

List of Publications

Peer-Reviewed Journals

19.	Pankaj Chaupal, Prakash Rajendran , Investigation of Transverse Cracks with Different Orientations in GFRP Beam through Modal data based ANN model, <i>Journal of Vibration Engineering & Technologies</i> , 2024, https://doi.org/10.1007/s42417-024-01512-y , I.F: 2.1
18.	Ashok Ethirajan, Prabhu Shankar Veerasamy, Prakash Rajendran , Noise optimization in Balanced Hydraulic Vane Type Steering Pump, <i>Journal of Vibration Engineering & Technologies</i> , 2024, https://doi.org/10.1007/s42417-024-01472-3 , I.F: 2.7
17.	Vivek Kauraw, Pankaj Chaupal, Prakash Rajendran , Vibration Analysis of Human Body under seating Posture: An Automobile Application, <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 45(200), 2023, https://doi.org/10.1007/s40430-023-04119-8 I.F: 2.2
16.	Pankaj Chaupal, Prakash Rajendran , A Review on Recent Developments in Vibration-based Damage Identification Methods for Laminated Composite Structures: 2010-2022, <i>Composite Structures</i> , 311, 2023, 116809. https://doi.org/10.1016/j.compstruct.2023.116809 I.F: 6.3
15.	Pankaj Chaupal, S. Rohit, Prakash Rajendran , Matrix cracking and delamination detection in GFRP laminates using pre-trained CNN models, <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 45(136), 2023. https://doi.org/10.1007/s40430-023-04060-w I.F: 2.2
14.	Pankaj Chaupal, Prakash Rajendran , Flexural strength prediction of randomly oriented chopped glass fiber composite laminate using artificial neural network, <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 45(131), 2023. https://doi.org/10.1007/s40430-023-04061-9 I.F: 2.2
13.	S. El-Borgi, P. Rajendran , Trabelssi M, Nonlocal and Surface Effects on Nonlinear Vibration Response of a Graded Timoshenko Nanobeam, <i>Archive of Applied Mechanics</i> , 93, 151–180, 2023, https://doi.org/10.1007/s00419-022-02120-6 I.F: 2.8
12.	Rohit Kshirsagar, R. Prakash , Prediction of Corrosion based Damages in Turbine Blades using Modal and Harmonic Analyses, <i>Materials Today: Proceedings</i> , 46, 10093-100101, 2021. https://doi.org/10.1016/j.matpr.2021.07.417
11.	P.K. Bharadwaj, R. Prakash , Modal and Harmonic Analysis of the Indian Male Human Body Subject under Semi-Supine Posture, <i>Materials Today: Proceedings</i> , 46, 10085-10092, 2021. https://doi.org/10.1016/j.matpr.2021.07.413
10.	S. El-Borgi, A. Alrumaihi, P. Rajendran , R. Yazbeck, R. Fernandes, J.G. Boyd, D.C. Lagoudas, Model updating of a scaled piping system and vibration attenuation via locally resonant bandgap formation, <i>International Journal of Mechanical Sciences</i> , 194, 106211, 2021. https://doi.org/10.1016/j.ijmecsci.2020.106211 I.F: 7.3
9.	S. El-Borgi, R. Fernandes, P. Rajendran , R. Yazbeck, J.G. Boyd, D.C. Lagoudas, Multiple bandgap formation in a locally resonant linear metamaterial beam: theory and experiments, <i>Journal of Sound and Vibration</i> , 488, 1-25, 2020. https://doi.org/10.1016/j.jsv.2020.115647 I.F: 4.7
8.	N. Jamia, M. I. Friswell, S. El-Borgi, P. Rajendran , Modelling and Experimental Validation of Active and Passive Eddy Current Sensors for Blade Tip Timing, <i>Sensors and Actuators A: Physical</i> , 285, 98-110, 2019. https://doi.org/10.1016/j.sna.2018.10.034 I.F: 4.6

