

Faculty Profile

Name : Dr. Unnam Anil
Designation : Assistant Professor
Department : Civil Engineering
Contact Details: +91 7660070441
E-mail : unnamanil@nie.ac.in
Phone : +91 7660070441



About me:

I began my teaching career as an Assistant Professor at NIE, Mysuru, after earning my Ph.D. in Geotechnical Engineering in 2024. My academic journey, enriched by roles as Senior and Junior Research Fellow under AICTE-NDF/ADF and extensive teaching assistance, has strengthened my expertise in soil mechanics and foundation engineering. My research focuses on consolidation behavior of fibre-reinforced expansive soils, permeability estimation, and sustainable stabilization techniques for pavements and subgrades. I have published several Scopus and WoS indexed papers and book chapters with Springer and IntechOpen, reflecting my commitment to bridging theoretical research with practical applications. Recognitions such as qualifying GATE (2016) and selection as a full-time AICTE-NDF scholar (2019) highlight my academic dedication. My ongoing projects emphasize eco-friendly geotechnical solutions aimed at reducing settlement issues and enhancing soil performance for infrastructure development.

Qualification:

B.Tech. (RGUKT NUZVID), MTech (JNTU Kakinada), Ph.D. (VTU, Belagavi)

Courses Taught:

- Geotechnical Engineering
- Transportation Engineering
- Highway construction and Maintenance
- Disaster Management and Mitigation
- Conservation of Natural Resources
- Environmental Studies

Publications:

Journal Publication:

- [1] Yogeshraj Urs C, H. S. Prasanna, and **U. Anil**, "A Physics-Informed Neural Network Framework for Consolidation Parameter Prediction Using Controlled Clay-Sand Mixtures," *Results in Engineering*, p. 109255, 2026.
- [2] **U. Anil**, H. S. Prasanna, K. S. Chandan, and R. B. Gowda, "Influence of recron 3S fibres on consolidation behaviour of expansive black soils," *Civil Engineering and Architecture*, vol. 12, no. 2, pp. 943–962, 2024.
- [3] H. S. Prasanna and **U. Anil**, "Role of Clay Mineralogy in the Estimation of Permeability Coefficient in Compacted Fine-grained Soils," *Civil Engineering and Architecture*, vol. 11, no. 2, pp. 629–651, 2023.
- [4] H. S. Prasanna and **U. Anil**, "Effect of Clay Mineralogy on Permeability Behavior of Compacted Fine-Grained Soils," *International Journal of Advanced Science and Technology*, vol. 29, no. 08, pp. 1889–1903, 2020.
- [5] **U. Anil**, S. D. Prasad, D. S. V. Prasad, and G. P. Raju, "A study on stabilization of expansive soil using tile waste and Recron-3S fibres," *SSRG International Journal of Civil Engineering*, vol. 5, no. 8, pp. 12–16, 2018.

Conference Proceedings/Book Chapters:

- [1] **U. Anil**, H. S. Prasanna, and D. N. Jyothi, "Shrinkage Limit of Compacted Plain and Fibre-Reinforced Expansive Soils Pre-and Post-consolidation," in *Proceedings of the Indian Geotechnical Conference (IGC 2024)*, Volume 1. IGC 2024, M. S. Dixit, S. S. Jaiswal, N. Satyam, A. P. Singh, and V. B. Maji, Eds., *Lecture Notes in Civil Engineering*, vol. 626. Singapore: Springer, 2025.
- [2] D. N. Jyothi, H. S. Prasanna, and **U. Anil**, "Estimation of Negative Pore Water Pressure of Clay Sand Mixtures," in *Proceedings of the Indian Geotechnical Conference (IGC 2024)*, Volume 9. IGC 2024, *Lecture Notes in Civil Engineering*, vol. 705. Singapore: Springer, 2025.
- [3] H. S. Prasanna, A. N. Shruthi, **U. Anil**, and Y. M. Manjunath, "A Comparative Study of Estimation of Settlement of Footings on Non-plastic Soil Using Field Test Data," in *Proceedings of the Indian Geotechnical Conference (IGC 2024)*, Volume 9. IGC 2024, *Lecture Notes in Civil Engineering*, vol. 705. Singapore: Springer, 2025.
- [4] H. S. Prasanna, **U. Anil**, and P. K. Pooja, "FEM Modelling of Stabilization of Flexible Pavements with RBI Grade-81," in *Proceedings of the Indian Geotechnical Conference 2022*, Volume 3. IGC 2022, B. T. Jose, D. K. Sahoo, A. J. Puppala, C. N. V. S. Reddy, B. M. Abraham, and R. Vaidya, Eds., *Lecture Notes in Civil Engineering*, vol. 478. Singapore: Springer, 2024.
- [5] **U. Anil**, H. S. Prasanna, K. S. Chandan, R. B. Gowda, and G. B. Badaradinni, "Swelling and Compaction Characteristics of Fibre-Reinforced Expansive Soils," in *Proceedings of the Indian Geotechnical Conference 2022*, Volume 1. IGC 2022, B. T. Jose, D. K. Sahoo, E. C.

Shin, D. Choudhury, A. Joseph, and R. R. Pai, Eds., Lecture Notes in Civil Engineering, vol. 476. Singapore: Springer, 2024.

[6] H. S. Prasanna, **U. Anil**, P. K. Pooja, and A. N. Shruthi, "Hydraulic Conductivity of Compacted Fine-Grained Soils and Its Significance in Hydraulic Structures," in Proceedings of the Indian Geotechnical Conference 2022, Volume 1. IGC 2022, B. T. Jose, D. K. Sahoo, E. C. Shin, D. Choudhury, A. Joseph, and R. R. Pai, Eds., Lecture Notes in Civil Engineering, vol. 476. Singapore: Springer, 2024.

[7] H. S. Prasanna and **U. Anil**, "Effect of Compaction Energy on the Behavior of Coefficient of Consolidation for the Compacted Fine-Grained Soils," in Developments in Clay Science and Construction Techniques. IntechOpen, 2024.

[8] **U. Anil**, H. S. Prasanna, S. Mahesh Kumar, and Mahalakshmi, "Compaction Characteristics of Fibre-Reinforced Expansive Soils—Plasticity Approach," in Soil Behavior and Characterization of Geomaterials. IGC 2021, K. Muthukkumaran, R. S. Jakka, C. R. Parthasarathy, and B. Soundara, Eds., Lecture Notes in Civil Engineering, vol. 296. Singapore: Springer, 2023.
