



Personal Information

Email	venki.hasthi@gmail.com
Contact	+91-7677933961
Address	Nellore, Andhra Pradesh, India - 524408
Nationality	Indian
Languages	English, Telugu, Hindi
ResearchGate	https://www.researchgate.net/profile/Venkateswarlu-Hasthi
Google Scholar	https://scholar.google.com/citations?user=Mgmd2k4AAAAJ&hl=en

Education:

Ph.D.	Civil Engineering (Geotechnical Engineering)	Indian Institute of Technology Patna, India	9.38/10 (CGPA)	October, 2021
M.Tech	Soil Mechanics and Foundation Engineering	JNTU Kakinada (University)	8.66/10 (CGPA)	January, 2016
B.E	Civil Engineering	SRKR Engineering College, Bhimavaram, India	8.09/10 (CGPA)	July, 2013

Professional Experience:

Position	Department	Organization	Supervisor	Experience
Post-Doctoral Research Fellow	Civil Engineering	Indian Institute of Science Bangalore	Prof. G. Madhavi Latha	21 st January 2022 to 30 th October 2024

Research Areas:

Soil Dynamics and Vibration Isolation; Innovative Geosynthetics; Physical Modeling; Geocell Reinforced Structures; Soil- Geosynthetics interfaces: Micro to Macro Scale Effects; Bio-inspired Geotechnics; 3D Printing in Geotechnical Engineering; Ground Improvement Techniques; Digital Image Analysis; Sustainable Use of Recycled Materials; Numerical modeling; Application of AI/ML in Geotechnical Engineering.

Patents:

- **Venkateswarlu, H., & Latha, G. M (2023).** Textured Mesh Structures for Soil Reinforcement. **Application Number: 202341076562.** (Indian Patent)
- **Latha, G. M., Venkateswarlu, H., & A. Krishna (2023).** A Geogrid of A Geocell Reinforcement Structure and A Geocell Reinforcement Structure Thereof. **Application Number: 202341047203.** (Indian Patent)

Sponsored Research Projects:

Title	Role	Funding Agency	Budget sanctioned	Status
Jute Reinforced Retaining Walls	Co-PI	National Jute Board	₹50,40,485/-	Ongoing

Publications:

Published Journal Papers:

