Online Short Term Course (e-STC)

On

Geographic Information System for Architecture, Engineering and Construction

31st May 2021 –04th June 2021

COORDINATORS

Dr. V. K. Bansal

Dr. Sunil Sharma

Dr. Neetu Kapoor

ORGANIZED BY

Department of Civil Engineering
National Institute of Technology, Hamirpur
Himachal Pradesh-177005
https://nith.ac.in/

ABOUT THE INSTITUTE

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on 7th August, 1986 as Regional Engineering College, a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. On 26th 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 a 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 post-graduate levels. The faculty members of the department have been active in teaching, research as well as in academic activities.

PATRON

Prof. (Dr.) Lalit Kumar Awasthi
Director, NIT Hamirpur (H.P.)

CHAIRPERSON

Dr. R. S. Banshtu
Head, DoCE, NIT Hamirpur (H.P.)

TREASURER

Dr. Sunil Sharma
Assistant Professor, DoCE, NIT Hamirpur (H.P.)

ORGANIZING COMMITTEE

Prof. R.K. Sharma	Dr. Subhadip Biswas
Prof. Raman Parti	Dr. Manendra Singh
Prof. R.K. Dutta	Dr. J.S. Yadav
Dr. S.S. Katoch	Dr. Vimal Kumar
Dr. Pardeep Kumar	**Secretarial Assistance**
Dr. R.S. Banshtu	Smt. Meera Thakur
Dr. V. K. Bansal	**Technical Assistance**
Dr. Vijay Shankar	Sh. Balbir Singh
Dr. Mamta Awasthi	Sh. Parkash Singh
Dr. Umesh Pandey	Sh. Naresh Kumar
Dr. Chander Prakash	Sh. Rahul Jamwal
Dr. Sunil Sharma	Sh. Vikrant Singh
Dr. Amrit Kumar Roy	Sh. Sahil Katoch
Dr. Dharmendra	**Office Assistance**
Dr. Joy Pal	Sh. Hem Raj Sharma

About e-STC

A Geographic Information System is a multi-component environment used to create, manage, visualize and analyze data and its spatial counterpart. It's important to note that most datasets encounter in our lifetime may be assigned a spatial location whether on the earth's surface or within some arbitrary coordinate system. Hence, in essence, any dataset may be represented in a GIS. Many GIS software are available – both commercial and open source. Among the widely used GIS software, two most popular software are *ArcGIS* and *QGIS*. *ArcGIS* was developed by *Environmental Systems and Research Institute* (ESRI). *ArcGIS* desktop environment encompasses a suite of applications which include *ArcMap*, *ArcCatalog*, *ArcScene* and *ArcGlobe*. Very capable open source (free) GIS software is *QGIS*. It encompasses most of the functionality included in *ArcGIS*.

QGIS is a wonderful choice given its multi-platform support. Built into the current versions of *QGIS* are functions from open source software: GRASS. GRASS has been around since the 1980's and has many advanced GIS data manipulation functions however, its use is not as intuitive as that of *QGIS* or *ArcGIS* (hence the preferred *QGIS* alternative).

The primary aim of this e-STC is to enhance technical and professional competency of the participant in the field of GIS. Apart from theory classes on the basics of GIS, the course has been planned to cover the applications of GIS in the field of architecture, engineering and construction. Main focus of the course will be on application of GIS in the area of architecture, engineering, construction, and planning decision making. There will be hands-on training on popular GIS software- *QGIS* and *ArcGIS* during the afternoon sessions.

Topics to be covered

- Coordinate systems,
- Vector and raster data models,
- Attribute and spatial data input and management,
- Application of GIS in planning and decision making,
- Application of GIS in Engineering and construction,
- Hands-on training on *QGIS*, and
- Hands-on training on *ArcGIS*.

Resource Persons

- Prof. Mahesh Pal, NIT Kurukshetra,
- Prof. Mahesh Jat, NIT Jaipur,
- Dr. V. K. Bansal, NIT Hamirpur (HP),
- Dr. Chander Prakash, NIT Hamirpur (HP),
- Dr. Sunil Sharma, NIT Hamirpur (HP), and
- Dr. Neetu Kapoor, NIT Hamirpur (HP).

Important Dates

- Last date (online registration): 19-05-2021
- Confirmation by e-mail: 22-05-2021
- e-STC duration: 31-05-2021 to 04-06-2021

Eligibility

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

How to Apply

The interested candidates must deposit the non-refundable registration fee through SBI collect with the following procedure:

a. Go to SBI collect and choose Himachal Pradesh as the state of Institution and type of Institution as an educational institute.

b. Choose NIT Hamirpur from Name of the Institutions and Select payment category as

WORKSHOP FDP STC CONFERENCE. Link is as below:
https://www.onlinesbi.com/sbicollect/icollecthome.htm

c. Generate the payment slip and attach it with the registration form available at the following link.
https://forms.gle/yvR5yQ8MEC7K8y597

Notes:
- Applications will be accepted on first-cum-first serve basis.
- Ensure the link is open before you pay the fee.
- Venue: Through Google Meet. The link for the online course will be shared through email later.

Registration fee

Registration Fee: Through SBI Collect
a. Rs. 200 for students
b. Rs. 500 for participants from academia/R&D Labs
c. Rs. 1000 for participants from industry

E-certification

E-certificates will be provided to the participants, with at least 80% attendance, upon successful completion of the program.

Contact Details

Dr. Sunil Sharma
Email: sunils@nith.ac.in
Mob: +91-9459117100

Dr. V. K. Bansal
Email: vkb@nith.ac.in
Mob: +91-9418023387

Dr. Neetu Kapoor
Email: neetu@nith.ac.in
Mob: +91-9418217161