Workshop on Numerical modelling and Applications on Coastal Processes

Pre-Registration Form

Name: .....

Designation: .....

Organization: .....

Address: .....

.....

Telephone: .....

FAX: .....

e-mail:.....

I would like to register name for the Workshop.

Please include me in the mailing list. ☐

I would like to present a paper for the Workshop ☐

Date: Signature

Kindly return the above form by email to the workshop secretariat. muralikmc@gmail.com/ or register online at. http://www.samudraconsultants.com/

REGISTRATION

The schedule of registration fee for the workshop is:

General Participants	INR 12000
Student	INR 10000
Accompanying person	INR 12000

The above rates apply to **those who register before 15th February 2017**. A higher registration fee with an additional INR 4000 for each of the above category will apply for registrants after the deadline. To register, one may use the pre-registration form and mail it to the conference secretariat before the deadline. Registration can also be done online at the workshop website.

EXHIBITION & SPONSORSHIP

Organizations are invited to sponsor the workshop. For conditions of sponsorship and privileges to sponsors, please contact the Organizing Secretary or visit the workshop web site.

IMPORTANT DATES

Registration and acknowledgement 15 Feb. 2017

Resource Persons

Prof. V. Sundar
Prof.K.Murali
Prof S.A Sannasiraj
Dr. V. Sriram
Department of Ocean Engg
IIT Madras Chennai

Dr.K. Chitra
Samudra Consultants

Workshop Secretariat
Dr.K.Chitra (Organizing Secretary, SAMUDRA)
Venue Research Park
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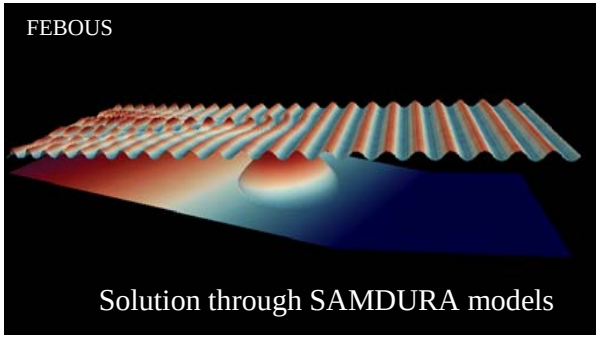
Workshop on Numerical modelling and Applications in Coastal Processes

9 - 10 March, 2017

FIRST ANNOUNCEMENT



TRAINING PROGRAMME ON COASTAL MODELLING

Jointly Organized *by*

SAMUDRA CONSULTANTS PVT LTD
An Incubate of IIT Madras @IITM Research Park
and
DEPARTMENT OF OCEAN ENGINEERING, IIT MADRAS

INTRODUCTION

The dynamic processes in the nearshore region are generated by a number of parameters, under the influence of which, the fluid motion of the water manifests itself as coastal currents, tides and tidal currents, internal and surface waves, storm surges, tsunamis, etc. The hydrodynamics and sediment dynamics of waves and currents in the coastal waters are governed by the sea bottom characteristics and the coastline. Hydrodynamic modelling forms the basis for many other modelling studies, whether sediment transport, morphology, waves, water quality and/or ecological changes are being investigated. Research is being carried out worldwide to improve the representation of tides, waves, currents, and surge in coastal waters. Although, both physical and numerical modelling are employed in the simulation of coastal hydrodynamic processes, the later method had become more popular in addressing a variety of problems in the nearshore.

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Indian Institute of Technology Madras (IITM) established in 1959 by is one among the foremost institutes of national importance in higher technological education and placed at number one in the country.

Set in verdant wooded surroundings, the campus of IIT Madras (IITM) offers an ideal environment for the most stimulating research activities. The campus is fully equipped modern village spreaded in the small protected forest.

