

Mechanical Department Research Paper Publications

Dr. Ajay Tripathi

A. Journals:

1. Ajay Tripathi, Anil kumar and M.K. Chandrakar, Design and Analysis of a Composite Cylinder for the Storage of Liquefied Gases, IJSRD- International Journal for Scientific Research & Development, Vol. 5, Issue 03/2017/ ISSN (online): 2321-0613.
2. Neha Yadav, Gaurav Saxena and Dr. Ajay Tripathi, Thermal Performance Analysis of Evacuated Tube Collectors and Heat Exchanger: A Review, IJSRD- International Journal for Scientific Research & Development, Vol. 5, Issue 03/2017/ ISSN (online): 2321-0613.
3. Ajay Tripathi, April 2020, Ichhwak Malhare, Rahul Modi and A. Tripathi, Response of ATV rollcage under harmonic vibration, International Research Journal of Engineering and Technology (IRJET), ISSN: 2395-0056 (online), Volume 7, Issue 4, April 2020.
4. N. Yadav, A. Tripathi, Exergy Analysis of Evacuated Tube Two Fluid Solar Water Heating System, STM Journals, Recent Trends in Fluid Mechanics, Volume 3, Issue 2, 2016; ISSN: 2455-1961 (online).
5. Ajay Tripathi, H Chandra and Rahul Bhargava, Development of Electro-Magnetic Anti-Lock Brake System: An Idea, Journal of Automobile Engineering and Applications; Volume 4, Issue 3, 2017, ISSN: 2455-3360 (online).
6. Chaitanya Sharma, Ajay Tripathi, Sanjay Kumar Singh, Vijay Verma and Vikas Upadhyay, Microstructure and Mechanical Properties of Welded Al-Zn-Mg Armour Alloy: Influence of Welding Technique, Journal, Evergreen-Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy (Scopus Indexed), Jul 30, 2021.
7. Chaitanya Sharma, Ajay Tripathi, Vijay Verma and Vikas Upadhyay, Material Flow Behaviour in Dissimilar Friction Stir Welds of AA2024 and AA5086 Aluminum alloys, Journal of Engineering Research (SCIE Indexed), Jul 30, 2021.
8. Vijay Verma, Ritesh Kumar Singh, Chaitanya Sharma, Ajay Tripathi, Arun Kumar Pandey, Sanjay Kumar Singh and Sumit Kumar Sharma, Microstructure and lap shear strength of dissimilar friction stir spot welds of aluminium alloys, Indian Journal of Engineering and Materials Science (SCIE Indexed), Jul 30, 2021.
9. Chaitanya Sharma, Ajay Tripathi, Vikas Upadhyay, Vijay Verma and Sumit Kumar Sharma, "Friction Stir Spot Welding-Process and Weld Properties: A Review", Journal of The Institution of Engineers (India): Series D (IEID). Vol. 102/2, pp 549-565., Dec. 2021.
10. Chaitanya Sharma, Vikas Upadhyay, Vijay Verma, Ajay Tripathi, Sumit Sharma. Tensile Behaviour of Friction Stir Welded Joints of Different Aluminium Alloys DOI :10.36909/jer.ICCEMME.15693, Journal of Engg. Research; ICCEMME Special Issue 1 October 2021.
11. Chaitanya Sharma, Vijay Verma, Basanth kumar, Sumit Kumar Sharma, Ajay Tripathi, Sanjay Kumar Singh, Pankaj Sonia, Estimation of fatigue crack growth rate in different zones of friction stir welded AA7039, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2022.
12. Chaitanya Sharma, Ajay Tripathi, Vijay Verma, Vikas Upadhyay, Material Flow Behavior in Dissimilar Friction Stir Welds of AA2024 and AA5086 Aluminum Alloys; Journal of Engg. Research ICAPIE Special Issue pp 159, Vol 153, 2022.

B. International Conferences:

1. Dr. Ajay Tripathi, "Fatigue Crack Growth Rate and Quasi Static Fracture Toughness Behavior of Friction Stir Welds of Al, Zn, Mg Alloy AA7039" ICSE-2021, 26-27 Feb 2021.
2. Dr. Ajay Tripathi "Microstructure and Mechanical properties of friction-stir welded interstitial free steel using WC tool" International conference on "Advance in Materials, Mechanics, Mechatronics and Manufacturing". 06-07 March 2021; doi:10.1088/1757-899X/1136/1/012068.

3. Dr. Ajay Tripathi "A critical Review on the wear and corrosion of carbide free bainitic steel" International conference on "Advance in Materials, Mechanics, Mechatronics and Manufacturing". 06-07 March 2021 doi:10.1088/1757-899X/1136/I/012027.
4. Anoop Pratap Singh, Ajay Tripathi, Ravi Kumar Dwivedi, Anurag garg and Ranjan Kumar, Prediction of Passenger flow for north Central Railway region through ANN; International conference on "Advance in Materials, Mechanics , doi:10.1088/1757-899X/1136/I/012023.
5. P.M. Mishra, Ajay Tripathi and Sanjay Soni, Experimental and Comparative analysis of zirconium oxide and fly ash reinforced with heat treated Al 7075 aluminum hybrid alloy, International conference on "Advance in Materials, Mechanics, doi:10.1088/1757899X/1136/I/012036.
6. Anoop Pratap Singh, Ajay Tripathi, Matsyendra Nath Shukla and Amit Suhane, Morphological parameters of nano materials used in nano Lubrication- a review International conference on "Advance in Materials, Mechanics, doi:10.1088/1757-899X/1136/I/012029, Vol 1136/1, 2021.

