

Scopus/SCI indexed Journal Publications

1. Chadge, R., Giri, J., Amir, M., Bakhsh, F. I., Sunheriya, N., Mahatme, C., & Sathish, T. (2024). Investigation of electrical configuration topologies for enhancing the performance of solar photovoltaic water pumping system. *Electric Power Components and Systems*, 1–16. <https://doi.org/10.1080/15325008.2024.2319312>
2. Chaudhari, S., Sunheriya, N., Giri, J., Kanan, M., Chadge, R., & Sathish, T. (2025). Qualitative enhancement in machining efficiency of SNCM8 alloy through hybrid ann-taguchi optimization approach. *Applied Engineering Letters Journal of Engineering and Applied Sciences*, 10(1), 48–61. <https://doi.org/10.46793/aeletters.2025.10.1.5>
3. Dewangan, S. K., Sunheriya, N., & RaviKiran, T. (2021). Review of component wise performance enhancement techniques for simple solar water heater. *Energy Sources Part a Recovery Utilization and Environmental Effects*, 1–17. <https://doi.org/10.1080/15567036.2021.1954728>
4. Giri, J., Al-Lohedan, H. A., Mohammad, F., Soleiman, A. A., Chadge, R., Mahatme, C., Sunheriya, N., Giri, P., Mutyarapwar, D., & Dhapke, S. (2023). A Comparative Study on Predication of Appropriate Mechanical Ventilation Mode through Machine Learning Approach. *Bioengineering*, 10(4), 418. <https://doi.org/10.3390/bioengineering10040418>
5. Giri, J., Sathish, T., Sheikh, T., Sunheriya, N., Giri, P., Chadge, R., Mahatme, C., & Parthiban, A. (2024). Automatic liver segmentation using U-Net deep learning architecture for additive manufacturing. *Interactions*, 245(1). <https://doi.org/10.1007/s10751-024-01927-9>
6. Giri, J., Sunheriya, N., Sathish, T., Kadu, Y., Chadge, R., Giri, P., Parthiban, A., & Mahatme, C. (2024). Optimization of process parameters to improve mechanical properties of fused deposition method using taguchi method. *Interactions*, 245(1). <https://doi.org/10.1007/s10751-024-01925-x>
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8. Kumar, P. S., Kumar, P., Manikandan, N., Thejasree, P., Sunheriya, N., Giri, J., Chadge, R., Sathish, T., Kumar, A., & Ammarullah, M. I. (2025). A sustainable bioengineering approach for enhancing black cotton soil stability using waste foundry sand. *International Journal of Low-Carbon Technologies*, 20, 1112–1120. <https://doi.org/10.1093/ijlct/ctaf054>
9. Mahatme, C., Giri, J., Al-Lohedan, H. A., Mohammad, F., Sunheriya, N., Chadge, R., T, S., Giri, P., Mallik, S., & Dhayalan, M. (2024). Performance evaluation of a mechanical ventilation simulation model for diverse respiratory complications. *AIP Advances*, 14(3). <https://doi.org/10.1063/5.0189452>
10. Mahatme, C., Giri, J., Mohammad, F., Ali, M. S., Sathish, T., Sunheriya, N., & Chadge, R. (2024). Experimental and numerical investigation of PLA based different lattice topologies and unit

cell configurations for additive manufacturing. *The International Journal of Advanced Manufacturing Technology*. <https://doi.org/10.1007/s00170-024-13882-4>

11. Narasimhamu, K. L., Natarajan, M., Thejasree, P., Makki, E., Giri, J., Sunheriya, N., Chadge, R., Mahatme, C., Giri, P., & Sathish, T. (2024). Development of hybrid optimization model using Grey-ANFIS-JaYA algorithm for CNC drilling of aluminium alloy. *Journal of Engineering*, 2024, 1–12. <https://doi.org/10.1155/2024/1476770>
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14. Natarajan, M., Pasupuleti, T., Giri, J., Sunheriya, N., Katta, L. N., Chadge, R., Mahatme, C., Giri, P., Mallik, S., & Ray, K. (2023). Machinability of titanium Grade 5 alloy for wire electrical discharge machining using a hybrid learning algorithm. *Information*, 14(8), 439. <https://doi.org/10.3390/info14080439>
15. Patil, D. S., Bhoomkar, M. M., Sunheriya, N., Giri, J., Kulkarni, A., Patil, L. N., Toke, L. K., Sathish, T., & Kanan, M. (2025). Qualitative evaluation of kerf taper angle of conventionally drilled holes in glass fiber epoxy composite. *Frontiers in Mechanical Engineering*, 11. <https://doi.org/10.3389/fmech.2025.1513269>
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17. Sahare, S., Kamble, P., Giri, J., Sunheriya, N., Sathish, T., Chadge, R., & Parthiban, A. (2024). Multi objective optimization of cutting parameters of end milling operation by Taguchi Grey. *Interactions*, 245(1). <https://doi.org/10.1007/s10751-024-02119-1>
18. Sambare, N. R., Sathe, T., Kanojiya, N., Sunheriya, N., & Mahakalkar, S. (2021). Experimental investigation on enhancement of convective heat transfer coefficient in parabolic collector using nanofluids. *Applied Solar Energy*, 57(2), 160–169. <https://doi.org/10.3103/s0003701x21020110>
19. Sambare, R. K., Joshi, S., Sunheriya, N., & Kanojiya, N. C. (2025). Extraction of drinking water from a modified tubular solar still integrated with straight tube and spiral tube flat plate collector. *Energy Sources Part a Recovery Utilization and Environmental Effects*, 47(1), 8727–8743. <https://doi.org/10.1080/15567036.2025.2487694>

