


SRES', Sanjivani College of Engineering, Kopergaon
(An Autonomous Institute affiliated to SPPU, Pune)

Staff Profile

Personal Information			
Name of Teaching Staff : Dr. Naveen Kumar			
Designation : Assistant Professor			
Department: Mechatronics Engineering			
Date of joining : 22/08/2022			
E Mail ID :	kumarnaveenmkcoe@sanjivani.org.in		
Contact No:	9639898757		
Education Details			
Qualification	Specialization with Class or Grade	University	Year
Ph.D.	Materials Science (Powder Metallurgy)	NIT Allahabad	2023
PG	M.Tech. (Material Science and Engineering) 1st Class	NIT Allahabad	2018
UG	B.Tech. (Mechanical Engineering) 1st Class	Guru Ghasidas Central University	2016
Total experience in years:			
Teaching:	3 years		
Research and Publications			

PUBLICATIONS IN JOURNALS

1. Naveen Kumar, Sugandha Aachhera, Jyoti Kumari, Devendra Prasad, Ajaya Bharti, R. A. Kapgate., (2025). Magnesium-Based Foams: Fabrication Methods and Properties. Accepted for Publication in Powder Metallurgy and Metal Ceramics. **(SCIE)**
2. Kumar N., Bharti A., Rony A., Kapgate R. A., (2024). Effect of Ti Reinforcement on the Thermal Behaviour of AZ91/Ti Composites. Materials Physics and Mechanics **(SCOPUS)**
3. Kumar N., Bharti A., Kumar A., Chandra Y., (2024). Binding Effect of Copper on the Physical, Mechanical, and Thermal Properties of Mg/Ti/Cu Composites. Powder Metallurgy and Metal Ceramics. **(SCIE)**
4. Kumar N., Bharti A., Kumar A., Kushwaha R. K., Patel K. K., (2023). Nano Material Coatings for Bio Implant Applications: A Re-Analysis. Materials Physics and Mechanics **(SCOPUS)**
5. Kumar N., Bharti A., Prasad D., (2022). An Analysis on the Techniques of Iron and Steel Metallic Foams Fabrication. Powder Metallurgy and Metal Ceramics. **(SCIE)**
6. Kumar N., Bharti A., Saxena K. K., (2021). Effect of Ti Reinforcement on the Physical and Mechanical Properties of AZ91/Ti Composites. Indian Journal of Engineering and Materials Sciences. **(SCI)**
7. Kumar N., Bharti A., Dixit M., (2021). A Study on Powder Compaction Dies and Compressibility of Various Materials. Powder Metallurgy and Metal Ceramics. **(SCIE)**
8. Kumar N., Bharti A., (2020). Physical and Mechanical Properties of Powder Metallurgy Processed Titanium Alloys and Composites: A Re-analysis. Metal Science and Heat Treatment. **(SCIE)**
9. Kumar N., Bharti A., Azam S. M., (2021). Effect of Metallic, Carbonaceous, and Ceramic Reinforcements on Physical and Mechanical Properties of CMCs Prepared by Powder Metallurgy. Metal Science and Heat Treatment. **(SCIE)**
10. Kumar N., Bharti A., (2020). A Review on Powder Metallurgy: A Novel Technique for Recycling & Foaming Aluminium-based Materials. Powder Metallurgy and Metal Ceramics. **(SCIE)**
11. Kumar N., Bharti A., Dixit M., Nigam A., (2020). Effect of Powder Metallurgy Process Parameters on the Mechanical and Electrical Properties of Copper-Based Materials: A Review. Powder Metallurgy and Metal Ceramics. **(SCIE)**
12. Sharma S. K., Saxena K. K., Kumar N., (2022). Effect of SiC on the Mechanical Properties of Aluminium-Based Metal Matrix Composites Prepared by Stir Casting Approach. Metal Science and Heat Treatment. **(SCIE)**
13. Gautam R., Kumar N., Tripathi H., (2021). Development of Industrial Waste Quarry Dust Reinforced Low-cost Aluminium Matrix Hybrid Composites for Structural Applications. Metal Science and Heat Treatment. **(SCIE)**
14. Kumar N., Bharti A., (2022). Optimization of Powder Metallurgy Process Parameters to Enhance the Mechanical Properties of AZ91 Magnesium Alloy. Materials Physics and Mechanics **(SCOPUS)**
15. Kumar N., Bharti A., Kumar P., (2023). Applications of Waste Egg Shell and Egg Shell Membrane: A Review. Materials Physics and Mechanics **(SCOPUS)**
16. Sandeep Kashyap, Hariom Tripathi, Naveen Kumar, 2022. Mechanical Properties of Marble Dust Reinforced Aluminum Matrix Structural Composites Fabricated by Stir Casting Process. Materials Physics and Mechanics. **(SCOPUS)**
17. Kumar N., Bharti A., (2021). Optimization of Powder Metallurgy Process Parameters to Recycle AZ91 Magnesium Alloy. Materials Physics and Mechanics. **(SCOPUS)**
18. Sharma S. K., Saxena K. K., Kumar K. B., Kumar N., (2021). The Effect of Reinforcements on the Mechanical Properties of AZ31 Composites Prepared by Powder Metallurgy: An Overview. Materials Today Proceedings. **(SCOPUS)**
19. Kumar N., Bharti A., Patel K. K., (2021). The Evolution of Braking Materials: A Review. Materials Physics and Mechanics. **(SCOPUS)**