- **Venkateswarlu, H.,** & Latha, G. M. (2025). Unveiling the reinforcement benefits of innovative textured geogrids. *Geotextiles and Geomembranes*, 53(1), 21-40. (DOI: 10.1016/j.geotexmem.2024.08.008; Impact Factor: 4.7; Publisher: Elsevier)
- Latha, G. M., **Venkateswarlu, H.,** & Krishna, A. (2024). Geocell Anchor Cage for enhanced load support in soil structures. *Construction and Building Materials*, 425, 135998. (DOI: 10.1016/j.conbuildmat.2024.135998; Impact Factor: 7.4; Publisher: Elsevier)
- **Venkateswarlu, H.,** SaiKumar, A., & Latha, G. M. (2023). Sand-geogrid interfacial shear response revisited through additive manufacturing. *Geotextiles and Geomembranes*, 51(4), 95-107. (DOI: 10.1016/j.geotexmem.2023.04.001; Impact Factor: 4.7; Publisher: Elsevier)
- **Venkateswarlu, H.,** Prerana, K., & Latha, G. M. (2023). 3D Printed Polypropylene Sheets: Insights on Mechanical and Interface Shear Behavior. *Journal of Materials in Civil Engineering*. 35 (9), 04023284. (DOI: 10.1061/JMCEE7.MTENG-15089; Impact factor: 3.1; Publisher: ASCE).
- **Venkateswarlu, H.,** & Hegde, A. (2023). Effect of frequency of loading on vibration isolation efficiency of geocell reinforced beds. *Sadhana, Indian Academy of Sciences*. 48, 129, 1-13. (DOI: 10.1007/s12046-023-02198-w; Impact factor: 1.4; Publisher: Springer).
- Latha, G. M., **Venkateswarlu, H.,** Krishnaraj, P., Allam, S. K., Anusree, K. V., & Krishna, A. (2023). Science and Technology of Additive Manufacturing Applied to Geotechnical Engineering. *Indian Geotechnical Journal*, 1-11. (DOI: <https://doi.org/10.1007/s40098-023-00777-6>; Impact factor: 1.4; Publisher: Springer).
- **Hasthi, V.,** Raja, M. N. A., Hegde, A., & Shukla, S. K. (2022). Experimental and Intelligent Modelling for Predicting the Amplitude of Footing Resting on Geocell-Reinforced Soil Bed under Vibratory Load. *Transportation Geotechnics*, 35, 1-14. (DOI: 10.1016/j.trgeo.2022.100783; Impact Factor: 4.9; Publisher: Elsevier)
- **Venkateswarlu, H.,** & Hegde, A. (2022). Behavior of Geocell Reinforced Bed Subjected to Vibration Loading: 3D Numerical Studies. *Geosynthetics International*, 1-20. (DOI: 10.1680/jgein.21.00050; Impact Factor: 3.1; Publisher: ICE)
- **Venkateswarlu, H.,** & Hegde, A. (2020). Effect of infill materials on vibration isolation efficacy of geocell-reinforced soil beds. *Canadian Geotechnical Journal*, 57(9), 1304-1319. (DOI: 10.1139/cgj-2019-0135; Impact Factor: 3.9; Publisher: Canadian Science)
- **Venkateswarlu, H.,** Ujjawal, K. N., & Hegde, A. (2018). Laboratory and numerical investigation of machine foundations reinforced with geogrids and geocells. *Geotextiles and Geomembranes*, 46(6), 882-896. (DOI: 10.1016/j.geotexmem.2018.08.006; Impact Factor: 4.7; Publisher: Elsevier)
- Ujjawal, K. N., **Venkateswarlu, H.,** & Hegde, A. (2019). Vibration isolation using 3D cellular confinement system: A numerical investigation. *Soil Dynamics and Earthquake Engineering*, 119, 220-234. (DOI: 10.1016/j.soildyn.2018.12.021; Impact Factor: 4.2; Publisher: Elsevier)
- **Venkateswarlu, H.,** Sharma, S., & Hegde, A. (2021). Performance of genetic programming and multivariate adaptive regression spline models to predict vibration response of geocell reinforced soil bed: a comparative study. *International Journal of Geosynthetics and Ground Engineering*, 7(3), 1-17. (DOI: 10.1007/s40891-021-00306-6; Impact factor: 2.4; Publisher: Springer)

HASTHI VENKATESWARLU

- **Venkateswarlu, H., & Hegde, A. (2020).** Isolation prospects of geosynthetics reinforced soil beds subjected to vibration loading: experimental and analytical studies. *Geotechnical and Geological Engineering*, 38(6), 6447-6465. (DOI: 10.1007/s10706-020-01447-7; Impact factor: 2.0; Publisher: Springer)
- **Venkateswarlu, H., & Hegde, A. (2020).** Effect of influencing parameters on the vibration isolation efficacy of geocell reinforced soil beds. *International Journal of Geosynthetics and Ground Engineering*, 6, 1-17. (DOI: 10.1007/s40891-020-00205-2; Impact factor: 2.4; Publisher: Springer)
- **Sharma, S., Venkateswarlu, H., & Hegde, A. (2019).** Application of Machine Learning Techniques for Predicting the Dynamic Response of Geogrid Reinforced Foundation Beds. *Geotechnical and Geological Engineering*, 37(6), 4845-4864. (DOI: 10.1007/s10706-019-00945-7; Impact factor: 2.0; Publisher: Springer)
- **Hegde, A., & Venkateswarlu, H. (2019).** Mitigation of traffic induced vibration using geocell inclusions. *Frontiers in Built Environment*, 5(136). (DOI: 10.3389/fbuilt.2019.00136)
- **Venkateswarlu, H., & Hegde, A. (2018).** Numerical analysis of machine foundation resting on the geocell reinforced soil beds. *Geotechnical Engineering Journal of the SEAGS & AGSSEA*, 49(4), 55-62. (SJR: 0.17; Publisher: SEAGS)

