



PRASANTA KUMAR SAMAL

ASSISTANT PROFESSOR

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Google Scholar ID:

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Professional Experiences:

Teaching: 11+ years

Industry: 1 Year

Research: 2+ Years

Courses Taught:

Finite Element Method,
Control Engineering,
Experimental Stress Analysis,
Mechanism Design,
Applied Numerical Methods,
CAED, Machine Drawing.

ABOUT ME

I completed my masters in Mechanical Engineering from Indian Institute of Science, Bangalore in the year 2011. I served Mahindra & Mahindra Automotive and Farm Equipment Sector (AFS), at Mahindra Research Valley, the R&D Center, Chennai, as Deputy Manager for one year in the department of Computer Aided Engineering (CAE). Then, I shifted from Industry to Academics in 2012. After two years of teaching at T. John Institute of Technology, Bangalore, I joined The National Institute of Engineering, Mysuru in 2014 as Assistant Professor in the Department of Mechanical Engineering. My research interests include Experimental Modal Analysis, Structural Health Monitoring, Dynamic Modelling and Multi-body Simulation of Mechanical Systems, Condition Monitoring of Rolling Element Bearings, Finite Element Analyses, Design and Development of Mechanisms, Structural Optimization. I am sound in MATLAB, ADAMS, LabVIEW, Modeling and Finite Element Analysis. This helps me to do research and guide the scholars to do their research.

RESEARCH INTERESTS:

Experimental Modal Analysis,
Structural Health Monitoring,
Modelling and Multi-Body Simulation of Mechanical Systems,
Condition Monitoring of Rolling Element Bearings,
Finite Element Analyses,
Design and Development of Mechanisms,
Structural Optimization.

EDUCATION

- **Ph.D (Pursuing):** Modelling, Simulation and Experimentation for Fault Diagnosis of Anti-friction Bearings.
JSS Science & Technology University, Mysuru
- **M.E./M.Tech.:** Mechanical Engineering
Indian Institute of Technology, Bangalore
Year of Graduation: 2011
- **B.E./B. Tech.:** Mechanical Engineering
Veer Surendra Sai University Technology, Burla,
Odisha.
Year of Graduation: 2009

PUBLICATIONS

| Sl. No. | Publication Details (Refereed Journals) |
|---------|--|
| 1 | Imran M. Jamadar, B. Suresha, Prasanta Kumar Samal and S. A. I. Bellary, “Dimensional Amplitude Response Analysis of Vibrations Produced by Defects in Rolling Contact Bearings”, Sound and Vibration, Vol-56, No. 2, (2022), 165-191, https://doi.org/10.32604/sv.2022.015267 |
| 2 | P. K. Samal , I. S. Pruthvi, B. S. Suresh, "Effect of fiber orientation on vibration response of glass epoxy composite beam", Materials Today Proceedings (2021), 43, Part 2, 1519-1525, https://doi.org/10.1016/j.matpr.2020.09.315 |
| 3 | K Gurukiran, P. K. Samal , “Experimental determination of mode shapes of a plate using speaker as excitation device”, IOP Conf. Series: Materials Science and Engineering (2021), 1189 012029, 1-6, https://iopscience.iop.org/article/10.1088/1757-899X/1189/1/012029 |
| 4 | H K Jayavardhan and Prasanta Kumar Samal , “Effect of Shape of Cut-out on Natural Frequency of Square Plate”, IOP Conf. Series: Materials Science and Engineering (2021), 1189 012029, 1-6, https://doi.org/10.1088/1757-899X/1189/1/012028 |
| 5 | C Amara Chandra, Prasanta Kumar Samal , “Experimental Determination of Mode Shapes of Beams by Roving Impact Test”, Materials Today Proceedings (2021), 46, Part 19, 9159-9163, https://doi.org/10.1016/j.matpr.2020.01.119 |
| 6 | H. Kemparaju and P. Samal , "Experimental Investigations on Free Vibration of Plates", Journal of Testing and Evaluation, 47, no. 4 (2019), 2750-2764, https://doi.org/10.1520/JTE20170569 |
| 7 | Shrinivas Hebbar A, Shrinidhi D Kulal, Tajmul Pasha, Prasanta Kumar Samal , K Gourav, “Numerical and Experimental Investigation of Vibration Isolation of Three storied Building Structure using Tuned Mass Damper”, International Journal of Recent Technology and Engineering, (2019) 1-9. A00290581S219.pdf |
| 8 | R. K. Sabat, P. K. Samal , Muzzamil Ahamed S, “Effect of strain path on the evolution of microstructure, texture and tensile properties of WE43 alloy”, Materials Science and Engineering A, 715 (2018) 348-358. https://doi.org/10.1016/j.msea.2018.01.018 |
| 9 | P. K. Samal , PK Malik, A Babu, GC Shanthakumar, "Fabrication and Experimentation of a Cantilever Beam Based Piezoelectric Actuator and Sensor for Vibration Energy Harvesting ", Applied Mechanics & Materials, 592-594 (2014), 2297-2302, https://doi.org/10.4028/www.scientific.net/AMM.592-594.2297 |