20. Sunheriya, N., & Dewangan, S. K. (2023). Simulated and experimental studies for design improvement in riser tubes of modified solar water heater. *International Journal on Interactive Design and Manufacturing (IJIDeM)*. <https://doi.org/10.1007/s12008-023-01395-5>
21. Sunheriya, N., Dewangan, S. K., & Thool, S. B. (2023). Experimental and computational analysis of riser tubes of modified simple solar water heater with different twisted inserts. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 18(10), 7269–7289. <https://doi.org/10.1007/s12008-023-01233-8>
22. Sunheriya, N., Giri, J., Sathish, T., Chadge, R., Mahatme, C., Parthiban, A., & Barmavatu, P. (2024). Evaluation of a helical coil heat exchanger in a forced convection environment. *Interactions*, 245(1). <https://doi.org/10.1007/s10751-024-02043-4>
23. Thakare, P. A., Kumar, N., Ugale, V. B., Giri, J., Sunheriya, N., & Al-Lohedan, H. A. (2024). Effect of impact and flexural loading on hybrid composite made of kevlar and natural fibers. *AIP Advances*, 14(4). <https://doi.org/10.1063/5.0195907>
24. Thejasree, P., Manikandan, N., Sunheriya, N., Giri, J., Chadge, R., Sathish, T., Kumar, A., & Ammarullah, M. I. (2024). Development of an artificial intelligence model for wire electrical discharge machining of Inconel 625 in biomedical applications. *IET Collaborative Intelligent Manufacturing*, 6(4). <https://doi.org/10.1049/cim2.70015>
25. Thejasree, P., Manikandan, N., Sunheriya, N., Giri, J., Sathish, T., Chadge, R., Mahatme, C., & Parthiban, A. (2024). Application of ANFIS approach for prediction of performance measures in wire electric discharge machining of SAE 1010. *Interactions*, 245(1). <https://doi.org/10.1007/s10751-024-02030-9>
26. Tufail, M. S., Giri, J., Makki, E., Sathish, T., Chadge, R., & Sunheriya, N. (2024). Machinability of different cutting tool materials for electric discharge machining: A review and future prospects. *AIP Advances*, 14(4). <https://doi.org/10.1063/5.0201614>

Scopus indexed Conference Publications

1. Amale, A., Khan, S., Giri, J., Mahatme, C., Sunheriya, N., Chadge, R., Giri, P., Bhowmik, A., Sathish, T., & Mendhekar, S. Y. (2024). Design and development of drone frame and optimization of thrust efficiency using ducted propellers. *AIP Conference Proceedings*, 3188, 050002. <https://doi.org/10.1063/5.0240231>
2. Amale, A., Sunheriya, N., Chadge, R. B., Lande, P., Giri, J., & Mahakalkar, S. G. (2023). Experimental and numerical analysis of jet impingement heating on cylindrical body. In *CRC Press eBooks* (pp. 720–734). <https://doi.org/10.1201/9781003358596-81>
3. Amale, A., Sunheriya, N., Giri, J., Chadge, R., Mahakalkar, S., Lande, P., & Dapkeg, A. (2024). Numerical investigations for smoke movement in industrial shed with C shaped collection channel. In *CRC Press eBooks* (pp. 816–826). <https://doi.org/10.1201/9781003450252-98>
4. Arulananth, T. S., Prasanthi, T., Sugadev, M., Anguraj, K., Sunheriya, N., & Al-Mousa, M. R. (2024). NCCP: A logical development of deep learning based human gender classification system using neural convolutional classification principles. *2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSSES)*, 1–6. <https://doi.org/10.1109/icses63760.2024.10910773>
5. Bharathi, P. S., Tjudgi, N., DPradeep, N., S, A. T., Sunheriya, N., & Odeh, M. (2025). A Real-Time Development of an Internet of Things (IoT) based Smart Helmet to Identify Road Accidents using Smart Sensors Association. *2022 International Conference on Electronics and Renewable Systems (ICEARS)*, 532–538. <https://doi.org/10.1109/icears64219.2025.10940739>
6. Bhave, N. A., Gupta, M. M., Joshi, S. S., Trivedi, M. G., & Sunheriya, N. (2020). Design, development and analysis of intake manifold of Single-Cylinder diesel engine. In *Lecture notes in mechanical engineering* (pp. 91–105). https://doi.org/10.1007/978-981-15-1201-8_11
7. Bhogade, G. E., Sunheriya, N. N., & Suryawanshi, J. G. (2016). Investigations on Premixed Charge Compression Ignition (PCCI) Engines: A review. *Lecture Notes in Mechanical Engineering*, 1455–1463. https://doi.org/10.1007/978-81-322-2743-4_139
8. Ch, V. S. P., C, M., M, P., G, V. K., Sunheriya, N., & Al-Mousa, M. R. (2024). A deep learning assisted crop pest classification model by using enhanced Light Gradient Boost Machine (ELGBM) logics. *2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSSES)*, 1–5. <https://doi.org/10.1109/icses63760.2024.10910912>
9. Chadge, R. B., Sunheriya, N., Giri, J. P., & Shrivastava, N. (2022). Experimental investigation of different electrical configurations and topologies for Photovoltaic system. *Materials Today Proceedings*, 57, 316–320. <https://doi.org/10.1016/j.matpr.2022.03.097>
10. Chadge, R. B., Sunheriya, N., Mahatme, C., & Giri, J. P. (2021). Experimental and numerical investigation of flat plate solar water heater. In *Lecture notes in mechanical engineering* (pp. 31–40). https://doi.org/10.1007/978-981-33-6029-7_4

