

1. Aditya C., Srinivas V. and Venkat L (2024), “Detection of Damage in Bolted Steel Structures Using Vibration Signature Analysis”, *Journal of Vibration Engineering & Technologies*, 12: 1399-1412
2. Ambily, P. S., Kaliyavaradhan, S. K., & Rajendran, N. (2023), “Top challenges to widespread 3D concrete printing (3DCP) adoption – A review”, *European Journal of Environmental and Civil Engineering*, 28(2): 300–328
3. Ambily, P.S., Neeraja, R., and Senthil Kumar, K. (2023), “Mix design, optimization and performance evaluation of extrusion-based 3D printable concrete”, *Construction Materials (Proceedings of the ICE)*, 1-44, <https://doi.org/10.1680/jcoma.23.00077>.
4. Ambily, P.S., Senthil Kumar, K., Shilpa, S., and Deepadharshan, S. (2023), "Mixing approach for 3D printable concrete: method of addition and optimization of superplasticizer dosage", *Magazine of Concrete Research*, 1-41, <https://doi.org/10.1680/jmacr.23.00165>
5. Arjun, S., Hemalatha, T., and Rajasekar, C. (2023), “Performance assessment of steel slag aggregates as partial replacement of river sand in concrete”, *The Indian Concrete Journal*, 97(4): 36-42
6. Arun Sundaram, B., Aravindan, M., Srinivas, V., Kanchana Devi, A., Parivallal, S., and Prathebha Padmanaban (2023), “A novel retrofitting strategy for restoring railway masonry arch bridge undergoing failure by settlement due to scouring”, *Engineering Failure Analysis*, 154:107694
7. Balagopal, R., Prasad Rao, N., Palani, G. S., and R. P. Rokade, R. P. (2023), "Failure Investigation of Transmission Line Towers with Unfilled Bolt Holes in Stub Member", *Journal of the Institution of Engineers India - Series A*, 104(4): 867-876
8. Deepak K., Lakshmi K., Srinivas V. and Srinivas A. (2024), “Vibration-based condition assessment of a steel structure under ambient excitation”, *Journal of Structural Engineering, CSIR-SERC(India)*, 50( 4 & 5): 327-335
9. Gautham S. and Saptarshi Sasmal (2023), “Constitutive relations of nanoscale hydration products present in engineered cementitious composites from machine learning assisted experimental nanoindentation”, *Journal of Building Engineering*, 75: 106912
10. Kaliyavaradhan, S. K., Ambily, P. S., Shekar, D., & Sebastian, S. (2024), “Effect of sand gradations on the fresh properties of 3D printable concrete”, *Magazine of Concrete Research*, 76(16) : 903-912

11. Kiruthika, K., Ambily, P.S., Ponmalar, V., and Senthil Kumar, K. (2023), “Computation of embodied energy and carbon dioxide emissions of geopolymer concrete in high-rise buildings: a case study in Chennai city”, *European Journal of Environmental and Civil Engineering*, 28(7):1517-1543
12. Jagadesh, P., and A. Ramachandramurthy, A. (2023), “Effect of processed sugarcane bagasse ash on compressive strength of blended mortar and assessments using statistical modelling”, *Case Studies in Construction Materials*, 19 (e02435): 1-17
13. Kanishka Bhattacharya, Tapan Jana, Amit Shaw, Ramachandra, L.S., and Vishal Mehra. (2024), " An adaptive approach to remove tensile instability in SPH for weakly compressible fluids", *Computers and Fluids*, 269: 1-19
14. Keerthana, M., and Harikrishna, P. (2023), “Signal complexity approach based investigation of flutter instability in sectional models of bridges in wind tunnel”, *Advances in Structural Engineering*, 26(13): 2341-2561
15. Khandelwal, N., and A. Ramachandramurthy, A. (2024), " Ductile fracture simulation using phase field approach under higher order regime", *Structural Engineering and Mechanics*, 89(2): 199 - 211
16. Kole, K.K., S Gautham, S., Khan, P., Biswas, R.K., Dasgupta, K., AK Mondal, A.K., Anoop, M.B., Jiten Ghosh, and Sasmal, S. (2023), “Effect of fly ash on the atomic scale structure of C–S–H during Portland cement hydration”, *Magazine of Concrete Research*, 75(21): 1097–1116
17. Lakshmi, K.; Srinivas, A.; and Farvaze Ahmed, A.K., (2024), “Vehicle Scanning-Based Enhanced Modal Identification of a Bridge using Singular Value Decomposition”, *Sadhana*, 49: 136
18. K. Lakshmi, Prateek Arora ; and Rama Mohan Rao, A (2024),”Global–Local Damage Diagnostic Approach for Large Civil Structures with Very Limited Sensors”, *International Journal of Structural Stability and Dynamics* , 2450270 <https://doi.org/10.1142/S0219455424502705>
19. K. Lakshmi, 2024, “Real-time Online Damage Localisation using Vibration Measurements of Structures under Variable Environmental Conditions”, *Smart Structures and Systems*, 33 (3): 227-241
20. Manisekar, R., and Saravana Kumar, K. (2023). “Retrofitting of Distressed Post-tensioned Concrete Members by External Post-tensioning”, *Journal of the Institution of Engineers India - Series A*, <http://doi.org/10.1007/s40030-023-00737-6>