7	P. Rajendran , N. Jamia, S. El-Borgi, M.I. Friswell, Wavelet Transform based Damage Identification in Bladed Disks and Rotating Blades, <i>Shock and Vibration</i> , 8, 1-16, 2018. https://doi.org/10.1155/2018/3027980 I.F: 1.6
6.	N. Jamia, P. Rajendran , S. El-Borgi, M.I. Friswell, Mistuning Identification in Bladed Disk using Wavelet Packet Transform, <i>Acta Mechanica</i> , 229(3), 1275–1295, 2018. https://doi.org/10.1007/s00707-017-2059-1 I.F: 2.7
5.	S. El-Borgi, P. Rajendran , M.I. Friswell, M. Trabelssi, J.N. Reddy, Torsional vibration of size-dependent viscoelastic rods using nonlocal strain and velocity gradient theory, <i>Composite Structures</i> , 186, 274–292, 2018. https://doi.org/10.1016/j.compstruct.2017.12.002 I.F: 6.3
4.	P. Rajendran and S.M. Srinivasan, Identification of Added Mass in the Composite Plate Structure based on Wavelet Packet Transform, <i>Strain, An International Journal for Experimental Mechanics</i> , 52, 14-25, 2016. https://doi.org/10.1111/str.12154 I.F: 2.1
3.	R. Prakash and Sivakumar M.S, Performance of rotational mode based indices in identification of added mass in beams, <i>Structural Engineering and Mechanics</i> , 54(4), 711-723, 2015. http://dx.doi.org/10.12989/sem.2015.54.4.711 I.F: 2.2
2.	R. Prakash and Srinivasan S.M, Rotational mode shape based added mass identification using Wavelet Packet Transform, <i>International Journal for Computational Methods in Engineering Science & Mechanics</i> , 16, 182-187, 2015. http://dx.doi.org/10.1080/15502287.2015.1040558 I.F: 1.6
1.	R. Prakash and Srinivasan S.M, Wavelet packet transform based damage identification of GFRP beam, <i>Journal of Structural Engineering</i> , 40(1), 44-47, 2013.

Books/Book Chapters

4.	R Kiran Kumar Reddy, AR. Veerappan, Prakash Rajendran , Dynamic Characteristics Restoration of Repaired Aluminium Beams using Composite Patch, Experimental and Mathematical Modeling of Aerospace and Civil Engineering Composite Structures, AAP, CRC Press, Taylor & Francis Publisher, 2025. (Accepted).
3.	Prakash Rajendran , Pankaj Chaupal and Bhaskar Meesala, Free and forced vibration analyses of glass fiber reinforced polymer beam under nonuniform thermal environment, as a book chapter 9 in Finite Element Analysis of Polymers and Composites, Woodhead Publishing Series in Materials, Elsevier Publisher, 2024, 185-197, ISBN: 978-0-443-14086-0.
2.	Pankaj Chaupal, R. Prakash , Damage Identification in Composite Structure using Machine Learning Techniques based on Acoustic Emission Waveforms, as a book chapter 15 in <i>Recent Advances in Manufacturing Modelling and Optimization</i> , Springer Nature, 2022, ISBN 978-981-16-9951-1.
1.	El-Borgi, S., Rajendran, P. , Trabelssi, M., "Application of Combined Nonlocal and Surface Elasticity Theories to Vibration Response of a Graded Nanobeam", as a book chapter in Ghavanloo, E., Fazelzadeh, S.A. and Marotti de Sciarra, F. (Editors), Size-Dependent Continuum Mechanics Approaches: Theory & Applications , Springer Tracts in Mechanical Engineering, 223-260, 2021, ISBN 978-3-030-63049-2.

