

ASWATHY C M

Geotechnical and Geo-environmental Ph.D. Researcher

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SUMMARY

Versatile and accomplished Ph.D. researcher in geotechnical and geo-environmental engineering, specializing in innovative solutions for sustainable waste disposal, soil reactive barriers, and contaminated site remediation. Expert in advanced geotechnical analysis and committed to translating research into real-world applications. Proven track record in academia with a collaborative approach to addressing complex challenges at the intersection of engineering and environmental sustainability. Eager to contribute expertise to dynamic projects in geo-environmental engineering.

EXPERIENCE

Geo-environmental Researcher

National Institute of Technology Karnataka

2019 - 2024 Karnataka, India

Dissertation submitted on December 2023.

- Main research focused on the performance of bentonite-slag based liner permeated with ammonia for a municipal solid waste landfill
- Conducted elaborated laboratory studies on geotechnical characterisation, contaminant migration and mitigation

Teaching Assistant - Geotechnical engineering

National Institute of Technology Karnataka

2019 - 2023 Karnataka, India

- Conducted laboratory sessions and guided MTech student research projects
- Assisted in invigilation duties

Scientific Publications

- Aswathy, C. M., and Sunil, B. M. (2022). "Effect of ammonia on the hydraulic conductivity and adsorption characteristics of lithomargic clay - bentonite barrier in landfills." *Journal of Environmental Chemical Engineering*, 10(6), 108750 (Impact factor: 7.7)
- Aswathy, C. M., and Sunil, B. M. (2020). "Reactive barriers for remediation of leachate contaminants in soil: A review", *International Conference on Green Highway Construction - A Sustainable Approach*, National Institute of Technology Karnataka, Book chapter -pp 67-76
- Aswathy, C. M., Raj, A. S., and Sayida, M. K. (2019). Strength enhancement of ZELIAC treated dispersive silty sand. *Int. Conf. Geotech. High Speed Corridors*, 26-29.
- Aswathy, C. M., Raj, A. S., and Sayida, M. K. (2021). Effect of Bio-enzyme—Chemical Stabilizer Mixture on Improving the Subgrade Properties. *Lect. Notes Civ. Eng.*, 779-787.

Reference:

- Prof. Sunil B.M, Professor Dept. of Civil Engineering NITK, Surathkal, Karnataka, India Email id: sunilbm@nitk.edu.in
- Dr. Jayasree P.K, Professor Dept. of Civil Engineering, College of Engineering Trivandrum (CET), Thiruvananthapuram, Kerala, India Email id: jayasreepk@cet.ac.in

SKILLS

Auto CAD

MS Office

Ground improvement techniques

Environmental geotechnics

Technical writing and communication

Geotechnical Site Characterization

Laboratory testing of soil samples

EDUCATION

Ph.D. - Geotechnical Engineering

National Institute of Technology Karnataka

2019 - 2024

Surathkal, Mangaluru, Karnataka, India

Master of Technology - Geotechnical Engineering

College of Engineering Trivandrum

2017 - 2019

Thiruvananthapuram, Kerala, India

B.Tech in Civil Engineering

MG University

2012 - 2016

Kottayam, Kerala, India

INDUSTRY EXPERTISE

Site Engineer and supervisor