RESEARCH PARK

IIT Madras Research Park facilitates a collaborative relationship between tenants/clients and IIT Madras. It connects industry personnel to the "innovation inputs" of knowledge and acts as a catalyst for radical, high-tech development. Considering the great demand for consulting and scientific solutions to a variety of problems in Engineering and Science, IIT Madras initiated the incubation of research companies for combining the industry and academic research experience to benefit the society. It is motivated to nurture and seek scientific solutions to the industries. The research park is situated next to IIT Campus in Taramani.

SAMUDRA CONSULTANTS PVT LTD

Samudra consultant Ltd is one among the companies started under the incubation cell of IIT Madras Research Park established in Feb'16. It is striving to seek scientific solutions to problems related to Ocean, Coastal, estuarine and Harbor Engineering Problems. The nature of problems being handled are CFD modelling for Power plants. Hydrographic survey in the nearshore region, and prediction of wave and tidal climate in the nearshore and estuaries for various coastal related problems. The prediction study helps in seeking solutions through modern scientific methods to realtime problems in the nearshore processes and coastal engineering. Hence, the in-house numerical models have been integrated and interface has been created for application purpose. The interface aims at outputs for user based on the problems and relevant data of input. The department of Ocean Engineering (DOE) of IITM have been engaged in offering solutions to a variety of coastal engineering problems including the tsunami mitigation measures. Hence SAMUDRA and DOE have joined to share their experience and to demonstarte the application of inhouse developed numerical models for practical coastal engineeing through the present workshop.

CONTENTS

- Spectral Model
- Numerical model for tide and wave prediction in the near shore region
- Sediment transport
- Shoreline Change studies
- Combined Refraction and Diffractions.
  - Mild Slope Equations.
  - Boussinessq Models
- Dispersion and Advection models for Outfalls.
- Hydrodynamics of Inland Water Ways

Samudra Models

All our state of the art models are based on FEM

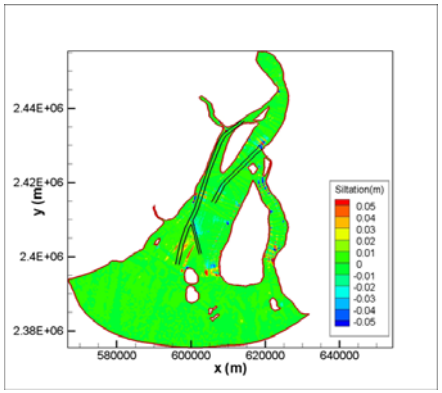
***OCIRC* (Ocean Circulation and nearshore modeling)**

TSURGE(Storm surge and Tsunami propagation.).

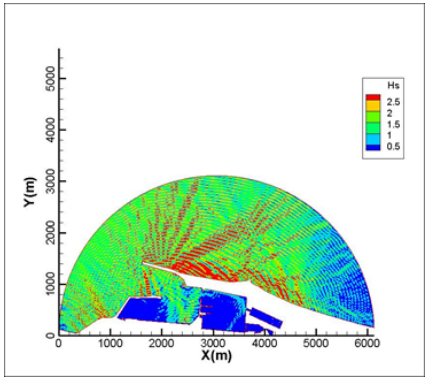
***FEMSEM* (to Study harbour tranquility)**

***FEBOUS* (Combined refraction and diffraction in time domain including porosity)**

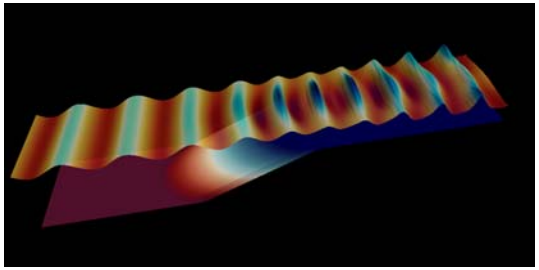
APPLICATIONS OF SAMUDRA MODLES



Hoogly River simulation using OCIRC



Chennai Port Simulation using FEMSEM



Simulation using FEBOUS