

## PUBLICATIONS

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### In Journals

- ✚ Singh PP, Azam MS. Buckling and free vibration characteristics of embedded inhomogeneous functionally graded elliptical plate in hygrothermal environment. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications. 2021 May;235(5):1046-65. **(SCIE)**
- ✚ Ali MI, Azam MS. Dynamic Stiffness Formulation for Out-of-Plane Natural Vibration of Elastically Supported Functionally Graded Plates. International Journal of Structural Stability and Dynamics. 2021 May 25;21(05):2150062. **(SCIE)**
- ✚ Ali MI, Azam MS. Exact solution by dynamic stiffness method for the natural vibration of porous functionally graded plate considering neutral surface. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications. 2021 Feb 27;1464420720988170. **(SCIE)**
- ✚ Ali MI, Azam MS, Ranjan V, Banerjee JR. Free vibration of sigmoid functionally graded plates using the dynamic stiffness method and the Wittrick-Williams algorithm. Computers & Structures. 2021 Feb 1;244:106424. **(SCI)**
- ✚ Singh PP, Azam MS. Size dependent vibration of embedded functionally graded nanoplate in hygrothermal environment by Rayleigh-Ritz method. Advances in nano research. 2021;10(1):25-42. **(SCIE)**
- ✚ Singh KK, Ansari MT, Azam MS. Fatigue life and damage evolution in woven GFRP angle ply laminates. International Journal of Fatigue. 2021 Jan 1;142:105964. **(SCI)**
- ✚ Kumar R, Azam MS. Effect of directionally oriented random roughness on performance of a Rayleigh step bearing operating under Mixed-Elastohydrodynamic Lubrication. Tribology International. 2021 Jan 1;153:106572. **(SCI)**
- ✚ Singh PP, Azam MS. Free vibration and buckling analysis of elastically supported transversely inhomogeneous functionally graded nanoplate in thermal environment using Rayleigh–Ritz method. Journal of Vibration and Control. 2020 Oct 30:1077546320966932. **(SCIE)**

## PUBLICATIONS

### In Journals

- ✚ Singh, P. P., Azam, M. S., & Ranjan, V. Size-dependent natural frequencies of functionally graded plate with out of plane material inhomogeneity using Eringen's theory of nonlocal elasticity. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 234(2), 300–319,(2020). **(SCIE)**  
<https://doi.org/10.1177/1464420719886887>
- ✚ Shahroz Akhtar Khan , Mohammad Sikandar Azam , Somnath Chattopadhyaya & Harish Kumar "Characteristic investigation of cutting-force measuring dynamometers" Vol. 27, 410-417, (2020) Indian Journal of Engineering & Materials Sciences **(SCIE)**
- ✚ Rahul Kumar, Subrata Kumar Ghosh, Mohammad Sikandar Azam, Hasim khan, "Numerical Simulation of Rough Thrust Pad Bearing Under Thin-Film Lubrication Using Variable Mesh Density " 44, pages 443–464 (2020), Iranian Journal of Science and Technology Trans Mech Eng **(SCIE)**  
DOI : 10.1007/s40997-018-0271-9
- ✚ Bipin Kumar, Vinayak Ranjan, Mohammad Sikandar Azam & Ranjan Kumar. "Acoustic Response of Thin Plate with Discrete Patches with Variable Thickness in Water Medium" 8, 27–34 (2020) , Journal of Vibration Engineering & Technologies **(SCIE)**  
DOI: 10.1007/s42417-018-0046-z
- ✚ Rahul Kumar, Mohammad Sikandar Azam, Subrata Kumar Ghosh, "Influence of stochastic roughness on performance of a Rayleigh step bearing operating under Thermo-elastohydrodynamic lubrication considering shear flow factor, Tribology International 134 (2019) 264–280. **(SCI)**
- ✚ Rahul Verma, Mohammad Sikandar Azam, Shiv Ranjan Kumar "Mechanical and thermo-mechanical characterization of Glass Ionomer filled dental composite" 40 (8) pp 3361-3367, 2019 , Polymer composite, Wiley **(SCI)**  
<https://doi.org/10.1002/pc.25197>
- ✚ Abhijeet Chatterjee, Vinayak Ranjan, Mohammad Sikandar Azam and Mohan Rao, "Comparison for the Effect of Different Attachment of Point Masses on Vibroacoustic Behavior of Parabolic Tapered Annular Circular Plate" Appl. Sci. 2019, 9(4), 745; **(SCIE)**

