

FacultyProfile

FacultyName	Dr. Sandeep Khatkar
Designation	Assistant Professor
Qualification	Ph.D, M. Tech, B. Tech
Email	sandeepkumar@gecnilokheri.ac.in
Areaof Interest	Production and Industrial Engineering, Fabrication, Characterization and machining of lightweight metal and polymer matrix composites
WorkExperience (Total)	
• Teaching	05
• Research	00
• Industry	00
• Others	
Courses taught at Diploma/ PostDiploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level	Mechanics of Solids, Advanced manufacturing Technology, Engineering Graphics and Drawing
Membership of Professional Bodies	NIL
ResearchPublications	
• ResearchPapers UGC-CARE	06
• ResearchPapers SCOPUS	07
• Research Papers WoS/SCI/ABDC	07
• List of Publications	Enclosed as Annexure-1
Book and Chapter Publications	
• Books Authored published by National Publishers	04
• List of Book and Chapter Publications	Enclosed as Annexure-2
M.Tech.Guidance	
• DegreeAwarded	03

• Thesis Submitted	01
Invited lectures/Resource Person/paper presentation in Seminars/Conferences/full paper in Conference	
• International(Abroad)	NIL
• International(Within Country)	05

• National	02
• List of published papers	Enclosed as Annexure-3
Social Contributions and Sports	
• List of Social Contributions and Sports	Organized Annual Athletic meet at SIET, Nilokheri 2023, 2024, 2025.

ANNEXURE: 1

LIST OF PUBLICATIONS IN NATIONAL AND INTERNATIONAL JOURNALS:

1. Pankaj, Kant S, Jawalkar CS, Khatkar SK, Singh M, Jindal MK, "Experimental investigation on mechanical performance and drilling behavior of hybrid polymer composites through statistical and machine learning approach" **Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering.** 2024;239(6):3350-3361. doi:[10.1177/09544089231223022](https://doi.org/10.1177/09544089231223022) (SCI, I.F 2.2)
2. Pankaj, CS Jawalkar, Suman Kant, Sandeep Kumar Khatkar, Rohit Kumar, Natural frequency response simulation and mathematical modelling of nettle fibre-based composites using RSM process, **International Journal of Materials and Product Technology**, 2024, 68(3-4)316-329. (SCIE, I.F 1)
3. S.K. Khatkar, N.M. Suri and S. Kant, "A review on mechanical and tribological properties of Graphite reinforced self-lubricating hybrid metal matrix composites" **Reviews on Advanced Materials Science**, 2018; 56(1):1-20. (SCI, I.F- 3.6)
4. S.K. Khatkar, N.M. Suri and S. Kant, "Hybrid magnesium metal matrix composites a review on reinforcement philosophy, mechanical and tribological characteristics" **Reviews on Advanced Materials Science** 2023; 62(1): 20220294 (SCI, I.F- 3.6)
5. S.K. Khatkar, R. Verma, S. kant, S.S. Kharb and A. Thakur, "Optimization and Effect of Reinforcements on the Sliding Wear Behavior of Self-Lubricating AZ91D-SiC-Gr Hybrid Composites" **Silicon**, 2020. <https://doi.org/10.1007/s12633-020-00523-0> (SCI, I.F- 3.3)
6. S.S. Kharb, S.K. Khatkar, A. Charak and A. Thakur, "Tribological Investigation of AZ91/SiC Magnesium Hybrid Composite under Dry, Oil and Nanofluids Lubricating Conditions" **Silicon**, 2020. <https://doi.org/10.1007/s12633-020-00520-3>(SCI, I.F- 3.3)
7. N. Khanna, N. M. Suri, P. Shah, C. Agrawal, S. K. Khatkar and F. Pusavec, "In-house Developed AZ91/5SiC PMMC Machining Performance Evaluation using Indigenously Developed Hybrid Machining Facilities" **Silicon**, 2020. <https://doi.org/10.1007/s12633-020-00588-x> (SCI, I.F- 3.3)
8. P. Bishnoi, J.Chithambaram, A.Singh, P. Kumar, S.K.Khatkar and M. K.Sinha, "Investigation of drop's instability under different transition stages on axisymmetric flow model" **Computers & Fluids**, 2020; 210:104673.(SCOPUS, I.F- 2.3)
9. S.K. Khatkar, N.M. Suri and S. Kant, "Effect of Reinforcements on the Sliding Wear Behavior of Self-Lubricating AZ91D-SiC-Gr Hybrid Composites" **International Journal of Surface Engineering and Interdisciplinary Materials Science**, 2022; 10(1):1-19. (SCOPUS)
10. Naman Tikoria, Sandeep Kumar Khatkar, Manish Kumar Jindal, Krishan Kumar Kataria "The role of MoS₂ reinforcement particles in enhancement of mechanical and wear properties of magnesium matrix composites: A review" **Materials today: proceedings**, Elsevier, 2024 (SCOPUS) <https://doi.org/10.1016/j.matpr.2024.05.062>

