Eligibility

Teachers from AICTE recognized engineering colleges and practicing engineers from private and government organizations, scientists/ engineers from R&D establishments are eligible to apply for participation.

Registration

All the participants have to submit the duly filled Registration Form by 05th February 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.

Faculties 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) Scientists/ Engineers/ officers from State / Central Govt. Departments /industries: Rs. 30,000/-

(c) Teachers/Scientists/Engineers from Non-AICTE colleges/institutes: Rs. 20,000/-

(d) Research Scholars / Students: Rs. 3,000/-

Boarding and lodging charges will have to be borne by the participants (except teachers from AICTE approved degree level engineering colleges).

Important Dates

Submission of application form with sponsorship certificate : Feb. 05, 2018
Payment of course fee : Feb. 05, 2018
Intimation to selected candidates : Feb. 10, 2018

Contact Details

Dr. Sudhirkumar Barai
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Phone : (03222) 283426 (O)

Fax : (03222) 282254/ 255303

Lecture Notes

Printed volume/soft copy of lecture notes will be made available to the participants.

Mode of Payment

All payments should be made by a crossed Demand Draft in favour of "**CEP-STC, IIT, Kharagpur**" payable at Kharagpur.

For electronic payment:

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

AICTE-QIP Short Term Course

On

Advanced Computing Tools in Civil Engineering

March 05-09, 2018

Coordinators

Dr. Sudhirkumar Barai
Dr. Arghya Deb
Dr. Biswanath Banerjee

Organized by

Department of Civil Engineering
Indian Institute of Technology
Kharagpur 721 302, India

About the Course

Given the scarcity of analytical solutions for mathematical models of engineering systems and the versatility of computational procedures in treating such systems, research efforts continue to focus on improving computing tools. Moreover, with the advancement of computing power, computational algorithms that were relevant a few years ago are irrelevant today. Thus, it is essential to improve our knowledge to fully realize the advanced computing technology.

In this one week short course, it is planned to discuss several such advanced computing tools applicable to civil engineering domain. In addition to the conventional numerical computational techniques such as the finite element method (FEM), boundary element method (BEM) the new meshless based techniques will be discussed in detail. Advanced finite elements like Disconcontinuous Galerkin (DG) method, Extended finite elements (XFEM), Non-conforming finite elements, will be discussed. Machine learning tools play a very crucial role in todays' computing world. Participants will have a detail exposure in different machine learning tools such as artificial inteligence, Fuzzy logics, artificial neural network, genetic alhgorithm, support vector machines, differential evolution etc. Particle based methods like smooth particle hydrodynamics (SPH), material point method, peridynamics etc. will be elaborated in this course. In addition to it is planned to focus on strucrual, geothechical, water-resources, hydrodynamics, transportation, fluid structure and soil-structure application of such algorithm. Inverse problems and structural health monitoring will be also addressed. Also, participants will have a detailed software exposure involving tutorial such as Python scripting, ABAQUS, and ANSYS etc.

Sponsorship Certificate

Certified that Dr./Shri/Smt …… …. … … … .. …….. .. .. .. … …. ….. … is being sponsored hereby for attending the course on "Advanced Computing Tools in Civil Engineering" to be conducted at IIT Kharagpur during March 05-09, 2018.

……
(Signature of Sponsoring/forwarding Authority with date and seal)

Resource Persons

The teaching faculty will constitute experts from different disciplines of IIT Kharagpur.

Venue For Lectures

Seminar Hall of the Civil Engineering Department, IIT, Kharagpur.

Accommodation

Accommodation will be arranged 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 boarding & lodging in the VGH and travel cost as per the AICTE norms (AC rooms will be provided on first come first serve basis).

AICTE- QIP Short Term Course
On
Advanced Computing Tools in Civil Engineering
(March 05-09, 2018)

Application Form
(Last date for submission: **February 05, 2018**)

Name: _____

Designation: _____

Organization: _____

Mailing Address: _____

E-mail: _____

Educational Qualification: _____

Professional Experience (Years): _____

Experience in Engineering Computing: _____

For others [Category (b), (c) and (d)]
Draft No……dt……..
amounting Rs. …….. drawn on ……
…….. Bank.
OR
NEFT Transaction No:……dt……
for Rs. ……through……
……Bank

Date:
Place: Signature of the Applicant

Please enclose sponsorship certificate along with this form. For Additional entries, please photocopy/ type this form.