# **Five-Days Online Workshop**

on

MATLAB Applications in Civil Engineering

4th to 8th August 2023



### **Coordinators**

Dr. Amrit Kumar Roy Dr. Vimal Kumar

**Organized by** 



Department of Civil Engineering National Institute of Technology Hamirpur Hamirpur-177005 (H.P.)

## **About the Institute**

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on 7<sup>th</sup> August 1986 as Regional Engineering College, a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. On 26<sup>th</sup> June 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology. The Institute offers Bachelor, Master and Doctoral programs in Engineering, Sciences, Architecture, Management and Humanities. Various programs serve the purpose of building a comprehensive foundation of knowledge and of enhancing confidence, creativity and innovation in its students.

## **About the Department**

National Institute of Technology, Hamirpur was established in the year 1986 and the Civil Engineering Department is part of the institute since its inception. Civil Engineering is the branch with lot of diversity right from structural to transportation engineering, environmental to hydrology to hydraulics engineering, geology to geo-technology to earthquake engineering. Being one of the primary Engineering Departments of the Institute, the Department of Civil Engineering offers B. Tech., M. Tech. and Ph.D. degree programs. The Department has been imparting quality education at undergraduate and postgraduate level. The faculty members have been active in teaching, research as well as academic activities.

## **Organizing Committee**

#### Patron

Prof. (Dr.) H. M. Suryawanshi

Director, NIT Hamirpur (H.P.)

### Chairperson

Dr. S. S. Katoch

Head, DoCE, NIT Hamirpur (H.P.)

#### Convener

Dr. Pardeep Kumar

Associate Professor, DoCE, NIT Hamirpur (H.P.)

#### Treasurer

Dr. Amrit Kumar Roy

Assistant Professor, DoCE, NIT Hamirpur (H.P.)

#### **Our Advisors**

Prof. R K Sharma

Prof. Raman Parti Prof. R.K. Dutta Dr. S.S. Katoch Dr. Pardeep Kumar Dr. R.S. Banshtu Dr. Vijay Shankar Dr. V. K. Bansal Dr. Umesh K. Pandey Dr. Chander Prakash Dr. Sunil Sharma Dr. Amrit Kumar Roy Dr. Dharmendra Dr. K.Nallasiyam Dr. Manendra Singh Dr. Ray Singh Meena Dr. Vimal Kumar

Dr. Deepak Singh
Dr. Parvesh Kumar
Dr Abhimanyu
Dr. Sneha Das
Dr. Shibayan Biswas
Secretarial Assistance
Mr. Jatinder Kumar
Technical Assistance
Sh. Balbir Singh
Sh. Parkash Singh
Sh. Naresh Kumar

Sh. Rahul Jamwal Sh. Vikrant Singh Sh. Sahil Katoch Office Assistance Sh. Anil Kumar

# **About the e-Workshop**

The Workshop is intended to develop the knowledge of MATLAB used in the field of Civil engineering. It will make the audience aware of the basic and advanced tools available in MATAB and their usage in Civil Engineering. Distinguished experts from IITs, NITs will be considered potential speakers for the workshop which will benefit P.G. and Ph.D. students to enhance their knowledge and also help the students to solve their dissertation problems.

The primary aims of this e-Workshop are to enhance the computational skills of the participants for solving Civil Engineering Problems using MATLAB. The workshop will promote interaction with professionals working in specific areas of research in Academic Institutions, Also, exposure will be provided to the audience on the wide application of MATLAB that may help in carrying out their research work. This program will bring a positive transformation among the faculty members and research scholars toward research work. and enable the participants to develop competence in understanding—recent advances in the proposed topic of the workshop.

# **Topics to be Covered**

- Introduction to MATLAB
- Hands-on sessions

- Finite Element Modeling of Civil Engineering problems
- Application of optimization algorithms for solving Civil Engineering Problems.
- Application of Machine Learning algorithms for solving Civil Engineering Problems, etc.

# **Resource Persons**

The lectures will be delivered by technical people from MATLAB or MATLAB partner companies and different experts from NITs, IITs, CSIR Labs, etc.

## **Important Dates**

Last date (Online Registration): 02-08-2023 Confirmation by E-mail: 03-08-2023 e-Workshop Duration: August 4-8, 2023

## **Eligibility**

This program is open to faculty members, scientists, PhD scholars, PG & UG Students and industrial personnel.

## e-Registration

Registration Fee: Through SBI Collect

- (a) Rs. 500 for the participants from Academia/R&D Labs
- **(b)** Rs. 200 for students
- (c) Rs. 1000 for participants from Industry

## **How to Apply**

Interested candidates must deposit the nonrefundable registration fee through SBI collect (ONLY) by the following procedure:

- a. Go to SBI collect home page
- b. Select Category 'Educational Institutions'
- c. Search for Educational Institute 'NIT Hamirpur' against state Himachal Pradesh
- d. Select payment category as **WORKSHOP FDP STC CONFERENCE**.
- e. Generate the payment slip and take a printout of the same.
- f. Fill the registration form available at the following link and also attach the soft copy of the payment slip generated in step 'e' above.

# https://forms.gle/xMXjDS68FeGRzB567

Notes: \*The above link will be closed once the limit of participants will reach. Therefore, check the registration link is open before payment of the fee, please. \*The applications will be accepted on first-cum-first serve basis.

\*Venue: Through Google Meet.

## e-Certification

E-certificates will be provided to the participants fulfilling the minimum attendance criteria and whose payment is verified.

# **Contact Details**

# Dr. Amrit Kumar Roy

Email: amritroy@nith.ac.in

Mob.: +91-9882776744, +91-9418796744

### Dr. Vimal Kumar

Email: vimalkumar@nith ac.in Mob.: +91-8619858667

## Dr. Pardeep Kumar

Email: pkumar@nith.ac.in, Mob.: +91-9418131826.