International/National Conferences

15.	K. Egbert and R. Prakash , Vibration Suppression of 3D Printed Beam through Metastructure, ISAMPE National Conference on Composite (INCCOM19), Pune, 30 – 31, Jan 2025.
14.	Bhaskar Meesala, Pankaj Chaupal, Prakash Rajendran , Vibro-acoustic Behavior of GFRP Curved Panel under Non-Uniform Thermal Environment, LSPM'23, King Mongkut's University of Technology North Bangkok, Thailand, through online Mode.
13.	Pankaj Chaupal, Vivek Kauraw, Prakash Rajendran , Dynamic Failure Analysis of IC Engine Valve Mechanism, <i>4th International Conference on Advance in Mechanical Engineering (ICAME 2022)</i> , SRM Institute of Science and Technology, Chennai, Tamil Nadu, India.
12.	Pankaj Chaupal, R. Prakash , Damage Identification in Composite Structure using Machine Learning Techniques based on Acoustic Emission Waveforms, Second International Conference on “ <i>Recent Advances in Manufacturing (RAM-2021)</i> ”, NIT Surat, Gujarat, India.
11.	N. Jamia, M.I. Friswell, S. El-Borgi, P. Rajendran . Simulating Eddy Current Sensors in Blade Tip Timing Application: Modeling and Experimental Validation, <i>ASME 2018 International Mechanical Engineering Congress and Exposition (IMECE 2018)</i> , Nov. 9 th -15 th 2018 held at David L. Lawrence Convention Center in Pittsburgh, USA.
10.	N. Jamia, M.I. Friswell, S. El-Borgi, P. Rajendran , Blade Tip Timing Based Condition Monitoring of Bladed Disks in Rotating Machines, <i>ISMA Conference on Noise and Vibration Engineering 2018</i> , September 17 th -19 th , 2018 held at Leuven Belgium.
9.	S. El-Borgi, P. Rajendran , M.I. Friswell, M. Trabelssi, J.N. Reddy, Torsional vibration of size-dependent viscoelastic rods using nonlocal strain and velocity gradient theory, 6 th European Conference on Computational Mechanics (ECCM 6), 7 th European Conference on Computational Fluid Dynamics (ECFD 7), 11 th -15 th June 2018, Glasgow, UK.
8.	P. Rajendran , N. Jamia, S. El-Borgi, M. I. Friswell, Identification of Mistuned Blades using Wavelet Transform, <i>The Second International Computational Science and Engineering Conference (ICSEC17)</i> , Oct 23 rd – 24 th , 2017, held at Marriott Marquis City Center hotel in West Bay, Doha, Qatar.
7.	N. Jamia, M. I. Friswell, S. El-Borgi, P. Rajendran , Coupled Mechanical and Electromagnetic Modeling of Eddy Current Sensors, <i>VII International Conference on Computational Methods for Coupled Problems in Science and Engineering Coupled Problems 2017</i> , in Jun 12 th -14 th , 2017, held at Rhodes, Greece.
6.	Prakash R and Sivakumar MS, Identification of Added Mass in the Composite Plate Structure based on Wavelet Packet Transform, <i>Advances in Structural Health Management and Composite Structures (ASHMCS 2014)</i> , Aug 25 th -26 th , 2014, held at Chonbuk National University, Jeonbuk, South Korea.

5.	Prakash R , Srinivasan SM, Mode Shape based Damage Identification of GFRP beam Structures by Spatial Wavelet Packet Transform, <i>First International Conference on Mechanics of Composites(MECHCOMP 2014)</i> , Jun 8-12 th , 2014, held at Stony Brook University, New York, USA.
4.	Prakash R , Srinivasan SM, Wavelet Packet based damage identification of GFRP beam, <i>International Congress on Computational Mechanics and Simulation (ICCMS 2012)</i> , Dec10-12 th , 2012, held at IIT Hyderabad, Hyderabad, India.
3.	Prakash R , Srinivasan SM, Marippan D, Damage Identification of Composite beam using Wavelet Packet Transform, <i>Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS)</i> , Dec 5-8 th , 2012, held at IITD, New Delhi, India.
2.	Prakash R , Johnson, Marippan D, Srinivasan SM, Damage Detection in Composite beam using Continuous Wavelet Transform, <i>International Conference on Strength of Materials (ICSMA)</i> , Aug19-24 th , 2012, held at IISc, Bengaluru, India.
1.	Prakash R , Predicting the shape of Fibre Metal Laminate used in Leading Edge of an Aircraft Wing, <i>National Conference on Recent Trends in Manufacturing and Industrial Engineering (NCRMIE 2010)</i> , April 9-10 th , 2010, held at Sathyabama University, Chennai, Tamil Nadu, India.