

Papers Published in SCI and reputed Indian Journals

List of publications in SCI and reputed Indian Journals (April 2018 – March 2019)

- ❖ Tensile and fracture characterization using a simplified digital image correlation test set-up. Abhishek Kumar, Vishnuvardhan, S., Ramachandra Murthy, A., and Raghava, G. *Struct. Eng. Mech.*, 69(4): 467-477.
- ❖ Achyut Dhat, Rajasankar, J., and Anandavalli, N. (2018). “A mathematical formulation to find effective bulk and shear moduli of recycled aggregate concrete.” *Constr. Build Mater.*, 168: 747-757.
- ❖ Akshay D. Mahajan, Ramachandra Murthy, A., Nanda Kumar, M.R., and Smitha Gopinath. (2018). “Damage Tolerant Analysis of Cracked Al 2024-T3 Panels repaired with Single Boron/Epoxy Patch.” *Jl of Instn of Engineers (India): Series A*, 99(2): 219-229.
- ❖ Arun Sundaram. B., Kesavan, K., and Parivallal, S. (2018). “Recent Advances in Health Monitoring and Assessment of Inservice Oil and Gas Buried Pipelines.” *Jl of Instn. of Engineers (India): Series A*, 99(4): 729-740.
- ❖ Balagopal, R., Prasad Rao, N., Rokade, R.P. (2018). “Simplified Model to Predict Deflection and Natural Frequency of Steel Pole Structure.” *Jl of Instn. of Engineers (India): Series A*, 99(3): 595-607.
- ❖ Balagopal, R., Prasad Rao, N., Rokade, R.P., P.K. Umesha, P.K. (2018). “Experimental Investigation on Strengthening of Bolted Connections in Transmission/Communication Towers.” *Jl of Instn. of Engineers (India): Series A*, 99(2): 269-277
- ❖ Banjara, N.K., and Ramanjaneyulu, K. (2019). “Effective CFRP retrofit strategy for flexural deficient RC beams.” *Struct. Eng. Mech.*, 69(2): 163-175, <https://doi.org/10.12989/sem.2019.69.2.163>.

- ❖ Banjara, N.K., and Ramanjaneyulu, K. (2019). “Investigations on behaviour of flexural deficient and CFRP strengthened reinforced concrete beams under static and fatigue loading.” *Constr. Build Mater.*, 201: 746-762.
- ❖ Banjara, N.K., and Ramanjaneyulu, K. (2018). “Experimental Investigations and Numerical Simulations on the Flexural Fatigue Behavior of Plain and Fiber-Reinforced Concrete.” *J. Mater. Civil Eng.*, 30(8), [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0002351](https://doi.org/10.1061/(ASCE)MT.1943-5533.0002351).
- ❖ Banjara, N.K., Sasmal, S., and Srinivas , V. (2019). “Damage progression study in fiber reinforced concrete using acoustic emission technique.” *Smart Struct. Syst.*, 23(2): 173-184.
- ❖ Bharathi Priya, C. and Gopalakrishnan, N. (2019). “Temperature dependent modelling of magnetorheological (MR) dampers using support vector regression.” *Smart Mater. Struct.–IOP*, 28(2): 025021.
- ❖ Bharathi Priya, C., Jothi Saravanan, T., Balamonica, K., Gopalakrishnan, N., and Rama Mohan Rao, A. (2018). “EMI based monitoring of early-age characteristics of concrete and comparison of Serial/Parallel multi-sensing technique.” *Constr. Build Mater.*, 191: 1268-1284.
- ❖ Bhashya, B., and Bharatkumar, B.H. (2018). “Mechanical and Durability Properties of Concrete Produced with Treated Recycled Concrete Aggregate.” *ACI Mater. J.*, 115(2): 209-217.
- ❖ Christi, S., Sivasubramanian, K., and Lakshmikandhan, K.N. (2018). “Condition assessment of a thin walled monolithic concrete structure.” *Indian Concr. J.*, 92(9): 25-35.
- ❖ Cinitha, A, Umesha, P.K., Palani, G.S., and Sampath, V. (2018). “Compression behavior of steel tubular members under simulated corrosion and elevated temperature.” *Int. J. Steel Struct.*, 18(1): 139-152.