## PUBLICATIONS

---

### In Journals

doi:10.3390/app9040745

- ✚ Rahul Kumar, Mohammad Sikandar Azam ,Subrata Kumar Ghosh, Hasim khan, “Performance evaluation of rough thrust pad bearing under thermoelastohydrodynamic lubrication using an improved iterative method” Volume 20, Number 1, Article No.110, No. of pages 16, 2019, Mechanics & Industry, edp sciences. **(SCIE)**  
<https://doi.org/10.1051/meca/2018040>

- ✚ Piyush Pratap Singh, Mohammad Sikandar Azam and Vinayak Ranjan “Vibration analysis of a thin functionally graded plate having an out of plane material inhomogeneity resting on Winkler–Pasternak foundation under different combinations of boundary conditions” Vol 233, Issue 8, 2636-2662, (2019) Proc IMechE Part C:J Mechanical Engineering Science. **(SCI )**  
DOI: 10.1177/0954406218796040

- ✚ Rahul Kumar, Mohammad Sikandar Azam ,Subrata Kumar Ghosh, Hasim khan, “Thermo-elastohydrodynamic lubrication simulation of the Rayleigh step bearing using the progressive mesh densification method” Vol 95, Issue 5, pp. 395–410, 2019 Simulation, Sage Publication. **(SCIE)**  
DOI: 10.1177/0037549718788727







- ✚ Abhijeet Chatterjee, Vinayak Ranjan, Mohammad Sikandar Azam and Mohan Rao, “Theoretical and Numerical Estimation of Vibroacoustic Behavior of Clamped Free Parabolic Tapered Annular Circular Plate with Different Arrangement of Stiffener Patches” Appl. Sci. 2018, 8(12), 2542; **(SCIE)**  
doi:10.3390/app8122542

- ✚ Md. Touhid Alam Ansari, Kalyan Kumar Singh and Mohammad Sikandar Azam, Fatigue damage analysis of fiber-reinforced polymer composites— A review, Journal of Reinforced Plastics and Composites 2018, Vol. 37(9) 636–654. **(SCIE)**  
DOI :10.1177/0731684418754713

- ✚ Rahul Kumar, Mohammad Sikandar Azam, Subrata Kumar Ghosh and Sanjay Yadav, “70 years of Elastohydrodynamic Lubrication (EHL): A Review on Experimental Techniques for Film Thickness and Pressure Measurement” Vol 33, issue 4, 481-491, 2018, MAPAN, Springer. **(SCIE)**  
<https://doi.org/10.1007/s12647-018-0277-1>







## PUBLICATIONS

### In Journals

-  Rahul Kumar, Mohammad Sikandar Azam ,Subrata Kumar Ghosh, Hasim khan, Effect of Surface Roughness and Deformation on Rayleigh Step Bearing under Thin Film Lubrication, Industrial Lubrication and Tribology, Vol. 69 Issue: 6, pp.1016-1032, 2017 **(SCIE)**
  
-  Mohammad Sikandar Azam, Vinayak Ranjan and Bipin Kumar, Free Vibration Analysis of Rhombic Plate with central Crack, International Journal of Acoustics and Vibration, Vol. 22, No. 4, 481-492, 2017 **(SCIE)**
  
-  Bipin Kumar, Vinayak Ranjan, Mohammad Sikandar Azam, Piyush Pratap Singh, Pawan Mishra, K. Priya Ajit, and Praveen Kumar, A Comparison of Vibro-acoustic Response of Isotropic Plate with Attached Discrete Patches and Point Masses Having Different Thickness Variation with Different Taper Ratios, Shock and Vibration, Hindawi, Volume 2016, Article ID 8431431, 12 pages **(SCI E)**  
DOI: [dx.doi.org/10.1155/2016/8431431](https://doi.org/10.1155/2016/8431431)
  
-  Ansari MT, Singh KK, Azam MS. Effect of fabric areal density on the mechanical behaviour of symmetric and asymmetric woven GFRP composite. Materials Today: Proceedings. 2020 Jan 1;33:5649-52.
  
