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 been consistently ranked within the TOP 20 engineering institutes for five consecutive years as per MHRD's NIRF Ranking, Govt. of India

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. Umamaheshwar Rao,
Director, NIT Rourkela

Chairperson

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

Convenors

Dr. Soukat Kumar Das
Dr. Sunil Khuntia

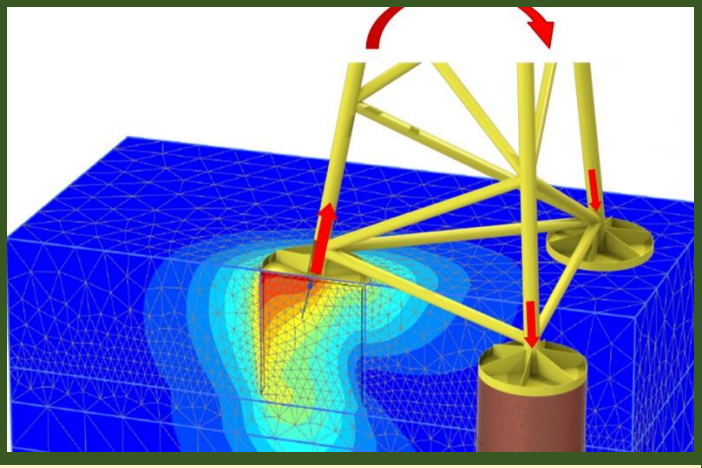
A 5-Day Short Term Course (STC) on

Emerging Developments in Geotechnical Engineering (EDGE-2025)

(3rd March- 7th March 2025)

(Hybrid Mode)

Department of Civil Engineering
National Institute of Technology
Rourkela



ABOUT EDGE-2025

The 5-Day STC on Emerging Developments in Geotechnical Engineering (EDGE-2025) will cover essential topics including an emerging trend in geotechnical engineering and innovative construction materials and advanced numerical methods such as FEM, FDM, DEM etc. Participants will learn the concept of applying these methods in various geotechnical problems including soil-structure interaction, slope stability, and tunnelling etc. The short term course will also cover geotechnical analysis for soil mechanics, foundation design problems under various conditions such as seismic, seepage, anisotropy etc. Advanced mathematical modelling techniques, including constitutive models for soil and construction materials and dynamic analysis for earthquake engineering, will be explored. Applications of future trends like AI, machine learning, and sustainable practices will also be explored.

OBJECTIVES

The 5-Day STC on Emerging Developments in Geotechnical Engineering (EDGE-2025) aims to explore the latest advancements and applications in the field of geotechnical engineering. The STC will feature a diverse line-up of speakers, including leading academics and industry experts. A Q&A segment, allowing participants to engage directly with the presenters, will follow each session.

BROAD THEMES OF THE STC

- Advanced Geotechnical Engineering
- Numerical Methods and Modelling
- Sustainable Foundation Materials
- Slope Stability and Landslide Analysis
- AI and ML for Geotechnics
- Carbon Sequestration Modelling
- Geotechnical Case Studies

IMPORTANT DATES

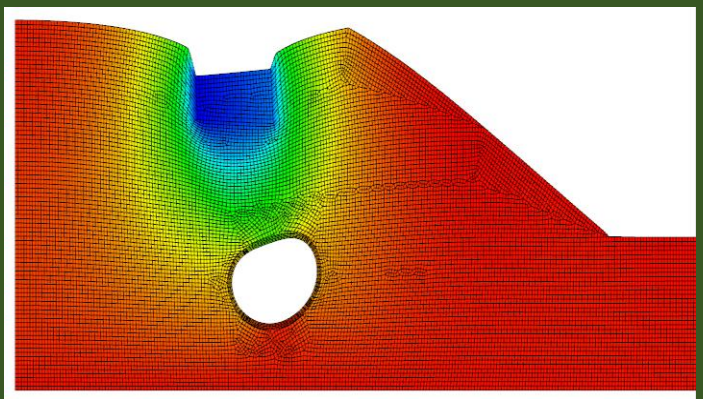
Last date for registration	**25th Feb 2025**
Confirmation mail	**26th Feb 2025**
STC dates	**3rd March- 7th March 2025**

Convenors

Dr. Soukat Kumar Das, Asst. Professor
dassoukat@nitrkl.ac.in, 78811-04501

Dr. Sunil Khuntia, Asst. Professor
khuntias@nitrkl.ac.in, 87916-75838

Department of Civil Engineering
NIT Rourkela



REGISTRATION

The participant can register through QR or the google form Link
https://forms.gle/S4183FxCQER83hhm9

Registration Fee

Research Scholars/ PG / UG Student/ Technical Staff	**1000/-**
Faculty from Academia	**1500/-**
Industry Participants	**2500/-**
Offline Participants	**7000/-**

Certificates will be issued to participants after the completion of the course.

ACCOMMODATION

Guest House can be provided as per institute norms and subject to availability (on payment basis)

Registration fee can be paid online via NEFT/RTGS/IMPS:

Name: CONTINUING EDUCATION NIT ROURKELA
A/C No.: 101 3895 1784
Bank: State Bank of India
Branch: NIT Campus Rourkela
IFSC Code: SBIN0002109

For more Information, visit
https://sites.google.com/view/edge2025

List of Speakers

Dr. Sima Ghosh
Professor
NIT Agartala
Seismic Analysis of Few Geotechnical Structures

Dr. Partha Narayan Mishra
Assistant Professor
IIT Kanpur and Univ. of Wollongong (Hon.)
Geotechnical Challenges in Design and Operation of Tailings Storage Facilities

Dr. Balbir Kumar Pandey
Assistant Professor
Guru Ghasidas Vishwavidyalaya, Bilaspur
Sustainable Ground Improvement for SoftSoil

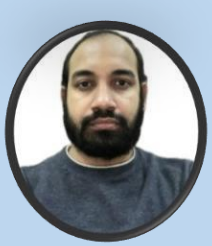
Dr. Awdhesh Kumar Choudhary
Assistant Professor
NIT Jamshedpur
Load Carrying Behavior of Anchor Plate Placed in Geocell Reinforced Soil Mass

Dr. Soukat Kumar Das
Assistant Professor
NIT Rourkela
Thermo-Hydro-Mechanical Coupling in Porous Media-From Geomechanics to Soil Mechanics

Dr. Gourab Saha
Assistant Professor
NIT Rourkela
Application of Geosynthetics in Pavement Construction

Anubhav Tyagi
Technical Sales Head, INDIA, Optum Computational Engineering
Demo Session of OPTUM GX Software on Slope Stability Analysis

Dr. Shiv Shankar Kumar
Assistant Professor
NIT Patna
Assessment of Liquefaction study of Cohesionless Soil



Dr. Ram Manohar Bishwal
Assistant Professor
NIT Rourkela
Use of Drone and Lidar Photogrammetry for 3D Modelling and Slope Stability Analysis

Dr. Sunil Khuntia
Assistant Professor
NIT Rourkela
Application of Numerical Limit Analysis in Geotechnical Engineering