

PUBLICATIONS

SCI Journal Publications:

1. **Santosh Kumar**, Kalyan Kumar Singh, Investigation of Tribo-Thermal Performance of Glass Fabric–Reinforced Epoxy Composites by Incorporating Multilayer Graphenes, *Polymer Composites*, 2026; 0:1–17, <https://doi.org/10.1002/pc.70953>, **Impact Factor: 4.7, Web of Science: Q1.**
2. **Santosh Kumar**, Amit Chanda, Devendra K Dubey, Naresh V. Datla; Electrical conductivity of hybrid Graphene/CNF Nanofiller-Reinforced epoxy Nanocomposites: Modelling and experiment, *Composites: Part A*, 202 (2025), 109534, <https://doi.org/10.1016/j.compositesa.2025.109534>, **Impact Factor: 8.9, Web of Science: Q1.**
3. R. Tyagi, N. K. Jha, A. Tripathi, N. Ranjan, A. K. Srivastava, **Santosh. Kumar**, R. Kumar, Sound absorption characteristics of 3-dimensional printed biodegradable structure backed with luffa fiber. Journal: *materials science & Engineering Technology*, <https://doi.org/10.1002/mawe.202300279>, **Impact Factor: 1.2, Web of Science: Q4.**
4. **Santosh Kumar**, Nikhil Sharma, K.K. Singh, Artificial Neural Network technique to assess tribological performance of GFRP composites incorporated with graphene nano-platelets: *Tribology International*, 108194., 179. (2023), **Impact factor: 6.2, Web of Science: Q1**, <https://doi.org/10.1016/j.triboint.2022.108194>.
5. **Santosh Kumar***, K. S. K Singh and K. K. Singh, Data driven modelling for predicting tribo-performance of grapheme-incorporated glass-fabric reinforced epoxy composites using machine learning algorithms: *Polymer composites*. 43., 9, 2022, **Impact factor: 5.2, Web of Science: Q1**, <https://doi.org/10.1002/pc.26974>.
6. **Santosh Kumar**, K. K. Singh, Tribological characteristics of glass/carbon Fibre-reinforced thermosetting polymer composites: a critical review. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 496., 44. 2022, **Impact factor: 2.2, Web of Science: Q2**, <https://doi.org/10.1007/s40430-022-03817-z>.
7. Nikhil Sharma, **Santosh Kumar*** and K. K. Singh, Taguchi’s DOE and Artificial Neural Network analysis for the prediction of tribological performance of graphene nano-platelets filled glass fiber reinforced epoxy composites under the dry sliding:

Tribology International. 107580., 172, 2022, **Impact factor: 6.2, Web of Science: Q1**, <https://doi.org/10.1016/j.triboint.2022.107580>.

8. K. K. Singh and **Santosh Kumar***. Tribological performance of graphene nanoplatelets filled glass/epoxy composites under dry, inert gas and oil-lubricated environmental conditions. Journal: *Materials Letters*. 128881., 282, 2021, **Impact factor: 3, Web of Science: Q2**, <https://doi.org/10.1016/j.matlet.2020.128881>.
9. **Santosh Kumar*** and K. K. Singh, Tribological behaviour of fibre-reinforced thermoset polymer composites: A **review**. Proceedings of Institution of Mechanical Engineers Part L: *Journal of Material Design and Applications*. 234., 11, 2020 DOI: 10.1177/1464420720941554, 2020. **Impact Factor: 2.6, Web of Science: Q3**.
10. **Santosh Kumar***, K. K. Singh and J. Ramkumar. Comparative study of the influence of graphene nanoplatelets filler on the mechanical and tribological behaviour of glass fabric-reinforced epoxy composites, Journal: *Polymer composites*. 12., 41, 2020, DOI: 10.1002/pc.25804, **Impact factor: 5.2, Web of Science: Q2**.
11. **Santosh Kumar***, K. K. Singh and J. Ramkumar, The effects of graphene nanoplatelets on the tribological performance of glass fiber-reinforced epoxy composites. Proceedings of the Institution of Mechanical Engineers, Part J: *Journal of Engineering Tribology*. 8., 235, 2020, **Impact Factor: 2, Web of Science: Q3**, <https://doi.org/10.1177/1350650120965756>.

Book Chapter:

12. **Santosh Kumar**, K. K. Singh (2019), Tribological Performances of Woven Carbon Fabric/Epoxy Composites Under Dry and Oil Lubrication Condition: An Experimental Investigation. In: Singh I., Bajpai P., Panwar K. (eds) **Trends in Materials Engineering**. Lecture Notes on Multidisciplinary Industrial Engineering. **Springer, Singapore**. DOI: 10.1007/978-981-13-9016-6_5.

