

MARINE ENGINEERING AND NAVAL ARCHITECTURE TECHNICAL DIVISION

WEBINAR TALK ON

"UNDERWATER STRUCTURE INSPECTION AT PORT AND JETTIES"

SPEAKER:

Ir. Ts. Prof. Dr. MOHD RIZAL BIN ARSHAD

DATE: 31 MAY 2023 (WEDNESDAY)

TIME: 3.00PM - 5.00PM

BEM APPROVED CPD: 2

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SYNOPSIS

This talk will discuss about underwater technical inspections for underwater structures at ports and jetties. There are a number of techniques which can be utilised for such inspection, i.e. human diver, ROV and even NDT method. Regular underwater inspections have an important role in the maintenance and repair of maritime and coastal infrastructures. Information gathered through video recording, digital photographs, collection of technical data and underwater topographic survey providing support for consultancy studies and projects and technical advice and appraisals. Routine inspections are the key to the maintenance of any submerged infrastructure. For human diver, the underwater environment can be particularly harsh on structures, posing unique challenges to inspectors who must evaluate scour, material conditions or construction. The importance of more reliable and robust inspection method is increasing everyday as the divers are regularly placed in increasingly dangerous scenarios to carry out this type of work. Inspections of underwater structures (as in dams, bridges, reservoirs, breakwaters, piers, oil rigs, etc.) have always been arduous and difficult, and often dangerous, but today underwater drones, such as ROVs, offer solutions that eliminate the risk faced by divers, and that also greatly reduce the high costs involved in such inspections. This talk will elaborate the general requirements for underwater structure inspection task.

SPEAKER'S PROFILE

Ir. Prof. Dr. Mohd Rizal Arshad graduated from the University of Liverpool, UK in July 1994; with a B.Eng. in Medical Electronics & Instrumentation and January 1999 with a PhD Degree in Electronic Engineering. He completed his MSc. in Electronic Control Engineering from the University of Salford in 1995. His areas of specialization are ocean robotics and instrumentation, control and intelligent system. He is currently a full professor at Universiti Sains Malaysia (USM).