

## **Profile Page**

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### **Journal Publications :**

<b>Year</b>	<b>Journal</b>	<b>Publication</b>
2022	IETE Journal of Research (Accepted)	Abhishek Anand Singh, Harikrishnan CI, Tiwari S K, Snehsheel Sharma, "A variational mode decomposition-based multi-entropy fusion approach for rolling bearing fault diagnosis"
2022	Diamond and Related Materials, Vol. 121, No. 108769	Deepa B., Sharma S., Tiwari S.K. , “Effect of chirality and defects on tensile behavior of carbon nanotubes and graphene: Insights from molecular dynamics”
2022	Mechanical Systems and Signal Processing	• Sharma, S. and Tiwari, S.K. 2022. A novel feature extraction method based on weighted multi-scale fluctuation based dispersion entropy and its application to the condition monitoring of rotary machines.
2021	Surface Topography: Meterology and Properties, Vol. 9, pp. 025035 (1-19)	Patel P.R., Sharma S., Tiwari S.K., “Tribological properties of aluminium reinforced with differently oriented carbon nanotube: A molecular dynamics study”
2021	Modelling and Simulation in Materials Science and Engineering, Vol. 29, pp. 015004 (1-13)	Patel P.R., Sharma S., Tiwari S.K., “Molecular dynamics simulation for interfacial properties of carbon nanotube– reinforced aluminum composites”
2021	Materials Today: Proceedings	Patel P.R., Sharma S., Tiwari S.K., “Governing parameters for pull-out of carbon nanotubes from aluminium composites: A review”
2021	Measurement, 169, p.108389.	• Sharma, S., Tiwari, S.K. and Singh, S., Integrated approach based on flexible analytical wavelet transform and permutation entropy for fault detection in rotary machines.
2021	Materials Today: Proceedings, 43, pp.700-705.	• Sharma, S., Tiwari, S.K. and Singh, S., The rotary machine fault detection by hybrid method based on local mean decomposition and fluctuation based dispersion entropy.
2021	Materials Today: Proceedings, 44, pp.4677-4681	• Kumar, V., Sharma, N., Tiwari, S.K. and Kango, S., Atmospheric corrosion of materials and their effects on mechanical properties: A brief review

2020	Journal of Molecular Modeling, Vol. 26, pp. 238 (1-9)	Patel P.R., Sharma S., Tiwari S.K. , “A molecular dynamics investigation for predicting the effect of various parameters on the mechanical properties of carbon nanotube– reinforced aluminum nanocomposites”
2020	Defence Technology	Sharma S., Tiwari S.K., Shakya S., “Mechanical properties and thermal conductivity of pristine and functionalized carbon nanotube reinforced metallic glass composites: A molecular dynamics approach”
2020	Materials Characterization. 159, 110047	Singh T, Tiwari S.K, Shukla D.K. (2020). Mechanical and microstructural characterization of friction stir welded AA6061-T6 joints reinforced with nano-sized particles.
2020	Nanocomposites. 6(2), 76-84.	Singh T, Tiwari S.K, Shukla D.K. (2020). Effects of Al <sub>2</sub> O <sub>3</sub> nanoparticles volume fractions on microstructural and mechanical characteristics of friction stir welded nanocomposites.
2020	Advances in Materials and Processing Technologies	Singh T, Tiwari S.K, Shukla D.K. (2020). Novel Method of Nanoparticle Addition for Friction Stir Welding of Aluminium Alloy
2020	Materials today proceedings. 27(3), 2562-2568	Singh T, Tiwari S.K, Shukla D.K. (2020). Preparation of aluminum alloy-based nanocomposites via friction stir welding
2019	American Journal of Materials Synthesis and Processing. 4(1), 23-31	1. Singh T, Tiwari S.K, Shukla D.K. (2019). Fabrication of AA6061-T6/Al <sub>2</sub> O <sub>3</sub> Reinforced Nanocomposite Using Friction Stir Welding
2019	Life Cycle Reliability and Safety Engineering, 8(1), pp.21-32.	• Sharma, S., Tiwari, S.K. and Singh, S. Diagnosis of gear tooth fault in a bevel gearbox using discrete wavelet transform and autoregressive modeling.
2019	Proc Inst Mech Eng Part L. J Mater Des Appl. 234(2), 274-290.	Singh T, Tiwari S.K, Shukla D.K. (2019). Effect of nano-sized particles on grain structure and mechanical behavior of friction stir welded Al-nanocomposites
2019	Eng. Res. Express. 1, 025048	Singh T, Tiwari S.K, Shukla D.K. (2019). Processing parameters optimization to produce nanocomposite using friction stir welding
2019	Eng. Res. Express. 1, 025052	Singh T, Tiwari S.K, Shukla D.K. (2019). Production of AA6061-T6/Al <sub>2</sub> O <sub>3</sub> reinforced nanocomposite using friction stir welding
2019	Results in Materials. 1, 100005	Singh T, Tiwari S.K, Shukla D.K. (2019). Friction-stir welding of AA6061-T6: The effects of Al <sub>2</sub> O <sub>3</sub> nano-particles addition
2014	Journal of Experimental & Applied Mechanics, ISSN:2230-9845(online), ISSN:2321-516X (print), Volume 5, Issue 2, pp. 14-18	S K Tiwari, Ashwani Kumar, Dhananjay Singh, "Effect of fly ash on the damping behaviour of glass fiber reinforced composite"
2014	International Journal of Advanced Mechanical Engineering, ISSN:2250-3234, Volume 4, Number 4, pp. 413-424	Priya Singhal, S K Tiwari, "Effect of various chemical treatments on the damping property of jute fiber reinforced composite".
2014	Journal of Materials and Metallurgical Engineers, ISSN:2231-3818(online), ISSN:2321-4236(print), Volume 4, Issue 2	S K Tiwari, D K Shukla, Rakesh Chandra, "Effect of tool tilt on formation of tunnel in friction stir welded 5083 joints: An experimental study"
2013	International Journal of Materials and Metallurgical Engineering, Vol. 7, No.12, pp. 2403-2408	S K Tiwari, Dinesh Kumar Shukla, R Chandra"Friction stir welding of aluminum alloys: A review"
2013	International Journal of Scientific and Engineering Research, Vol. 4, Issue 8, pp:1173-1180	Pritish Shubham, Tiwari S. K., Effect of fly ash concentration and its surface modification on fiber reinforced epoxy composite's mechanical properties