| Sl. No. | Publication Details (Conferences) |
|---------|---|
| 1 | Prasanta Kumar Samal , B Murali, Tajmul Pasha, “Finite Element Analysis of Connecting Rod of IC Engine”, International Conference on Mechatronics and Mechanical Engineering (ICMME 2015), Singapore, MATEC Web of Conferences, 34 (2015) 02004 https://doi.org/10.1051/mateconf/20153402004 |
| 2 | Malik, P.K., Samal, P.K. and Swain, A.R., “Jacobian Based Kinematic and Static Analysis of Over-Constrained Mechanisms with Prismatic and Revolute Joints” ", International Conference on Mechanism and Machines, IIT, Roorkey (2013). http://www.inacomm2013.ammindia.org/Papers/071-inacomm2013_submission_133.pdf |
| Sl. No. | Publication Details (Book Chapters) |
| 1 | Ahamed, E., Samal, P.K. , Suresh, B.S., Kemparaju, H.R. (2021). Artificial Neural Network-Based Prediction of Cutting Parameters from Tool Vibration and Forces. In: Reddy, M.J.B., Mohanta, D.K., Kumar, D., Ghosh, D. (eds) Advances in Smart Grid Automation and Industry 4.0. Lecture Notes in Electrical Engineering, vol 693. Springer, Singapore. https://doi.org/10.1007/978-981-15-7675-1_19 |
| 2 | Charanaraja Naik, Prasanta Kumar Samal , B. Hulugappa, B. Suresha, Imran M. Jamadar, Pramod Kumar Malik ; Effect of Filler Material Type on Dynamic Behaviour of Composite Beams; an Experimental Study, Intelligent Technologies for Scientific Research and Engineering (2023) 1: 147. https://doi.org/10.2174/9789815079395123010017 |
| 3 | Mirasaheb Moula Jamadar, Prasanta Kumar Samal , Imran M. Jamadar ; Effect of Disc Offset Distance on Transverse and Torsional Vibration of Rotor Shaft, Intelligent Technologies for Scientific Research and Engineering (2023) 1: 133. https://doi.org/10.2174/9789815079395123010015 |
| Sl. No. | Publication Details (Other Journals) |
| 1 | Prasanta Kumar Samal , Pramod Kumar Mallik, PremanjanSethy, RudraPratap, Modelling, "Fabrication and Characterization of a Piezoelectric Vibration Energy Harvester", International Journal of Engineering Research & Technology, 3 (2014), 397-402. |
| 2 | Prasanta Kumar Samal , "Design, Fabrication and Characterization of a Piezoelectric Ultrasonic Transducer", International Journal of Mechatronics and Manufacturing Technology, Vol-1, Issue-2 (2016), pg13. |
| 3 | Vinodkumar, Prasanta Kumar Samal , Tajamul Pasha, “Design and Analysis of LPG Weighing Machine for Household Application”, Journal of Petroleum and Petrochemical Engineering, Vol-1, Issue-1 (2016). |
| 4 | Dushyanth Kumar M. V., Prasanta Kumar Samal , “Design and Analysis of Gravity Roller Conveyor System for Moped Engine Assembly Line", Journal of Automation and Automobile Engineering, Vol-2, Issue-3 (2017), 1-6, https://www.matjournals.in/index.php/JoAAEn/article/view/1954 |