11. SK Khatkar, Anupam, P Kumar, A Gupta, “*Reinforcement philosophy and effect of nano sized materials on mechanical, corrosive and wear behaviour of magnesium nanocomposites-a critical review*” **Materials today: proceedings**, Elsevier, 2023 (SCOPUS) <https://doi.org/10.1016/j.matpr.2023.02.366>

12. Anupam, SK Khatkar, P Kumar, A Gupta, “*Magnesium and solid lubricants based self-lubricating metal matrix composites: a comprehensive review and future directions*” **Nanoworld journal**, 2023; 9(S1): S486-S490. (SCOPUS)

13. M Kumar, SK Khatkar, P Kumar, A Gupta, “*Study of different types of reinforcements in polymer composites - a review*” **Nanoworld journal**, 2023; 9(S1): S660-S663.(SCOPUS)

14. N. Rathi, P. Kumar, S.K. Khatkar, A Gupta, “*Non-conventional machining of nickel based superalloys: a review*” **Materials today: proceedings**, Elsevier, 2023 (SCOPUS) <https://doi.org/10.1016/j.matpr.2023.02.176>

15. S.K. Khatkar and S. Kant, “*A Review on Nanocarbon Materials for Magnesium and Aluminum Metal Matrix Nano-Composites*”, **International Journal of Management, Technology and Engineering**, 2018; 8(5): 260-267.(UGC approved)

16. S.K. Khatkar and S. Kant, “*The Effect Graphite on the Coefficient of Friction of Magnesium Hybrid Composites*” **International Journal of Technical Innovation in Modern Engineering & Science**, 2018; 4 (10): 258-262.(UGC approved)

17. S.K. Khatkar, N.M. Suri and S.Kant, “*Review of Recent Studies in Magnesium Matrix Composites and their Fabrication Techniques*” **International Journal of Scientific Research in Science, Engineering and Technology**, 2016; 2(4):1-6. (UGC Approved).

18. Pankaj, S. Kant, C.S. Jawalkar, S.K. Khatkar, “*Study of Tensile and Flexural properties of hybrid nettle and glass fiber reinforced polymer composites*” **International Journal of Technical Innovation in Modern Engineering & Science**, 2018; 4 (11): 75-80. (UGC approved).

19. R. Kumar, N.M. Suri and S.K. Khatkar, “*Recent advancements in creep resistant magnesium alloys and composites: a review*” **Pramana Research Journal**, 2019; 9(6):631-636. (UGC Approved).

20. M. Singh, N.M. Suri and S.K. Khatkar, “*Magnesium and its Alloy for Biomedical Applications: a Review on Reinforcement philosophies, Mechanical and Corrosive properties*” **Pramana Research Journal**, 2019; 9(6):335-341. (UGC Approved).

21. S.K. Khatkar, N.M. Suri and S.Kant, “*Optimizing adhesion strength of Environment Barrier coating using Slurry spray technique*” **International Journal of Advance Engineering and Research Development**, 2016; 3(7):42-48.

22. K. Singh, N.M. Suri and S.Kumar, “*Optimization of machining parameters on AZ91 magnesium alloy*”**International Journal of Advance Engineering and Research Development**, 2016; 3(7): 51-57.