-  Azam, M.S., Ranjan, V. and Kumar, B., 2021. Finite element modelling and analysis of free vibration of a square plate with side crack. *Differential Equations and Dynamical Systems*, 29(2), pp.299-311.
  
-  Alok Jain, Sanjay Yadav, SK Jaiswal and Mohammad Sikandar Azam, Significance of Testing & Calibration and International Acceptance - a brief on Indian Scenarios , Research and Development in Material Science. 2018, Volume 5 - Issue -3, 1-3.
  
-  Raushan Kumar Singh, Md. Imran Ali, Md. Sikandar Azam, Formulation of dynamic stiffness matrix for free vibration of simply supported FG plate, International Journal of Pure and Applied Mathematics Volume 119 No. 12 ,23-29, 2018.

## PUBLICATIONS

### In Journals

-  Abhijeet Chatterjee, Vinayak Ranjan, Mohammad Sikandar Azam, A Comparison of axisymmetric vibration of tapered annular circular plate with different linearly and parabolically varying thickness with different boundary conditions, International Journal of Advanced in Management Technology and Engineering Sciences UGC Journal, Volume 8, Issue II, FEB/2018 Page 626-637 . (ISSN NO : 2249-7455)  
DOI:16.10089.IJAMTES.2018.V8I02.15.20567
-  Abhijeet Chatterjee, Vinayak Ranjan, Mohammad Sikandar Azam, Vibration analysis of an isotropic annular circular plate having arbitrarily varying thickness with different taper ratio , International Journal of Innovative Research & Studies, UGC Journal, Volume 8, Issue II, FEB/2018 Page 212-220. ISSN NO : 2319-9725. (ISSN NO : 2319-9725)
-  Nagaraj B.D , Lokesh Patil ,Pravin Kumar Kamanat ,Dr. Krishnarao Dhuri , Dr. Mohd. S.Azam, "Rotordynamic Analysis of Bolted Disk-Drum Rotor with Contact Nonlinearity" International journal of scientific and technical research in engineering, Volume 1 Issue 3, June 2016.
-  Bipin Kumar, Vinayak Ranjan, Mohammad Sikandar Azam, K. Priya Ajit, Ranjan Kumar, 'Acoustic response of clamped isotropic plate with discrete patches and point masses having different thickness variation' Journal of Vibroengineering. June 2016, Vol. 18, Issue 4, 2587 -2600 (ESCI )  
ISSN 1392-8716
-  Azam, M. S., Ranjan, V., Kumar, B., "Effect of a Crack on the Eigenvalues of Rectangular Isotropic Plate Using Finite Element Method" International Journal of Applied engineering Research, vol.10, no. 1, 2015, 231-243 (Scopus).  
ISSN 0973-4562
-  Azam, M. S., Ranjan, V., Kumar, B., "Finite element modeling and analysis of free vibration of a square plate with side crack", Differential Equations and Dynamical Systems, Springer pp. 1–13, 2015.  
DOI: 10.1007/s12591-015-0241-2 (Scopus )  
ISSN: 0971-3514 (print version) ISSN: 0974-6870 (electronic version)

## PUBLICATIONS

### In Journals

- ✚ Mohammad Sikandar Azam, Vinayak Ranjan , Bipin Kumar, Impact of Multiple Cracks on the Free Vibration of Mindlin Plates, International Journal of Applied engineering Research, (2015) 'p/Volume 10, Number 24, pp.20988-20995
- ✚ R. K. Upadhyay, L. A. Kumaraswamidhas, Md. Sikandar Azam, "Rolling element bearing failure analysis: A case study", Case Studies in Engineerng Failure Analysis 1 (2013) 15-17, ELSEVIER. **(Scopus )**
- ✚ Chatterjee, A., Ranjan, V. And Azam, M.S., "Theoretical and numerical estimation of sound power from out of plane modes of a free annular circular plate having parabolically varying thickness", International Journal of Mechanical and Production Engineering Research and Development,9(1),IJMPERDFEB201937, pp. 379-392 **(Scopus )**

