Dr. Rohit Mishra

Assistant Professor(SG)

Education: Ph.D.

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Areas of Interest: Production Engineering, Material Science, Tool condition Monitoring and Optimization

Brief Profile:

Dr. Rohit Mishra is a faculty of the Department of Mechanical Engineering. He has done his B. Tech from A.B.E.S Engineering College, Ghaziabad (Uttar-Pradesh Technical University) in Mechanical Engineering in 2010 and completed his M. Tech from Indian Institute of Technology, Roorkee in 2012 in welding engineering (Mechanical Engineering). He has completed his Ph.D. from Jaypee University of Engineering and Technology, titled as "Stability Analysis of Milling Operation for Higher Productivity" . He has several SCI and Scopus indexed based articles in his credit. He has many other administrative responsibilities like Departmental Time-Table coordinator, Faculty in-charge of JUET SAE Club, Faculty member in Literary Wing, etc. He has more 10 years of teaching and research experience.

Ph. D. Supervision: 01

Mr. Pushpendra Kushwaha (223E001), "Vibration analysis of Mechanical Components" (Ongoing)

M. Tech thesis guidance:

Mr.Aman Thakur (182E001), "Study of mechanical properties of the natural-synthetic fiber reinforced polymer matrix composite", M.Tech thesis defended in August 2020

Editor or Reviewer of International Journal:

1. International Journal of Mechanical Engineering and Applications (Science Publishing Group) (Editorial Member)
2. ISA Transactions (Elsevier) (Reviewer)
3. Measurement (Elsevier) (Reviewer)
4. Recent Patents on Engineering (Betham Science) (Reviewer)
5. Materials Today: Proceedings (Elsevier) (Reviewer)
6. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering (Sage) (Reviewer)

Publication@JUET

Publication details google profile link

Patent Granted:

- Utility patent granted by Federal Republic of Germanyon "Methodology to achieve higher productivity during chatter free turning on CNC lathe"

Copyright Registered:

- Rohit Mishra, Bhagat Singh, YogeshShrivastava "˜A hybrid approach based on SBLMD and ANN to maximize productivity at chatter-free milling, Copyright office, Government of India, Registration No. L-110044/2021.

International Journal:

1. Mishra, R. and Singh, B. (2021) "˜Stability analysis in milling process using spline based local mean decomposition (SBLMD) technique and statistical indicators, Measurement: Journal of the International Measurement Confederation, 174, p. 108999, Elsevier. DOI: 10.1016/j.measurement.2021.108999.

2. Mishra, R. and Singh, B. (2022) "˜An ensemble approach to maximize metal removal rate for chatter free milling, Journal of Computational Science, 59, p. 101567, Elsevier. DOI: 10.1016/j.jocs.2022.101567.

3. Mishra, R. and Singh, B. (2022) "˜Prediction of milling chatter using SBLMD-ANN, Journal of Mechanical Science and Technology, 36(2), pp. 877-882, Springer. DOI: 10.1007/s12206-022-0135-5.

4. Mishra, R. and Singh, B. (2022) "˜A novel ensemble method based on the SBLMD-ANN-MOPSO approach for predicting milling stability regimes, Measurement Science and Technology, 33(6), p. 065002, IOP Science. DOI: 10.1088/1361-6501/ac4920.

5. Mishra, R. and Singh, B. (2022) "˜Extenuating Chatter Vibration in Milling Process Using a New Ensemble Approach, Journal of Vibration Engineering and Technologies, pp. 1-18, Springer. DOI: 10.1007/s42417-022-00440-z.

6. Mishra, R., Singh, B. and Shrivastava, Y. (2022) "˜An effort for identifying stability regimes in CNC milling using spline-based local mean decomposition, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 44(6), p. 221, Springer. DOI: 10.1007/s40430-022-03523-w.

7. Mishra, R., Singh, B. and Shrivastava, Y. (2022) "˜Measurement of Tool Chatter and MRR Using Sound Signal During Milling of Al 6061-T6, MAPAN, pp. 1-14, Springer. DOI: 10.1007/s12647-022-00567-0.

8. Mishra, R. and Singh, B. (2023) "˜SBLMD-ANN-MOPSO-based hybrid approach for determining optimum parameter in CNC milling, Soft Computing, 27, pp. 7299-7320, Springer. DOI: 10.1007/s00500-023-07944-0.

9. Mishra, R., Gupta, P. and Singh, B. (2023) "˜An intelligent approach to extract chatter and metal removal rate features impromptu from milling sound signal, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 0(0), Sage. DOI: 10.1177/09544089231159465.

10. Mishra, R., Kiran, M. S. N. S., Maheswaram, M., Upadhyay, A., and Singh, B. (2023) "˜Investigation of optimal feature for milling chatter identification using supervised machine learning techniques, Journal of Engineering Research (in press), Elsevier. DOI: https://doi.org/10.1016/j.jer.2023.100138.

