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List of Publications:

International Journals

1. Mahato P.K., Maiti D.K. (2010), Aeroelastic analysis of smart composite structures in hygro-thermal environment. *Composite Structures*, 92(4), 1027-1038. **Q1**
2. Mahato P.K., Maiti D.K. (2010), Flutter control of smart composite structure in hygro-thermal environment. *ASCE Journal Aerospace Engineering*, 23(4), 317-326. **Q2**
3. Mahato P.K., Maiti D.K. (2012), Active vibration control of smart composite structures in hygro-thermal environment. *Structural Engineering and Mechanics*, 44(2), 127-136. **Q3**
4. Carrera E., M. Filippi, P. K. Mahato, A. Pagani, (2015) 'Advanced Models for the Free Vibration Analysis of Laminated Beams with Compact and Thin-Walled Open/Closed Sections', *Journal of Composite Materials*, 2015, Vol 49 (17). **Q2**
5. E. Carrera, M. Filippi, P. K. Mahato, A. Pagani, (2016) 'Accurate analysis of 1-cell 2-cell box beam' Composite Structure, 136, 372-386. **Q1**
6. E. Carrera, M. Filippi, P. K. Mahato, A. Pagani, (2016), Free-vibration tailoring of single and multi-bay laminated box structures by refined beam theories' *Thin Walled Structure*, 109, 40-49. **Q1**
7. Shankar Ganesh, Keshava S. Kumar , Mahato P. K. (2016), 'Free Vibration Analysis of Delaminated Composite Plates using Finite Element Method', Procedia Engineering, 1067-1075, 144.
8. Shankar G, Keshava S. Kumar , Mahato P. K. (2017), 'Vibration analysis and control of smart composite plates with delamination and under hygrothermal environment', *Thin Walled Structure*, 116, 53-68. **Q1**
9. Shankar G, Mahato P. K. (2017), 'Vibration analysis and control of delaminated/or dmaged composite plate structure using finite element analysis', Material at High Temeperature. 34 (5-6), 342-349. **Q2**
10. Shankar G, Keshava S. Kumar , Mahato P. K. (2020) Transient Analysis and Control of Delaminated Composite Plates in Hygrothermal Environment using AFC Actuator, Mechanics of Advanced Materials and Structures, 27 (16), 1412-1432. **Q2**
11. A Maji, PK Mahato, 2020, Development and applications of shear deformation theories for laminated composite plates: An overview, Journal of Thermoplastic Composite Materials, (https://doi.org/10.1177/0892705720930765). **Q2**
12. SS Godara, PK Mahato, (2020), Micromechanical technique based prediction of effective properties for hybrid smart nanocomposites, Mechanics of Advanced Materials and Structures, 1-12. **Q2**
13. Raj B Bharati, M. Filippi, P. K. Mahato, E. Carrera, (2020) 'Flutter analysis of laminated composite structures using Carrera Unified Formulation' Composite Structure, 253, 112759. **Q1**

14. Raj B Bharati, P. K. Mahato, M. Filippi, E. Carrera, (2021) Flutter analysis of rotary laminated composite structures using higher-order kinematics, Composites Part C: Open Access 4, 100100. **Q1**

15. PK Choudhary, PK Mahato, P Jana, 2021, Optimization of surface-profile of orthotropic cylindrical shell for maximizing its ultimate strength, Mechanics of Advanced Materials and Structures, 1-13. **Q2**
16. PK Choudhary, PK Mahato, P Jana, 2022, Cross-section optimization of thin-walled open-section composite column for maximizing its ultimate strength, IMechE Part L: J. of Materials: Design and application, Vol. 236(2) 413–428. **Q2**
17. J P Varun , P Mondal , P K. Mahato, 2022, Enhancement of aeroelastic performance of a smart delaminated composite plate under hygrothermal environment, Composite Structures 292 (2022) 115662. **Q1**
18. Raj B Bharati, P. K. Mahato, M. Filippi, E. Carrera, (2022), Flutter analysis of delaminated composite box-beam using higher-order kinematics, Composite Structures 301 (2022) 116145. **Q1**
19. A Chaudhuri, PK Mahato, B Pal, (2024), Evaluation of the mechanical characteristics of Ti64 cubic and body-centered-cubic porous structures: A finite element study validated with physical tests, Mechanics of Advanced Materials and Structures, 1-14 **Q2**
20. P Mondal, JP Varun, PK Mahato, (2024), Open loop flutter control of optimally oriented smart variable stiffness plates under hygrothermal environment, European Journal of Mechanics-A/Solids 106, 105284 **Q1**

Book chapter

1. Raj B Bharati, Prashanta K Mahato, E Carrera, M Filippi, A Pagani, 2020, Free Vibration and Stress Analysis of Laminated Box Beam with and Without Cut-Off, Lecture Note in Mechanical Engineering (ICTACEM 2017), 185-196, Springer, Singapore.
2. A Maji, PK Mahato, 2022, Buckling Analysis of Nonlinear First-Order Shear Deformation Composite Plates, Lecture Note of Mechanical Engineering, Machines, Mechanism and Robotics, 609-621. (iNaCoMM 2019)

International Conferences/proceeding

1. PK Mahato, P Mondal, 2023, Aeroelastic Analysis of VAT Nano-Composite Plate, ASME Aerospace Structures, Structural Dynamics, and Materials Conference, June 19–21, 2023, San Diego, California, USA
2. Godara, S.S., Mahato, P.K,, 2020, Effect of interphase between CNT and polyimide on the elastic and piezoelectric properties of hybrid smart nano-composites, Materials Today: Proceedings-21, pp. 1144-1148.
3. Godara, S.S., Mahato, P.K., 2020, Prediction of effective properties for composites using micromechanics method, Materials Today: Proceedings-21, pp. 1375-1379.

