

REGISTRATION AND CERTIFICATION

- Maximum seats: 25 (selection based on merit and first come, first serve basis)
- No Registration Fee
- Online registration form link:
<https://forms.gle/9Qt1dfuqEqnm6tD7>
- Please fill the above Google form with the requested details and upload the scanned copies of the certificate, resume, and declaration form along with NOC (from the Project supervisor/HoD/Head of the institution) by 16th March 2024.
- The applications will be screened, and the candidates will be selected on merit. The selection committee's decision will be final in the selection of candidates.
- The selected candidates will be informed by email on or before 16th March 2024.
- The selected candidates will have to acknowledge participating in the workshop through return email (on or before 18th March 2024), failing which the waitlisted candidates may be called to attend the workshop.
- Certificates will be provided to the participants after the successful completion of the workshop.
- Selected participants will be accommodated in Institute guest house/hostel rooms (if available) with catering facilities under the funds approved by SERB (as per norms).
- The participating students will be eligible for TA reimbursement for their journey to the host institute from their home town/home institute, both ways, as per the GoI norms.

IMPORTANT DATES

Last date of registration: 16/03/2024
List of selected students: 16/03/2024
Last date to accept the offer: 18/03/2024

Participants: Eligibility Criteria

- Only regular PG level (i.e., Masters or Ph.D.) students pursuing their degree from AICTE approved Institution within India are eligible to apply.
- Relevant areas of specialization include Hydraulic, Water Resources and Ocean Engineering (but are not limited to): Structural, Environmental and Geotechnical.
- The applicants should produce a declaration form and a "No Objection Certificate (NOC)" from the Supervisor/Head of the Department/ Institute, allowing their student to undergo training in the workshop if selected.

CHIEF PATRON

Dr. G. Aghila

Director, NIT Tiruchirappalli

CHAIRMAN

Dr. K. Muthukumaran, HoD

Department of Civil, NIT Tiruchirappalli

ADDRESS FOR CORRESPONDENCE

Dr. R. Manjula, Associate

Professor, Civil

National Institute of Technology, Tiruchirappalli,
Tamil Nadu- 620015

Email: manju@nitt.edu Contact

Number: +91- 9942305458

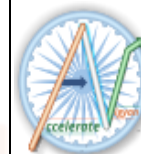
Further details:

Contact: Miss. S. Ajisha (+91-9489813654)

Mr. Venkateswarlu Challa

(+91-9121854879)

Mr.P. Gopi (+91-8866657030)



One Week High-End Workshop on

Modeling and Mitigation of Disaster Events Using CFD

[Physical Mode]

(20th to 26th March 2024)



EVENT ORGANIZER

Dr. R. Manjula, Associate Professor

Organized by:

Department of Civil Engineering,
National Institute of Technology
Tiruchirappalli,
Tamilnadu-620015.

Venue: Dept. of Civil Engineering, NIT Tiruchirappalli

Accommodation: A limited number of rooms in NITT Guest house/Hostels are available on First Come, and First Served basis. THE HOST INSTITUTION SHALL BEAR the boarding and lodging within the NITT premise only (from the SERB fund). If unavailable, the participants need to make self-arrangements for their stay outside the NITT premise, which the organizers do not bear. TA will be reimbursed for the train or bus lowest fare.

About the Institute

National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 undergraduate and 23 postgraduate programs in disciplines spanning engineering, science, architecture, and management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. NIT Tiruchirappalli retained its No. 1 position among all NITs, 6th year in a row in the “India Rankings 2021” released by NIRF. The Institute has signed MoUs with various Industries and Institutions both in India as well as in abroad to promote collaborative research and consultancy.

About the Department

The Civil Engineering Department was established in the year 1968. The department offers Undergraduate (UG), Postgraduate (PG), M.S. (By Research) and Ph.D.,

Degree programs that provide students with the knowledge and tools they need to succeed in the Civil Engineering. Research in the department focuses on high-impact various disciplines: Structural Engineering, Geotechnical Engineering, Water Resources Engineering, Environmental Engineering, Remote Sensing and GIS, Construction Management and Transportation Engineering. Many of our Ph.D. graduates have taken up faculty positions in other NITs and IITs.

About the Karyashala Scheme

KARYASHALA is a program offered by the Science and Engineering Research Board (SERB), Government of India, via Accelerate Vigyan scheme to boost Research & Development in the country by enabling and grooming potential PG level students (Master’s and Ph.D. students) by developing dedicated research skills in selected areas/disciplines through high-end workshops. This program aims to provide opportunities to acquire specialized research skills.

About the Workshop

The Modeling and mitigation of disaster events using CFD workshop is aimed towards training the participants in using the open-source CFD software:

- (a) IITM-RANS3D for fluid/wave-structure interaction and**
- (b) HEC-RAS for open-channel hydraulics.**

Some of the recent technological challenges faced in the fields of Disaster especially in hydraulic, civil, coastal and ocean engineering include: (a) riverine and coastal flood mitigation, (b) bed-erosion and scour around foundations, (c) mitigation of tsunamis and storm surges,

(d) green-water impacts and wave slamming and (e) harnessing clean renewable energy through hydroelectric, wave, fixed/floating offshore wind and floating solar concepts.

Objectives of the Workshop:

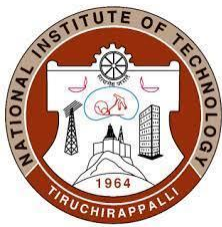
- a. To help the participants develop expertise in using state-of-the-art CFD techniques, such as hybrid modeling, fluid-fixed/moving/floating structure interaction and turbulence modeling in multiphase flows, all within the framework of open-source CFD codes.**
- b. To involve lectures on core topics by leading CFD practitioners from IITs and NITs.**
- c. The work-program involves several hands-on sessions almost 60 to 70% of total duration of the workshop to help the participants develop much-needed soft-skills necessary for the pre-processing, execution and post-processing stages of a CFD workflow.**

Course Contents:

- Numerical modelling of extreme wave climate and storm surge.**
- Service life of coastal structures.**
- Coastal Disasters and Mitigation Measures.**
- Introduction to modeling turbulent flows in CFD using Reynolds-Averaged Navier-Stokes equations.**
- Coastal Vulnerability Mapping.**

Resource Persons

Subject experts from prestigious academic institutions (like IITs, NITs, etc.), R&D organizations, and industries will deliver the workshop contents. The coordinators and student volunteers will mentor the hands-on sessions.



One Week High-End Workshop on Modeling and Mitigation of Disaster Events Using CFD [Physical Mode]

DECLARATION FORM

1. Name (In Block Letters):
2. Date of birth:Gender:
3. Category (M.Tech/M.E/M.S. /Ph.D. student):
4. Institution:
5. Department:
6. Mobile:
7. E-mail:
8. Specialization:
9. Accommodation is required (Yes/No).....
10. Official Address:

Declaration: The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the program and shall attend the course for the entire duration.

Name & Signature of the candidate

No Objection Certificate (NOC) from Project Supervisor/HoD/Head of Institution

I hereby certify that Mr./Ms. is a
..... (M.Tech/M.E/PhD) student of
..... I have no objection to him/her undergoing a high-
end workshop (if selected) on “**Modeling and Mitigation of Disaster Events Using
CFD**” at the National Institute of Technology Tiruchirappalli, Tamil Nadu, from **20th to
26th March 2024**.

Place:

Name & Signature of Project
Supervisor/HoD/Head of Institution

Date:

(Department/Institute Seal)