

# Training Course on

## Application of Mathematical Modelling and GIS Technology for Feasibility Study of Water Development Projects



### WHAT IS THE COURSE ABOUT

This training course covers the application of different mathematical modelling and GIS technologies for the feasibility study of water development projects. This course will also cover the use of different state-of-the-art survey technologies used to acquire data for mathematical modelling and GIS applications.

### COURSE OUTCOME

At the end of the training course participants are expected to achieve the necessary knowledge and skills in development and application of the mathematical model to analyse the state of water resources, generate required data for feasibility study and carry out impact assessment of various development options. The participants will also learn about using GIS technology to analyze spatial data and mapping. The training will introduce the use of state-of-the-art survey technology to acquire data necessary for mathematical modelling and GIS mapping.

### COURSE OUTLINES

The training will be conducted taking a case study. Topics included are as follows:

- The Purpose and Principles of Feasibility Studies
- Appreciating the overall objective of the project
- Assessment of baseline condition of the study area.
- Acquisition of primary data using state-of-the-art survey technologies
- Use of RS data and GIS for spatial data analysis, extraction and mapping
- Mathematical modelling techniques for surface water and groundwater assessment
- Climate change impact assessment
- Design of hydraulic structure
- Mathematical modelling for project impact assessment and generation of hydraulic design parameters

- Economic analysis
- Environmental and social assessment

### PARTICIPANTS

Project Sponsors, Project Managers, Project Consultants, Engineers, academicians, and students aspiring to learn about the feasibility study.

### CERTIFICATION

Participants will receive certificates upon successful completion of the course.

### COURSE DURATION

02 weeks (10 days) from 09:30 AM to 04:00 PM

### DATE & VENUE

**Date: 14 September- 25 September 2025**

#### Venue

**IWM Training Room**, House # 06, Road # 3C, Block # H, Sector # 15, Uttara, Dhaka 1230

### COURSE FEE

**For Bangladeshi participants: Tk. 22,000**

**For international participants: USD 250**

The course fee excludes all Taxes/Vat.

The course fee covers the Course Materials, Notes & Hand-outs, Lunch and refreshments.

### ABOUT THE ORGANIZER

The Institute of Water Modelling (IWM), a Trust organization of the Ministry of Water Resources provides world-class services in the field of Water Modelling, Computational Hydraulics & Allied Sciences for improved Integrated Water Resources Management.

For more information visit:

<https://www.iwmbd.org/>

### Contact Us



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