- ❖ Daniel Ronald Joseph, J., Prabakar, J., and Alagusundaramoorthy, P. (2019) “Precast insulated concrete sandwich panels under punching and bending.” *Precast Concrete Institute (PCI) Journal*, 64(2): 69-79.
- ❖ Daniel Ronald Joseph, J., Prabakar, J., and Alagusundaramoorthy, P. (2019). “Experimental studies on through thickness shear behavior of eps based precast concrete sandwich panels with truss shear connectors.” *Compos. Part B-Eng.*, 166: 446-457.
- ❖ Daniel Ronald Joseph, J., Prabakar, J., and Alagusundaramoorthy, P. (2018). “Experimental study on the behavior of light-weight concrete sandwich panel under axial compression.” *Jl. Struct. Engg.*, 44(6) :568-576.
- ❖ Das, H.N., and Kapuria, S. (2019). “Adaptive pitch control of full-scale ship composite propeller using shape memory alloy to enhance propulsive efficiency in off-design conditions.” *J. Intel Mat. Syst. Str.*, [30\(1\):1493-1507](#).
- ❖ Dhanesh, N., and Kapuria, S. (2018). “Edge effects in elastic and piezoelectric laminated panels under thermal loading.” *J Therm. Stresses*, 41(10-12): 1577-1596.
- ❖ Ganesh, P., and Ramachandra Murthy, A. (2019). “Tensile behaviour and durability aspects of sustainable ultra-high performance concrete incorporated with GGBS as cementitious material.” *Constr. Build Mater.*, 197: 667-680.
- ❖ Haroon Rashid, N.I., Nadaraja Pillai, S., Selvi Rajan, S., and Senthil Kumar, C. (2018). “Non-Gaussian Wind Pressure Characteristics of HAWT Tower System with and Without Rotor.” *J. Appl. Fluid Mech.*, 12(2): 505-514.
- ❖ Hemalatha, T., and Ramesh, G. (2019). “Mitigation of Plastic Shrinkage in Fly ash Concrete Using Basalt Fibres.” *Canadian Journal of Civil Engineering*, <https://doi.org/10.1139/cjce-2018-0075>.

- ❖ Hemalatha, T., Arthi karunanidhi and Maitri Mapa, (2019). “Effect of calcium formate on hydration mechanism of Cement-fly ash blends.” *ACI Mater. J.*, <https://doi.org/10.14359/51716680>.
- ❖ Huchang Liao, Di Wu, Yulong Huang, PeijiaRen, ZeshuiXu, MohitVerma. (2018). “Green logistic provider selection with a hesitant fuzzy linguistic thermodynamic method integrating cumulative prospect theory and PROMETHEE.” *Sustainability*, 10(4), <https://doi.org/10.3390/su10041291>.
- ❖ Jayalakshmi, V., Lakshmi, K., and Rama Mohan Rao, A. (2019). “Reconstruction of Impact Load on Structures with limited measurements using Dynamic Hybrid Adaptive Differential Search Algorithm.” *Inverse Probl. Sci. En.*, <https://doi.org/10.1080/17415977.2019.1567725>.
- ❖ Jinchu Lu, Kamatchi, P., and Ahmed Elgamal. (2019). “Using Stone Columns to Mitigate Lateral Deformation in Uniform and Stratified Liquefiable Soil Strata.” *Int. J. Geomech. ASCE*, 19(5): [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0001397](https://doi.org/10.1061/(ASCE)GM.1943-5622.0001397).
- ❖ Joseph Andrew, A., Parthasarathi, N., Selvi Rajan, S., and Prakash, M. (2018). “Quasi static study on tall building based on measured dynamic wind pressure.” *Mater. Today*, 5(2): 8923-8932.
- ❖ Kamatchi, P., and Balaji Rao, K. (2019). “Probabilistic analysis of buildings with tuned mass damper.” *Jl. Struct. Engg.*, 45(6).
- ❖ Kanchana Devi A., and Ramanjaneyulu, K. (2018). “Effect of-corrosion damage on seismic behaviour of existing reinforced concrete beam-column sub-assemblages.” *Eng. Struct.*, 174: 601-617.
- ❖ Kanchana Devi, A., and Ramanjaneyulu, K. (2019). “Investigations on the behaviour of corrosion damaged gravity load designed beam-column sub-assemblages under reverse cyclic loading.” *Eng. Struct.*, 16(2): 235-251.

