

### Program Schedule

#### 04 August 2016

8:45-9:00 Registration  
9:00-9:30 \* Inauguration Ceremony  
9:30-17:00 Training (Day I)

#### 05 August 2016

9:00-17:00 Training (Day II)

#### 06 August 2016

9:00-17:00 Training (Day III)

\* **Prof. Dr. Mohammad Rafiqul Alam**, Honorable Vice-chancellor, CUET has given his kind consent to be present as the Chief Guest in the inauguration ceremony of the Sediment Transport Demonstration Channel. All participants are cordially invited to attend this event.

### Lecture Schedule

	Content	Resource Person
Day-I (04 Aug 2016)	Lecture-1 9:30-11:40	<ul style="list-style-type: none"> <li>Outline of the training</li> <li>Introduction on river and harbor engineering</li> </ul> Prof. Dr. AA, CUET
		<ul style="list-style-type: none"> <li>Introduction on IWRM</li> <li>Scopes of IWRM on River and Harbor Management</li> </ul> Dr. RAM, CUET
	Lecture-2 11:40-13:30	<ul style="list-style-type: none"> <li>Assessment of river sedimentation and scour</li> <li>Laboratory experience on sediment transport</li> </ul> Prof. Dr. AA, CUET
	Lecture-3 14:30-15:40	<ul style="list-style-type: none"> <li>Hydraulic structures in port and harbor</li> <li>Offshore and harbor structure assessment</li> </ul> Prof. Dr. SKP, CUET
	16:00-17:00	Application of numerical models in river and harbor engineering Prof. Dr. AA, CUET

Day II (05 Aug 2016)	Lecture-4 9:00-11:50	<ul style="list-style-type: none"> <li>Brief on hydrographic data handling</li> <li>Case studies on: Hydrographic data, Navigation and Dredging.</li> </ul> Commandar M M Karim Chowdhury, CPA
	Lecture-5 14:30-15:30	Water resources management in Bangladesh - Structural measures Engr. Md. Amirul Hossain, BWDB
	Lecture-6 15:30-17:00	Water resources management in Bangladesh - Non structural measures Engr. Md. Amirul Hossain, BWDB
Day III (06 Aug 2016)	Field Visit 9:00-17:00	Capital dredging and bank protection with jetty facilities In association with CPA
		Certificate giving ceremony CUET

### Important Information

Interested participants are requested to submit the online application form [available at : <http://www.cuet.ac.bd/crhlsr>] via email to [crhlsr@cueta.ac.bd](mailto:crhlsr@cueta.ac.bd)

Application deadline : **31 July 2016**  
Training fee : **2500 BDT**

Fee would cover training kit, refreshment, lunch and field visit during training period. Payment can be made by demand draft in favor of Chairman, CRHLSR, Sonali Bank, CUET Branch, Chittagong-4349, Bangladesh or cash in person at the CRHLSR office.

## Training

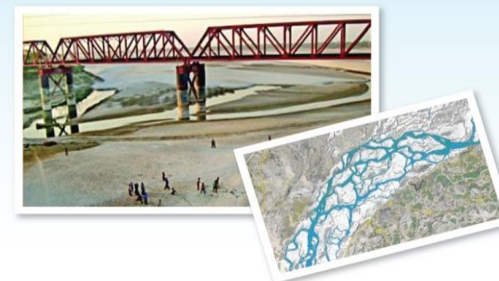
### Integrated River and Harbor Management

Date: 4-6 August 2016

### Venue

#### Seminar Room

Department of Civil Engineering  
Chittagong University of Engineering and Technology (CUET)



### Organized by

Center for River, Harbor and Landslide Research (CRHLSR)  
Chittagong University of Engineering and Technology (CUET)  
Chittagong-4349, Bangladesh.

### For any further details contact

#### Prof. Dr. Aysha Akter

Chairman, CRHLSR, CUET.

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Website : <http://www.cuet.ac.bd/crhlsr>

The main goal of this training is to discuss the frequent issues faced by the professionals engaged in harbor and river management. The participants will be familiarized with basics of fluvial process in river, harbor management, hydraulic structures, navigation, dredging, relevant numerical models and introduction to IWRM. A laboratory demonstration would provide ideas on sediment movements, bed forms and scouring. In addition, field visit to the relevant site will allow the participants to experience with practical examples of the theory offered.

