popular tool to help the researchers. However, the appropriateness of such modeling practices with regards to modeling and medical constraints needs careful consideration. CFD studies make numerous assumptions that seriously limit their usefulness. Unless these constraints can be addressed, the interpretation of results from a CFD output cannot be considered as an appropriate definition of the flow behaviour.

SPEAKER BIODATA

Assoc. Prof. Ir. Dr. Hj. Kamarul graduated from Universiti Sains Malaysia for his bachelor degree, his Master degree from Cranfield University and Doctorate from Queens University of Belfast. His specialization is Computational Fluid Dynamics and Aerodynamics. He has more than 15 years experiences in the field and has been teaching in the same area for more than 17 years. He has graduating more than 25 masters and PhD students. He completed research grant that worth more than RM 2 million. He has published his research work in more than 200 journals and proceedings. He was teaching at Universiti Sains Malaysia for more than 10 years before joining Universiti Putra Malaysia in 2012. He was seconded to King Saud Unviersity, Saudi Arabia for two years in between 2016 and 2018 before came back to UPM at the end of 2018. Currently he is the Head of the Aerospace Malaysia Research Centre (AMRC) UPM.

ANNOUNCEMENT TO NOTE

FEES

(Effective 1st October 2017)

Members

Registration Fee : NO CHARGE
Administrative Fee : **Online** RM15 **Walk In** RM20

Non-Members

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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Ir. Assoc. Prof. Dr. Mohamed Thariq
Chairman
Engineering Education Technical Division
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