2010	International Journal of Materials Engineering Innovation, Vol.1 No.3/4, pp.374-388	S K Tiwari, Rakesh Chandra, "Prediction of dynamic mechanical properties of fibre reinforced composites - an ANN approach"
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### Conference Publications :

Year	Conference	Publication
2021	International Conference on VLSI, Signal Processing and Communications.	• Harikrishnan C.I, Abhishek Anand Singh, S. K. Tiwari, Snehsheel Sharma, Fault diagnosis of bearings using discrete wavelet transform integrated with multi-scale dispersion entropy approach. ICSVSCOMS2021
2021	8th International Conference on Signal Processing and Integrated Networks (SPIN) (pp. 367-372). IEEE	• Singh, A.A., Harikrishnan, C.I., Tiwari, S.K. and Sharma, S., 2021, August. A multi-entropy fusion approach for rolling bearing fault diagnosis integrated with variational mode decomposition

### Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book Chapter	Influence of Nanoparticle Addition (TiO <sub>2</sub> ) On Microstructural Evolution and Mechanical Properties of Friction Stir Welded AA6061-T6 Joints	In: Pandey PM, Kumar P, Sharma V (Eds.). Advances in Production and Industrial Engineering. 1st ed. Proceedings of ICETMIE 2019. Springer Singapore, pp. VIII, 392	Singh T, Tiwari S.K, Shukla D.K.	<a href="https://doi.org/10.1007/978-981-15-5519-0_18">https://doi.org/10.1007/978-981-15-5519-0_18</a>	2020
Book Chapter	Molecular dynamics simulation of single-wall carbon nanotube aluminum composite	Lecture Notes in Mechanical Engineering. Springer, Singapore	Patel P.R., Sharma S., Tiwari S.K	<a href="https://doi.org/10.1007/978-981-15-8315-5_5">https://doi.org/10.1007/978-981-15-8315-5_5</a>	2020

### PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Tanvir Singh	Study of addition of nano particles on the properties of friction stir welded aluminum alloys	Ongoping	2015	Dr. D K Shukla

### PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Harikrishnan C I	Vibrational analysis of bearings With wavelet based multiscale dispersion entropy features	completed	2021	

Abhishek Anand Singh	. An integrated fault diagnosis method based on variational mode decomposition with multi-entropy fusion approach for rolling bearings	completed	2021	
Dheeraj Kumar	Investigation of bearing faults through EEMD integrated with entropy approach	completed	2021	
Teekshan Mohan Jandyal	Classification of bearing faults through statistical features using CEEMDAN as a denoising technique	completed	2021	