

## WEBINAR TALK ON CONDITION BASED MONITORING (CBM) VS ARTIFICIAL INTELLIGENCE (AI) CHARACTERISTICS IN MARINE APPLICATIONS FROM AN OPERATORS POINT OF VIEW

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Organised by :
Marine Engineering and Naval Architecture Technical Division, IEM



Presented by:

Ir. Ts. Abdul Malik Hussein bin Abdul Jalil

15 FEBRUARY 2023, WEDNESDAY 3.00PM - 5.00PM

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## **SYNOPSIS**

In this era of I.R 4.0, we are observing a significant shift in the dependance of I.T based solutions in our everyday routines, from online banking transactions or to just simply relaxing at home after a hard's day work listening to music on Spotify or watching Netflix. Its no different in the marine industry. On board vessels for example, bridges and control rooms are more sophisticated in managing the everyday voyages. Complex machineries are startedusing the click of a mouse instead of the traditional push buttons. What are CBM and AI technologies? What's their definitions and characteristics? How would this impact the operator's decision in maintenance operationsand planning? Can AI or CBM help the operator in saving long term costs and if so, how? The speaker hopes to address these factors in a holistic manner by making comparisons, stating the advantages and disadvantages between the two without prejudice, providing more questions rather than answers. Which solution is better? The choice is yours.

## SPEAKER'S PROFILE

Ir. Ts Abdul Malik Hussein bin Abdul Jalil holds a MSc in Mechanical Engineering from MARA University of Technology (UiTM), Shah Alam, graduated also with a 2nd Class Uppers Honors, B.Eng in Mechanical Engineering from University of Sunderland, UK. Also a trained mariner, Abdul Malik completed the 2nd Class Certificate of Competency (Steam) from Malaysian Maritime Academy (ALAM) and Diploma in Marine Engineering from Ungku Omar Polytechnic, Ipoh, Perak. Abdul Malik carries a wealth of experiences in various aspects of mechanical engineering and design. After his sailing career with MISC (4th Engineer on board the SS Tenaga Fleet), Abdul Malik worked as a Computer Aided Engineer (CAE) for four years in Caidmark Sdn Bhd mainly carrying out aircraft related assignments mainly engineering simulations, before moving to J P Kenny Woodgroup Sdn Bhd (now known as WOOD) as a pipeline design engineer for one year. Also for one year, Abdul Malik acted as a project manager with S P Energy Sdn Bhd managing the maintenance of the Deutz Gas Generators before moving to Adex Sdn Bhd as a technical manager supporting MSC.Software simulation software solutions such as Patran, Nastran, Adams etc.

Since 2014, Abdul Malik was welcomed as a Senior Engineering Consultant with Caidmark Sdn Bhd, managing various assignments to various industries, related to CBM activities and engineering simulations. One of the significant roles was to be a part of the simulation team for the RMAF Sukhoi Life Extension Program. Abdul Malik has 10 years of experience of CBM related activities with Caidmark.

Besides career growth, Abdul Malik has also shown interest in self-professional development. He has been a Professional Engineer (PEPC – Mechanical) since 2007 and a corporate member of IEM since 2008 and currently is the Chairman of IEM's MNATD. Also recognized as a Chartered Engineer with the UK Engineering Council and Chartered Marine Engineer from Institute of Marine Engineering, Science and Technology (Imarest), UK. In 2019, Abdul Malik was recognized as a Professional Technologist (Ts) in the field of Maritime Technology (MI) from the Malaysian Board of Technologist (MBOT). Outside the office, Abdul Malik is currently an active committee member of the Rina-Imarest Malaysia Joint Branch, an assessor and assistant coordinator for Professional Review Interview (PRI) process on behalf of Imarest and UK Engineering Council.