

## DC Members - Anna University

### Publication Details

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List of last 5 years publications:

1. Adityanarayan Pandey, Pravin Varade, Kumaraswamy Miriyala, N. Shara Sowmya, Amrithesh Kumar, A. **Arockiarajan**, A. R. Kulkarni and N. Venkataramani, Magnetoelectric response in lead-free  $\text{Na}_0.4\text{K}_{0.1}\text{Bi}_{0.5}\text{TiO}_3/\text{NiFe}_2\text{O}_4$  laminated composites, Materials Today Communications, 2020, accepted..
2. Abhijeet M Giri, S. F. Ali and A. **Arockiarajan**, Dynamics of Symmetric and Asymmetric Potential Well based Piezoelectric Harvesters: A Comprehensive Review, Journal of Intelligent Material Systems and Structures, 2020, accepted.
3. Deepak kumar, Shaikh Faruque Ali and A. **Arockiarajan**, Studies on large deflection of geometrically nonlinear corrugated structure, Acta Mechanica, 2020, 10.1007/s00707-020-02861-x.
4. Bhabagrahi Natha Sharma, Santosh Kapuria and A. **Arockiarajan**, Time Reversibility of Lamb Waves in Thin Plates with Surface-Bonded Piezoelectric Transducers is Temperature Invariant at the Best Reconstruction Frequency, Structural Health Monitoring, 2020, doi.org/10.1177/1475921720965122.
5. S. Sudersan, U. Saravanan and A. **Arockiarajan**, Finite Element Formulation for Implicit Magnetostrictive Constitutive Relations, Computational Mechanics, 66, 2020, 1497-1514.
6. K. Venkata Siva, S. Sudersan, and A. **Arockiarajan**, Bipolar magnetostriction in  $\text{CoFe}_2\text{O}_4$ : Effect of sintering, measurement temperature, and prestress, Journal of Applied Physics, 128, 2020, 103904.
7. Gursahib Singh Bhatia, and A. **Arockiarajan**, Flexural static and fatigue response of patch repaired laminated composites for different patch-parent configurations, Polymer composites, 41, 2020, 4559 - 4571.
8. Amrithesh Kumar and A. **Arockiarajan**, Modeling of Resonant Magnetoelectric Response in Press-Fit Embedded Ring Composite, European Journal of Mechanics / A Solids, 84, 2020, 104052.
9. Aghna Mukherjee, Shaikh Faruque Ali and A. **Arockiarajan**, Modeling of integrated shape memory alloy and Macro-Fiber Composite actuated trailing edge, Smart materials and structures, 29, 2020, 085005.
10. S. Sudersan and A. **Arockiarajan**, Effects of Flexoelectricity and Surface Elasticity on the Nonlinear Magnetoelectric Coupling in Unsymmetric Composites, IEEE transactions on magnetics, 56, 2020, 2500211.
11. H. Mehraj, S. M. Srinivasan and A. **Arockiarajan**, Creep behavior of magnetorheological gels, Mechanics of Advanced Materials and Structures, 27, 2020, 1031-1039.
12. K. Venkata Siva, P. Kaviraj, A. **Arockiarajan**, Improved room temperature magnetoelectric response in  $\text{CoFe}_2\text{O}_4\text{-BaTiO}_3$  core shell and bipolar magnetostrictive properties in  $\text{CoFe}_2\text{O}_4$ , Materials Letters, 268, 2020, 127623.

