



Relations

An Annual Newsletter for Friends of CE Dept. NIT Agartala

January 2023 Issue

From the Director's Desk



Prof. H. K. Sharma

Dear Friends,
I am happy to present the January 2023 Issue of the Civil Engineering Department newsletter 'Relations' to you. The newsletter, 'Relations' provides updates and information regarding various activities, events and achievements of the Civil Engg. Department of NIT Agartala. I am confident that, the Department will expand to the new heights of distinction in the years to come with the arduous efforts of all the stakeholders. In this regard, the newsletter 'Relations' will play a pivotal role to strengthen the relations with all stakeholders.
Warm Regards.

From the HOD's Desk



Dr. Rajib Saha

Dear All,
First of all, I wish Happy New Year 2023 and wish that the year may usher new hope. The Department of Civil Engineering has continued to excel in its activities in various domains. It gives me immense pleasure to present before you the activities of the department from July 2019 to Dec 2022. I hope that you will find this newsletter informative, and it will provide us the opportunity to know more about the department. It is a humble attempt to stay connected with you. Further, this year has its own importance in the timeline of this Institute.

Vision, Mission & Background of CE Department

Civil Engineering Department is one of the largest and oldest department of NIT Agartala which was started in the year of 1965 with the inception of Tripura Engineering College. Civil Engineering Department is committed to contribute excellence in research, scientific and technical education to the nation. Department's mission is to impart quality education for fundamental knowledge in engineering science and technology with social responsibilities. Moreover to develop the engineering background of students towards employability, entrepreneurship and higher learning. Also to undertake collaborative projects to create opportunities for long-term industry-academia interactions.



Department Key Highlights

Recent Workshops / Short Term Courses:

- Webinar on '**Demolition of Supertech Twin Tower, Noida – A case study: Experience and Challenges**' (Coordinator: Dr. Rajib Saha & Dr. Dipankar Sarkar) on September 15, 2022
- Seminar on '**Energy Measurement to Standardise SPT**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) on September 9, 2022
- Symposium on '**Soft Measures for Flood and Erosion Control**' (Coordinator: Dr. Rajib Saha) on 26th July, 2022.
- Webinar on '**Importance of Geotechnical and Geophysical Investigation & its advancements**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) on June 24, 2022.
- Short Term Course on '**Capacity Building in Geo-spatial Technology**' (Coordinator: Prof. Umesh Mishra) w.e.f Nov 29 to Dec 19, 2019 & May 25 to June 14, 2022.
- Workshop on '**Recent Advancements & Emerging Economic Aspects of Transportation Geotechnology**' (Coordinator: Dr. Rajib Saha & Dr. Dipankar Sarkar) w.e.f December 20 to 24, 2021.



National / International Collaboration:

Research Collaboration with Dr. S. Mathava Kumar, Associate Professor of CE Deptt. IIT Madras



Collaboration with Prof. M.R. Madhav of IIT Kanpur (Retd.)



Collaboration with Prof. Dipanjan Basu of University of Waterloo, Canada



Joining of New faculties in CE Deptt



Dr. Manu S Nadesan
Assistant Professor
Civil Engg. Dept.
NIT Agartala
Specialization
Structural Engineering,
Concrete Technology



Dr. Sagarika Panigrahi
Assistant Professor
Civil Engg. Dept.
NIT Agartala
Specialization
Environmental Engg.



Dr. Dharendra Kr. Pandey
Assistant Professor
Civil Engg. Dept.
Specialization
Structural Engineering,
Earthquake Engineering

Consultancy & Research:

WORK	2019-2020	2020-2021	2021-2022
Consultancy Works (₹):	5,380,510.00	2,560,754.00	1,830,000.00
Testing Works (₹):	889,603.00	522,267.00	880,241.00



Sponsored Research Projects:

Major Consultancy Works Undertaken

SL. NO.	TITLE OF THE PROJECT	PERIOD	FUNDING AGENCY	AMOUNT (IN LAKHS)	CO-ORDINATORS
1	Geoscientific Studies – Geodetic, Geological, Geomorphological and Geotechnical of Active Landslide	2018-20	DST, Government of India	18.54	Prof. Sujit Kumar Pal & Dr. Sanjay Paul
2	Time & Motion study of MGNREGA	2019-21	Rural Development Department, Government of Tripura	25.32	Prof. R.P. Sharma Dr. P.P. Sarkar & Dr. Sima Ghosh
3	Development of organometallic nano-composites and scientific investigation on their functionalization towards improved adsorptive removal of toxic dyes for application in industrial wastewater treatment	2018- 21	CSIR, Government of India	16.50	Dr. Animesh Debnath
4	Hydraulic model study of flow dynamics and bed morphology evolution of the Gumti river of Tripura at the Pitra-Gang confluence	2017-20	DST, Government of India	31.42	Dr. S.K. Biswal
5	Sustainable production of algal biomass for production of bio-fuels: A holistic approach with bioremediation & economical harvesting technique	2019-22	Department of Biotechnology, DST, Government of India	16.00	Prof. Umesh Mishra
6	Knowledge Guided GIS based Hydro-geochemical modelling to understand the sources & control of Arsenic (As) in contamination in Groundwater of Tripura	2019-22	Space technology Incubation ISRO	19.00	Prof. Umesh Mishra & Dr. S.K. Biswal
7	Long term trend in weather parameters and atmospheric chemistry and its effect on tea cultivation over NE India	2019-22	Space technology Incubation ISRO	19.00	Prof. Umesh Mishra
8	Flood Risk Assessment of Barak Basin in Assam State - A geospatial approach	2019-22	Space technology Incubation ISRO	19.00	Dr. S.K. Biswal & Prof. Umesh Mishra
9	Reliability based seismic design of structures incorporating soil structure interaction	2016-20	DST, Government of India	26.51	Dr. Rajib Saha
10.	Mitigating scarcity of stone aggregates in pavement construction using locally available materials & stabilization techniques.	2019-23	DST, Government of India	24.85	Dr. Partha Pratim Sarkar & Dr. Dipankar Sarkar
11.	Developing a methodology for self-cleansing of urban storm water drainage system- a scientific approach for greening smart city	2019-21	ICSSR, MHRD, Govt. of India	04.00	Prof. Ratul Das
12.	Evaluation of a strengthening scheme for hollow compressed earth block wall using fibres, bamboo and steel bars.	2019-22	DST, Government of India	33.40	Dr. Deb Dulal Tripura
13.	Optimal Resource Planning of Agartala Municipality Corporation	2021-23	ISRO-STIC Government of India	16.80	Prof. Manish Pal & Dr. Mrinmoy Majumder
14.	Preparation of State Specific Action Plan	2022-23	North Eastern Regional Institute of Water and Land Management (NERIWALM) and PWD (DWS) Tripura	30.00	Prof. Ratul Das, Dr. Mrinmoy Majumder, Dr. S.K. Biswal & Mr. N. Debbarma

Recently published Patent:

TITLE OF THE PATENT	AUTHORS	COUNTRY	APPLICATION NO. (YEAR)
A sensor-based optimal water selection system for crop cultivation	Dr. Mrinmoy Majumder, Dr. Uttam K Bera, Dr. Tilottama Chakraborty, Mr. Tanmoy Ghoshal.	INDIA	202231024078 A (2022)

Publication Details:

SUMMARY	2019-20	2020-21	2021-22
JOURNAL:	35	27	42
BOOK CHAPTER:	06	01	14
CONFERENCE PROCEEDINGS:	14	11	18

Awards & Achievements:

Dr. Rajib Saha

Award: Best Paper Presentation Award

By: Indian Geotechnical Society, Surat

Year: 2019

Nominated: National Member in BIS Codal Committee

For: Framing New IS Code on Piled Raft Foundation

Year: 2022

Award: Best Paper Biennial Award

By: Indian Geotechnical Society, Kochi

Year: 2022

Dr. Animesh Debnath

Award: Top Peer Reviewer 2019

By: Publons

Year: 2018-19

List of PhD Awardee in the year 2022

Name of PhD Awardee	Supervisor (s)
Dr. Anirban Banik (16EDCER004)	Dr. S.K. Biswal & Dr. T.K. Bandyopadhyay (Chemical, NITA)
Dr. Sangketa Sangma (15EDCER004)	Dr. Deb Dular Tripura
Dr. Diptesh Chanda (16EDCER016)	Dr. Rajib Saha & Prof. Sumanta Haldar (IIT Bhubaneswar)
Dr. Mahashweta Bhowmik (16EDCER005)	Dr. Animesh Debnath & Dr. Biswajit Saha (Physics, NITA)
Dr. PAULAMI DE (11DHE001)	Dr. Mrinmoy Majumder
Dr. Raavi Satya Sai Deep (16EDCER010)	Dr. Deb Dular Tripura
Dr. Pritam Malakar (17EDCER006)	Prof. Ratul Das