21. Nawal Kishor Banjara, Saptarshi Sasmal, and Santosh Kapuria (2024), "Fatigue and Leakage-Type Damage Detection in Metallic Plates and Pipelines using Piezoelectric Patch Acoustic Sensors", *International Journal of Pressure Vessels and Piping*, 209: 105162
22. Nitin Khandelwal and Ramachandra Murthy, A.,(2023),"Ductile fracture simulation using phase field method with various damage models based on different degradation and geometric crack functions", *Materials Today Communications*, 35, 105627: 1-16
23. Nitin Khandelwal and Ramachandra Murthy, A., (2023)"Application of phase field approach under 2D and 3D simulation for ductile fracture analysis", *Journal of Structural Engineering*, 50(4): 1-9
24. Prabhat, P, R., Tamilmathirajalakshmi R., Ramesh Gopal, and Swapnil Balasaheb, G. (2024). "Development of stress block parameters for ultra high performance concrete." *Structures*, 59(11):105719
25. Prabhat, R. P., Ambily,P. S., Shilpa Sebastian,and Senthil Kumar, K. (2023), "A Review on Application of Acoustic Emission Testing During Additive Manufacturing", *Journal of Nondestructive Evaluation*, 42(96): 31
26. Prabhat, P.R., Ambily, P.S., Shankar Kumar, and Swapnil Balasaheb, G. (2024), " A theoretical model to predict the structural buildability of 3D printable concrete", *Mechanics of Time-Dependent Materials*, <https://link.springer.com/article/10.1007/s11043-024-09666-8>
27. Prabhat, P.R., Ramamurthy, V. Ingle, Darssni, R., and Giridhar, G. (2024), " Influence of loading rate on flexural performance and acoustic emission characteristics of Ultra- High Performance Concrete", *Structural Engineering and Mechanics*, 89(6): 617-626
28. Prasad Rao, N., Rokade, R.P., Balagopal, R., and Palani, G.S. (2024), " Segmental instability failures in transmission line towers", *Journal of Constructional Steel Research*, 211: 108195
29. Prawin, J. (2024), "Rolling element bearing fault identification using vibration data", *International Journal of Structural Stability and Dynamics*, 2440009: 1-28
30. Prawin, J. (2023), "Bridge global damage identification using vibration data." *Journal of Structural Engineering - CSIR-SERC (india)*, 49(5): 385-404
31. Prawin J. (2024), "Singular spectrum analysis based structural damage identification in beams with multiple breathing cracks", *Mechanics based design of structures and machines*, 52(6):3011-3037

32. Rajanikant, R., Sindu, B.S., and Sasmal, S. (2023), "Real-time monitoring of structures under extreme loading using smart composite-based embeddable sensors". *Journal of Intelligent Material Systems and Structures*, 34(9):1073-1096
33. Rajanikant Rao, S. Gautham and ·Saptarshi Sasmal (2024), "A Comprehensive Review on Carbon Nanotubes Based Smart Nanocomposites Sensors for Various Novel Sensing Applications", *Polymer Reviews*, 64(2): 575-638
34. Rama Rao, G. V., Bharathi Priya, C., Sreekala, R., Jothi Saravanan, T., and Gopalakrishnan, N. (2023), "Methodology for uncoupling translational and torsional modes in framed structure with experimental validation", *Sadhana*, 48(3): 1-13
35. Ramachandra Murthy, A., Lakshmi, K., Vishnuvardhan, S., and Saravanan, M. (2023), "Prediction of SIF Range for Plain API 5L Grade X65 Steel under Corrosion using AI & ML Models", *Materials Today Communications*, 36: 106543/1-12
36. Ramachandramurthy, A., Prasanna, P. K., Nipun, G., Srinivasu, K., Kumaraswamy, G., and Azal Husain, K. (2024), "Analysing the influence of ground granulated blast furnace slag and steel fibre on RC beams flexural behaviour" , *Scientific Reports - Nature*, 14(Article No. 4914): 1-15
37. Ramachandramurthy, A., Vishnuvardhan, S., Saravanan, M., Abhishek Kumar, P. Gandhi, P., and Singh, P. K. (2024), " Fatigue Life and Fracture Assessment of SA 333 Gr. 6 Carbon Steel Straight Pipes with Circumferential Crack", *Journal of Structural Engineering CSIR- SERC (India)*, 50(3): 215-225
38. Ramanjaneyulu, K., and Kanchanadevi, A. (2024), " Composite bridge girders with corrugated steel web – A closer perspective" , *Journal of Structural Engineering CSIR- SERC (India)*, 50 (1): 62-79
39. Saravanan, M., Vishnuvardhan, S., Ramachandramurthy, A., Gandhi, P., Debasish Mandal, and Singh, P.K. (2024), " Fatigue Crack Growth and Fracture Studies on Stainless Steel Straight Pipes Having Circumferential Surface Crack", *Journal of Failure Analysis and Prevention*, <https://doi.org/10.1007/s11668-024-01905-x>
40. Saptarshi Sasmal, Rajanikant Rao and · S. Gautham, (2023), " Nano-scale investigations and engineering to develop smart cementitious composite with embedded sensing capability for multi-metric structural health monitoring", *Transactions of the Indian National Academy of Engineering*, 8: 585–606