20. Kumar N., Bharti A., (2021). Effect of Ti Reinforcement on the Wear Behavior of AZ91/Ti Composites Fabricated by Powder Metallurgy. Materials Physics and Mechanics. **(SCOPUS)**
21. Devendra Prasad, G Naga Srinivaslu, Ajaya Bharti, Naveen Kumar, Syed Mohd Azam, Kuldeep K. Saxena, (2021). Experimental Analysis on Flow Field Pattern of PEM Fuel Cells. Materials Science Forum. **(SCOPUS)**
22. Devendra Prasad, G Naga Srinivaslu, Ajaya Bharti, Naveen Kumar, Venkateswarlu Velisala, Akhilesh Kumar Chauhan, Kuldeep K. Saxena, (2021). Numerical Modelling and Simulation to Investigate the Effect of Flow Field Pattern on the Performance of PEM Fuel Cells. Materials Science Forum. **(SCOPUS)**
23. Naveen Kumar, Manish Kumar Singh, Ajeet Kumar (2021). Design and Selection of Material for Plastic Gears. Advanced Materials Science and Technology.
24. Hariom Tripathi, Ajaya Bharti, Kuldeep K. Saxena, Naveen Kumar, 2021. Improvement of Structural Material: Magnesium AZ91 processed by Friction Stir Processing. Advanced Materials and Processing Technology. **(SCOPUS)**
25. Priyanka Kumari, Ajaya Bharti, Vishnu Agarwal, Naveen Kumar, and Kuldeep K. Saxena, (2021). ZnO Coating on Silicon Rubber Urinary Catheter to Reduce the Biofilm Infections. Advanced Materials and Processing Technology. **(SCOPUS)**
26. Abhishek, Deepak Singh, Ankur Sinha, Deepak Sachan, Anisha, Ankur Vishal, Deepak Kumar, Naveen Kumar, (2021). Structural and Magnetic Properties of Zinc Doped Nickel Ferrite $Ni_{(1-x)}Zn_xFe_2O_4$ Synthesized using Sol-Gel Auto-Combustion and Hydrothermal Methods. Metal Physics and Mechanics. **(SCOPUS)**
27. Naveen Kumar, Deepak Singh, Abhishek, Omprakash Rajpoot, Mayank Kumar Yadav, Yogendra Pratap Singh, P. Shakti Prakash, (2021). Structural and Magnetic Properties of Zinc Doped Copper Ferrite Synthesized by Sol-Gel and Hydrothermal Route. Metal Physics and Mechanics. **(SCOPUS)**
28. Kumar N., Bharti A., Kumar A., Nigam A., (2021). Effect of Process Parameters on The Crystal-Parameters of Cu-Zn Spinel-Ferrites. Metal Physics and Mechanics. **(SCOPUS)**
29. Kumar N., Bharti A., Gupta M. K., (2020). Effect of Treatments on Thermo-Mechanical Properties of Epoxy based Sisal Biocomposites. International Journal on Emerging Technologies. **(SCOPUS)**
30. Raju Kumar Tiwari, Ajaya Bharti, Hariom Tripathi, Naveen Kumar, Kuldeep K. Saxena, (2020). A Re-investigation of Mechanical Properties of Aluminium-based Surface Composites Prepared by Friction Stir Processing. Materials Today: Proceedings. **(SCOPUS)**
31. Ankur, Ajaya Bharti, Devendra Prasad, Naveen Kumar, Kuldeep K. Saxena, (2020). A Re-investigation: Effect of Various Parameter on Mechanical Properties of Copper Matrix Composite Fabricated by Powder Metallurgy. Materials Today: Proceedings. **(SCOPUS)**
32. Vikash Chaudhary, Ajaya Bharti, Syed Mohd Azam, Naveen Kumar, Kuldeep K. Saxena, (2020). A Re-investigation: Effect of TIG Welding Parameters on Microstructure, Mechanical, Corrosion Properties of Welded Joints. Materials Today: Proceedings. **(SCOPUS)**
33. Kumar N., Bharti A., Saxena K. K. (2020). A Re-investigation: Effect of Powder Metallurgy Parameters on the Physical and Mechanical Properties of Aluminium Matrix Composites. Materials Today: Proceedings. **(SCOPUS)**
34. Kumar N., Bharti A., Saxena K. K. (2020). A Re-analysis of Effect of Various Process Parameters on the Mechanical Properties of Mg-based MMCs Fabricated by Powder Metallurgy Technique. Materials Today: Proceedings. **(SCOPUS)**
35. Kumar N., Bharti A., Prasad D., Verma M., Chauhan A. K. (2023). Investigations on physical and mechanical properties of Mg composites and foams fabricated by powder metallurgy using NaCl. Materials Today: Proceedings. **(SCOPUS)**