23. S.K. Khatkar, N.M. Suri, S. Kant, and R. Verma “*Fabrication and corrosion behavior of mullite-alumina based slurry sprayed environment barrier coating*”**International Journal of Advance Engineering and Research Development**, 2016; 3(7):434-439.

24. S.K. Khatkar, N.M. Suri, S.Kant, and R.Verma “*Effects of Thermal Barrier Coatings on Diesel and Gas turbine engines: A review*” **International Journal of Advance Engineering and Research Development**, 2016; 3(6): 134-139.

ANNEXURE: 2
LIST OF BOOKS PUBLICATIONS

1. Sandeep Khatkar, Krishan Kumar Kataria and Manish Jindal, “**SELF-LUBRICATING MAGNESIUM COMPOSITES: A COMPREHENSIVE STUDY ON WS₂/AZ91D HYBRID COMPOSITES**” 2025; Abhishek Publications, Delhi, INDIA
2. Sandeep Khatkar and Manish Jindal, “**ENTREPRENEURSHIP INSTITUTES IN INDIA**” 2025; Abhishek Publications, Delhi, INDIA
3. Manish Jindal, Sandeep Kumar Khatkar and Jai Mala Gambhir, “**INTRODUCTION TO ENTREPRENEURSHIP**” 2024; Abhishek Publications, Delhi, INDIA
4. Sandeep Khatkar, Krishan Kumar Kataria and Manish Jindal, “**MAGNESIUM HYBRID COMPOSITES: INSIGHT IN STIR-CAST AZ91D BASED COMPOSITES**” 2024; Abhishek Publications, Delhi, INDIA

ANNEXURE: 3

LIST OF NATIONAL AND INTERNATIONAL CONFERENCE PUBLICATIONS

1. Nilesh Kumar Rickey, Sandeep Khatkar and Pawan Nain, “**Comparison of Sunn Hemp and Banana Fiber Reinforced Composites: A Review**” INTERNATIONAL CONFERENCE ON ADVANCED SUSTAINABILITY Innovative Solutions for the Environment and Energy, October, 9-10, 2025at CGC, Landran, Punjab.
2. Banerjee, S., Suri, N.M., Sumankant, Bag, S.K., Khatkar, S.K. (2022). **Minimizing Solid Not Fat Loss in Whey During Paneer Manufacturing Using Taguchi Orthogonal Array**. In: Pratap Singh, R., Tyagi, D.M., Panchal, D., Davim, J.P. (eds) Proceedings of the International Conference on Industrial and Manufacturing Systems (CIMS-2020). Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-73495-4_43
3. S.K. Khatkar, R. Verma, N.M. Suri and S. Kant, “**Optimization of wear behavior of AZ91DSiC-Gr hybrid composites using Taguchi experimental design**” International conference on soft computing: Theories and applications, held from December, 21-23, 2018 at NIT Jalandhar, Punjab, India.(Scopus Indexed)
4. S. K. Khatkar, N.M. Suri and S.Kant, “**Nano-Carbonous materials for magnesium hybrid composites: A review**” Poster at International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN:3I-2017), held from December 06 - 08, 2017 at IIT Roorkee, Uttarakhand, India.
5. S.K. Khatkar, N.M. Suri and S.Kant, “**Optimizing surface roughness of AZ91/SiC composite during machining**” National conference on Sustainbale Engineering Practices in Material, Water and Energy Technologies, held from March, 18-19, 2017 at BRCM College of Engineering & Technology, Bahal, Bhiwani, Haryana.
6. Pankaj, S. Kant, C.S. Jawalkar and S.K. Khatkar, “**A Review on processing and mechanical performance of natural fiber composites**” National conference on Sustainbale Engineering Practices in Material, Water and Energy Technologies, held from March, 18-19, 2017 at BRCM College of Engineering & Technology, Bahal, Bhiwani, Haryana.
7. S.K. Khatkar, N.M. Suri and S.Kant, “**Mullite based thermal barrier coatings and coating techniques: A review**” International Conference on Advances in Engineering and Technology held from 24-25 May 2014, at rit, Roorkee, Uttarakhand, India