

AICTE-QIP SHORT TERM COURSE

ON

Mathematical Methods in Civil Engineering

A Continuing Education Program of
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

(February 19-23, 2018)

Faculties:

Dr. Kousik Deb

Dr. Anirban Dhar

Dr. Biswanath Banerjee

Dr. Amit Shaw

Dr. Brajesh Kumar Dubey

Dr. Sudeshna Mitra

Department of Civil Engineering, IIT Kharagpur



Organized by

Department of Civil Engineering

Indian Institute of Technology Kharagpur

Kharagpur-721 302

BACKGROUND

With the advancement of computing power and technology, mathematical methods play a crucial role to fully realize the advanced engineering systems. In particular, problems that were beyond our reach few decades ago can now be well tackled in today's context. Moreover, scientific advancement and technological development clearly direct us to refine our knowledge of physical understanding on a scientific/engineering phenomenon. In this context mathematical representation of such complex systems and its solutions become increasingly important in present day situation.

COURSE CONTENT

The course will address both theoretical developments and practical applications related to Structural, Geotechnical, Transportation, Hydraulic and Environmental Engineering fields. The course will discuss the application of differential equations, numerical linear algebra, nonlinear optimization, statistical analysis, systems of linear equations, reverse engineering or inverse problem, particle based methods, finite difference method, advanced finite element within the realm of Civil Engineering.

DATES AND VENUE

The training course will be held at **Department of Civil Engineering, IIT Kharagpur** during February 19-23, 2018.

PARTICIPATION

The following members can attend the course:

- Teachers of State / Central Govt./Private engineering degree level Engineering Colleges approved by AICTE.
- Engineers working in industries dealing with different branches of Civil Engineering.
- Postgraduate students and Research Scholars from AICTE approved engineering colleges.

REGISTRATION FEE FOR ALL PARTICIPANTS

All the participants have to submit the duly filled Registration Form by 31st January, 2018. The registration Form has to be posted to the address of the Course Coordinator. Participants of category (b), (c) & (d) must also send the prescribed course fee along with the registration form. Advance (scanned copy) of the filled up registration form can also be send as e-mail attachment.

Teachers from AICTE approved colleges need to be forwarded their Registration Form from their respective Head of the College/Institute /University. Students from AICTE approved colleges need to be forwarded their Registration Form from their respective Head of the Department.

COURSE FEE

- (a) Teachers from the AICTE approved degree level engineering colleges: **NIL**
- (b) Engineers from industries: Rs. 30,000/-
- (c) Teachers from Non-AICTE approved colleges: Rs. 20,000/-
- (d) Research Scholars / Students: Rs. 3,000/-

The course fee will cover lecture notes, refreshment during classes. Board, lodging and travel charges will have to be borne by the participants (except teachers from AICTE approved degree level engineering colleges).

The course fee (if applicable) can be submitted in the form of a demand draft drawn in favor of 'CEP-STC, IIT Kharagpur' payable at Kharagpur.

For electronic payment:

Name of Bank Account: CEP-STC, IIT Kharagpur; Bank Name: Syndicate Bank; Branch Name: SRIC, IIT Kharagpur; SB Account No.: 95562200002955; IFSC Code: SYNB0009556; MICR: 721025103; SWIFT: SYNBINBB120.

ACCOMMODATION

On prior intimation, accommodation can be arranged [for category (b), (c) & (d)] within the campus on first come first serve basis on payment of usual charges (NGH: Rs. 1000/day single occupancy & 1500/day double occupancy; VGH: AC Rs. 400/day single occupancy, Rs. 600/day double occupancy; Non AC Rs. 250/day single occupancy, Rs. 300 /day double occupancy)

The participants of the category (a) shall be provided free shared board & lodging in the VGH and travel cost as per the AICTE norms (AC rooms will be provided on first come first serve basis). Travel allowance is limited to maximum 3-tier AC class on the shortest route, round-trip fare (train fare or lower) on submission of tickets.

IMPORTANT DATES

Last date for receipt of Registration Form: **31st Jan 2018.**
Intimation to selected participants: **1st February, 2018.**

ABOUT THE CIVIL ENGINEERING DEPARTMENT

The Civil Engineering department is one of the oldest Departments in the Institute with its beginning in 1951. The department has been involved in areas of Soil Mechanics, Transportation Engineering, Hydraulics and Structures and Environmental engineering. Sponsored and consultancy projects undertaken by the department include Disaster Mitigation & Management, Analysis, Evaluation and Design of Highway and Airport pavements, Non-destructive Evaluation and Restoration of various structures such as building and bridges, Process Modifications for pollution mitigation, Ground Improvement and Sediment Transport and Scour studies and environment management issues.

COURSE COORDINATOR

Dr. Kousik Deb
Associate Professor, Department of Civil Engineering
IIT Kharagpur, West Bengal 721302
Ph.: (+91 3222) 283434(O); Mob.: +91 9434147985
Email: kousik@civil.iitkgp.ernet.in

COURSE CO-COORDINATOR

Dr. Anirban Dhar
Assistant Professor, Department of Civil Engineering
IIT Kharagpur, West Bengal 721302
Ph.: (+91 3222) 281884(O); Mob.: +91 9434147950
Email: anirban@civil.iitkgp.ernet.in

Dr. Biswanath Banerjee
Assistant Professor, Department of Civil Engineering
IIT Kharagpur, West Bengal 721302
Ph.: (+91 3222) 283426 (O); Mob.: +91 9775762130
Email: biswanath@civil.iitkgp.ernet.in

REGISTRATION FORM
AICTE-QIP Short-Term Course on
Mathematical Methods in Civil Engineering
February 19-23, 2018
Department of Civil Engineering, IIT Kharagpur

Name:
Designation:
Office Address:
Phone: Mobile:
Email:
Date of Birth:
Highest academic qualification:
Requirement of accommodation:
Civil Engineering Specialization (if any):
For QIP Sponsored Candidates [Category (a)]
Recommended and Forwarded
Date: Signature and Seal of Head of the Organization
For others [Category (b), (c) and (d)]
Draft No.....dt..... amounting Rs. drawn on..... Bank.
OR
NEFT Transaction No:dt..... for Rs.through..... Bank
Recommendation and forwarding from the organization where working (Optional)
Date:
Place: Signature of the Applicant