

MOARENLA Y LONGKUMER | 23CL60R19

EARTH SYSTEM SCIENCE AND TECHNOLOGY



CATION	
 .AHUJN	
<i>)</i> , (11011	

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH	IIT Kharagpur	7.39 / 10
2022	B.E	National Institute of Engineering, Mysore	7.10 / 10
2017	Class XII, NBSE	St. John Higher Secondary Residential School, Nagaland	74.2%
2015	Class X, NBSE	Queen Mary Higher Secondary School, Nagaland	86%

INTERNSHIPS

Industry Intern | One Source Technologies LLP | Bangalore

[Mar 2021]

 Participated in value-added industry oriented internship training programe catered towards bridging the knowledge gap between academic and industry demand

Site Intern | Government of Nagaland PWD (Roads & Bridges) | Nagaland

[Aug 2020-Sep 2020]

•Conducted comprehensive on-site soil sample experiments and collected instrument readings for the construction of a road from Dikhu Bridge to Amguri in Mokokchung, Nagaland, gaining hands-on experience in field research techniques and data collection methodologies

PROJECTS

Correlation of Satellite based EVI data with Ground based data | Design Lab | Prof M.D.Behera | IIT Kharagpur

[Aug 2023-Dec 2023]

• Analyzed satellite based Enhanced Vegetation Index data and corelated it with ground based data of pollen distribution pattern, with implications to Health sector using Sentinel-2 MSI of Google Earth Engine and QGIS

Numerical Analysis of Earthen Embankment Resting on Soft Clay Deposit | Prof Anand M. Hulagabali | NIE, Mysore [Sep 2020-Aug 2021]

- •Utilized PLAXIS 2D software to perform in-depth evaluation of the behavior of Earthen Embankment resting on Soft Clay deposit
- Carried out 2D finite element analysis to perform the parametric analysis and determined the settlement and deformation of the dam

Performance Evaluation of Earthen Embankment Underlain by Marine Clay Deposit | Prof Anand M. Hulagabali | NIE, Mysore[Sep 2020-Aug 2021]

- Undertook a case study of the performance of an Earthen embankment underlain by Marine Clay deposit with Ground Improvement
- Techniques in Mangaluru Region of Karnataka using PLAXIS 2D software

 Numerically analysed the performance of the Earthen embankment over Marine clay; observed soil settlement patterns, identified critical failure points and provided recommendations for reinforcement, reducing potential risks and ensuring long-term stability

COURSEWORK INFORMATION

Core Subjects: Remote Sensing &Terrestrial Climate Variables | Geophysical Fluid Dynamics | Climate Risk Adaptation, Mitigation and Sustainable Development | Weather Analysis &Prediction | Physical Oceanograpy and Climate

Computational: Probability and Statistics | Linear Algebra | Calculus | Computer Programming | Data Analytics | Simulation Lab | Computational Methods

SKILLS AND EXPERTISE

Programming Languages: Python, C | Libraries: Matplotlib, NumPy, Pandas | Database: SQL | Tools: Jupyter Notebook | Other Softwares: MATLab, AutoCAD, Google Earth Engine, Plaxis 2D

AWARDS AND ACHIEVEMENTS

- Cleared GATE 2023(out of 5,17,000 candidates)
- •Cleared JEE Main 2017(out of 9,56,000 candidates)
- Secured highest marks in Nagaland in Mathematics in 2008 International Assessments for Indian Schools, Macmillan Education

POSITIONS OF RESPONSIBILITY

Senior Coordinator Student Welfare | North-East Students Forum | IIT Kharagpur

[Aug 2023-Present]

•Coordinated and executed various events for the welfare of North-East students in the forum and helped exhibit the diverse cultures of the comunity

PUBLICATIONS

Numerical Analysis of Earthen Embankment Resting on Soft Clay

M.Y.Longkumer, Hulagabali, A.M., Srujana, R., Rachana, A.V., (2023), "Numerical Analysis of Earthen Embankment Resting on Soft Clay Deposit", Earth Retaining Structures and Stability Analysis, IGC 2021, Lecture Notes in Civil Engineering, vol 303. Springer, Singapore

Performance Evaluation of Earthen Embankment Underlain by Marine Clay Deposit with Ground Improvement Techniques A Case Study of Mangaluru Region, Karnataka

M.Y.Longkumer, Hulagabali, A.M., Srujana, R., Rachana, A.V., (2023), "Performance Evaluation of Earthen Embankment Underlain by Marine Clay Deposit with Ground Improvement Techniques—A Case Study of Mangaluru Region, Karnataka", Ground Improvement Techniques, IGC 2021, Lecture Notes in Civil Engineering, vol 297. Springer, Singapore

EXTRA CURRICULAR ACTIVITIES

- Represented the centre in Academia Industry Conclave 2023, Career Development Centre, IIT Kharagpur
- Actively participated in Hall related competitions such as Illumination and Rangoli