Mr. Rahul Sahu

1. Shweta Sharma, Aniket Agrawal and **Rahul Sahu**, Heating and cooling analysis of workshop using CFD simulation, International Research Journal of Engineering and Technology (IRJET), ISSN: 2395-0056 (online), Volume 7, Issue 5, May 2020
2. Anil Singh Yadav, Padam Singh, **Rahul Sahu**, and others Potential utilization of turpentine oil as an alternate fuel; Material Today: Proceedings; 63 (2022) A1-A8, Elsevier publication ISSN- 2214-7853, June 30, 2022
3. Kranti Kumar Dhruw, Bhavyavesh Sahu, Gulab Verma and **Rahul Sahu**, A critical design and analysis of dessert cooler test rig, Journal of Harbin Institute Of Technology ISSN: 0367-6234 Vol. 54 Issue. 7 2022
4. Shubhra Sparsh, Ch. Siva Ramakrishna, **Rahul Sahu** and others, Future prospects of biodiesel production from jatropha in India, Material Today: Proceedings; 63 (2022) A22-A26, Elsevier publication ISSN- 2214- 7853, July 30, 2022

Mr. Suraj Kumar Chand

1. Numerical Study of Flow Modification Technique to Mitigate Wave Drag by Counterflow Supersonic Jet in Hypersonic Flow, International Journal of Mechanical Engineering Vol. 7 No. 5 (May, 2022)
2. Computational Fluid Dynamic Analysis of Thermal Behavior of a Triangular type Solar Air Heater with Multiple Gap and Angle of a V-Shaped Roughened Ribs, Stochastic Modeling & Applications, Vol. 26 No. 3 (January - June, Special Issue 2022 Part - 9)

Mr. Bhavyavesh Sahu

1. Performance enhancement of different fin geometry with Aluminium, Brass, Steel as fin materials; International Journal of Mechanical Engineering; ISSN: 0974-5823; Vol 7 No. 5 May, 2022
2. Kranti Kumar Dhruw, **Bhavyavesh Sahu**, Gulab Verma and Rahul Sahu, A critical design and analysis of dessert cooler test rig, Journal of Harbin Institute Of Technology ISSN: 0367-6234 Vol. 54 Iss. 7 2022

Mr. Kranti Kumar Dhruw

1. Performance enhancement of different fin geometry with Aluminum, Brass, Steel as fin materials; International Journal of Mechanical Engineering; ISSN: 0974-5823; Vol 7 No. 5 May, 2022
2. **Kranti Kumar Dhruw**, Bhavyavesh Sahu, Gulab Verma and Rahul Sahu, A critical design and analysis of dessert cooler test rig, Journal of Harbin Institute Of Technology ISSN: 0367-6234 Vol. 54 Iss. 7 2022
3. Automatic Side Stand Retrieval System International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056

Ms. Swastika Patel

1. Asis Giri and **Swastika Patel**; Buoyancy Induced Convection from Bi-heaters in a Cavity: A Numerical Study, ASME Journal of Heat Transfer, Vol. 140, pp.102501/1-12, 2018.
2. Ranveer Sachin Powar, Anil Singh Yadav, Ch. Siva Ramakrishna, **Swastika Patel** and others Algae: A potential feedstock for third generation biofuel, Martials Today Proceedings, 63(2022) A27-A33, ISSN – 2214-7853, July 25, 2022

Dr. Govind Sahu

Journals:

1. Govind Sahu, M.S. Rajput & S.P. Mahapatra (2021): Polylactic acid nanocomposites for biomedical applications: effects of calcium phosphate, and magnesium phosphate nanoparticles concentration, Plastics, Rubber and Composites, 50(5), 228-240.
2. Govind Sahu, M.S. Rajput & S.P. Mahapatra (2020): Morphology, Mechanical and Rheological Properties of Polylactic Acid Nanocomposite Film. Journal of Nano- And Electronic Physics, 12(2), 02004.
3. Govind Sahu, M.S. Rajput & S.P. Mahapatra (2019): Effect of Calcium Phosphate on Tensile and Rheological Properties of Polylactic Acid (PLA). Materials Science Forum, 969, 404-408.
4. Govind Sahu, V. K. Gaba, S. P. Mahapatra (2018): Thermal conductivity, thermal diffusivity, and volumetric heat capacity of silicone elastomer nanocomposites: Effect of temperature and MWCNT and nano-graphite loadings. High Performance Polymers, 30 (3), 365-374.
5. A. K. Dey, P. S. Das, S. R. Pradhan, Govind Sahu (2018): Investigation of Fouling and its Impact in Heat Exchangers. Journal of Mechanics of Continua and Mathematical Sciences, 13 (4), 100-111.

Sr. No.	Name of the conference	Title of the paper	Name of the author (s)	Year of publication
1	International Journal for Scientific Research and Development, Vol. 5, Issue 03, 2017	Design and analysis of a Composite cylinder for the storage of liquified gases	Dr. Ajay Tripathi Mr. Anil Kumar Mr. M. K. Chandrakar	2017
2	Recent trends in Fluid Mechanics	Fabrication and analysis of evacuated tube solar air heater	Dr. Ajay Tripathi Mr. Rudra Pratap Singh Dr. H. Chandra	2017
3	International Research Journal of Engineering and Technology (IRJET)	Response of ATV rollcage under harmonic vibration	Mr. Ichhwak Malhare Mr. Rahul Modi Dr. Ajay Tripathi	2020
4	International Research Journal of Engineering and Technology	Heating and cooling analysis of workshop using CFD simulation	Ms. Shweta Sharma Mr. Aniket Agrawal Mr. Rahul Sahu	2020
5	International Research Journal of Engineering and Technology	Automatic side stand retrieval system	Mr. Kranti dhruw Mr. Yogesh Chandrawanshi	2021