## Publications 2023-2024

41. Saptarshi Sasmal, S. Basu. Chunduri V.V. Himakar, Tribikram Kundu (2023), "Detection of interface flaws in Concrete-FRP composite structures using linear and nonlinear ultrasonics based techniques", *Ultrasonics*, 132:107007
42. Seethalakshmi, B. R., and Srinivas, V. (2023), "Dynamic Similitude Analysis for Establishing Scaled-Down Model to Predict Vibration Behaviour of Prestressed Concrete Bridge Girder", *Iranian Journal of Science and Technology, Transactions of Civil Engineering*, 47: 1629-1641
43. Sharma, B.N., Kapuria, S., Arockiarajan, A., and Kannusamy, M. (2023)," Baseline-free damage detection and sizing under varying temperatures using Lamb waves without temperature compensation", *Structural Health Monitoring*, 22(5): 3534-3557
44. Smitha, G., Marko butler, and Viktor Mechtcherine (2023), "Strain hardening composite made of LC3 binder and mineral impregnated carbon yarn: effect of crystalline admixture on mechanical characteristics and microstructure", *European journal of environmental and civil engineering*, DOI: 10.1080/19648189.2023.2276126
45. Smitha Gopinath, Abhishek Kumar, Lavanya Eragam (2023), "Novel strategy for strengthening intervention of masonry walls using textile reinforced concrete", *Journal of Architectural Engineering, ASCE*, 29(4): 1-12
46. Shankar, S., Smitha Gopinath. (2023), "Influence of Textile Layer Positioning on Flexural Strength- An insight towards field casting of Textile Reinforced Concrete", *Journal of Scientific and Industrial Research*, 82(9): 925-931
47. Sneha Benoy, Saravanan, M., and Vijayanarayanan, A.R. (2024), " Design recommendations for RC structural walls subjected to bi-axial bending ", *Sadhana*, 49(90): 1-13
48. Srinivas A., Lakshmi, K. and Srinivas V., (2024), "Performance Evaluation of Signal Decomposition Techniques for Vehicle-Scanning-based Modal Identification of Bridges", *Journal of Structural Engineering, CSIR-SERC(India)*, 50(4 & 5): 310-326
49. Srinivas V, Saptarshi S, N. K. Banjara, B.S. Sindu and K. Ramanjaneyulu,(2023), "Failure investigation and retrofitting of a long-span rail-cum-road bridge through field response measurements", *Journal of Structural Engineering CSIR-SERC(India)*, 50(2): 93-102
50. Srinivas Voggu, Saptarshi Sasmal,Nawal Kishor Banjara, Sindu , B.S.and Ramanjaneyulu K. (2023), "Failure investigation and Retrofitting of a long-span Rail-cum-Road Bridge through Field Response Measurements", *Journal of Structural Engineering CSIR-SERC(India)* 50(2) : 93-102

51. Thirumalaiselvi A., Kannusamy M., Srinivas V, Saptarshi S (2023), “Acoustic emission-based non-destructive technique for integrity assessment of heavily reinforced typical Trunnion beam of spillway structure”, *Journal of Non Destructive Testing and Evaluation (JNDE)*, 20(3):23-32
52. Vaibhav Vinod Ingle, Senthil Kumar, K., Ambily, P.S., and Deepadharshan Shekar. (2023), “3D printable concrete without chemical admixtures: Fresh and hardened properties”, *Structural Concrete*, <https://doi.org/10.1002/suco.202300267>
53. Yadukrishnan, A. S., Subbulakshmi, A., and Mohit Verma (2023), “Experimental validation of optimal TMD for wind turbines using real-time hybrid simulation”, *Journal of Vibration and Control*, <https://doi.org/10.1177/10775463231217618>,