ASCE Geotechnical Special Publications:

- **Venkateswarlu, H., & Hegde, A. (2019, March).** Block resonance test on geosynthetic reinforced foundation beds. In *Geo-Congress 2019: Earth Retaining Structures and Geosynthetics* (pp. 266-276). Reston, VA: American Society of Civil Engineers. (DOI: 10.1061/9780784482087.024).
- **Venkateswarlu, H., & Hegde, A. (2020, February).** Factors Influencing Dynamic Response of Geocell Reinforced Soil Beds. In *Geo-Congress 2020: Engineering, Monitoring, and Management of Geotechnical Infrastructure* (pp. 569-578). Reston, VA: American Society of Civil Engineers. (DOI: 10.1061/9780784482797.055)

Book Chapters:

- **Hegde, A. & Venkateswarlu, H. (2022).** Vibration Isolation of Foundation Systems Using Geosynthetics Barriers. In *Edited Book entitled Civil Engineering for Disaster Risk Reduction*. Springer Tracts in Civil Engineering, Edited by Kolathayar S., Pal I., Chian S.C., Mondal A. Published by Springer Singapore. ISBN: 978-981-16-5312-4. 317-328. (DOI: 10.1007/978-981-16-5312-4_21).
- **Venkateswarlu, H. & Hegde, A.M. (2020).** Performance Evaluation of Geocell Reinforced Machine Foundation Beds. In *Edited Book entitled Geocells*. Edited by Sitharam T.G., Hegde A. And Kolathayar S. Published by Springer Singapore. ISBN 978-981-15-6095-8. 199-223. (DOI: 10.1007/978-981-15-6095-8_8).
- **Venkateswarlu, H., Prasad, D. S. V., & Prasada Raju, G. V. R. (2019).** Strength Behaviour of Expansive Soil Treated with Quarry Dust and Ferric Chloride. In *Ground Improvement Techniques and Geosynthetics*. Springer, Singapore. ISBN 978-981-13-0559-7. 115-123. (DOI: 10.1007/978-981-13-0559-7_13).

International & National Conferences:

- **Venkateswarlu, H & Hegde, A. (2022).** Acceleration response of geocell barriers subjected to vibration loads. *Proceedings of the 20th International Conference on Soil Mechanics and Geotechnical Engineering*, 1-5 May 2022, Sydney, Australia, 1105-1110.
- **Hegde, A. & Venkateswarlu, H. (2020).** FLAC3D modeling of geocell reinforced foundation beds. *Proceedings of Fifth International Itasca Symposium*, 17–20 February 2020, Vienna, Austria, Paper ID 16-05 (CD-ROM).

HASTHI VENKATESWARLU

- **Venkateswarlu, H.**, Ujjawal, K.N. & Hegde, A. (2018). FLAC based 3D numerical analysis of machine foundations resting on geosynthetics reinforced soil bed. Proceedings of the 11th International Conference on Geosynthetics, (11ICG), 16-21 September 2018, Seoul, Republic of Korea, Paper ID S21-01 (CD-ROM).
- Roy, R. **Venkateswarlu, H.** & Hegde, A. (2018). Numerical study on cyclic shear behavior of soil-geosynthetics interface. Proceedings of International Symposium on Geotechnics of Transportation Infrastructure (ISGTI 2018), 7-8 April 2018, New Delhi, 507-512. (DOI: 10.1007/978-981-13-6713-7_19).
- **Venkateswarlu, H.** & Hegde, A. (2017). Dynamic response of the machine foundation resting on geocell reinforced soil beds. Proceedings of Indian Geotechnical Conference-2017, 14-16 December, Guwahati, Paper ID Th11-559 (CD-ROM).

