

Journal publications

1. Deepti Ranjan Sahu, **Amitava Mandal**, Rakesh Kumar, Numerical and experimental investigation into the energy distribution in powder mixed EDM, CIRP Journal of Manufacturing Science and Technology 52 (2024) 229–245, <https://doi.org/10.1016/j.cirpj.2024.05.008>
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3. Kashif Hasan Kazmi, Mukesh Chandra, Sonu Rajak, Sumit K. Sharma, **Amitava Mandal** & Alok Kumar Das, Implementing machine learning in robotic wire arc additive manufacturing for minimizing surface roughness, International Journal of Computer Integrated Manufacturing, 2024 DOI: 10.1080/0951192X.2024.2330091
4. Ankit Singh, Vishal Kumar and **Amitava Mandal**, An experimental and numerical study on the influence of interlayer time interval in wire-arc additive manufacturing process, Proc IMechE Part C: J Mechanical Engineering Science, 2024, DOI: 10.1177/09544062241233490
5. Vishal Kumar, Suryank Dwivedi, **Amitava Mandal**, Amit Rai Dixit, Experimental investigations on the microstructural evolution and their influence on mechanical, tribological and corrosion performance of wire-arc additive manufactured SS316L structure, Volume 38, March 2024, 107673, <https://doi.org/10.1016/j.mtcomm.2023.107673>.
6. Biplab Kumar Roy, Deepak Kumar Mandal, **Amitava Mandal**, Investigation of droplet impact dynamics on textured cylindrical hydrophobic surfaces, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 680, 2024, 132674, <https://doi.org/10.1016/j.colsurfa.2023.132674>.
7. Monty Kumar, Anubhav Kumar Sharma, Kailash Jha and **Amitava Mandal**, (2023), Die-sink EDM texturing to fabricate hydrophilic and wear resistant surface, SURFACE ENGINEERING, 2023, VOL. 39, NO. 5, 591–599, <https://doi.org/10.1080/02670844.2023.2245604>
8. Shakti Kumar, **Amitava Mandal**, Alok Kumar Das, and Prosenjit Das, (2023) Development of a Cu/MoS₂/Ni Self-Lubricating Composite Clad through Laser Additive Approach over a Ti6Al4V Substrate and Its Characterizations, Langmuir 2023 39 (48), 17201-17215, DOI: 10.1021/acs.langmuir.3c02137
9. Monty Kumar, Mukul Anand, Kailash Jha, **Amitava Mandal**, (2023) Parametric optimization and clad characterization of composite coating prepared on Ti-6Al-4V alloy using TiB₂-Ni-Yb₂O₃ precursor powders, Materials Chemistry and Physics, Volume 308, 128248, ISSN 0254-0584, <https://doi.org/10.1016/j.matchemphys.2023.128248>.
10. Biplab Kumar Roy, Saransh Tiwari, **Amitava Mandal**, (2023) An Analysis on the Machinability Aspects of the Turning Process Using WEDM for Profile Generation, Arabian Journal for Science and Engineering, <https://doi.org/10.1007/s13369-023-08133-9>
11. Monty Kumar, Shakti Kumar, Kailash Jha, **Amitava Mandal**, (2023) Deposition of hard solid-lubricating composite coating on Ti-6Al-4V alloy with enhanced mechanical, corrosion, and electrical discharge wear properties, Surface and Coatings Technology, Volume 457, 25 March 2023. <https://doi.org/10.1016/j.surfcoat.2023.129315>
12. Manchu Mohan Krishna Sai , Shakti Kumar, **Amitava Mandal** , Mukul Anand, (2023) Sinterability of SS316, SiC, and TiN multi-material additive manufacturing via selective laser sintering, Optics & Laser Technology 167 109686, <https://doi.org/10.1016/j.optlastec.2023.109686>
13. Kashif Hasan Kazmi, Alok Kumar Das, Sumit K. Sharma, Amitava Mandal, Amarish Kumar Shukla, (2023) Wire arc additive manufacturing of ER-4043 aluminum alloy: evaluation of bead

profile, microstructure, and wear behavior, evaluation of bead profile, microstructure, and wear behavior. Weld World, Vol. 67, 2187–2200. <https://doi.org/10.1007/s40194-023-01558-8>

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15. Tapas Chakraborty, Deepti Ranjan Sahu, **Amitava Mandal** & Bappa Acherjee (2023) Feasibility of Jatropha and Rice bran vegetable oils as sustainable EDM dielectrics, Materials and Manufacturing Processes, VOL. 38, NO. 1, 50–63, DOI: 10.1080/10426914.2022.2089891
16. Monty Kumar, Shakti Kumar, Kailash Jha & **Amitava Mandal** (2022) Composite coating by TIG cladding with different rare earth oxides, Surface Engineering, DOI: 10.1080/02670844.2022.2080901
17. Shakti Kumar, Monty Kumar, **Amitava Mandal** & Alok Das (2022) Ni-WS₂-Ti-6Al-4V self-lubricating coating on TC4 alloy by laser cladding, Surface Engineering, DOI: 10.1080/02670844.2022.2086961
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22. Shakti Kumar, Monty Kumar, **Amitava Mandal** & Alok Das (2022) Ni-WS₂-Ti-6Al-4V self-lubricating coating on TC4 alloy by laser cladding, Surface Engineering, DOI: 10.1080/02670844.2022.2086961
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24. Vishal Kumar, **Amitava Mandal**, A. K. Das, Shakti Kumar, (2021) Parametric study and characterization of wire arc additive manufactured steel structures. International Journal of Advanced Manufacturing Technology. Vol. 115, 1723–1733
25. Rashi Tyagi, Alok Kumar Das, **Amitava Mandal**, (2021) Formation of superhydrophobic surface with enhanced hardness and wear resistance by electrical discharge coating process, Tribology International, Vol. 157, 106897
26. Biplab Kumar Roy, **Amitava Mandal**, An investigation into the effect of wire inclination in Wire-Electrical Discharge Turning process of NiTi-60 shape memory alloy, (2021) Journal of Manufacturing Processes, Vol. 64, 739–749
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Book Chapters

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2. Deepti Ranjan Sahu, Amit Kumar, Biplab Kumar Roy and **Amitava Mandal**, Parametric Investigation into Alumina Nanopowder Mixed EDM of Inconel 825 Alloy Using RSM, Springer Nature Singapore Pte Ltd. 2019, K. Shanker et al. (eds.), Advances in Industrial and Production Engineering, Lecture Notes in Mechanical Engineering, https://doi.org/10.1007/978-981-13-6412-9_16
3. Chakraborty T., **Mandal A.** (2022) Bio-Dielectric as an Alternative Degradable and Sustainable Fluid in EDM: A Review. In: Kolhe M.L., Jaju S.B., Diagavane P.M. (eds) Smart Technologies for Energy, Environment and Sustainable Development, Vol 1. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-6875-3_60