Salient Laboratory Facilities Developed:



Shake Table



Loading Frame

Falling Weight Deflectometer

Monotonic Triaxial

Cyclic Testing Machine



Photocatalytic reactor

Accelerated Pavement Testing Machine

Events organized w.e.f January 2022

- 3-days Celebration of 'Azadi ka Amrit Mahotsav' in Civil Engg. Dept, NIT Agartala w.e.f 13th to 15th August 2022



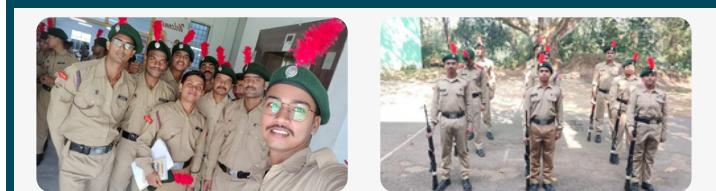
- Teacher's Day Celebration in Civil Engineering Department of NIT Agartala on 5th Sept. 2022



- **Engineer's Day** Celebration in Civil Engineering Department of NIT Agartala on 15th Sept. 2022



Student Activity: National Cadet Corps (NCC)



Workshops / Short Term Courses:

- International Workshop on '**Ground Improvement: Emerging and Future Developments**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) on September 26, 2020
- IGS-NABL webinar on '**Importance of testing and evaluation of geotechnical properties for better infrastructure**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) on August 29, 2020
- Webinar on '**Use of Geogrids in flexible pavements**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) on June 30, 2020
- Workshop on '**Landslide hazards & Mitigation in Atharamura region of Tripura State**' (Coordinator: Dr. S.K. Pal & Dr. S. Paul) on October 30, 2019
- Workshop on '**Advanced Seismology, Seismic Hazards & Earthquake Engineering**' (Coordinator: Dr. Sima Ghosh) w.e.f December 12 to 17, 2019.
- Workshop on '**Recent Trends on Water and Wastewater Treatment**' (Coordinator: Dr. Animesh Debnath & Dr. S.K. Biswal) w.e.f August 12 to 16, 2019.
- Workshop on '**Importance of Seismic Microzonation of Indian cities**' (Coordinator: IGS Agartala Chapter in association with CE Dept.) w.e.f June 03 to 07, 2019.
- Workshop on '**Dynamics of Foundation**' (Coordinator: Dr. Rajib Saha) w.e.f June 03 to 07, 2019.
- Conference on '**Geo-Hazards and Future Developments of Civil Engineering**' (Coordinator: IGS Agartala Chapter in association with CE Deptt.) w.e.f November 2 to 3, 2018

- **Vishwakarma Puja** Celebration in Civil Engineering Department of NIT Agartala on 17th September 2022



Annual Alumni Visit



Placement: Major Recruiters of UG & PG Students (2021-2022)

- PLANET SPARK
- O9 SOLUTIONS
- ZS
- THE MATH COMPANY
- POLESTAR SOLUTIONS
- TREDENCEINC
- CAPEGEMINI
- DELOITTE
- VIRTUSA
- WIPRO
- FRACTAL ANALYTICS

- BYJUS
- ZENSAR
- ACCENTURE
- PIE INFOCOMM
- CAPGEMINI
- L&T ECC
- CGI
- SPECTRAFORCE TECHNOLOGIES
- BRANE ENTERPRISES
- ADP
- PHENOM PEOPLE

- COGNIZANT
- BYJUS- ACADEMIC SPECIALIST
- KEC INTERNATIONAL
- TATA POWER
- ADANI GROUP
- ITC INFOTECH
- THE AFFORDABLE ORGANIC STORE
- CAPGEMINI
- INMOVIDU
- BYJUS ATP
- JARO EDUCATION

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[More about CE Department....](#)