Dr. Amit Sharma

Associate Professor

Education: M.Tech.(AMU, Aligarh), Ph.D.(MNNIT Allahabad)

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Areas of Interest: Modelling and Optimization of Manufacturing Processes, Composite Materials

Brief Profile:

Dr. Amit Sharma has done his graduation in Mechanical Engineering in 2003 from Dr. B. R. Ambedkar University, Agra. He obtained his Master of Technology in 2007 from Aligarh Muslim University, Aligarh in Mechanical Engineering with specialization of Industrial & Production Engineering. He was awarded Ph.D. degree from Motilal Nehru National Institute of Technology (MNNIT) Allahabad in October 2012. He has published many research papers in Science Cited Index (SCI) Journals, prestigious refereed International Journals, and leading conferences of India.

Dr Sharma started his career as Lecturer in 2006 in RKGIT Ghaziabad (UP). He served in GLA University Mathura (UP) in the capacity of Assistant Professor. He joined Jaypee University of Engineering & Technology, Guna in July 2013.

Ph. D. Supervision (Awarded-1, Ongoing-1):

- Priyanka Joshi (Er. No. 153203) defended her thesis "Parametric Analysis and Optimization for Laser Cutting of Aerial Materials" in May, 2019.
- Md Tasnim Arif (Er. No. 203E002) is pursuing his research work in the area of Non-traditional machining of biomaterials.

M. Tech Thesis guidance:

- Divya Singh (Er. No. 142403) defended her thesis "Thermal modelling and simulation of laser beam percussion drilling for Inconel 718"in June 2016.
- Amrit Shiwani (Er. No. 132251) defended his thesis "Modelling and optimization of electro-discharge machining characteristics during drilling of Inconel 718"in June 2015.

Life Member of Professional Bodies: IACSIT, IAENG and ILA

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Administrative Responsibilities:

- Hostel Warden
- Member Secretary of Board of Studies (BOS), Mechanical Engineering
- Member of University Unfair Means (UFM) Committee

Reviewer:

- Optics and Lasers in Engineering
- Optics and Laser Technology
- Infrared Physics & Technology
- Journal of the Brazilian Society of Mechanical Sciences and Engineering

Publication@JUET

Publication details google profile link

Journals-

1. Priyanka Joshi and Amit Sharma, Investigation of parametric influences during cutting of contours in Al 6061-T6 sheet metal using pulsed Nd-YAG laser, Lasers in Engineering, 45 (1-3) (2020) 35-68. [SCI]

2. Priyanka Joshi and Amit Sharma, Optimization of process parameters during laser beam cutting of Ni-based superalloy thin sheet along curved profile using grey-fuzzy methodology, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 40 (2018) 389-403.[SCI]

3. Priyanka Joshi and Amit Sharma, Simultaneous optimization of kerf taper and heat affected zone in Nd-YAG laser cutting of Al6061-T6 sheet using hybrid approach of grey relational analysis and fuzzy logic, Precision Engineering, 54 (2018) 302-313. [SCI]

4. Priyanka Joshi and Amit Sharma, Optimization of Dimensional Accuracy in Nd-YAG Laser Cutting of Aluminum alloy Thin Sheet using Hybrid Approach, Lasers in Engineering, 41 (4-6) (2018) 263-281. [SCI]

5. Amit Sharma and Vinod Yadava, Experimental Analysis of Nd-YAG Laser Cutting of Sheet Materials-A review, Optics and Laser Technology, 98 (2018), 264-280. [SCI]

6. Yogesh Shrivastava, Bhagat Singh and Amit Sharma, Analysis of Tool Chatter in Terms of Chatter Index and Severity Using a New Adaptive Signal Processing Technique, Experimental Techniques,42 (2) 2018, 141-153. [SCI]

7. Amit Sharma, Bhagat Singh and M. Hameedullah, Sintering Behavior of Tin-base Alloy Under Conventional and Microwave Heating, JUET Research Journal of Science and Technology, Volume 3, Issue 1, pp. 69-79, 2016.

8. Amrit Shiwani and Amit Sharma, Optimization of Electro Discharge Machining of Superalloys and Composites: A Review, ELK Asia Pacific Journals-special issue, Vol.2, pp. 331-339, June, 2015.

9. Achal Gupta, Aditya Agrawal and Amit Sharma, Modelling of Electro-Discharge Machining of Difficult-to-Machine Materials: An Overview, ELK Asia Pacific Journals-special issue, Vol.2, pp. 429-437, June, 2015.

10. Bhagat Singh and Amit Sharma, Identification of cracks in beams using a new merged technique, JUET Research Journal of Science and Technology, Volume 2, Issue 1, pp. 95-107, 2015.

11. Amit Sharma and Vinod Yadava, Modelling and Optimization of Cut Quality Characteristics during Pulsed Nd-YAG Laser Cutting of Ni-Based Superalloy Thin Sheet for Curved Profile, Lasers in Engineering, 31 (5/6) (2015), 351-382 [SCI].

12. Amit Sharma and Vinod Yadava, Simultaneous Optimization of Average Kerf Taper and Surface Roughness during Pulsed Nd-YAG Laser Cutting of Thin Al-alloy Sheet for Straight Profile, International Journal of Manufacturing Technology and Management, Vol. 27, Number 1-3, pp. 112-126, 2013.

