

# DR. VAISHALI

<https://orcid.org/0000-0002-3503-0977>

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## Employment (1)

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### **GOVERNMENT ENGINEERING COLLEGE SAMASTIPUR: SAMASTIPUR, BIHAR, IN**

2023-04-13 to present | Assistant Professor (Department of  
Mechanical Engineering)

Employment

Source:DR. VAISHALI

## Education and qualifications (3)

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### **National Institute of Technology Silchar: Silchar, Assam, IN**

2018-06-18 to 2022-11-04 | PHD RESEARCH SCHOLA  
R (MECHANICAL ENGINEERING)

Qualification

Source:DR. VAISHALI

### **National Institute of Technology Silchar: Silchar, Assam, IN**

2016 to 2018 | M.Tech (Materials and Manufacturing Techno  
logy)

Education

Source:DR. VAISHALI

### **Noida Institute of Engineering and Technology: Greater Noida, Uttar Pradesh, IN**

2010 to 2014 | B.Tech (Mechanical Engineering)

Education

Source:DR. VAISHALI

## Works (18 of 18)

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**Moment Independent Sensitivity Analysis of Porous  
Functionally Graded Plates Subjected to Free Vibrations**

*Vibration Engineering and Technology of Machinery, Volume II*

2024 | book-chapter

DOI: 10.1007/978-981-99-8986-7\_21

Part of ISBN: 9789819989850

Part of ISBN: 9789819989867

Part of ISSN: 2211-0984

Part of ISSN: 2211-0992

Source:DR. VAISHALI

**Free Vibration of Bio-inspired Composite Circular Plates  
—An Annual Ring Model**

*Lecture Notes in Civil Engineering*

2023-08-23 | book-chapter

DOI: 10.1007/978-981-19-9394-7\_17

Part of ISBN: 9789811993930

Part of ISBN: 9789811993947

Part of ISSN: 2366-2557

Part of ISSN: 2366-2565

Source:DR. VAISHALI

**On machine learning assisted data-driven bridging of  
FSDT and HOZT for high-fidelity uncertainty  
quantification of laminated composite and sandwich  
plates**

*Composite Structures*

2023-01 | journal-article

DOI: 10.1016/j.compstruct.2022.116276

Part of ISSN: 0263-8223

Source:DR. VAISHALI

**Effect of Relative Thickness on Natural Frequency  
Analysis of Hybrid Hyperbolic Paraboloid Shells**

*Lecture Notes in Mechanical Engineering*

2023 | book-chapter

DOI: 10.1007/978-981-19-3266-3\_27

Part of ISBN: 9789811932656

Part of ISBN: 9789811932663

Part of ISSN: 2195-4356

Part of ISSN: 2195-4364

Source:DR. VAISHALI

**Comparison of multiple surrogate models probing uncertainty in natural frequency of hybrid functionally graded sandwich cylindrical shells**

*Journal of Mechanics of Materials and Structures*

2022-12-10 | journal-article

DOI: 10.2140/jomms.2022.17.97

Part of ISSN: 1559-3959

Part of ISSN: 1559-3959

Source:DR. VAISHALI

**Stochastic Free Vibration and Impact Responses of Functionally Graded Plates: A Support Vector Machine Learning Model Approach**

*Journal of Vibration Engineering & Technologies*

2022-10-14 | journal-article

DOI: 10.1007/s42417-022-00721-7

Part of ISSN: 2523-3920

Part of ISSN: 2523-3939

Source:DR. VAISHALI

**Metamodeling-assisted probabilistic first ply failure analysis of laminated composite plates—RS-HDMR- and GPR-based approach**

*Journal of the Brazilian Society of Mechanical Sciences and Engineering*

2022-08 | journal-article

DOI: 10.1007/s40430-022-03674-w

Part of ISSN: 1678-5878

Part of ISSN: 1806-3691

Source:DR. VAISHALI

**Sensitivity Analysis of Random Frequency Responses of Hybrid Multi-functionally Graded Sandwich Shells**

*Journal of Vibration Engineering & Technologies*

2022-07-19 | journal-article

DOI: 10.1007/s42417-022-00612-x

Part of ISSN: 2523-3920

Part of ISSN: 2523-3939

Source:DR. VAISHALI

**Effect of Thickness on Probabilistic Free Vibration of Hybrid FG-Sandwich Cylindrical Shells**

2022 | book-chapter

DOI: 10.1007/978-981-16-6738-1\_42

Source:Crossref

**Radial Basis Function-Based Uncertain Low-Velocity  
Impact Behavior Analysis of Functionally Graded Plates**

*Machine Learning Applied to Composite Materials*

2022 | book-chapter

DOI: 10.1007/978-981-19-6278-3\_4

Part of ISBN: 9789811962776

Part of ISBN: 9789811962783

Part of ISSN: 2662-1819

Part of ISSN: 2662-1827

Source:DR. VAISHALI

**Probabilistic Oblique Impact Analysis of Functionally  
Graded Plates – A Multivariate Adaptive Regression  
Splines Approach**

*European Journal of Computational Mechanics*

2021-10-09 | journal-article

DOI: 10.13052/ejcm2642-2085.30234

Part of ISSN: 2642-2050

Part of ISSN: 2642-2085

Source:DR. VAISHALI

**Dynamic Sensitivity Analysis of Random Impact  
Behaviour of Hybrid Cylindrical Shells**

2021 | book-chapter

DOI: 10.1007/978-981-33-4550-8\_11

Source:Crossref

**Support Vector Model Based Thermal Uncertainty on  
Stochastic Natural Frequency of Functionally Graded  
Cylindrical Shells**

*Lecture Notes in Civil Engineering*

2021 | book-chapter

DOI: 10.1007/978-981-15-8138-0\_50

Part of ISBN: 9789811581373

Part of ISBN: 9789811581380

Part of ISSN: 2366-2557

Part of ISSN: 2366-2565

Source:DR. VAISHALI

**Temperature-Dependent Random Frequency of Functionally Graded Spherical shells—A PCE Approach***Lecture Notes in Mechanical Engineering*

2021 | book-chapter

DOI: 10.1007/978-981-15-7711-6\_51

Part of ISBN: 9789811577109

Part of ISBN: 9789811577116

Part of ISSN: 2195-4356

Part of ISSN: 2195-4364

Source:DR. VAISHALI

**Probing the multi-physical probabilistic dynamics of a novel functional class of hybrid composite shells***Composite Structures*

2020-11 | journal-article

DOI: 10.1016/j.compstruct.2020.113294

Part of ISSN: 0263-8223

Source:DR. VAISHALI

**Machine learning based stochastic dynamic analysis of functionally graded shells***Composite Structures*

2020-04 | journal-article

DOI: 10.1016/j.compstruct.2020.111870

Part of ISSN: 0263-8223

Source:DR. VAISHALI

**Effect of Skewness on Random Frequency Responses of Sandwich Plates***Recent Advances in Theoretical, Applied, Computational and Experimental Mechanics*

2020 | book-chapter

DOI: 10.1007/978-981-15-1189-9\_2

Part of ISBN: 9789811511882

Part of ISBN: 9789811511899

Part of ISSN: 2195-4356

Part of ISSN: 2195-4364

Source:DR. VAISHALI

**Stochastic natural frequency analysis of skewed sandwich plates***Engineering Computations*

2019-08-12 | journal-article

Source:DR. VAISHALI

## Peer review (2)

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- review activity for **Proceedings of the Institution of Mechanical Engineers. (4)**

- review activity for **Proceedings of the Institution of Mechanical Engineers. (2)**

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