

enquiries

For more information please contact us at :

**COASTAL & OFFSHORE ENGINEERING
INSTITUTE,**
Universiti Teknologi Malaysia
International Campus,
Jalan Semarak
54100 Kuala Lumpur

Tel : 03-26154370 Fax : 03-26918109
Email : noraini@ic.utm.my / asyatie@ic.utm.my

*Note : The Organiser reserves the right to
make changes where necessary to the pro-
gramme herein.*

REGISTRATION FORM (Please print or use block letters)

One Day Course on
'BASIC THEORY FOR COASTAL ENGINEERS'
9 May 2011

Name : (1) _____ E-mail : _____
Name : (2) _____ E-mail : _____
Organisation : _____
Address : _____
Tel. No. : _____ Fax No. : _____
Type of Payment : Cheque No _____ amounting to **RM250/-** as per registration fees is enclosed.
Date : _____ Signature : _____

The organizers reserve the right to make amendments or cancel the course in the event of unforeseen circumstances

One Day Course on

BASIC THEORY FOR COASTAL ENGINEERS

by

Professor Dr. Rangaswami Narayanan



9 May 2011

**Bilik Cempaka,
Institut Pembangunan Bioproduk,
Universiti Teknologi Malaysia *International Campus*
Kuala Lumpur**

Organised by :



COASTAL & OFFSHORE ENGINEERING INSTITUTE
UNIVERSITI TEKNOLOGI MALAYSIA *International Campus*
Jalan Semarak, 54100 Kuala Lumpur

introduction

This course is designed to recognize the various processes that occur in the coastal waters due to waves and tides. Basic theory of waves and currents will be developed including a brief discussion of wave statistics. Concepts will be explained simply and briefly, supported by examples. Coastal currents and their importance on the shaping of the beaches will be treated in this course. A qualitative treatment of coastal defence is included. It is hoped this course should provide the engineers physical understanding of the subject before embarking on complex numerical and/or physical models, and the interpretation of the results resulting from their use.

1. course outline Intro-

duction

Description of coastal features, various processes due to waves, etc. Example to illustrate the processes and their effects.

2. Currents

Turbulent flow, shear stresses etc.

3. Waves

Propagations, shallow and deep water waves, examples.

4. Refraction

Analysis, diagram, example

5. Wave breaking

6. Diffraction

7. Limitation of Linear Theory

8. Tides

Astronomical tides, harmonic analysis

9. Generation of Waves

Wave statistics, Pierson-Moskowitz and JONSWAP spectra, example

10. Coastal Currents

Longshore currents, cross-shore currents etc.

11. Longshore Sediment Transport example.

12. Descriptive Treatment of Coastal Defence

course instructor

Dr. R Narayanan was formerly of the Department of Civil and Structural Engineering, UMIST, now the University of Manchester, Manchester, U.K. Currently he is a Visiting Professor in the University of Kiel, Germany.

He has vast experience in the field of Hydraulic Engineering, and has supervised a number of Ph.D and M.Sc students. His research spans cavitation, sediment motion, hydraulic jump, forces on hydraulic structures and flow around subsea pipelines leading a number of publications in journals and international conference proceedings.

He is a reviewer for a number of international journals of hydraulics/fluid mechanics, and was a peer reviewer for the grant awarding body EPSRC in U.K. He has given research seminars in the U.S.A, Canada, Turkey, India and Malaysia. He was a Visiting Research Associate Professor in Concordia University, Montreal, Canada and Visiting Professor in the Universiti Teknologi Malaysia, Johor Bahru and the Universiti Teknologi Petronas, Malaysia.

He has carried out considerable amount of consultancy work for the industry in the U.K. He is a member of the Editorial Board of the Malaysian Journal of Civil Engineering. He is a co-author of the book entitled "Hydraulic Structures" which is on its Fourth Edition.

registration details

The closing date for application is **5 May 2011**. Photostat copies of registration forms are acceptable.

No refund of fees will be made but a replacement of participants is allowed.

registration fee

- The course fee of **RM 250/- per person** covers lecture notes, lunches and refreshments.
- All cheques should be made payable to :

**BENDAHARI
UNIVERSITI TEKNOLOGI MALAYSIA**

and mailed to the address overleaf.