Conference Proceedings-

1. Amrit Shiwani, Deepesh Rai, Prakhar Singh, Abhinav Singh and Amit Sharma, Parameter optimization in electro discharge drilling of Inconel718 Superalloy Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering, December 12-14, 2019, IIT Indore, ISBN: 978-93-5391-796-8, (Paper ID: 1560094948).

2. Praneet Pandey, Aman Sharma and Amit Sharma, Electric Discharge Machining of Composites- A Review" National Conference on Futuristic in Mechanical Engineering (FME-2019), ELK Asia Pacific Journal - Special Issue, Madan Mohan Malaviya University of Technology Gorakhpur (UP), March 28-29, pp. 358-365, 2019.

3. Yogesh Shrivastava, Bhagat Singh and Amit Sharma, Identification of Chatter in Turning Operation using WD and EMD, Materials Today: Proceedings 5, 23917-23926, 2018 [Scopus Index].

4. Priyanka Joshi, Amit Sharma and Yashwant Kumar Modi, Optimization of process parameters during laser cutting of Ni-based super alloy thin sheet using Response surface methodology, Materials Today: Proceedings 5, 24231-24239, 2018 [Scopus Index].

5. Priyanka Joshi, Amit Sharma, Yashwant Kumar Modi, "Modeling and Optimization of Kerf Geometry duringNd: YAG Laser Cutting of Aluminium Alloy Sheet", 3rdInternational Conference on Advancements and Recent Innovations in Mechanical, Production and Industrial Engineering (ARIMPIE 2017), I.T.S Engineering College Greater Noida, India, April 21-22, 2017, pp. 296-300 (ELK Asia Pacific journals-Special Issue).

6. Divya Singh and Amit Sharma, "Thermal modelling and simulation of laser beam percussion drilling of Inconel 718", In the Proceedings of International Conference on Quality, Productivity, Reliability, Optimization and Modelling (ICQPROM-2017), Manav Rachna International University, Faridabad, India, Sub No. 131, January 5-7, 2017, pp. 321-325.

7. DivyanshMedatwal and Amit Sharma, Natural fibre reinforced polymer composites: a review, In the Proceedings of International Conference on Design, Materials and Manufacturing Concerns in Production of Quality Engineering Goods, HBTU Kanpur, India, pp. 191-200, March 27-29, 2017.

8. Priyanka Joshi, Amit Sharma, Vinod Yadava and Yashwant Kumar Modi, Multi-objective Optimization of Kerf Quality Characteristics during Nd-YAG Laser Cutting of Ni-based Superalloy Thin Sheet using Hybrid Approach, Proceedings of the 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016) College of Engineering, Pune, Maharashtra, India December 16-18, 2016, pp. 454-457.

9. Saif Ali Khan, Pranay Kumar Tiwari , Amol Shrivastava and Amit Sharma, Laser Beam Micromachining - A Review, 2ndInternational Conference on Advancements and Recent Innovations in Mechanical, Production and Industrial Engineering (ARIMPIE)-2016, ITS Engineering College, Greater Noida, India, April 15-16, 2016, pp. 210-215.

10. Amit Sharma, Divya Singh and Vinod Yadava, Optimization of Kerf geometry during profile cutting of nickel based superalloy thin sheet using Nd-YAG laser, International Conference on Application of Lasers in Manufacturing (CALM-2015), Pragati Maidan, New Delhi, India, September 9-11, 2015.

11. Amrit Shiwani, Amit Sharma, Electro Discharge Machining of Advanced Engineering Materials: An Overview, International Conference on Newest Drift in Mechanical Engineering (ICNDME-2014), M.M. University, Mullana, Haryana, December 20-21, 2014, pp. 497-503.

12. Abhinav Sharma, Gaurav Pushkarna, Amit Sharma, Electrical Discharge Machining of Superalloys: A Review, National Conference on Paradigms in Mechanical Engineering (PME-2014), MRIU Faridabad (Haryana), December 20, 2014, pp. 94-97.

13. Amit Sharma, Amrit Shiwani, Vinod Yadava, Optimization of Kerf Deviation during Pulsed Nd: YAG Laser Cutting of Thin Al-alloy Sheet for Curved Profile, Proc. of the National Conference on Emerging Frontiers in Mechanical Engineering, at HBTI Kanpur, Feb-2014, pp. 113-118.

14. Amit Sharma, Vinod Yadava and S.S Agarwal, Modelling of Cut Qualities during Nd-YAG Laser Cutting of Thin Aluminum Alloy Sheet Metal using Artificial Neural Network, International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8), National Institute of Technology, Calicut, Kerala, December 13-15, 2013, pp. 789-794.

Book Chapter:

1. Priyanka Joshi, Amit Sharma, and Vivek Singh, "Empirical Modelling of Kerf Characteristics in Laser Profile Cutting of Ni-Superalloy" , Proceedings of International Conference in Mechanical and Energy Technology, Smart Innovation, Systems and Technologies. Springer, Singapore, vol 174, pp 655-664, https://doi.org/10.1007/978-981-15-2647-3_61, June 2020.

2. Priyanka Joshi, Amit Sharma, Vinod Yadava and Yashwant Kumar Modi, "Nd: YAG Laser Cutting of Ni-Based Superalloy Thin Sheet: Experimental Modelling and Process Optimization" , in Application of Lasers in Manufacturing. Chapter 8, pp. 179-208; Springer, Singapore, June, 2019.