

SREEDHARA B M

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Education

	Degree	Year	Institute	Specialization
1	B. E	2011	Adichunchanagiri Institute of Technology, Chikkamagaluru - 577102	Civil Engineering
2	M.Tech	2013	University B D T College of Engineering, Davanagere – 577004	Computer Aided Design of Structures
3	Ph.D.	2019	National Institute of Technology Karnataka (NITK), Surathkal- 575025	Hydraulic Structures

Professional Experience

	Date (from-to)	Designation	Organization
1	31 st December 2013 to 18 th August 2018	Research Scholar	Department of Applied Mechanics and Hydraulics, NITK Surathkal
2	20 th August 2018 to 31 st August 2019	Assistant Professor	B M S Institute of Technology & Management, Bengaluru
3	06 th September 2019 to till date	Assistant Professor	Siddaganga Institute of Technology, Tumakuru

(Please fill in reverse order. Current designation should be at the top)

Courses Taught

Undergraduate Courses

- Elements of Civil Engineering
- Engineering Mechanics
- Strength of Materials
- Analysis of Determinate Structures
- Analysis of Indeterminate Structures
- Fluid Mechanics and Hydraulics
- Estimation Costing, Valuation and Contract Management
- Environmental Sciences
- `Structural Application Laboratory
- Computer Aided Detailing of structure Laboratory
- Basic Surveying Laboratory
- Fluid Mechanics and Hydraulics Laboratory
- Extensive Survey Project

Postgraduate Courses

- Design of Industrial Structures
- Design of Bridge Structures
- Design of Earthquake Resistant Structures
- Mechanics of Deformable Bodies

Research Areas

- Structural Engineering
- Masonry and Rammed Earth Structures
- Hydraulic Engineering
- Finite Element Modeling
- Applications of Soft Computing Techniques

Publications

Journals

- Raghavendra, S., Marulasiddappa, S. B., Manoj, A., & Praveen, K. M. (2025). Numerical Analysis to Compare the Performance of an Oscillating Water Column Device with Different Air Chamber Geometry. Journal of Waterway, Port, Coastal, and Ocean Engineering, 151(3), 04025005.
- Kishore, Y. S., Sreedhara, B. M., Manoj, A., Raveesh, R. M., Rakesh, B., Bhaskar, S., ... & Chethan, B. A. (2025). Effect of vehicular vibrations on L-4

lumbar vertebrae—A finite element study. *Journal of Orthopaedics*, 63, 109-115.

- Sreedhara B. Marulasiddappa, Asif Khan H, Gireesh Mailar, Muttana S. Balreddy, Geetha Kuntoji & Sujay Raghavendra Naganna (2024). Exploring the potential of arecanut fibers and fly ash in enhancing the performance of self-compacting concrete. *Journal of Engineering and Applied Science*. 71:180.
- Marulasiddappa, S. B., Naganna, S. R., KM, P., Tantri, A., Kuntoji, G., & Sammen, S. S. (2024). Strength assessment of structural masonry walls: analysis based on machine learning approaches. *HBRC Journal*, 20(1), 505-524.
- Murthy, M. N., Amruth, S. K., Marulasiddappa, S. B., & Naganna, S. R. (2024). Modeling the compressive strength of binary and ternary blended high-performance concrete mixtures using ensemble machine learning models. *Soft Computing*, 1-11.
- Marulasiddappa, S. B., Patil, A. P., Kuntoji, G., Praveen, K. M., & Naganna, S. R. (2024). Prediction of scour depth around bridge abutments using ensemble machine learning models. *Neural Computing and Applications*, 36(3), 1369-1380.
- Naganna, S. R., Marulasiddappa, S. B., Balreddy, M. S., & Yaseen, Z. M. (2023). Daily scale streamflow forecasting in multiple stream orders of Cauvery River, India: Application of advanced ensemble and deep learning models. *Journal of Hydrology*, 626, 130320.
- Harsha, S., Hanumanthappa, S., Marulasiddappa, S. B., & Naganna, S. R. (2023). Machine learning models for damage detection in steel beams. *International Journal of System Assurance Engineering and Management*, 14(5), 1898-1911.
- Sreedhara, B. M., Rahul Raj, M., Kuntoji, G., Naganna, S. R., & Yaseen, Z. M. (2022). Stress-Strain Relationships and Failure Load Analysis of Cement-Stabilized Rammed Earth under Concentric and Eccentric Loading Using Finite Element Modelling. *Advances in Civil Engineering*, 2022.
- BM Ramesh, Rahul Murali Vongole, Yashas Nagraj, Sujay Raghavendra Naganna, BM Sreedhara, Gireesh Mailar, PS Ramesh, Zaher Mundher Yaseen (2021). Valorization of incinerator bottom ash for the production of resource-efficient eco-friendly concrete: Performance and toxicological characterization. *Architecture, Structures and Construction*, 1-14. (<https://doi.org/10.1007/s44150-021-00006-9>)
- Sreedhara, B. M., Patil, A. P., Pushparaj, J., Kuntoji, G., & Naganna, S. R. (2021). Application of gradient tree boosting regressor for the prediction of

