

NAWOD THARUSHIKA KEENAGALLA

Civil Engineering Undergraduate

Department of Civil Engineering, University of Moratuwa

Bandaranayaka Mawatha, Moratuwa 10400, Sri Lanka

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EDUCATION

Bachelor of Science of Engineering Honours (BSc. Eng. Hons.) 2021 – 2025

Department of Civil Engineering, University of Moratuwa, Sri Lanka

GPA: 3.59/4.0 and ranked 14th out of 123 students

Achieved a GPA of 3.96/4.00 in semester 7

Achieved a GPA of 4.00/4.00 in semester 8

G.C.E. Advanced Level (Physical Science Stream) 2017 – 2019

Sivali Central College, Rathnapura, Sri Lanka

Physics: A, Chemistry: A, Combined Mathematics: A

RESEARCH

Strength and Deformation Characteristics of Compacted Backfills Feb 2024 – May 2025

Undergraduate Research Project

Supervisor: Prof. Nalin de Silva

Investigated the strength and deformation properties of sand and lateritic backfills compacted to various degrees of compaction. Conducted laboratory tests such as modified Proctor compaction test, direct shear test along with field Dynamic Cone Penetrometer Test (DCPT) to evaluate their applicability in assessing compacted backfill properties. The findings contribute to improving geotechnical analysis and quality control in retaining walls, embankments, and foundation construction.

PUBLICATIONS

Pending Conference Publications

K. N. T. Keenagalla and L. I. N. de Silva, “Effect of Sample Disturbance on Direct Shear Test” in *Annual Conference 2025 of Institution of Engineers Sri Lanka (IESL)*

K. N. T. Keenagalla and L. I. N. de Silva, “Comparison of in situ and Laboratory Shear Strength Characteristics of Residual Soils” in *Moratuwa Engineering Research Conference (MER-Con) 2025, Moratuwa, Sri Lanka*

HONOURS AND AWARDS

Dean’s List (Semester GPA of 3.80 or above) Nov 2025

University of Moratuwa, Sri Lanka

For excellent academic performance - Semester 7 (3.96/4.00)

For excellent academic performance - Semester 8 (4.00/4.00)

All Island Quiz Competition Jun 2024

American Society of Civil Engineers (ASCE)

Leader of the team “IMPACT” which secured the 7th place out of 70 teams

Spaghetti Bridge Competition

Oct 2024

Civil Engineering Society, University of Moratuwa

Leader of the team which secured 6th place out of 16 teams

PROJECTS

Mixed Development Project in Gandara, Matara District

Jun 2024 – July 2025

Undergraduate Comprehensive Design Project

Supervisors: Dr. Sumudu Herath, Dr. Pasindu Weerasinghe, Dr. Lakshitha Fernando

In this project, a seven-story luxury beachfront hotel and a unique crab-shaped dock-to-dish restaurant were designed. My key contributions were:

- Held the position of project leader of a multidisciplinary team of 10 members
- Developed the initial architectural concept and prepared detailed floor plans
- Designed the hotel's overhead water tank and analyzed the suitability of shallow foundations
- Estimated pile carrying capacities and formulated optimal foundation and pile arrangements
- Produced 3D renderings and walkthrough videos to support presentations and evaluations

University of Moratuwa Bus Stop Design

Dec 2024 – Jan 2025

Undergraduate Design Competition

- Proposed a modern conceptual bus stop and developed a 3D model using SketchUp, rendered using Lumion 11 Pro

TECHNICAL SKILLS

- Finite Element Packages: Plaxis 3D, Plaxis 2D, Geo Studio, Midas Gen, Midas Civil, SAP2000
- CAD & BIM Software: AutoCAD, Revit, Civil 3D, Lumion, SketchUp
- Programming Language: Python

WORK EXPERIENCE

Trainee Civil Engineer

Nov 2023 – May 2024

Organization: NEM Construction (Pvt) Ltd

Program: Central Expressway - Section 3, Package J

Built a solid foundation in the industrial applications of civil engineering fundamentals, including construction principles, project management, quality control, and the environmental and social impacts of projects.

EXTRA-CURRICULAR ACTIVITIES

- Participated in the “Spaghetti Bridge Challenge - 2023” organized by the Civil Engineering Society of the University of Moratuwa *Oct 2023*
- Served as a demonstrator at EXMO 2023, the most innovative engineering exhibition in Sri Lanka, held at the University of Moratuwa *July 2023*
- Organizing committee member of the Civil Engineering Society of the University of Moratuwa (Contributed to four major projects, including the “Career Fair 2025” of the Civil Engineering Department) *May 2022 - June 2025*

SOCIAL DEVELOPMENT ACTIVITIES

- Engaged in the “Suhastha” program to support children with limited resources, organized by the Civil Engineering Society of the University of Moratuwa *Apr 2023*
- Engaged in the “Soyuru Sathkara” seminars conducted in rural schools in the Rathnapura District to enhance the educational performance of grade 11 students *Feb 2020*

PROFESSIONAL ASSOCIATIONS

- Student member of the Institution of Engineers Sri Lanka (IESL) *Feb 2024 – Present*
- Student member of the Institution of Civil Engineers (ICE) *Feb 2024 – Present*
- Society student of the American Society of Civil Engineers (ASCE) *Jun 2024 – Present*
- Student member of the International Association of Engineers (IANG) *Jul 2024 – Present*

REFERENCES

Prof. L. I. Nalin de Silva, Professor

PhD (Tokyo), MEng (Tokyo), B.Sc. Eng. Hons (Moratuwa), C.Eng, MIE (SL)

Department of Civil Engineering, University of Moratuwa, Sri Lanka

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Dr. Sumudu Herath, Senior Lecturer

PhD (Cambridge), B.Sc. Eng. Hons (Moratuwa), CIMA (UK), AMIESL, AMSSESL

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