

Introduction

Engineering problems require knowledge of various computational skills for their solution and analysis. Researchers are familiar with the required techniques that are commonly used in their fields and specific to the kind of problems of their discipline. In this course it is planned to bring experts from different fields of expertise to one platform and share their expertise with the audience regarding the applicability of their solution and modeling techniques with case studies. In addition the applicability of these techniques in other fields of engineering shall also be discussed.

Objective

Present course is conceived to address the needs of introducing different solution and modeling techniques for the solution of engineering problems in various disciplines. The course will also give brief overview of commercially available software available for implementing these techniques.

Contents

- Introduction to Computational Methods
- Numerical Methods
 - Method of characteristics
 - Finite Difference Method (FDM)
 - Finite Element Method (FEM)
 - Finite Volume
 - Spatial Analysis
- Soft computing techniques
 - ANN
 - Genetic Algorithm
 - Fuzzy Logic
- Optimization techniques

About NIT Hamirpur

National Institute of Technology Hamirpur (Then REC Hamirpur) was established as a joint venture of the Government of India and the Government of Himachal Pradesh in 1986. Presently the institute offers undergraduate (B. Tech. & B. Arch.) and post graduate courses (M.Tech. & Ph.D.) in almost all leading fields of engineering, technology, science and humanities fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied. Through the internationally renowned faculty, laboratories with state of art equipments and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities besides imparting regular teaching. The Institute is emerging as a hub of scholastic and extension activities, thus benefitting the technical educational institutes within and outside the state of Himachal Pradesh.

The NITH is a participating institute in World Bank supported Technical Education Quality Improvement Programme-II (TEQIP-II) implemented by the National Project Implementation Unit (NPIU).

Patron:

Prof. V.S. Ramamurthy, Chairman, BOG

Chairman:

Prof. Rajnish Shrivastava, Director

Co-Chairman:

Dr. R.K. Dutta, Head, Department of Civil Engg.

Course Coordinators:

Dr. Pardeep Kumar,
Dr. Vijay Shankar and
Dr. Vijay Kumar Bansal
Department of Civil Engineering
NIT Hamirpur HP-177005

**Department of Civil Engineering
National Institute of Technology Hamirpur**

REGISTRATION FORM

**Inter Disciplinary Short Term Course
on
Computational Methods in Engineering
(May 13th to 17th, 2013)**

Name, Designation & Address of Applicant

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.....
.....

Phone (O & R) & Fax with STD Code

.....

E-mail:

Address of Sponsoring Authority

.....

.....

.....

Details of registration fee -

Draft No Dated.....

for Rs. _____ is enclosed.

Date:

Signature of Sponsoring

Authority with seal

Signature of candidate

Eligibility

The course is designed for faculty members/scientists/people from industry and research scholars. The course is specifically suitable for persons working in the field of research involving modeling, simulation and mathematical formulations of process related to different fields and specializations.

Registration Fee

For the registration fee shall be Rs. 1,000/- for the participants from the industry, Rs 500/- for participants from educational/ research/institutions and 250 for research scholars/students. Suitably furnished accommodation will be provided in the Aravali Hostel of the NIT Hamirpur. However, no TA/DA will be provided to the participants.

Payment

The fee should be sent in advance through Bank draft drawn in favour of “**Registrar, NIT Hamirpur**” and latest by **April 30th, 2013**.

Experts from

- IIT Delhi
- IIT Roorkee
- MNIT Jaipur
- MA NIT Bhopal
- NIT Hamirpur

Important Deadlines

Last date for receiving applications:
April 30th, 2013

Notification of acceptance: May 5th, 2013

About Hamirpur

The NIT Hamirpur is located at **Anu** in **Hamirpur** district of **Himachal Pradesh**. The campus is 4 Kms from main bus stand of Hamirpur on *Hamirpur – Toni Devi road*. Hamirpur town is well connected with the rest of the country by road. The nearest railway station is at Una Himachal, which is 80 Kms from Hamirpur. Hamirpur is almost 85 km from Dharamsala Airport situated at Gaggal (Kangra). The place has healthy climate with moderate temperature ranging from 1°C to 38°C with an altitude of 900 meters. During May the average temperature is about 30°.

For all Correspondence

Interested person(s) should send the Nomination on the enclosed Pro-forma duly sponsored by the appropriate authority along with the registration fee to –

Dr. Vijay Kumar Bansal
Course Coordinator
Department of Civil Engineering
National Institute of Technology Hamirpur
HP– 177005
Phone: (01792) 254332, 254340, 254314
Mobile : 09418464896
 : 09418131826
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E-mail: cmecivil13@gmail.com

Brochure is available on institute web site
<http://www.nith.ac.in>

(1st Announcement)

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Hamirpur**

Inter Disciplinary Short Term Course

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Organised by

**Department of Civil Engineering
National Institute of Technology Hamirpur –
177005**

Funded by

**Technical Education Quality Improvement
Programme - II (TEQIP-II)**