## PUBLICATIONS

---

### In Conferences

- ✚ Kumari P., Azam M.S. (2020) Simulation-Based Analysis of Performance Parameters of Thrust Pad Bearing Under Thin Film Lubrication with Chamfered Inlet. In: Kumar H., Jain P. (eds) Recent Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore **(SCOPUS)**  
[https://doi.org/10.1007/978-981-15-1071-7\\_15](https://doi.org/10.1007/978-981-15-1071-7_15)
  
- ✚ Ansari MT, Singh KK, Azam MS. Effect of fabric areal density on the mechanical behaviour of symmetric and asymmetric woven GFRP composite. Materials Today: Proceedings. 2020 Jan 1;33:5649-52. **(SCOPUS)**
  
- ✚ Ansari MT, Singh KK, Azam MS. Effect of Ply Stacking and Fiber Volume Fraction on ILSS of Woven GFRP Laminates. In Proceedings of International Conference in Mechanical and Energy Technology 2020 (pp. 561-568). Springer, Singapore.
  
- ✚ Ansari M.T.A., Singh K.K., Azam M.S. (2019) Effect of Stacking Sequence and Fiber Volume Fraction on the Static Mechanical Properties of Woven GFRP Composite. In: Singh I., Bajpai P., Panwar K. (eds) Trends in Materials Engineering(pp 51-58). Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore **(SCOPUS)**  
[https://doi.org/10.1007/978-981-13-9016-6\\_6](https://doi.org/10.1007/978-981-13-9016-6_6)
  
- ✚ Piyush Pratap Singh , Mohammad Sikandar Azam , Vinayak Ranjan, Analysis of free vibration of nano plate resting on Winkler foundation, Vibroengineering PROCEdia Vol. 21, 2018, p. 65-70. **(SCOPUS)**  
<https://doi.org/10.21595/vp.2018.20406>
  
- ✚ Abhijeet Chatterjee , Vinayak Ranjan , Mohammad Sikandar Azam, Mathematical modeling for estimation of acoustic radiation from clamped free tapered annular circular plate having different parabolically varying thickness. Vibroengineering PROCEdia, Vol. 21, 2018, p. 161-167. **(SCOPUS)**  
<https://doi.org/10.21595/vp.2018.19826>
  
- ✚ Rahul Kumar, Vikas Kumar Kaktan, Mohammad Sikander Azam, Subrata Kumar Ghosh Effect of inlet condition on performance parameters of Rayleigh step bearing under thin film lubrication. Proceedings of Asia International Conference on Tribology 2018, pp. 389-391, September 2018  
ISBN 9671362524, 9789671362525

- ✚ M. I. Ali , M. S. Azam, S. Kumar, V Ranjan, On Exact Out of Plane Material Inhomogeneity For Fundamental Frequency Of FGM Plate By Rayleigh- Ritz Method, ICOVP, 13th International Conference On Vibration Problems 29th November – 2nd December, 2017, Indian Institute of Technology Guwahati, India
  
- ✚ Rahul Kumar, Md. Sikandar Azam , Subrata Kumar Ghosh, Study of effect of elastic deformation in Rayleigh step bearing under Thermo- Elasto-hydrodynamic lubrication using an improved method for Direct Iterative Approach, 9th International Conference on Industrial Tribology (ICIT-2017), December 6-9,2017, Kolkata,India
  
- ✚ Kumar, R., Azam, Md. S. and Ghosh, Subrata K., “Effect of Temperature on Rough EHL in Slider Bearing.” 2017 International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS) pp. 156-163 **(SCOPUS)**  
978-1-5090-5674-3/17/\$31.00 ©2017 IEEE
  
- ✚ T Alam U. Upadhyay, S. Azam, R. Kumar, “Heat Pipe Mass Optimization for Space Applications” Proceedings of 3rd Int'l Conf. on Recent Advances in Information Technology RAIT-2016  
978-1-4799-8579-1 /16/\$31.00 ©20 16 IEEE
  
- ✚ T Alam, Birender Kumar, M. Nagendra Babu , S. Azam, R. Kumar, “Hole Size and Location Optimization in Pressure Vessel” Proceedings of International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016,  
978-1-4673-9939-5/16/\$31.00 ©2016 IEEE
  
- ✚ Rahul Kumar, Md. Sikandar Azam , Subrata Kumar Ghosh, “Numerical solution to thermos EHL with deterministic surface roughness” Proceedings of MENTCA 2015, ISM Dhanbad, India, October 9-10, 2015 pp.328-335.
  
