

## List of Publications

### In Journals

1. **R.K. Patel**, B. Bhattacharya, S. Basu, "A finite element based investigation on obtaining high material damping over a large frequency range in viscoelastic composites," *Journal of Sound and Vibration* (**Elsevier, SCI, 3.655 Impact Factor**), 2007, Vol. 303, 3, 753-766. (DOI: [10.1016/j.jsv.2007.02.010](https://doi.org/10.1016/j.jsv.2007.02.010)) (ISSN: 0022-460X)
2. **R.K. Patel**, B. Bhattacharya, S. Basu, "Effect of interphase properties on the damping response of polymer nanocomposites," *Mechanics Research Communications* (**Elsevier, SCI, 2.254 Impact factor**), 2008, Vol. 35, 1-2, 115-125. (DOI: [org/10.1016/j.mechrescom.2007.08.005](https://doi.org/10.1016/j.mechrescom.2007.08.005)) (ISSN: 0093-6413)
3. S. K. Mishra, D. K. Shukla, **R. K. Patel**, "Flexural Properties of Functionally Graded Epoxy-Alumina Polymer Nanocomposite," *Materials Today: Proceedings 5* (**Elsevier**), at NIT Trichy IMME17, March 10-12, 2017. (DOI: [org/10.1016/j.matpr.2017.11.538](https://doi.org/10.1016/j.matpr.2017.11.538))
4. S. K. Mishra, D. K. Shukla, **R. K. Patel**, "Effect of particle morphology on flexural properties of functionally graded epoxy-alumina polymer nanocomposite", *Material Research Express* (**IOPscience, SCIE, 1.620 Impact Factor**), 2019, Vol. 6. (DOI: [org/10.1088/2053-1591/ab70e2](https://doi.org/10.1088/2053-1591/ab70e2)) (ISSN: 2053-1591)
5. Gyanesh Sharan, **R. K. Patel**, " Optimization of cutting parameters of turning for hardness of AISI 4140 alloy steel," *Materials Today: Proceedings 18* (**Elsevier**), part 7, *9th International Conference of Materials Processing and Characterization, ICMPC-2019*, NITTTR Chandigarh, 3582–3589. (DOI: [DOI: org/10.1016/j.matpr.2019.07.289](https://doi.org/10.1016/j.matpr.2019.07.289))
6. P. K. Rai, V. Yadava, **R. K. Patel**, "Design optimization of cubic Bezier horn for ultrasonic machining," *Sadhana* (**Springer, SCIE, 0.940 Impact Factor**), 2020, Vol. 45, 85. (DOI: [org/10.1007/s12046-020-1321-8](https://doi.org/10.1007/s12046-020-1321-8)) (ISSN: 0973-7677)
7. P. K. Rai, V. Yadava, **R. K. Patel**, " Design of Bezier profile horns by using optimization for high amplification," *Journal of the Brazilian Society of Mechanical Sciences and Engineering* (**Springer, SCIE, 1.698 Impact Factor**), 2020, Vol. 42, 309. (DOI: [org/10.1007/s40430-020-02379-2](https://doi.org/10.1007/s40430-020-02379-2)) (ISSN: 1806-3691)
8. P. K. Rai, V. Yadava, **R. K. Patel**, "Computer-Aided Design of Bezier Horns Using Finite Element Analysis for Rotary Ultrasonic Machine," *Journal of Advanced Manufacturing Systems* (**World Scientific, Scopus, 1.34 Impact Score**), 2020, Vol. 18, 3, 517-541. (DOI: [org/10.1142/S0219686720500250](https://doi.org/10.1142/S0219686720500250)) (ISSN: 1793-6896)
9. S. K. Mishra, D. K. Shukla, **R. K. Patel**, "Fracture toughness of functionally graded nanocomposite in quasi-static loading," *Polymer Bulletin* (**Springer, SCI, 1.936 Impact Factor**), 2021. (DOI: [org/10.1007/s00289-021-03594-0](https://doi.org/10.1007/s00289-021-03594-0)) (ISSN: 1436-2449)

### In conferences

1. **R.K. Patel**, B. Bhattacharya and S. Basu, "Numerical study of damping behavior of polymer matrix particulate composites," *International congress on computational mechanics and simulation ICCMS-04*, at IIT Kanpur, Dec. 9-12, 2004.
2. **R.K. Patel**, B. Bhattacharya and S. Basu, "A finite element based investigation on obtaining high material damping over a large frequency range in viscoelastic nanocomposites," *International conference on computational mechanics and simulations ICCMS-06*, at IIT Guwahati, Dec. 8-10, 2006.
3. Naresh Kumar, Mukul Shukla, **R.K. Patel**, " Finite Element Modeling of Erosive Wear in Abrasive Jet Machining," *International Conference on Theoretical, Applied, Computational and Experimental Mechanics*, at IIT Kharagpur, Dec. 27-29, 2010.
4. S. K. Singh, **R. K. Patel**, "Effect of Prony Series Parameters on Fracture Behaviour of Mixed-Mode of Viscoelastic Materials," *National Conference on Advances in Manufacturing Technology*, NITTTR Chandigarh, May, 2013.

5. Ashish Mishra, Kaushal Kishor, **R K Patel**, M. S. Alam, "Heat Transfer Enhancement in Shell & Tube Heat Exchanger with Al<sub>2</sub>O<sub>3</sub>–Water Based Nanofluids: A Numerical Investigation," *22<sup>nd</sup> National and 11th International ISHMT-ASME Heat and Mass Transfer Conference*, at IIT Kharagpur, Dec. 28-31, 2013.
6. S. K. Mishra, D. K. Shukla, **R. K. Patel**, "Fracture toughness of functionally graded epoxy-alumina polymer nanocomposites," *Proceedings of third Indian Conference on Applied Mechanics (INCAM 2017)*, at MNNIT Allahabad, July 5-7, 2017.