Awards, Honors and Recognitions:

- The nations prestigious **IGS-Prof. Leonard Award** for the **outstanding Ph.D. Thesis in Geotechnical Engineering** published all over India, bestowed by the Indian Geotechnical Society in 2021.
- Honored with the **Young Geotechnical Engineer (YGE) Biennial Award** by the Indian Geotechnical Society in 2020, for the paper published in the **Canadian Geotechnical Journal** titled "Effect of Infill Materials on Vibration Isolation Efficacy of Geocell-Reinforced Soil Beds". This paper was recognized as the best paper in the field of Soil Dynamics and Earthquake Engineering.
- The article "**Venkateswarlu, H.**, SaiKumar, A., & Latha, G. M. (2023). Sand-geogrid interfacial shear response revisited through additive manufacturing. *Geotextiles and Geomembranes*, 51(4), 95-107." ranks one of the **most popular papers** in the esteemed journal of **Geotextiles and Geomembranes**.
- The article "**Venkateswarlu, H.**, & Latha, G. M. (2025). Unveiling the reinforcement benefits of innovative textured geogrids. *Geotextiles and Geomembranes*, 53(1), 21-40." ranks one of the **most downloaded articles** in the esteemed journal of **Geotextiles and Geomembranes** from the past six months.
- **Best Poster Presentation Award** in Two Successive Years 2018 & 2019 in the research symposium called "Research Scholars Day" conducted by IIT Patna.
- Prestigious **Institute of Eminence fellowship** for conducting Post-Doctoral Research at Indian Institute of Science Bangalore.
- Institute Fellowship from MHRD for pursuing a Ph.D.
- First place in an intra-level technical quiz competition on Civil Engineering, organized by the Institution of Engineers (India) in 2011.
- Academic Topper in X, and Masters.

Unique Expertise:

Field testing	Block resonance test, SPT, Plate load test, Shaking table test, Field compaction, and Non-Destructive testing
Laboratory testing	Direct shear test, Triaxial test, Resonant column test, Permeability test, Oedometer test, and Basic index tests (classification, and Atterberg limits)
Instrumentation	Strain gauges; LVDTs; Load cells; Accelerometers; Pore pressure sensors; and Geophones
Packages	PIV; FLAC3D; PLAXIS
Analysis	Geotechnical analysis including foundations, settlement, seepage, and liquefaction potential. Preparation of geotechnical reports.

Membership of Professional Societies:

- Life Member of Indian Geotechnical Society (MIGS), LM-4564
- Member of The Institution of Engineers, India (MIE), M-1794056
- Life Member of Indian Society of Earthquake Technology (MISSET), LM-2020
- Member of the International Society for Soil Mechanics and Geotechnical Engineering

Continuing education (Short courses/Workshops attended):

Date	Place	Topic
3 rd – 5 th April 2014	IIIT Hyderabad	Advances in Geotechnical Engineering
11 th -12 th July 2014	IIIT Hyderabad	Modeling Aspects in Geotechnical Engineering
26 th September 2015	JNTUK	Shallow and Deep Foundations
1 st -10 th July 2020	IIT Patna	Recent Advances in Geotechnical Engineering Research & Practice
16 th -21 st September 2018	SEOUL, South Korea	Geosynthetics Stabilized Roads

Reviewer of Referred Journals: Active Reviewer for the following reputed journals.

- Geotextiles and Geomembranes (ELSEVIER, SCI)
- Geosynthetics International (ICE, SCI)
- Scientific Reports (Nature, SCI)
- Construction and Building Materials (ELSEVIER, SCI)
- Journal of Materials in Civil Engineering (ELSEVIER, SCI)
- International Journal of Geomechanics (ELSEVIER, SCI)
- Journal of Physical Modelling in Geotechnics (ICE, SCI)
- SN Applied Sciences (Springer, Scopus)
- International Journal of Geosynthetics and Ground Engineering (Springer, Scopus)
- Materials (ELSEVIER, Scopus)
- Geomechanics and Engineering (ELSEVIER, SCI)
- Case Studies in Construction Materials (ELSEVIER, SCI)
- Earthquake Engineering and Engineering Vibration (Springer, SCI)
- International Journal of Pavement Research and Technology (Springer, Scopus)
- Indian Geotechnical Journal (Springer, Scopus)
- Scientia Iranica
- Sadhana (Indian Academy of Sciences, SCI)
- Transportation Infrastructure Geotechnology (Springer, Scopus)