- ✚ Debojyoti Halder, Md. Sikandar Azam , Rahul Kumar, “Comparative study of Bingham and Herschel-Bulkley models for annular Magneto-Rheological (MR) damper operating in quasi-static valve mode”. Proceedings of MENTCA 2015, ISM Dhanbad, India, October 9-10, 2015 pp.409-417
  
- ✚ Kumar, R. and Azam, M. S., “Thermo-hydrodynamic analysis of finite journal bearing with surface waviness”, Proceedings of National Conference on Advances in Thermal




Engineering, ISM Dhanbad, India, December 19-20, 2014, pp. 112-115.(ISBN: 978-81-924744-21-9)

- ✚ Kumar, R. and Azam, M. S., “Numerical Solution to Thermo EHL Problems: A Review”, Proceedings of the international symposium on Aspects of Mechanical Engineering and Technology for industry(AMETI-2014), NERIST , Itanagar, Arunachal Pradesh, India, 6-8 December, 2014, vol.1, pp.95-109. (ISBN: 978-93-83842-95-7).
- ✚ Azam, M. S., Ranjan, V., Kumar, B., “Effect of Pre-Existing Crack on Free Vibration of Rhombic Plates”, Proceedings of the international symposium on Aspects of Mechanical Engineering and Technology for industry(AMETI-2014), NERIST , Itanagar, Arunachal Pradesh, India, 6-8 December, 2014, vol.1, pp.260-267. (ISBN: 978-93-83842-95-7)
- ✚ Azam, M. S., Ranjan, V., Kumar, B., “Impact of Multiple Cracks on the Free Vibration of Mindlin Plates”, Proceedings of International Conference on Advances in Design and Manufacturing (ICAD&M'14), NIT Trichy, India, 5-7 December, 2014, vol. 1, pp. 54-59. (ISBN:978-93-84743-12-3)
- ✚ Kumar, R. and Azam, M. S., “ Elasto hydrodynamic lubrication(EHL) problems and numerical techniques: A review ”, Proceedings of International conference on Industrial, Mechanical and Production Engineering: Advancement and Current Trends (IC IMPACT 2014), MANIT Bhopal, 27-29 November, 2014, vol.2, pp. 641-649.( ISBN: 978-93-84935-03-0)
- ✚ Azam, M. S., Ranjan, V., Kumar, B., “ Influence of crack on the vibration of rectangular isotropic plates”, Proceedings of International conference on Industrial, Mechanical and Production Engineering: Advancement and Current Trends (IC IMPACT 2014), MANIT Bhopal, 27-29 November, 2014, vol.1, pp. 191-198.( ISBN: 978-93-84935-03-0)
- ✚ Mohammad Azam and Vinayak Ranjan, Effect of rigidly and elastically attached discrete mass on natural frequency of a circular annular plate. Proceedings of International Conference on Smart Technologies for Mechanical Engineering (STME- 2013), Delhi Technical University, 25-26 October, 2013
- ✚ Mohammad Sikandar Azam and Vinayak Ranjan, Free vibration response of a thin plate with attached discrete mass at 100th Indian Science Congress during 3-7 Jan, 2013 at Kolkata

## PUBLICATIONS

---

### Book Chapter

-  Ansari M.T.A., Singh K.K., Azam M.S. (2020) Effect of Ply Stacking and Fiber Volume Fraction on ILSS of Woven GFRP Laminates. In: Yadav S., Singh D., Arora P., Kumar H. (eds) Proceedings of International Conference in Mechanical and Energy Technology. Smart Innovation, Systems and Technologies, vol 174. Pages 561-568 Springer, Singapore **(SCOPUS)**  
[https://doi.org/10.1007/978-981-15-2647-3\\_51](https://doi.org/10.1007/978-981-15-2647-3_51)