

Technical Talk on Underwater Acoustics: Principles and Applications

(Organised by Marine Engineering and Naval Architecture)

BEM Approved CPD/PDP Hours: 2

Ref. No. : IEM19/HQ/206/T

Date : 6th July 2019 (Saturday)
Time : 11.00am – 1.00pm (*Refreshments will be served at 10.30am*)
Venue : C&S and TUS Lecture Room, 2nd Floor, Wisma IEM, PJ
Speaker : Ir. Prof. Dr Mohd Rizal bin Arshad

SYNOPSIS

It is well established that sound waves, compared to electromagnetic waves, propagate long distances in the ocean. Hence, in the ocean as opposed to air or a vacuum, one uses sound navigation and ranging (SONAR) instead of radar, acoustic communication instead of radio, and acoustic imaging and tomography instead of microwave or optical imaging or X-ray tomography. Underwater acoustics is the science of sound in water (most commonly in the ocean) and encompasses not only the study of sound propagation, but also the masking of sound signals by interfering phenomenon and signal processing for extracting these signals from interference. This talk will present the basics physics of ocean acoustics and then discuss some applications.

SPEAKER BIODATA



Mohd Rizal Arshad has been working at Universiti Sains Malaysia (USM), Malaysia as full-time academics since March, 1999. He graduated from University of Liverpool in 1994 with a B.Eng. in Medical Electronics and Instrumentation. He then pursued his MSc. in Electronic Control Engineering at the

University of Salford and graduated in Dec. 1995. In early 1999, he completed his Ph.D degree in Electronic Engineering. Mohd Rizal Arshad is currently a Full Professor at the School of Electrical and Electronic Engineering, USM. He is also a Profesional Engineer (P.Eng) registered with the Board of Engineers, Malaysia since 2017.

FEE ANNOUNCEMENT

(Effective: 1st October 2017)

Members:

- (i) Registration Fee: No Charge
- (ii) Administrative Fee:
 - (a) Online RM15
 - (b) Walk-In RM20

Non-Members:

- (i) Registration Fee: RM50
- (ii) 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. Roznan Abdul Rashid
Chairman

Marine Engineering & Naval Architecture Technical Division