The Institution of Engineers, Malaysia
Sarawak Branch
International Engineering Centre (IntEC), A2-G-19 & A2-1-19, Isthmus Raintree Square,
Lot 3249, MTLD Block 7, Jalan Keruing, 93450 Kuching, Sarawak
Office no: 082-288856 Email: iemsarawak@gmail.com Website: www.iemsarawak.org

Live Online 2-Day Course on
"DESIGN OF COASTAL PROTECTION STRUCTURES IN MALAYSIA (DID MANUAL)"

Date/Day:	07 – 08 July 2021
Time:	8:30am – 4:30pm
Fees*[1]:	***RM400.00 (IEM Member)***
	RM500.00 (Non – IEM Member)
Registration Link:	https://forms.gle/gF4xYmZVSFozYkUr9
Registration QR Code:	

CPD Hours: 12 hours (6 per day)
Ref. No.: IEM21/SWAK/216/C (w)

Closing Date:	***30th June 2021***
Meeting Link*[2]:	***Confirmation email to be issued 2 days before activity***

[1] All registration fees must be FULLY paid before commencement of this activity. Government agencies and Statutory Bodies are required to provide Local Orders. IEM Sarawak Branch reserves the rights to refuse participation of registrant(s) who have not paid their registration fees to attend this activity. THIS REQUIREMENT WILL BE STRICTLY ENFORCED.

All fees shall be paid via Online Transfer or Cheque Issuance to:

Account Name: THE INSTITUTION OF ENGINEERS MALAYSIA
Bank: Standard Chartered Bank Malaysia
Account No.: 420-1-5651-8528

Or via Sarawak Pay by scanning the QR Code below:

SARAWAK PAY

Once payment has been made kindly upload payment proof into the registration form.

[2] Meeting link will be issued once registration and payment have been verified

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Course Summary

In this day and age, it is increasingly common to find coastlines in Malaysia to be significantly affected by the higher undulation and tide from the sea, which are the resultant repercussions from climate change and the undeterred global warming. The elevation of the undulation and tide level from the sea will undoubtedly leave substancial impact on the stability, effectiveness, and designs of the coastal structure. Hence, it is imperative for engineers to comprehend the scale of the soaring sea level and the ballooning pressures which the structures will be exposed to as a means to make sure that the coastal structures are desgined to a degree of satisfaction and could function competently throughout their structural lifespan.

This course is intended for any professional engineers who are invoived in the design, management, and operation of coastal protection structures. The framework of this course is structured in accordance with the design standards and manual from the Department of Irrigation and Drainage Malaysia, which is a government agency accountable for the supervision of the coastal erosion protection structures in Malaysia. One of the outcome of this course is the comprehension of the basic concept of coastal engineering design and how it can be implemented.

Speaker

Ir. ARMAN MOKHTAR

Education:

1. MSc. Water Science & Engineering (Hons.)
Specialisation : Coastal Engineering & Port Delopment
From: UNESCO-IHE Institute for Water Education, Delft, The Netherlands

2. Bachelor of Engineering (Civil & Structural) (Hons.)
From: National University of Malaysia

Years of Working Experience: 21 years

Timeframe	*Position/Company*
02 May 2000 – 12 July 2002	GEOTECHNICAL ENGINEER JURUTERA PERUNDING ZAABA S/B
13 July 2002 – 16 Oct. 2007	ENGINEER GRADE J41, COASTAL ENGINEERING DIVISION, DID MALAYSIA
17 Oct. 2007 – 30 April 2009	MSc Studies UNESCO-IHE (INSTITUTE FOR WATER EDUCATION), THE NETHERLANDS
1 May 2009 – 27 Aug. 2013	SENIOR ASSISTANT DIRECTOR GRADE J44, COASTAL SECTION RIVER BASIN & COASTAL ZONE MANAGEMENT DIVISION
28 Aug. 2013 – 16 June 2016	PRINCIPAL ASSISTANT DIRECTOR GRADE J48 RIVER BASIN & COASTAL ZONE MANAGEMENT DIVISION
16 June 2016 – 10 Sept. 2019	SENIOR PRINCIPAL ASSISTANT DIRECTOR GRADE J52 (SME) COASTAL ZONE MANAGEMENT DIVISION
10 Sept. 2019 – Current	CIVIL ENGINEER GRADE J54 (SME) COASTAL ZONE MANAGEMENT DIVISION

As the Civil Engineering of Grade J54 (SME) under the Coastal Zone Management Division, Ir. Arman Mokhtar is currently in charge of performing coastal engineering project management, site visits and coastal modelling works. Details of works done are as follows:

a. Contract administration and managements;
b. In-house design projects (Project team leader);
c. Numerical modelling for of coastal engineering works;
d. Trainings on coastal engineering and numerical modelling works;
e. Technical advices on coastal numerical modelling works and coastal development proposals submitted by the developers/consultants;
f. Technical presentations (Civil/ Coastal Engineering).