Contents for this training are designed through feedbacks from case studies and recommendations from previous workshops. Thus, this is envisaged that the training would be more interactive and experience sharing platform for the participants.

### *For Whom?*

The training is expected to be useful for practitioners, academicians and engineers dealing with river and harbor managerial issues. The prospective participants should have at least a Bachelor degree in Civil Engineering or other relevant field.

### *Learning Objectives*

Upon completion, the participant should be able to:

- understand fluvial process and morphological changes in river under different circumstances and their management (Lecture 1, 2, 4 and 5);
- acquire basic knowledge to deal with erosion and siltation in river and harbor (Lecture 2, 3, 4 and 6); and
- apply theoretical knowledge to meet practical problems (Field visit on day III).

### *Training Content*

In this training the following topics will be discussed:

- Mechanics of sediment transport
- Challenges and possibilities of IWRM
- Laboratory experience on smooth and mobile sand bed
- Advanced knowledge on hydraulic structures
- Introduction on numerical models
- Details on hydrographic survey
- Case studies on navigation and dredging
- Water resources management in Bangladesh in context of structural and non-structural measures

### *What's New?*

#### **Experiences with Sediment Transport Channel**



The channel demonstrates the basic features and physical appearances of river geomorphology under different flow circumstances. The apparatus is based on two principle methods of sediment transport in water viz. a) bedload movement and b) suspended sediment transport.

### *Field Visit*



Capital dredging and bank protection for jetty facilities in the Karnaphuli River from Sadarghat-jetty to 3rd Karnaphuli Bridge. Around 2km riverbed starting from Sadarghat jetty to some 500m off the bridge is expected to be dredged. Bank protection work is being carried out along 2.615km long marine driveway.

### *Biography of Resource Person ...*

**Prof. Dr. Aysha Akter (AA)** working in the Department of Civil Engineering since 2005 and currently holding the Chairman (additional duty) position of the Center for River, Harbor & Landslide Research at CUET. She has achieved a PhD in Civil and Offshore Engineering from Heriot-Watt University, United Kingdom and two M Engg degrees from Asian Institute of Technology, Thailand (Water Resource Engineering and Management) and BUET (Civil and Environmental Engineering). Her academic and professional details are available on: <http://aakter.weebly.com>

**Prof. Dr. Sudip Kumar Pal (SKP)** has been serving Department of Civil Engineering in CUET since 2001. He has completed a PhD degree from Heriot-Watt University, UK and a M Engg degree from Asian Institute of Technology, Thailand in Water Resource Engineering and Management.

**Dr. Reaz Akter Mullick (RAM)** is an Associate Professor of the Department of Civil Engineering and Head, Department of Civil and Water Resources Engineering (CWRE) in CUET. He has completed a PhD degree in Water Resource Engineering and management from Asian Institute of Technology, Thailand and an MSc Degree from the University of Gent, Belgium.

**Engr. Md. Amirul Hossain**, Superintending Engineer and Project Director, Blue Gold Program, BWDB, Dhaka, graduated in B.Sc. Agricultural Engineering from Bangladesh Agricultural University in 1986 and M.Tech in Hydrology from Indian Institute of Technology-Roorkee (IIT-R) in 2001. He served as Scientific Officer (Agril. Engg.) at Bangladesh Agricultural Research Institute during 1987-91. Since 1992 he has been serving in Bangladesh Water Development Board at different level. He worked at Institute of Water Modelling (IWM), Dhaka during July 2003-June 2006.

**Commander M Manzur-ul-Karim Chowdhury**, (H3), PSC, BN was commissioned in Bangladesh Navy in Executive Branch in 1995. He obtained his Category-B Hydrographic Degree from National Hydrographic School, India and Category-A Hydrographic Degree from FOSTHM, UK. He also received PGDip in Hydrography from University of Plymouth UK. Besides, he has successfully completed Hydrology and Oceanographic course in China and Executive Development in Maritime Sector Course under World Maritime University, Sweden. Currently he is holding the office of Chief Hydrographer of CPA on deputation.