11. Mishra, R., Upadhyay, A. K., Singla, A., and Singh, Y. (2020) "˜Effect of Groove Designs on Residual Stress and Transverse Shrinkage in GMAW and PGMAW of A333 Seamless Steel Pipes, Journal of advanced manufacturing, pp. 799-813, Word Scientific. DOI: https://doi.org/10.1142/S0219686720500377.

12. Kiran, M. S. N. S., Maheswaram, M., Upadhyay, A., Mishra, R., and Singh, B. (2022) "˜Online Structural Health Monitoring of Ball Bearings, Mechanical and Industrial Engineering, 16(11), pp. 311-316, World Academy of Science, Engineering and Technology.

Conference Proceedings:

1. Mishra, R. and Singh, B. (2022) "˜SB-LMD based online monitoring of tool chatter detection in milling process, Materials Today: Proceedings, 56(6), pp. 3276-3284, Elsevier. DOI: 10.1016/j.matpr.2021.09.489.

2. Mishra, R., Singh, B. and Shrivastava, Y. (2022) "˜Comparative study of EMD and SBLMD signal processing techniques to assess vibration in machining, Materials Today: Proceedings, 56(6), pp. 3301-3305, Elsevier. DOI: 10.1016/j.matpr.2021.10.022.

Conference/Seminar/Webinar/FDP/Work Shop and Training Programs attended @ JUET (Last four year)

- Three-day Faculty Induction Programme on "Universal Human Values" sponsored by AICTE, held at JUET, Guna, September 16-18, 2019
- Webinar on "Turnitin Feedback Studio" organized by Turnitin on June 02, 2020.
- Webinar on the topic "State Level Online Awareness Programme on PDS-ShodhShuddhi in Madhya Pradesh" , organized by ShodhShuddhi, The Ministry of Education, Govt. of India on July 15, 2020.
- Webinar on the topic "Examination Reforms in Higher Education" organized by JUET, Guna, Madhya Pradesh, India on August 21, 2020.
- Seminar on "Recent Changes in Accreditation Process of NAAC" organized by JUET, Guna, Madhya Pradesh, India on March 22, 2020.

- Web Seminar on "CNC Technologies" sponsored by Fanuc, India on June 09, 2020
- Webinar on the topic "4 IR and Emerging Technology" organized by JUET, Guna, Madhya Pradesh, India on August 28, 2020.
- Webinar on the topic "How to write research papers and get published" organized by JUET, Guna, Madhya Pradesh, India on September 18, 2020.
- Webinar on the topic "National Education Policy 2020" organized by JUET, Guna, Madhya Pradesh, India on October 29, 2020.
- Webinar on the topic "NEP - 2020 - Transformation of Higher Education" organized by JUET, Guna, Madhya Pradesh, India on December 11, 2020.
- Webinar on the topic "Building Research Universities in india" organized by JUET, Guna, Madhya Pradesh, India on March 18, 2021.
- Webinar on the topic "IEEE Explore" organized by JUET, Guna, Madhya Pradesh, India on April 13, 2022.
- Webinar on the topic "Teaching informed research for Employability and Enhanced Learning" organized by JUET, Guna, Madhya Pradesh, India on May 6, 2022.
- Lecture on "Impact Lecture Series 2022" organized by JUET, Guna in collaboration with Ministry of Educations Innovative Cell and AICTE, New Delhi held on 25th June, 2022
- One week workshop on "NAAC Assessment and Accreditation (A&A) Process" organized by IQAC, JUET, Guna from July 25-29, 2022
- One week Workshop on "Outcome based Education and CO-PO mapping" organized by IQAC, JUET, Guna from 17 - 22 October 2022.
- One-Week workshop on "Women at Workplace: Provisions for Safety and Security" conducted during 5-9 December 2022 at Jaypee University of Engineering and Technology, Guna.
- Webinar on the topic "National Intellectual Property Awareness Mission (NIPAM)" organized by Intellectual property office, India at JUET, Guna on 23th February, 2023
- One week workshop on National Higher Education Qualification Framework Organized by IQAC, JUET, Guna from 10-15 July 2023

Certificate courses completed in area of Emerging Field:

- "Data Analytics with Python" from IIT-Roorkee, India
- "Intelligent Machining" offered by University of Buffalo and the State University of New York.
- "Material Processing" offered by Georgia Institute of Technology.
- "Successful Negotiation: Essential Strategies and Skills" offered by University of Michigan.
- "AI For Everyone" offered by deeplearning.ai.
- "Machine Learning Foundations: A Case Study Approach" offered by University of Washington
- "Machine Learning: Classification" offered by University of Washington.
- "Digital Manufacturing & Design" offered by The State University of New York.

- "Digital Thread: Components" offered by The State University of New York.
- "Discover how metrics can boost funding and networking opportunities" Researcher Academy, Elsevier.
- "Fundamentals of peer review" Researcher Academy, Elsevier.
- "Funding Hacks for Researchers" offered by Researcher Academy, Elsevier.
- "How to secure funding - ECR edition" offered by Researcher Academy, Elsevier.