4. S.S.Godara, P.K.Mahato 2020 “A study on micromechanical methods for the analysis of composite materials, Materials Today: Proceedings, 26 (2), 2020, .1096-1098.
5. S.S.Godara, P.K.Mahato 2020 “Effect of interphase between CNT and polyimide on the elastic and piezoelectric properties of hHybrid smart nano-composites”, Materials Today: Proceedings, 21 (2), 2020, 1148-1148.
6. S.S.Godara, P.K.Mahato 2020 “Prediction of effective properties for composites using micromechanics method”, Materials Today: Proceedings, 21 (2), 2020, 1375-1379.
7. Aditya Raj, Jayant Prakash Varun, *and* P. K. Mahato, “Fabrication and vibration damping analysis of basalt fiber reinforced composite beam”, AIP Conference Proceedings 2134, 080002 (2019).
8. P.K. Mahato, J.P. Varun, G. Shankar, S. Kumar, and C.S.Verma, Experimental and numerical investigation of Free vibration analysis and control of composite plates with and without delamination, Accepted for oral presentation, ICMAMS, Italy, 17th -20th June, 2018 at Politecnico di torino, Turin Italy.
9. Shankar G., Varun J.P., Mahato P.K., Effect of delamination on vibration characteristic of laminated composite plate, Accepted for conference, will held on IIT Kharagpur December 2017 (ICTACEM 2017).
10. Mahesh Chand Gupta, Durga P. Patra, Chandra S. Verma, S. Kumar and P.K. Mahato.,Experimental Modal Analysis of a Cantilevered Laminated Composite Plate. IIT Kharagpur December 2017 (ICTACEM 2017).
11. Raj B. Bharati, Prashanta K. Mahato, E. Carrera, M. Filippi and A. Pagani., Free vibration and stress analysis of laminated box beam with and without cut-off. IIT Kharagpur December 2017 (ICTACEM 2017).
12. Ganesh Shankar, Kumar, K.S, P.K Mahato, Free Vibration Analysis of Delaminated Composite Plates Using Finite Element Method, ICVOP-15 ,IIT Guwahati.
13. Ganesh Shankar, P.K Mahato, Vibration control of laminated composite structure with material uncertainty or damage: A review, conference proceeding in IMECH-14, NIT, Tirchy.
14. P. K. Mahato, E. Carrera, M. Filippi and A. Pagani. Analysis of laminated box beams using 1d carrera unified formulation. Bercelona, spain, july 2014.
15. P. K. Mahato , E. Carrera,M. Filippi and A. Pagani. One-dimensional cuf models for the analysis of laminated structures. Melbourne, Australia, November 2014.
16. Mahato P.K, Maiti D.K. (2011), Aeroelastic analysis and control of functionally graded plate in thermal environment. *International Conference of Composite Structures (ICCS 16)*, Porto, 2011. (Accepted)
17. Mahato P.K., Maiti D.K. (2011), Effect of hygro-thermally and piezo-electrically induced preload on static and dynamic behavior of laminated composite structures. *International Conference on Composite Structure* (ICCS 16), Porto, Portugal, July 27-29.
18. Mahato P.K., Maiti D.K. (2007), Finite element analysis of smart laminated composite structures under hygro-thermal environment. *International Conference on Theoretical, Applied, Computational and Experimental Mechanics* (ICTACEM-2007/0156), Kharagpur, December 27-29.

19. Vineel S., Mahato P.K, Maiti D.K. (2010) Static and Dynamic Analysis of Functionally Graded Material. ICTACEM 2010, Kharagpur, December 27-29.
20. Mahato P.K, Maiti D.K. (2009) Transient response analysis of smart composite structures in hygro-thermal environment. *International Conference On Vibration Problem (ICoVP)*, Kharagpur, January 19-22.
21. Mahato P.K, Maiti D.K. (2009) Vibration control of AFC laminated composite structure in hygro-thermal environment. *International Conference on computational mechanics and simulation(ICCMS09)*, Mumbai, December 1-3.
22. Mahato P.K, Maiti D.K. (2009) Flutter control of smart wing structures in subsonic regime. N*ational Conference On MEMS, smart structure and system (ISSS MEMS)*, CGCRI, Kolkata, October 14-16.
23. Mahato P.K, Maiti D.K. (2008), A study on aeroelastic performance of smart composite structures in hygro-thermal environment. *International Conference on Smart Materials Structures and Systems (ISSS 2008/P75),* Bangalore, July 24-26.