Scopus Index Journal Publications:

13. Komal A. Ekka, **Santosh Kumar**, K. K. Singh. Effect of the addition of CNT on the flexural, inter laminar shear strength and abrasive wear behaviour of glass fiber/epoxy composite, *AIP Conf. Proc.* 3178, 090004 (2024). <https://doi.org/10.1063/5.0229768>.
14. **Santosh Kumar**, Nisha Sharma, Rahul Biswas, Kalyan Kumar Singh, Effect of temperature on the flexural and ILSS behaviour of symmetric and asymmetric basalt fibre-reinforced polymer composites, *Materials Today: Proceedings*, <https://doi.org/10.1016/j.matpr.2023.03.327>.

15. P. K Prajapati, **Santosh Kumar**, K.K. Singh, Taguchi approach for comparative optimization of tribological behavior of glass fabric reinforced epoxy composite with and without graphene-nano platelets filler. *Materials Today: Proceedings*, 1605-1612, 72, **2023**, <https://doi.org/10.1016/j.matpr.2022.09.412>.
16. K Sourabh K Singh, **Santosh Kumar***, and K. K. Singh Computational Data-Driven based Optimization of tribological performance of Graphene filled glass Fiber Reinforced Polymer Composite using Machine Learning approach, *Materials Today: Proceedings*. 3838-3846., 66, **2023**, <https://doi.org/10.1016/j.matpr.2022.06.253>
17. Prabhat Kumar Prajapati, **Santosh Kumar**, K.K. Singh, Optimization of Tribological Behavior of CFRP Composites under dry sliding condition using Taguchi Method, ICRCAM-2019, IIT (BHU) Varanasi, India, February 25-28, *Materials Today: Proceedings*. **2019**, DOI: [10.1016/j.matpr.2020.01.169](https://doi.org/10.1016/j.matpr.2020.01.169).
18. Subhash Kumar, K.K. Singh, **Santosh Kumar** Tribological Behaviour of Glass/Epoxy Laminated Composite Reinforced with Graphene and MWCNT, ICMMM-2019, VIT Vellore, India, 29th – 31st March, *Materials Today: Proceedings*. **2019**, DOI: [10.1016/j.matpr.2020.03.410](https://doi.org/10.1016/j.matpr.2020.03.410).

INTERNATIONAL CONFERENCES

19. **Santosh Kumar***, KSK Singh, K.K Singh (**2022**), Computational Data-Driven based Optimization of tribological performance of Graphene filled glass Fiber Reinforced Polymer Composite using Machine Learning approach, Failure and Preventive Maintenance of Machineries (FPMM – **2022**), March 08-09, 2022, **CSIR Durgapur**.
20. Nikhil Sharma, **Santosh Kumar** and K. K. Singh (**2021**), Artificial Neural Network technique to assess the tribological performance of GFRP composites incorporated with graphene nano-platelets, 2nd Virtual International Tribology Research Symposium (**ITRS 2021**), **SRM University, India** 8 to 10th December 2021.
21. Nikhil Sharma, **Santosh Kumar** and K. K. Singh (**2021**), Taguchi's DOE and Artificial Neural Network analysis for the prediction of tribological performance of graphene nano-platelets filled glass fiber reinforced epoxy composites under the dry sliding, 2nd Virtual International Tribology Research Symposium (**ITRS 2021**), **SRM University, India** 8 to 10th December 2021.

- 22. Santosh Kumar, K. K. Singh (2019)**, Experimental investigation of correlation between mechanical and two-body abrasive wear behavior of GFRE composites filled with graphene, **IISc Bangalore**, India, *IndiaTrib-2019*, December 1st to 4th.
- 23. Santosh Kumar, K. K. Singh, A Jain (2018)**, Effect of MWCNT on the Tribological Behavior of GFRP Composites under dry sliding condition, **INCOSURF 2018, IISc Bangalore**, India, 9 – 11 August 2018, proceeding.
- 24. Santosh Kumar, K. K. Singh (2018)**, Tribological Performances of Woven Carbon Fabric/Epoxy Composites Under Dry and Oil Lubrication Condition: An Experimental Investigation. ICFTMM 2018, Delhi Technical Campus, Greater Noida, India, October 26-27, 2018.

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Development of advanced hybrid (carbon/basalt/MWCNTs) composite material for brake pad application, **Application Ref: PSD/PAT/1059**. 2023.