

Dr. Asish Kumar Panda



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Google Scholar URL:

<https://scholar.google.com/citations?user=xOBU6bwAAAAJ&hl=en&oi=ao>

Summary

A motivated researcher with a strong foundation in vibration and structural dynamics. Have 5 year+ research experience in Experimental modal analysis, Noise and Vibration analysis, Dynamic analysis of structures, FE modelling and updating (Abaqus, Ansys, Nastran), Condition monitoring and fault diagnosis, Machine Learning (ML).

Skill Highlights

- Experimental modal analysis
- Noise and Vibration analysis
- Dynamic analysis of structures
- FE modelling and updating (Abaqus, Ansys, Nastran)
- Condition monitoring and fault diagnosis
- Machine Learning (ML)
- Research

Experience

- **Assistant Professor (Sept 2025 – Present)**
MANIT Bhopal
 - Research and Teaching
- **Assistant Professor (June 2024 – Sept 2025)**
KIIT Bhubaneswar
 - Research and Teaching on Structural dynamics Domain.
 - Instructor of FE analysis of structure using Ansys.
- **Early Doc Fellow (Oct 2023 – Jan 2024)**
IIT Delhi
 - Gained experience in stochastic dynamic analysis of structures using the perturbation method, Bayesian method, and Monte Carlo simulation method.
 - Communicated a journal paper that is under review.
- **Research Scholar (Ph.D.) (Jan 2018 - Oct 2023)**
IIT Delhi
Project - Stochastic Finite Element Model Updating Using Frequency Response Functions
 - Gained experience in stochastic dynamic analysis of structures, finite element model updating, and experimental modal analysis.
 - Gained experience in CAD modelling using Autodesk Inventor, Solid works, Abaqus, Ansys and Nastran.

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- Main research focused on inverse uncertainty quantification of structures using measured dynamic data.
 - Had published 2+ publications in high-impact factor international journals.
 - **Assistant Professor (July 2015 – Dec 2017)**
KIIT Bhubaneswar
 - Gained experience in research paper writing and teaching conceptual subjects.
 - Gained experience in conducting events like seminars, conferences, and trainings.
 - **Research Scholar (MTech) (July 2013 – July 2015)**
IIT Guwahati
Project - Prediction of Flow Blockages and Impending of Cavitations in Centrifugal Pumps using Support Vector Machine (SVM) Algorithms on Vibration Measurements
 - Gained experience in Vibration analysis, FFT, condition monitoring and Fault diagnosis of structure.
 - Gained experience using Machine learning algorithms (SVM)
 - Published one publication in a reputed journal.
 - **Assistant Professor (Oct 2011- July 2013)**
Jagannath Institute of Engineering and Technology, Cuttack
 - Teaching

Education

- Doctor of Philosophy (Ph.D.): **Mechanical Engineering** – 2023 (7.86 CGPA)
Indian Institute of Technology Delhi, Hauz Khas, Delhi
- Master of Technology (M.Tech): **Mechanical Engineering** – 2015 (9.35 CGPA)
Indian Institute of Technology Guwahati, Assam
- Bachelor of Technology (B.Tech): **Mechanical Engineering** – 2011 (7.65 CGPA)
Biju Patnaik University of Technology, Odisha
- Intermediate: **Science** – 2007 (80.80%)
Jawahar Navodaya Vidyalay, Mundali, Cuttack, Odisha
- Secondary School Certificate: **2005** (80.40%)
Jawahar Navodaya Vidyalay, Mundali, Cuttack, Odisha

International Publications

Journals

- Panda, A. K., & Modak, S. V. (2023). A Two-Stage Approach to Stochastic Finite Element Model Updating Using FRF Data. *Journal of Sound and Vibration*, 553, 117670.
- Panda, A. K., & Modak, S. V. (2022). An FRF-based perturbation approach for stochastic updating of mass, stiffness and damping matrices. *Mechanical Systems and Signal Processing*, 166, 108416.
- Panda, A. K., Rapur, J. S., & Tiwari, R. (2018). Prediction of flow blockages and impending cavitation in centrifugal pumps using Support Vector Machine (SVM) algorithms based on vibration measurements. *Measurement: Journal of the International Measurement Confederation*, 130, 44-56.

Conferences

- Panda, A. K., & Tiwari, R., (2016). Detection of cavitation in centrifugal pump using Support Vector Machine (SVM). *National Symposium of Rotor Dynamics* 2016.
- Panda, A. K., & Modak, S. V., (2022). An experimental study of variability in damping, frequency response and modal data. *Eccomas Proceedia UNCECOMP* (2021) 302-312
- Panda, A. K., & Modak, S. V., (2022). Stochastic identification of damped beams using FRF data. *Proceedings of the XVI Vibration Engineering & Technology of Machinery Conference. VETOMAC* 2021. December 16 - 18, 2021

Achievements

1. GATE 2013, AIR-571
2. Cracked Navodaya entrance and education from 5th to 12th under govt. scholarships.