

(Offline Mode)

**Five Days Workshop on
Integrated Hydrological and Hydraulic Modelling
Using MIKE+ and MIKE SHE**

15th - 19th May 2023



COORDINATORS
Dr. Ray Singh Meena
Dr. Vijay Kr. Bansal

Jointly Organized by



**Department of Civil Engineering
National Institute of Technology Hamirpur
Himachal Pradesh, India-177005**



**DHI (India) Water & Environment
Private Limited
Unit No. 815, Eight Floor
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New Delhi, India-110020**

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 CIVIL ENGINEERING 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 level. The faculty members have been active in teaching, research as well as academic activities.

ABOUT THE ACADEMY BY DHI

THE ACADEMY offers a palette of courses and capacity building packages designed to fit your needs and challenges. We offer standard and/or tailored training - face-2-face as well as online. MIKE Powered by DHI courses focus on practical skills, hands-on exercises and teaching you how to get the most out of your software. These courses also enable you to understand the power of the MIKE tools for building decision support systems. Thematic courses allow you to apply concepts, applications and decision support principles to the entire business process within current areas: aquaculture and agriculture, energy, climate change, flooding, coast and marine, surface and groundwater, urban water, industry, environment and ecosystems, product safety and environmental risk, etc. Our trainers are experienced professionals, many of whom are recognized international experts in their fields. The use of highly skilled trainers guarantees the quality of THE ACADEMY courses.

[Learn more about THE ACADEMY on
www.theacademybydhi.com](http://www.theacademybydhi.com)

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ORGANIZING COMMITTEE

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Dr. Sunil Sharma	Sh. Sahil Katoch
Dr. Amrit Kumar Roy	Sr. Assistance
Dr. Dharmendra	Sh. Jatinder Kumar

ABOUT THE WORKSHOP:

This 5-days hands-on course, jointly organized by NIT Hamirpur and DHI, gives you an introduction to integrated hydrological modelling, basin management and uncertainty analysis. The objective of this course is to impart knowledge of numerical modelling of the different processes in the hydrological cycle. This course gives an overview of the basic physical concept and numerical modelling of hydrological, hydrodynamics, and hydrogeological processes, calibration and uncertainty analysis.

THE TOPICS TO BE COVERED:

Day 1-2: Introduction to hydrological processes, various approaches of modelling, need for numerical modelling, hydraulic modelling such as flooding, flood forecasting and flood management, dam break analysis, structure operations, sediment transport.

Day 3-4: Fully integrated/ coupled models considering overland flow, unsaturated flow, groundwater flow, and fully dynamic channel flow, including all their complex feedbacks and interactions. It is also planned to model processes such as vegetation-based evapotranspiration, irrigation, and snowmelt and water quality.

Day 5: Model output analysis, development of different management scenarios

CERTIFICATION:

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

TOOLS USED:

QGIS, MIKE +River, MIKE+2D, MIKE SHE

TARGET GROUP AND PREREQUISITES:

Professionals (faculty members, scientists, research scholars, PG & UG Students and industrial personnel etc.) in water resources planning who wish to obtain a general understanding of hydrological modeling and its application in efficient water resource management.

SELF PACED COURSES (Links):

- [MIKESHE-Getting started with integrated hydrological modelling:](#)

[MIKE SHE – Getting started .. | THE ACADEMY by DHI](#)

- [MIKE+ – Getting started with river modelling](#)
[MIKE+ – Getting started w .. | THE ACADEMY by DHI](#)

Please complete the above-mentioned courses before attending training.

RESOURCE PERSONS:

Mr. MANISH KUMAR

Primary Trainer **Mr. Manish Kumar** is a Senior Water Resource Engineer in DHI who is specialized in hydraulic and hydrological modelling, Flood Forecasting, network design for water supply and sanitation, field data collection for river modelling and basin management. He has working experience on MIKE Operation, MIKE + Urban, MIKE+ Flood, MIKE HYDRO River & Basin, ArcGIS etc.

Master of Science (M.Sc.), Water Resources Management, TERI University

Ms. SREYA

Sreya is currently working as MIKE Technical Support Engineer at DHI. She is having knowledge on hydrology and hydraulic engineering aspects. She has been working with MIKE HYDRO River, MIKE+, and MIKE HYDRO Basin, MIKE SHE and FEFLOW. She is part of the team that delivers training, capacity building programs and technical support.

M.Tech, Environmental Engineering, APJ Abdul Kalam Technological University

IMPORTANT DATES:

Last date (Online Registration): 05-05-2023

Confirmation by E-mail: 06-05-2023

Workshop Duration: 15-05-2023 to 19-05-2023

REGISTRATION:

Registration Fee: Through SBI Collect

- a. Rs. 1000 for students
- b. Rs. 2000 for participants from Academia/R&D Labs
- c. Rs. 4000 for participants from Industry

REGISTRATION FEE INCLUDES:

- Training material
- Training Certificate
- Two times tea/snacks during workshop

INSTRUCTIONS TO PARTICIPANTS:

- Participants are expected to bring their own laptop with required specifications.

[MIKE 21 Release Notes.pdf \(mikepoweredbydhi.help\)](#)

- **Accommodation and food** for the participants will be arranged at NIT Hamirpur on payment basis.

LANGUAGE:

Lectures and training material are in English.

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.
<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/q6MH1jKQ7oyS5iVC6>

NOTES:

***Applications will be accepted on first-cum-first serve basis (Maximum 50).**

***Ensure** the link is open before you pay the fee.

***Venue:** Department of Civil Engineering, NIT Hamirpur

CONNECTIVITY

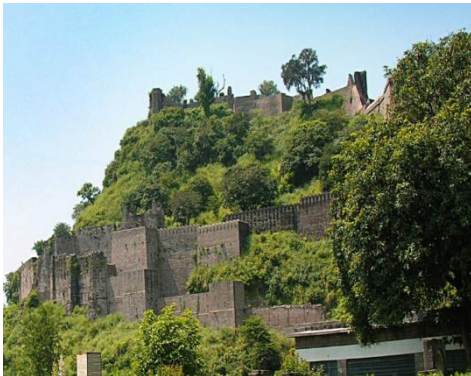
The NIT Hamirpur campus is situated at Anu in Hamirpur district of Himachal Pradesh and is nearly 4 Kms away from main bus stand of Hamirpur on Hamirpur-Tauni Devi road. The city of Hamirpur is well connected with the rest of the country by road. Hamirpur is at a distance of about 450 Kms from Delhi and 200 Kms from Chandigarh.

Nearest broad gauge railway junction is at Una (Himachal Pradesh), at a distance of around 80 Kms from Hamirpur. Una is well linked to all parts of country and journey is of nine hours from Old Delhi Railway Station. Taxi/Bus services are available from Hamirpur to Una. To find details about train service from different cities towards Una, one can visit <http://www.indianrail.gov.in/>.

The nearest airport is at Dharamshala (Gaggal, District Kangra) which is about 75 Kms (02 Hours) from Hamirpur; Chandigarh International Airport is at about 200 Kms (About 04 Hours) from here.

PLACES TO VISIT NEARBY

Himachal Pradesh is a state located in the northern part of India, known for its scenic beauty and rich cultural heritage. The state attracts a large number of tourists every year who come to explore its stunning landscapes, hill stations, temples, and adventure activities. The state is also known for its rich cultural heritage, which is reflected in its temples, monasteries, and festivals.



KANGRA



DHARAMSHALA



PALAMPUR



SHIMLA



MANDI



KULLU



MANALI



ATAL TUNNEL ROHTANG