13. Aghna Mukherjee, Michael Ian Friswell, Shaikh Faruque Ali and **A. Arockiarajan**, Modeling and design of a class of hybrid bistable symmetric laminates with cantilever boundary configuration, *Composite Structures*, 239, 2020, 112019.
14. Subhajit Konar, Privita Edwina, Vaibavi Ramanujam, **A. Arockiarajan** and Saumendra Kumar Bajpai, Collagen-I/Silk-fibroin biocomposite exhibits microscalar confinement of cells and induces anisotropic morphology and migration of embedded fibroblasts, *Journal of Biomedical Materials Research: Part B - Applied Biomaterials*, 108B, 2020, 2368-2377.
15. Farsa Ram, P. Kaviraj, R. Pramanik, Amrutha Krishnan, Kadiravan Shanmuganathan and **A. Arockiarajan**, PVDF/BaTiO<sub>3</sub> Films with Nanocellulose Impregnation: Investigation of Structural, Morphological and Mechanical Properties, *Journal of Alloys and Compounds*, 823, 2020, 153701.
16. Amrutesh Kumar, J. Arout Chelvane, and **A. Arockiarajan**, Temperature Dependent Dynamic Response in epoxy-free and epoxy-bonded ME Composite: A Comparative study, *Smart materials and structures*, 29, 2020, 035015.
17. V. Sai Elakkiya, Sk. M. Subhani and **A. Arockiarajan**, A phenomenological approach to study the nonlinear magnetoelectric (ME) response of ME composites, *Smart materials and structures*, 29, 2020, 015010.
18. Luv Verma, Srinivasan M. Sivakumar, Jefferson Andrew, G. Balaganesan, **A. Arockirajan** and S. Vedantam, Compression after ballistic impact response of pseudoelastic shape memory alloy embedded hybrid unsymmetrical patch repaired GFRP composites, *Journal of Composite Materials*, 53, 2019, 4225 - 4247.
19. Amrutesh Kumar and **A. Arockiarajan**, Temperature dependent magnetoelectric (ME) response in press-fit FeNi/PZT/Ni self-biased ring composite, *Journal of Applied Physics*, 126, 2019, 094102.
20. R. Pramanik, L. Santhosh, and **A. Arockiarajan**, Mechanics of 1-3 piezocomposites subjected to creep-fatigue loads, *Meccanica*, 54, 2019, 1611-1622.
21. P. Paul and **A. Arockiarajan**, Study of electro-elastocaloric effect and pyroelectric energy density in piezocomposites, *Smart materials and structures*, 28, 2019, 105026.
22. R. Pramanik and **A. Arockiarajan**, Effective properties and nonlinearities in 1-3 piezocomposites: A comprehensive review, *Smart materials and structures*, 28, 2019, 103001.
23. R. Pramanik, A. Narayanan, A. Rajan, S. Konar and **A. Arockiarajan**, Transversely isotropic freeze-dried PVA hydrogels: Theoretical modelling and experimental characterization, *International Journal of Engineering Science*, 144, 2019, 103144.
24. Gursahib Singh Bhatia, J. Jefferson Andrew, and **A. Arockiarajan**, Experimental investigation on compressive behaviour of different patch-parent layup configurations for repaired carbon/epoxy composites, *Journal of Composite Materials*, 53, 2019, 3269 - 3279.
25. Gursahib Singh Bhatia, and A. Arockiarajan, Fatigue studies on patch repaired carbon/epoxy woven composites, *Composites:B*, 175, 2019, 107121.
26. Meharthaj H, Srinivasan M. Sivakumar and **A. Arockiarajan**, Significance of particle size on the improved performance of magnetorheological gels, *Journal of Magnetism and Magnetic Materials*, 490, 2019, 165483.
27. A. Narayanan, A. Rajan, R. Pramanik, and **Arockiarajan** A thermodynamically-consistent phenomenological viscoplastic model for hydrogels, *Material Research Express*, 6, 2019, 085418.
28. Sk. M. Subhani and **A. Arockiarajan**, Study on axial resonance magento-electric (ME) effects of layered magneto-electric composites, *European Journal of Mechanics-Solids*, 77, 2019, 103799.
29. J. Jefferson Andrew, Sivakumar M. Srinivasan, **A. Arockiarajan** and Hom Nath Dhakal, Parameters influencing the impact response of fiber-reinforced polymer matrix composite materials: A critical review, *Composite Structures*, 224, 2019, 111007.