BOOK CHAPTERS

36. Kumar N., Bharti A., Tripathi H. (2020). Investigation of Microstructural and Mechanical Properties of Magnesium Matrix Hybrid Composite. In: Biswal B., Sarkar B., Mahanta P. (eds) Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. **(SCOPUS Indexed Book Chapter)**
37. Tripathi H., Bharti A., Vishal A., Kumar N. (2020). Effect of Tool Rotation on Microstructure and Hardness of AZ31 Mg Alloy Processed by FSP. In: Biswal B., Sarkar B., Mahanta P. (eds) Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. **(SCOPUS Indexed Book Chapter)**
38. Kumar D., Bharti A., Azam S. M., Kumar N., Tripathi H. (2020). Investigations of Mechanical Properties of Copper Matrix Hybrid Composite. In: Biswal B., Sarkar B., Mahanta P. (eds) Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. **(SCOPUS Indexed Book Chapter)**
39. Azam S. M., Bharti A., Kumar N., (2021). A Historical Review on the Efficiency of Perovskite Solar Cells In: Innovations and Developments towards Smart and Sustainable Industries.
40. Prasad D., Bharti A., Kumar N., (2024). Camphor-Based Closed-Cell Aluminium Foam Prepared by Powder Metallurgy Technique. **(SCOPUS Indexed Book Chapter)**
41. Naranje R. A., Kale K. J., Chavan P. P., Kumar V., Kumar N., (2024). Development of 5 Axis Robotic Manipulator for Material Handling and Sorting. **(SCOPUS Indexed Book Chapter)**
42. Naranje R. A., Kale K. J., Chavan P. P., Shirke O.A., Wakchaure K. N., Kumar N., (2023). Doodle Bot: An Advanced Robot to Draw Complex Geometrical Shapes. **(SCOPUS Indexed Book Chapter)**
43. Sugandha Aachhera, Naveen Kumar, Abha Kumari, (2025). Policies on E-waste Management Worldwide. **(Accepted for publication in the book entitled Sustainable Technologies for Value Addition to Electronic Waste)**
44. Sugandha Aachhera, Naveen Kumar, Abha Kumari, (2025). Sustainable Technologies for Recovery of Refractory Metals and Materials from E-waste. **(Accepted for publication in the book entitled Sustainable Technologies for Value Addition to Electronic Waste)**
45. Kumar N., (2025). Mathematical Simulation of Cricket Ball Trajectory and the Effect of Key Factors. **(SCOPUS Indexed Book Chapter)**
46. Kapgate R. A., Tatwawadi V. H., Kumar N., Kapgate A. R., (2025). Optimizing Wire Edm Process Parameters for Al/10%SiC Metal Matrix Composite using Response Surface Methodology. **(SCOPUS Indexed Book Chapter)**