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- ❖ Kapuria, S., and Ahmed, A. (2019). “An efficient zigzag theory based finite element modeling of composite and sandwich plates with multiple delaminations using a hybrid continuity method.” *Comput. Method Appl. M.*, 345: 212-232.
- ❖ Kapuria, S., and Das, H.N. (2018). “Improving hydrodynamic efficiency of composite marine propellers in off-design conditions using shape memory alloy composite actuators.” *Ocean Eng.*, 168: 185-203.
- ❖ Kapuria, S., Sharma, B.N., and Arockiarajan, A. (2019). “Dynamic shear-lag model for stress transfer in piezoelectric transducer bonded to plate.” *AIAA J.*, 57(5):2123-2133.
- ❖ Kumar, A., and Kapuria, S. (2018). “An enriched finite element method for general wave propagation problems using local element domain harmonic enrichment functions.” *Arch. Appl. Mech.*, 88: 1573-1594.
- ❖ Kumar, A., and Kapuria, S. (2018). “Wave packet enriched finite element for generalized thermo elasticity theories for thermal shock wave problems.” *J. Therm. Stresses*, 41(8): 1080-1099.
- ❖ Lakshmi, K., and Rama Mohan Rao, A. (2018). “A Hybrid Structural Health Monitoring Technique for Detection of Subtle Structural Damage.” *Smart Struct. Syst.*, 22 (5): 587-609.
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- ❖ Lakshmi, K., and Rama Mohan Rao, A. (2019). “A Baseline-Free hybrid diagnostic technique for detection of minor incipient damage in the structure.” *J. Perform. Constr. Fac.*, 33(2).
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- ❖ Maheswaran, S., Ramachandramurthy, A., and Sakthi Priya, G.N. (2018). “Pozzolanic effect of fly ash with calcined lime sludge.” *ACI Mater. J.*, 115(6): 925-934.
- ❖ Manisekar, R., (2018). “Effect of external post-tensioning in retrofitting of RC beams.” *Jl of Instn. of Engineers (India): Series A*, 99(3): 495-501.
- ❖ Prabha, P., Palani, G.S., Lakshmanan, N., and Senthil, R. (2018). “Flexural Behaviour of Steel-Foam Concrete Composite Light-Weight Panels.” *KSCE J. Civ. Eng.*, 22(9): 3534-3545.
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- ❖ Prawin, J., and Rama Mohan Rao, A. (2018). “A method for detecting damage-induced nonlinearity in structures using weighting function augmented curvature approach.” *Struct. Health Monit.*, <https://doi.org/10.1177/1475921718788801>.
- ❖ Prawin, J., and Rama Mohan Rao, A. (2018). “Reference-Free Breathing Crack Identification of Beam-Like Structures Using an Enhanced Spatial Fourier Power Spectrum with Exponential Weighting Functions.” *Int. J. Struct. Stab. Dy.*, 19(2), <https://doi.org/10.1142/S0219455419500172>.

- ❖ Prawin, J., and Rama Mohan Rao, A. (2018). “Detection of nonlinear structural behavior using time-frequency and multivariate analysis.” *Smart Struct. Syst.*, 22(6): 711-725.
- ❖ Prawin, J., Rama Mohan Rao, A., (2019). “Damage localization of closing cracks using a signal decomposition technique.” *Fratturaed Integrità Strutturale*, 48: 513-522.
- ❖ Ramachandra Murthy, A., Karihaloo, B.L. Shanmuga Priya, D. (2018). “Flexural behavior of RC beams retrofitted with ultra-high strength concrete.” *Constr. Build Mater.*, 175: 815-824.
- ❖ Ramachandra Murthy, A., Karihaloo, B.L., Vindya Rani, Shanmuga Priya, D. (2018). “Fatigue behaviour of damaged RC beams strengthened with ultra high performance fiber reinforced concrete.” *Int. J. Fatigue*, 116: 659-668.
- ❖ Saibabu, A., (2018). “Assessment of Replacement Bridge Using Proof Load Test.” *Jl of Instn. of Engineers (India): Series A*, 99(1): 1-8.
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- ❖ Shatabdi Mallick, Anoop, M.B., and Balaji Rao, K. (2018). “Early age creep of cement paste - governing mechanisms and role of water - a microindentation study.” *Cement Concrete Res.*, 116: 284-298.
- ❖ Shaumik Ray, Jyotirmayee Dash, Nirmala Devi, Sasmal, S., and Bala Pesala. (2018). “Comparative Study of Hydration Kinetics of Cement and Tricalcium Silicate Using Terahertz Spectroscopy and Density Functional Theory Simulations.” *J. Infrared Millim. Terahertz Waves*, 39(7): 651-666.
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- ❖ Sindu, B.S., Aleena Alex, and Sasmal, S. (2018). “Studies on structural interaction and performance of cement composite using Molecular Dynamics.” *Advances in Computational Design*, 3(2): 147-163.
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- ❖ Surendran, M., Sundararajan, N., Palani, G.S., and Bordas, S.P.A. (2019). “Linear smoothed extended finite element method for fatigue crack growth simulations.” *Eng. Fract. Mech.*, 206: 551- 564.
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