scour depth around bridge piers. *Journal of Hydroinformatics*, 23 (4): 849–863. (<https://doi.org/10.2166/hydro.2021.011>)

- Sreedhara, B. M., Kuntoji, G., & Mandal, S. (2019). Application of Particle Swarm based Neural Network to Predict Scour Depth around the Bridge Pier. *International Journal of Intelligent Systems and Applications*, 11(11), 38. (<http://j.mecs-press.net/ijisa/ijisa-v11-n11/IJISA-V11-N11-4.pdf>)
- Sreedhara, B. M., Rao, M., & Mandal, S (2018). Application of an evolutionary technique (PSO–SVM) and ANFIS in clear-water scour depth prediction around bridge piers. *Neural Computing and Applications*, 1-15. (Springer) (<https://doi.org/10.1007/s00521-018-3570-6>).
- Sreedhara, B. M., Manu & Mandal, S. (2018). Estimation of live bed scour depth around different shapes of bridge piers using ANFIS and SVMR approach. *International Journal of Ecology & Development™*, 33 (3), 30-46. (Ceser Publication) (ISSN 0972-9984 (Print); ISSN 0973-7308 (Online)).
- Mailar, G., Sujay Raghavendra, N., Hiremath, P., Sreedhara, B. M., & Manu, D. S. (2017). Sustainable utilization of discarded foundry sand and crushed brick masonry aggregate in the production of lightweight concrete. *Engineering Structures and Technologies*, 9 (1), 52-61. (Taylor&Francis) (<https://doi.org/10.3846/2029882X.2017.1279987>)
- Mailar, G., Raghavendra, S., Sreedhara, B. M., Manu, D. S., Hiremath, P., & Jayakesh, K. (2016). Investigation of concrete produced using recycled aluminium dross for hot weather concreting conditions. *Resource-Efficient Technologies*, 2 (2), 68-80. (Elsevier) (<https://doi.org/10.1016/j.reffit.2016.06.006>)

Book Chapters

- Mahesh, J. V., Ramya, S., Sreedhara, B. M., & Raveesh, R. M. (2023). Bond strength characteristics of masonry using hemp fibre and chicken mesh reinforced mortar. *Materials Today: Proceedings*.
- Nair, A., Aditya, S. D., Adarsh, R. N., Nandan, M., Dharek, M. S., Sreedhara, B. M., ... & Sreekesava, K. S. (2020, March). Additive Manufacturing of Concrete: Challenges and opportunities. In *IOP Conference Series: Materials Science and Engineering* (Vol. 814, No. 1, p. 012022). IOP Publishing. (<https://iopscience.iop.org/article/10.1088/1757-899X/814/1/012022/meta>)
- Sreedhara B M, Manu and S Mandal (2018), “Swarm intelligence based Support Vector Machine (PSO-SVM) approach in the prediction of scour depth around the Bridge pier”. In *Advances in Intelligent Systems and Computing* with ISSN: 2194-5357, (Springer) (https://doi.org/10.1007/978-981-13-1595-4_36)

- Sreedhara B. M, Geetha Kuntoji, Manu and S Mandal (2018), “PSO-SVM approach in the prediction of scour depth around different shapes of bridge pier in live bed scour condition”, In Advances in Intelligent Systems and Computing 741, (Springer) (https://doi.org/10.1007/978-981-13-0761-4_37).

Invited Lectures, talks and workshops

- Numerical modelling on Local Scour around the Bridge Pier using ANSYS Fluent at the FDP on “Physical and CFD modelling in Applied hydraulics” held at Department of Civil Engineering, BMSCE Bangalore, during April 10-15, 2023.