Affiliations, Awards and Recognition

Year	*Affiliation/Award/Recognition*
2010 - Current	Professional Engineer with Practicing Certificate (PEPC) - BEM
2018	ASEAN Chartered Professional Engineer
2017	Excellent Service Award Department of Irrigation and Drainage Malaysia
2012	Excellent Service Award Department of Irrigation and Drainage Malaysia
2006	Excellent Service Award Department of Irrigation and Drainage Malaysia

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Tentative Program

DATE : 07 – 08 JULY 2021 (2 DAYS)

VENUE : MICROSOFT TEAMS (ONLINE)

Live Online Course on "DESIGN OF COASTAL PROTECTION STRUCTURES IN MALAYSIA (DID MANUAL)"

DAY/ TIME	8.15 am-8.30 am	8.30am-10.30 am	10.30am-11.00 am	11.00am-01.00pm	01.00pm-02.30pm	2.30pm-4.30pm
WEDNESDAY 07 JULY 2021	Registration	Survey and Data Collection for Coastal Engineering Works Ir, Arman Mokhtar	**Tea Break**	Conceptual Design of Coastal Protection Ir, Arman Mokhtar	**Lunch Break**	Coastal Protection Structures Ir, Arman Mokhtar
THURSDAY 08 JULY 2021	Registration	Coastal Protection Design 1 Ir. Arman Mokhtar	**Tea Break**	Coastal Protection Design 2 Ir. Arman Mokhtar	**Lunch Break**	Coastal Protection Design 3 Ir. Arman Mokhtar

Day 1 – Introduction and Data Collection for Coastal Engineering

(1) Survey and Data Collection for Coastal Engineering Works 0830 - 1030

a) General data requirements
b) Data requirements of coastal engineering
   i. hydrographic and topographical survey
   ii. tidal measurements
   iii. current
   iv. wind
   v. waves
   vi. geotechnical

At the end of this session the participants will understand:
- *Data requirements for coastal analysis and design*
- *How data is obtained*

Tea Break *1030 - 1100*

(2) Conceptual Design of Coastal Protection 1100 – 1300

a) Basics of sediment transport process
b) Erosion control measures
c) Planning the conceptual design
d) Making the site visit

At the end of this session the participants will understand:
- *Mechanisms of sediment transport*
- *Concepts of coastal protection design*
- *Types of revetments and their functions*
- *Observations to be made on site prior to design*
- *Planning the design works*

Lunch Break *1300 – 1430*

(3) Coastal Protection Structures 1430 – 1630

a) Types of Revetments
b) Engineered design of rubble mound structures

At the end of this session the participants will understand:
i. Types of revetments
ii. The principles of revetment design
iii. How to design a simple revetment using manual calculation

Day 2 – Coastal Protection Design

(1) Coastal Protection Design 1 — 0830 - 1030

a) Coastal Protection Design using DID Manual
b) Complete a design of a coastal revetment

At the end of this session the participants will understand:
- *Key design parameters to design a coastal revetment*
- *Coastal revetment design flowchart*

Tea Break — *1030 – 1100*

(2) Coastal Protection Design 2 — 1100 - 1300

a) Coastal Protection Design using DID Manual
b) Complete a design of a coastal revetment

At the end of this session the participants will understand:
- *Design a simple coastal revetment based on DID Manual using actual profile and met-ocean data*

Lunch Break — *1300 - 1430*

(3) Coastal Protection Design 3 — 1430 - 1630

a) Coastal Protection Design (Site experience)
b) Lesson learned (Design of a coastal revetment)

At the end of this session the participants will understand:
- *Site experience in constructing coastal revetment*
- *Lesson learned in designing a coastal revetment*

End of the course