



ABOUT THE INSTITUTE

National Institute of Technology (NIT), Rourkela, was founded as Regional Engineering College, Rourkela, in 1961. It is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels, fostering the spirit of national integration among the students, close interaction with industry and a strong emphasis on basic and applied research. It has consistently secured a position among India's top 20 engineering institutions in the NIRF rankings released annually by the Ministry of Human Resource Development, Government of India, for the past five years.

Website: www.nitrkl.ac.in



About the Department

The Department of Civil Engineering Started its journey in 1961. Ever since the inception, it has been imparting quality education to undergraduate Students. The department presently Fosters four PG courses. There are about a dozen laboratories with various research and testing facilities. The faculty consists of eminent specialists from diverse fields, and there is a commendable research ambience in the department.

Patron

Prof. K. Umamheshwar Rao,
Director, NIT Rourkela

Chairperson

Prof. Suresh Prasad Singh
Head, Civil Engineering Department,
NIT Rourkela

Convenors

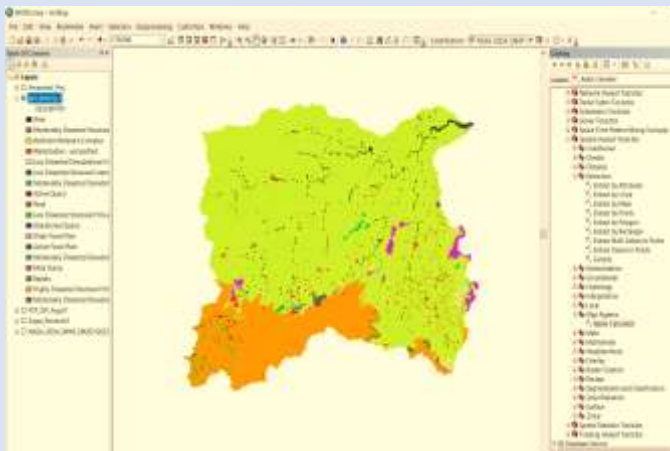
Dr. Sanat Nalini Sahoo
Dr. Jatin Anand
Dr. Ratnakar Swain



A 5-Day Workshop on **Computer Applications in Water Resources Engineering (CAWRE-2025)**

(May 27-31, 2025) **(HYBRID MODE)**

Department of Civil Engineering,
National Institute of Technology,
Rourkela



ABOUT CAWRE-2025

CAWRE serves as an outstanding educational platform tailored for students, researchers, academicians, industry experts, professionals, and hydrologists aiming to enhance their understanding of computational tools used in Water Resources Engineering. Key focus areas include watershed delineation, preparation of land-use and land-cover maps, applications of remote sensing, satellite image processing, rainfall-runoff simulations, stormwater management strategies, hydrodynamic modelling, urban flood simulations and flood mapping. Consequently, the workshop's primary objective is to provide participants with essential, hands-on expertise in leading software applications, empowering them to effectively address real-world water resource problems.

IMPORTANT DATES

Last date for registration	20 th May 2025
Confirmation mail	25 th May 2025
Workshop dates	May 27-31, 2025

COURSE CONTENT

Day-1: Technical background

- ❖ Keynote Lecture on basics of hydrological modelling and integrated flood Inundation Mapping.
- ❖ Technical background of ArcGIS, SWAT, HECRAS and SWMM model.
- ❖ Data downloading and software installation.

Day-2: Hands-on training on ArcGIS Software

- ❖ Watershed delineation, Shape file preparation and LULC preparation using ArcGIS.
- ❖ Input data preparation for SWAT Modeling

Day-3: Hands-on training on SWAT Modelling

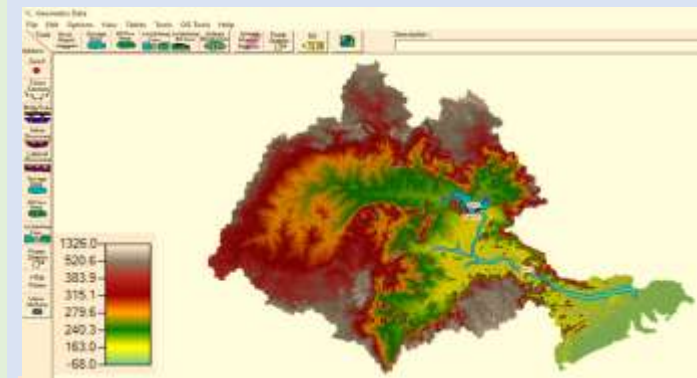
- ❖ Calibration and Validation of SWAT model using SWAT-CUP tool.
- ❖ Hydrological simulation using SWAT Model.

Day-4: Hands-on training on SWMM Modelling

- ❖ Input file preparation for SWMM model.
- ❖ Design of urban drainage system using SWMM model.

Day-5: Hands-on training on integrated Flood Inundation Mapping

- ❖ Working with HEC-RAS software.
- ❖ Flood simulation and inundation mapping using integrated SWMM-HEC-RAS Modeling.



REGISTRATION

The participant can register in the google form <https://forms.gle/KuzSWTxmYyLGYcr9A>

Registration Fee

For online participants	3000/-
For offline participants	6000/-
For International participants	10000/-

Study material and certificate will be provided to all participants.

ACCOMMODATION

Free hostel accommodation and food will be provided to offline participants. Guest House will be provided on payment basis depending upon availability.

Registration fee can be paid online via NEFT/RTGS/IMPS using the following information: (GPay/Phonepay/UPI through below account number are also accepted)

Name: CONTINUING EDUCATION NIT ROURKELA

A/C No.: 101 389 517 84

Bank: State Bank of India

Branch: NIT Campus Rourkela IFSC Code: SBIN0002109

Convenors

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NIT Rourkela**

For more Information, visit

<https://sites.google.com/view/cawre-2025/home>