

Introduction

Now into the 24th edition, over 1000 officers and engineers from 165 organizations in India and abroad have so far benefited from this course in the last 8 years. The course has undergone continuous revisions, based on the feedback of the participants and now addresses current urban water and wastewater drainage and flooding problems in India.

Background

The frequency and the intensity of flooding in many cities of India have been increasing in the last few years thereby causing severe disruption and losses to people, transport and services. Global climate change is resulting in changed weather patterns and affecting the monsoons. Also, the urban drains are increasingly being used for wastewater/sewage disposal and the overflows result in epidemics. We can no longer afford to have our urban centres closing down due to flooding incidences as disruptions would have add-on effects for business activities elsewhere in the world. To keep the urban centres running 24x7, there is an urgent need to implement latest technologies to minimize the flood damage by making the drainage systems more efficient through proper planning and enforcement.

Course Objectives

The aim of the course would be to familiarize the participants with the latest global technologies in urban water and wastewater drainage management. This year's course has been updated to include real-time warning systems, new devices for the removal of sediments/ solid waste from drains with case studies from India and abroad. At the end of the course the participants would be able to select appropriate strategies for their local conditions to reduce the flooding and damage.

A new feature this time is the introduction of a special session in which participants are welcome to present their case studies/ other innovative approaches. This would also provide an excellent opportunity for the participants to interact with international experts and discuss problems and solutions.

Course Contents

1. **Overview of Recent International Developments**
2. **Best Management/ Sustainable Practices** including source control, porous pavements, infiltration basins, detention storages, rainwater harvesting.
3. **Design Considerations** with respect to storm drains/ sewers, computer models for urban drainage modelling and management.
4. **Quality Issues in Urban Drainage:** Removal of urban solid waste and sediment deposits from stormwater conduits and drains, urban lake management, Constructed wetlands for stormwater quality control.
5. **Early Warning Systems wrt Mumbai drainage**
6. **Flood Risk Management and Resilience**
7. **Use of GIS for Urban Water and Wastewater Management**
8. **Formulation of City Drainage Master Plans**
9. **Open Session – for participants presentations**
10. **Field Visit**

Who may benefit

Senior Officers/Engineers working in city municipalities, city development authorities, government transport organizations, consulting companies, research organizations engaged in the analysis, design, planning, construction, operation and maintenance of urban drainage systems would benefit from the proposed program.

Course Faculty

Prof. Kapil Gupta, Dept. of Civil Engineering and other faculty from IITBombay. Prof. Kapil Gupta – has been involved with urban drainage issues for over 20 years. He is a member of the various working groups on Sewer Processes and Networks group and the Group on Urban Rainfall of the International Joint Committee on Urban Drainage.

Invited speakers and other experts with field experience will also be making presentations at the course:

Professor P. P. Mujumdar, CED, IISc, Bangalore;

Professor S.K. Chaudhari, CESE, IIT Bombay;

Course Fees

The fee for the three-day course is Rs. 10,000/- for the first participant and Rs. 9000/- for each additional participant from the same organization.

International participants: USD 500/- per person

The course fee **includes** one set of course material, lunch, coffee/tea during the course and the **field trip**.

Accommodation

Limited on-campus accommodation on twin-sharing basis on payment as per actuals (@ approx. Rs. 150/- per person per night – to be paid at the guest house counter) for only the duration 10 to 14 July 2008, at IITBombay New Guest House (Van Vihar) is available for the first 50 outstation participants. Accommodation would be confirmed by SMS/ email on **first-register-first-allot basis after receipt of registration fees**. (*Due to limited accommodation, we regret that we are unable to provide family accommodation*). Accommodation for other participants may be arranged in nearby institutions on request.

Registration

Officers intending to attend this course are requested to complete the registration form alongwith the **demand draft** for the requisite amount drawn in favour of "The Registrar, IIT Bombay -CEP Account" and mail it to:

Prof. Kapil Gupta

Department of Civil Engineering
Indian Institute of Technology Bombay

Powai, Mumbai - 400 076

Phone : +22 2576 7324 (O) +22 2576 8324 (R)

Mobile: **(0) 9820 409 433**

Fax : +22 2576 7324 /+ 22 2572 3480

Email : kgupta@civil.iitb.ac.in

so as to reach him (by regd./ speed post) on or before **7th July 2008**. (Please note that no income tax is to be deducted at source from the course fee, as IIT Bombay is exempt from the same.)

For details regarding other CEP courses and in-house programmes conducted by IIT Bombay, please visit: <http://www.iitb.ac.in/~cep/>

REGISTRATION FORM

Three-day CEP Course on Urban Drainage Management: State-of-the-art

July 11 - 13, 2008

NAME: _____

Gender: M / F

DESIGNATION: _____

ORGANIZATION: _____

MAILING ADDRESS: _____

PIN _____

FAX: _____ MOBILE: _____

OTHER PHONES: _____ (O) _____ (R)

EMAIL : _____

PAYMENT: D.D. No.: _____ Dt.: _____

Rs.: _____ (DD in favour of 'Registrar, IIT Bombay – CEP a/c')

IIT Guest House accommodation required? : YES / NO

Arrival date : _____ Departure date : _____

If making presentation, please intimate title:

Date: _____ Signature of Applicant _____

Preliminary Programme

Venue: Old Guest House (Sarovar) IIT Bombay

Day 1: Thursday, July 11, 2008

09:30 - 10:00 Registration and Welcome
10:00 - 11:15 Session I - Overview of Urban Water and Wastewater Drainage
11:15 - 11:30 Tea/Coffee break
11:30 - 13:00 Session II – Design of Urban Drainage Systems
13:00 - 14:00 Lunch
14:00 - 15:15 Session III - Best Management/ Sustainable Practices including Rainwater Harvesting
15:15 - 15:30 Tea/Coffee break
15:30 – 17:00 Session IV – Flood Risk Management and Resilience – Climate change and urban flooding
17:00 onwards Participants' Case Studies – Expert Panel

Day 2: Friday, July 12, 2008

09:30 - 10:45 Session V – Removal of Solid Waste and Sediments from Urban Drainage Channels
10:45 - 11:15 Tea/Coffee break
11:15 - 12:45 Session VI – Use of GIS in Urban Water and Wastewater Management
12:45 - 13:45 Lunch
13:45 - 15:15 Session VII – Mumbai Drainage System + Early Flood Warning Systems (BMC)
15:15 - 15:30 Tea/Coffee break
15:30 – 16:30 Session VIII- Urban Lake Management including Wetlands for Urban Drainage Management
17:00 - 17:30 Session IX- Drainage System Master Planning

Day 3: Saturday, July 13, 2008

09:30 - 10:30 Briefing on the Field Trip
10:30 - 11:00 Tea/Coffee break
11:00 - 17:00 Field Visit (incld packed lunch)

Note: Each session is intended to be interactive with frequent discussions.

First Announcement

Three-day CEP Course on Urban Drainage Management: State-of-the-Art (Theme: Climate Change and Urban Flooding)

July 11-13, 2008



OFFICE OF CONTINUING EDUCATION AND
QUALITY IMPROVEMENT PROGRAMMES

Indian Institute of Technology Bombay
Powai, Mumbai 400 076