

Faculty name:	Dr.AMRITA
Designation:	Assistant Professor
Department:	Civil Engineering
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Specialization:	Geotechnical Engineering
Office phone:	9526021003
About Me:	A dedicated and passionate faculty member committed to excellence in teaching, research and student development.
Courses taught:	Mechanics of Solids, Architecture and Town Planning, Introduction to Sustainable Engineering, Engineering Mechanics, Geotechnical Lab
Educational Qualifications:	<ol style="list-style-type: none"> <li>1. Ph.D from NITK, Surathkal</li> <li>2. M.Tech from NITK, Surathkal</li> <li>3. B.Tech from College of Engineering Trikaripur, Cheemeni, Kasaragod, Kerala (COCHIN UNIVERSITY)</li> <li>4. 12<sup>th</sup> from Kendriya Vidyalaya Payannur, Kannur, Kerala</li> <li>5. 10<sup>th</sup> from Kendriya Vidyalaya Payannur, Kannur, Kerala</li> </ol>
Positions held at NIE:	-
Research Projects:	-
Awards:	<ol style="list-style-type: none"> <li>1. <b>Best Paper Award:</b> For presenting paper on the topic “Numerical study on stability of vertical cuts retained by soil nailing” at the International Conference on Sustainable Infrastructure: innovations, Opportunities, and Challenges (SIIOC) held at NITK, Surathkal during 20th-21st April 2023.</li> <li>2. <b>Best Paper Award:</b> For presenting paper on the topic “Numerical investigation on performance of nail stabilized vertical cuts” at the 2nd International Conference on Sustainable Materials and Practices for Built Environment (SMPBE) held at Manipal University Jaipur, India from 19th-20th January 2023.</li> </ol>

Publications:

### **Journals**

1. Amrita, Jayalekshmi, B. R. and Shivashankar, R. (2025). "Dynamic response assessment of RC buildings featuring basement storeys integrated with soil-nailed structures." *Journal of Building Engineering*, 105:112545, 1-22. <https://doi.org/10.1016/j.jobbe.2025.112545> (SCIE)
2. Amrita, Jayalekshmi, B. R. and Shivashankar, R. (2024). "Integrating soil-nailed walls with RC building for seismic stability in space-constrained sites." *Bulletin of Engineering Geology and the Environment*, 83:423, 1-20. <https://doi.org/10.1007/s10064-024-03922-4> (SCIE)
3. Amrita, Jayalekshmi, B. R. and Shivashankar R. (2024). "Dynamic stability evaluation of nail stabilised vertical cuts in various site classes." *Geomechanics and Engineering*, 38(4), 421-437. <https://doi.org/10.12989/gae.2024.38.4.421> (SCIE)
4. Amrita, Jayalekshmi, B. R. and Shivashankar R. (2025). "Numerical study on reinforced vertical cuts integrated with RC buildings under ground motions." *Earthquake Engineering and Engineering Vibrations*, 24(4), 959-976. <https://doi.org/10.1007/s11803-025-2354-0> (SCIE)

### **Book Chapters**

5. Amrita, Jayalekshmi, B. R. and Shivashankar R. (2024). "Investigation on stability of vertical cuts retained by soil nailing using finite element method." In: Sivakumar Babu, G.L., Mulangi, R.H., Kolathayar, S. (eds) *Technologies for Sustainable Transportation Infrastructures*. SIIOC 2023. *Lecture Notes in Civil Engineering*, vol 529, pp.667-679. Springer, Singapore. [https://doi.org/10.1007/978-981-97-4852-5\\_54](https://doi.org/10.1007/978-981-97-4852-5_54) (SCOPUS)
6. Amrita, Jayalekshmi, B. R. and Shivashankar R. (2023). "Numerical investigation on performance of nail stabilised vertical cuts." *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2023.07.298> (SCOPUS)
7. Vinay, N. S., Amrita, Jayalekshmi, B. R. and Shivashankar R. (2022). "Dynamic Soil–Structure Interaction Effects in Integrated Retaining Wall-Building System." In: Adhikari,

	<p>B.R., Kolathayar, S. (eds) Geohazard Mitigation. <i>Lecture Notes in Civil Engineering</i>, vol 192, pp.403-413 Springer, Singapore. <a href="https://doi.org/10.1007/978-981-16-6140-2_32">https://doi.org/10.1007/978-981-16-6140-2_32</a> (SCOPUS)</p> <p>8. Amrita, Jayalekshmi, B. R. and Shivashankar, R. (2021). “Seismic Behaviour of Soil Nailed Wall.” In: Das B.B., Nanukuttan S.V., Patnaik A.K., Panandikar N.S. (eds) Recent Trends in Civil Engineering. <i>Lecture Notes in Civil Engineering</i>, vol 105, pp.251-257. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-15-8293-6_22">https://doi.org/10.1007/978-981-15-8293-6_22</a> (SCOPUS)</p> <p>9. Amrita, Jayalekshmi, B. R. and Shivashankar, R. (2021). “Dynamic Response of Soil Nailed Wall.” In: Sitharam T.G., Pallepati R.R., Kolathayar S. (eds) Seismic Design and Performance. <i>Lecture Notes in Civil Engineering</i>, vol 120, pp.151-161. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-33-4005-3_12">https://doi.org/10.1007/978-981-33-4005-3_12</a> (SCOPUS)</p> <p><b>Proceedings of symposiums/conferences</b></p> <p>10. Amrita, Shivashankar, R. and Jayalekshmi, B. R. (2019). “A Brief Review on Dynamic Response of Retaining Walls.” <i>8th International Engineering Symposium – IES</i>, March 13-15, Kumamoto University, Japan, pp.C6-7-1-6.</p> <p>11. Amrita, and Shivashankar, R. (2017). “Study of Interference of Strip Footing on Clay.” <i>6th International Engineering Symposium – IES</i>, March 1-3, Kumamoto University, Japan, pp.C2-4-1-4.</p> <p>12. Anaswara, S., Amrita, Shivashankar, R. (2017). “Numerical Analysis on Interference of Strip Footings on Soils.” <i>International Conference on Modeling &amp; Simulation in Civil Engineering (ICMSC)</i>. International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume-7, Issue- ICMSC17, Page No.: 116-119, December 2017. <a href="https://www.ijeat.org/download/volume-7-issue-icmsc17/">https://www.ijeat.org/download/volume-7-issue-icmsc17/</a></p>
Patents:	-