Faculty Profile

Name : Dr. T Raghavendra
Designation : Assistant Professor
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About me: My primary areas of interest are in processing and characterization of polymer matrix composites with natural fibres as a reinforcements. I completed my PhD from NIT, Tiruchirapalli. My PhD topic is processing and characterization of camphor soot embedded natural fiber reinforced Nylon composites. I have extensively worked on the enhancement of thermal stability of natural fibers and characterization of natural fiber reinforced nylon composites. I have worked on manufacturing of thermoplastic composites and thermoset composites. I have hands on experience on compression moulding process, twin-screw extruder, injection moulding machine. I have handled non-traditional machining, Mechanical engineering sciences, metrology and measurements, Manufacturing Process for UG students.

Qualification:
B.E. (VTU.), MTech (VTU), Ph.D. (NIT Trichy)

Courses Taught: Computer aided engineering drawing, Introduction to mechanical Engineering, material science and engineering, metrology and measurements, Engineering Management, Design for additive manufacturing, additive manufacturing and tooling, Quality Management, Computer integrated manufacturing, Hydraulics and Pneumatics, Abrasive machining and finishing process,
P.G- Advanced Hydraulics and Pneumatics

Publications:

Journal Publication:

1. Ravikiran, Sachin, B., **Raghavendra, T.,** Madhusudhana, R., Aravind, S.L. and Kashyaup, G., 2024, July. Investigation of Viscosity and Tribological Characteristics of Cashew Nut Shell Oil and Castor Oil Blends Using ZDDP as Additives. In International Conference on Emerging Applications of Material Science and Technology (pp. 169-176). Cham: Springer Nature Switzerland.

2. 2. Sachin, B., Rao, C.M., Prasad, C.D., Tiwari, A., Ravikiran, **Raghavendra, T**., Eswaran, A. and Madhusudhana, R., 2024. Interactive design and development of an intelligent vision-driven 3D printed precision sorting mechanism for silk cocoons. International Journal on Interactive Design and Manufacturing (IJIDeM) (Impact Factor -2.1), pp.1-10. https://doi.org/10.1007/s12008-024-02086-5
3. **Raghavendra, T.,** CA, Niranjan, Shilpa, M., K, Panneerselvam. and Singh, A., 2023. Effect of hybridization on camphor soot embedded Palmyra fiber reinforced nylon nano composites. Functional Composites and Structures (Impact Factor -2.8). 10.1088/2631-6331/ad0564
4. Niranjan, C.A., **Raghavendra, T.,** Rao, M.P., Siddaraju, C., Gupta, M., Jain, V.K.S. and Aishwarya, R., 2023. Magnesium alloys as extremely promising alternatives for temporary orthopedic implants–A review. Journal of Magnesium and Alloys (Impact Factor -17.6). 10.1016/j.jma.2023.08.002
5. 5. Venkatesh, R., Niranjan, C.A., Srinivas, S. and **Raghavendra, T.,** 2023. Workability Studies on Al6061 Alloy and Al6061 Metal Matrix Composites Reinforced with Silicon Carbide Particles Under Cold Backward Extrusion. Journal of The Institution of Engineers (India): Series D, 104(1), pp.373-389. 10.1007/s40033-022-00400-7
6. **Raghavendra, T**. and Panneerselvam, K., 2022. Abrasive Wear Behaviour of Camphor Soot Filled Coir/Palmyra Fibre Reinforced Nylon Composites. In Recent Advances in Mechanical Engineering: Select Proceedings of ERCAM 2021 (pp. 97-108). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-19-1388- 4_10
7. Roy, A., Sachin, B., **Raghavendra, T.,** Rao, C.M., Naik, G.M., Soni, H., Mashinini, P.M. and Narendranath, S., 2022. Optimizing machining responses of homologous TiNiCu shape memory alloys using hybrid ANN-GA approach. Materials Today: Proceedings. 10.1016/j.matpr.2022.04.890
8. Yadhav, B.L., Chandan, C., **Raghavendra, T.,** Suresha, B. and Raju, H.G., 2022. Role of alumina filler on thermal properties of carbon-epoxy nanocomposites. Materials Today: Proceedings, 59, pp.166-170. 10.1016/j.matpr.2021.10.387
9. **Raghavendra, T**. and Kavan, P., 2018. A novel study on thermal stability of camphor soot reinforced coir fibers. Fibers and Polymers, 19(7), pp.1567-1575.(Impact Factor - 2.347)
10. **Raghavendra, T**. and Panneerselvam, K., 2020. A Novel Study On Surface Modification Of Palmyra Fibers For Enhancing Mechanical And Thermal Properties. Surface Review and Letters, 27(02), p.1950104. Surface. (Impact Factor - 1.24) 10.1142/S0218625X1950104X
11. **Raghavendra, T**. and Panneerselvam, K., 2020. Mechanical and Thermal Characterization of Camphor Soot Embedded Coir Fiber Reinforced Nylon Composites. Fibers and Polymers, 21(11), pp.2569-2578. . (Impact Factor - 2.347) 10.1007/s12221-020-9631-3
12. Anand A, Hemanth R, **Raghavendra T,** Suresha B*, Bharath P B, Govindaraju N 2025 Comparative study of two-body and three-body abrasive wear behaviour of 3D printed Carbon fiber reinforced PLA/ABS composites. Sigma Journal of Engineering and Science Accepted for publication on 16/04/2025

Conference Proceedings:

1. Raghavendra and Y S Varadarajan. A Study on wear behaviour of SiC filler filled Glass fiber Reinforced Epoxy Composites Advanced Materials Manufacturing, Management and Thermal Sciences (AMMMT 2013) held at SIT Tumkur.
2. Panneerselvam K, T. Raghavendra, Jafrey Daniel D and Chandresh D. Investigation on mechanical and metallurgical characterization of sisal and banana fibers reinforced with polypropylene. AIMTDR (2016), College of Engineering Pune.
3. Panneerselvam K, T. Raghavendra, Jafrey Daniel D and TNS Ramakrishna. Investigation on mechanical characterization and surface morphology of kenaf and jute fibers reinforced with HDPE. AIMTDR (2016), College of Engineering Pune.
4. Panneerselvam K, T. Raghavendra, Jafrey Daniel D and K. Lokesh. Optimization of tribological properties of aramid and palm fibers reinforced with nylon hybrid composites. AIMTDR (2016), College of Engineering Pune.
5. Raghavendra and Panneerselvam K, Tensile and thermal behaviour of hennotanic acid coated coir fibers, CDAMIES, 2018, NIT, Tiruchirapalli.
6. Raghavendra and Panneerselvam K Characterization of henna coated palm fibers for enhanced thermal stability NCSCSTASE, NAL CSIR 2018, Bengaluru.
7. Niranjan C. A, Vikram Kumar S. Jain, M. Sadhasivam, T. Raghavendra, Srikanth Salyan, Kishore K. S. Bhardwaj. Investigation on mechanical properties of banana fiber reinforced polypropylene composites. RDMPMC-2020, Department of Metallurgical and Materials Engineering, National Institute of Technology Jamshedpur

Other achievements:

PATENTS

- UK Design Patent granted in the month of April 2024 for “Twin Pin Double Shoulder Friction Stir Welding Tool”

- Indian design patent granted in the month of February 2024 for “Safety helmet “

- Indian design patent granted in the month of November 2023 for “ Double shoulder friction stir welding tool”

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