

NAIRWITA PAL

CIVIL ENGINEERING | GEOTECHNICAL ENGINEERING

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West Bengal, India



ACADEMIC PROFILE

Dedicated Civil Engineering academician specializing in Geotechnical Engineering, with experience in teaching, student mentoring, academic coordination and departmental activities. Strong academic foundation in Civil Engineering with M.Tech specialization in Geotechnical Engineering. Research interests include soil slope stability, finite element analysis, slope reliability and AI/ML applications in geotechnical engineering. Committed to student-centred teaching, practical learning, research and continuous academic development.

PROFESSIONAL EXPERIENCE

Assistant Professor – Department of Civil Engineering | Swami Vivekananda University, Barrackpore

- Teaching and supporting academic activities in the Department of Civil Engineering.
- Specialization and academic involvement in Geotechnical Engineering.
- Mentoring students and providing academic guidance for learning and development.
- Supporting student registration, documentation and departmental academic processes.
- Serving as Newsletter Coordinator and contributing to departmental academic communication and event documentation.
- Participating in workshops, programmes, student activities and departmental academic initiatives.

EDUCATION

Qualification	Specialization	Institute
M.Tech	Geotechnical Engineering	Meghnad Saha Institute of Technology
B. Tech	Civil Engineering	Meghnad Saha Institute of Technology
Diploma	Civil Engineering	Murshidabad Institute of Technology

RESEARCH INTERESTS

Geotechnical Engineering • Soil Slope Stability • Finite Element Method • Strength Reduction Method • Soil Slope Reliability • Pore Water Pressure Analysis • AI/ML Applications in Geotechnical Engineering

PUBLICATION

Book Chapter – Machine Learning and Artificial Intelligence in Soil Slope Reliability Analysis

- Book: Innovative Solutions in Civil Engineering: Advanced Techniques and Case Studies, Volume III.
- ISBN: 978-93-341-2025-7 | Author: Nairwita Pal |

RESEARCH & ACADEMIC PROJECTS

M.Tech Thesis – Stability Analysis of Slope by Strength Reduction Method – A FEM Study

- Analysed high-slope failure using the Finite Element Method.
- Studied the Shear Strength Reduction Method for slope stability assessment.
- Investigated the influence of the water table and pore-water pressure on slope behaviour.
- Compared results obtained using Finite Element Method and Limit Equilibrium Method.

Pavement Design Project

- Designed pavement layers considering strength and performance requirements.
- Determined thickness of individual pavement layers considering subgrade strength.

PROFESSIONAL DEVELOPMENT

- NPTEL Certification – Completed an NPTEL course related to Waste Management
- Faculty Development Program (FDP) – Participated in an FDP organized Integration in **Civil Engineering: Pathways Towards Sustainable Development .and ICISE 2026**

PROFESSIONAL TRAINING

P.W.D. Training

- Practical exposure to PWD project work including preparation of estimates, building construction and road construction.
- Exposure to supervision of various construction activities.

ACADEMIC & ADMINISTRATIVE RESPONSIBILITIES

- Student mentoring and academic guidance
- Student registration and documentation
- Departmental newsletter coordination
- Academic event and workshop support
- Departmental documentation and communication

TECHNICAL SKILLS

Design / Analysis

AutoCAD • PLAXIS 2D

Office & Academic Tools

MS Word • MS Excel • MS PowerPoint

CORE COMPETENCIES

Teaching & Mentoring • Academic Coordination • Research & Technical Writing • Communication • Teamwork • Time Management • Student Development

LANGUAGES

Bengali • English • Hindi

DECLARATION

I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.

Nairwita Pal

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