

**Online Talk on “Aerolab as a Centre of Excellence in Wind Tunnel Testing:
Sharing Our 20 - Year of Experience”**

Date : Saturday, 23 January 2021
Time : 9.00 a.m. – 1.00 p.m.
Venue : ZOOM Application
Speaker : Ir. Dr. Shabudin Bin Mat, P.Eng, CEng

Synopsis

UTM Aero lab is a specialized research laboratory that was set up to meet the educational and research needs of Malaysia in developing aerospace and other related industries. Among its objectives are to provide a variety of aerospace education and training for undergraduate engineers, facilities to foster postgraduate and industrial research in aerospace-related fields, and aerodynamic testing services to the industry. The laboratory undertakes to provide various services, such as consultancy, development and testing needs in Wind Engineering and Industrial Aerodynamics, Computational Fluid Dynamics, UAS Research & Development, Air Traffic System and Flight Simulation, and Rocket Technology.

The main laboratory facility is the state-of-the-art Subsonic Wind Tunnel which is a tunnel that produces a controlled airstream used to investigate flow or the effect of wind on full-size objects or models like buildings and vehicles. It is the first of its kind in Malaysia and has a 2.0 m x 1.5 m test section, top wind speed of 80 m/s with excellent flow quality, and other sophisticated specifications. Many major construction projects such as a stadium, bridges, skyscraper, oil rigs and more, have been extensively tested in Aero lab’s wind tunnel. Aero lab had also provided consultancy services that have helped architects and engineers build safer buildings and structures.

Along with that, the laboratory is a proud member of the Subsonic Aerodynamic Testing Association (SATA) which is an exclusive by-invitation-only international body of about 80 renowned wind tunnel operators around the world, including NASA, Boeing, and JAXA wind tunnels. UTM Aero lab has worked on establishing its name in aerodynamics and engineering circles since its establishment in 2001 by working closely with several industries and higher institutions. Back then, most vehicle models of a famous local automobile brand close to Malaysian hearts, Proton and Perodua were tested in Aero lab. The same goes for local motorcycle producer brand, Modenas.

Meanwhile, international institutions have always chosen to collaborate with the laboratory for students and knowledge exchanges such as the University of Cambridge, University of Glasgow, Saga University and Tokyo Metropolitan University, Japan, Université de Rennes 1, France, and many more. Various research grants have been obtained by researchers based at the Aeronautics Laboratory and one of the ongoing research projects is the six-year OTEC Turbine project worth more than RM5 million. Apart from that, the laboratory has also successfully carried out more than 85 consultancy projects worth RM 1.7 million since 2009. On top of all these successes, the Ministry of Higher Education has agreed to upgrade this Laboratory to be one of the UTM Centre of Excellence on 3 December 2020.

The objective of the talk is also to give a better understanding of our young engineers and practicing engineers to get some insight on the above topic.

About the Speaker:

Ir. Dr. Shabudin Bin Mat received a Bachelor’s degree in Mechanical Engineering (Aeronautics) from Universiti Teknologi Malaysia in 1997. In 1998, he went to Ecole Nationale Supérieure d’Ingenieurs de Constructions Aeronautiques (ENSICA) situated in Toulouse France for his Master’s degree. Dr. Shabudin was awarded a scholarship by Islamic Development Bank to pursue his PhD study at Glasgow University on Wind Tunnel Testing Technique from 2005 – 2010. The title of his thesis is The Analysis of Flow on Round-Edged Delta Wings. He was appointed as a Lecturer at the School of Mechanical Engineering, Universiti Teknologi Malaysia (UTM) and attached with a panel of Aeronautics, Automotive & Ocean Engineering. His responsibility includes delivering lectures at undergraduate and postgraduate level on several engineering courses such as statics, technical drawing, engineering drawing, flight economy, laboratories, engineering professional practice, industrial aerodynamics & wind engineering, modern compressible flow and experimental aerodynamics. He has supervised 5 PhD students and 20 master students and has led 14 research grant projects mostly on wind tunnel experiments. Dr. Shabudin also has published more than 80 articles on Wind Tunnel Testing which include American Institute of Aeronautics and Astronautics technical paper. At the national level, he is Senior Assessor, Malaysian Quality Assurance (MQA). Dr. Shabudin is a Registered Professional Engineer (P.Eng) with BEM and C.Eng (UK).

Participant Fees:

	Online
IEM Member	RM 50.00
Non-Member	RM 100.00

Closing Date: 22nd January 2021

The webinar is strictly limited to **90 participants** only. Registration will be on a first-come-first-serve basis. Kindly return the reply slip to the IEM (SB) office before **22nd January 2021** together with a non-refundable cheque for the participant fees made payable to **The Institution of Engineers, Malaysia (Southern Branch)**. Alternatively, you could bank-in the participant fees into the **Institution's Maybank Current Account (No. 5-013920-15708)**, and to facsimile both the Bank-in and Reply Slips to the Institution. The Institution requests all members co-operation in ensuring fees are paid in advance to the seminar. Please also be reminded that fees will not be refunded to absent participants who have paid, and to also note that all reservations must be paid despite participant cancellations. Thank you for your continuous support of the Institution.

Chairman, Sub-Committee on Seminar and Technical Talk, IEM (SB)

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Via ZOOM Application

Details of Online Login ID will be provided after registration

I wish to attend the above workshop. I enclosed herewith a cheque no..... for the amount of RM..... as payment for the participant fee.

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