CONFERENCE PAPERS

47. Kumar N., Bharti A., (2021). A Review on Physical and Mechanical Properties of Powder Metallurgy Processed Titanium Alloys & Composites. In: Conference Proceedings, International Conference on Sustainable Engineering (ICSE) 2021. **(Conference Proceedings)**
48. Kumar N., Bharti A., Prasad D. (2022). Physical and Mechanical Properties of Mg Foams and Composites Fabricated by Powder Metallurgy using Salt (NaCl). In: Conference Proceedings, Chemconflux 2022. **(Conference Proceedings)**
49. Singh D., Abhishek, Rajpoot O., Yadav M. K., Kumar N., Singh Y. P., Prakash P. S., (2017). The effect of Zn substitution on structural and magnetic properties of $\text{Cu}(1-X)\text{ZnXFe}_2\text{O}_4$ synthesized by sol-gel method and hydrothermal method. In: Conference Proceedings, Indian Conference on Applied Mechanics (INCAM) 2017, MNNIT Allahabad. **(Conference Proceedings)**
50. Devendra Prasad, G Naga Srinivaslu, Ajaya Bharti, Naveen Kumar, Venkateswarlu Velisala, Akhilesh Kumar Chauhan, Kuldeep K. Saxena, (2021). Simulation Analysis on Flow Field Pattern of PEM Fuel Cells. **(Conference Proceedings)**

51. Mishra S., Bharti A., Kumar N., Tripathi H., Mishra A., (2022). Reinvestigation of Friction Stir Processed Magnesium Matrix Surface Composites. (Conference Proceedings) Devendra Prasad, Ajaya Bharti, Naveen Kumar, Yashraj Singh, Salil Shrivastava, (2022). Energy Efficient Material: Development and Characterization of Al/Cu Composite Material through Powder Metallurgy in the proceeding of 4th International Conference on Energy and Power (ICEP2022). (Conference Proceedings)	
Research Profile URL	
Google Scholar	https://scholar.google.com/citations?hl=en&user=_EYeU_4AAAAJ
SCOPUS	57281906800
ORCID	0000-0002-6918-4384
Other Research Details	
PhD/Projects Guided	18 Projects Guided (Automation)
Professional Memberships:	<ol style="list-style-type: none"> 1. Worked as Technical Committee Member of International Conference on Advanced Materials and Equipment Manufacturing (AMEM 2024, China). Again Appointed as Technical Committee Member of AMEM 2025, China. 2. Section Editor of Materials Technology Reports Journal from 22nd February 2024 to 21st February 2025 3. Section Editor of Nano Carbons Journal from 17th October 2023 to 16th October 2024 4. Section Editor of Applied Green and Environmentally Friendly New Technologies from 23rd August 2023 to 31st January 2024 5. Editorial Board Member of Advanced Energy Conversion Materials Journal from 7th June 2023 6. Lead Guest Editor of International Journal of Materials Science and Applications from 12 November 2021 to 30 June 2022 7. Editorial Board Member of Advanced Materials Science and Technology Journal from 9 March 2021 to 8 March 2022
Awards	<ul style="list-style-type: none"> • “Best Research Paper” award for the research paper titled “A Re-investigation of Mechanical Properties of Aluminium based Surface Composites Prepared by Friction Stir Processing” at 2nd International Conference on Aspects of Materials Science and Engineering, 2021. • “Mathura Genius Awards 11” organized by “Parth Educational Foundation, Mathura”. • Silver Medal in District Level “Model Presentation Competition” organized by Bhaktivedanta Gurukula & International School. • Bronze Medal in District Level “Quiz Competition” organized by Bhaktivedanta Gurukula & International School. • “Dr. H. L. Maheshwari Pratibha Prerna Award” for Excellent Academic

	<p>Performance during session 2010-2011.</p> <ul style="list-style-type: none"> Secured 1st Position in “Mathematics Quiz” organized by “Amar Nath Vidya Ashram School” during session 2009-2010.
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OTHER Professional URLs	
Personal Website	https://www.rmsme.wordpress.com
Linked In Profile	https://www.linkedin.com/in/naveenkumar94/
ResearchGate	https://www.researchgate.net/profile/Naveen-Kumar-276