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12. Jachak, S., Gaurkar, S., Thakre, A., Jachak, M., Sunheriya, N., & Kamble, P. (2024). Measurement of flank wears using edge detection method. In *CRC Press eBooks* (pp. 798–804). <https://doi.org/10.1201/9781003450252-96>
13. Kamble, P. D., Thakre, R. D., Sahare, S., Shirpurkar, P. P., Sunheriya, N., & Mehta, H. (2024). Experimental investigation of digging machine powered by solar energy. *AIP Conference Proceedings*, 3139, 030018. <https://doi.org/10.1063/5.0224645>
14. Khan, S. W. A., Dapke, A., Giri, J., & Sunheriya, N. (2023). A comparative study of a plane NACA2412 airfoil with a NACA2412 airfoil attached with gurney flap using CFD. In *CRC Press eBooks* (pp. 1392–1402). <https://doi.org/10.1201/9781003370628-74>
15. Lande, P., Sunheriya, N., Chadge, R., Giri, J., Mahatme, C., & Kutty, A. V. (2024). Experimental investigation of shear strength of adhesively bonded lap joint for dissimilar material and its validation using Taguchi and ANN approach. In *CRC Press eBooks* (pp. 785–797). <https://doi.org/10.1201/9781003450252-95>
16. Mahakalkar, S. G., Giri, J. P., Sunheriya, N., Lande, P., Chdge, R., Mahatme, C., & Sathish, T. (2024). Propulsion effectiveness using propeller selection, ducted propellers and tilting mechanism in a quadrotor drone. In *Lecture notes in mechanical engineering* (pp. 399–410). https://doi.org/10.1007/978-981-97-3173-2_26
17. Mahakalkar, S. G., & Sunheriya, N. (2023). Buckling analysis of piston rod for hydraulic cylinder of cotton Bale press machine. In *Lecture notes in mechanical engineering* (pp. 67–74). https://doi.org/10.1007/978-981-99-3033-3_7
18. Nagababu, K., Ananthi, S., Sunheriya, N., Ch, V. S. P., Jayanthi, J., & Fawareh, H. (2024). Experimental Evaluation of Cross-Platform Recognition of Identical and Unknown Users over Social Networking Environment. *2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES)*, 1–7. <https://doi.org/10.1109/icses63760.2024.10910542>
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20. Pooja, M. R., Giri, J., Chadge, R., Sunheriya, N., Mahatme, C., Mallik, S., Alsubaie, N., Alqahtani, M. S., Abbas, M., & Soufiene, B. O. (2023). An Optimized Machine Learning Model for the Early Prognosis of Chronic Respiratory Diseases with specific focus On Asthma. *Research Square (Research Square)*. <https://doi.org/10.21203/rs.3.rs-3075448/v1>

21. Qureshi, M. J., Kutty, A. V., Giri, J., Dapke, A., Giri, P., Chadge, R. B., & Sunheriya, N. (2023). Public acceptance of drones: An approach. In *CRC Press eBooks* (pp. 493–503). <https://doi.org/10.1201/9781003358596-55>
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23. Shahila, D. D., N, N., T, P., M, D., Sunheriya, N., & Kanan, M. (2024). A comparative study of weapon detection in images using deep learning algorithms. *2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSSES)*, 1–8. <https://doi.org/10.1109/icses63760.2024.10910663>
24. Sunheriya, N., Bhoyar, A., Giri, J., Chadge, R. B., Mahatme, C., & Lande, P. (2023). CFD analysis of vortex tube using multiple nozzles. In *CRC Press eBooks* (pp. 157–174). <https://doi.org/10.1201/9781003358596-16>
25. Thakare, V., Sunheriya, N., Khedkar, S., Kamble, P., & Sahare, S. (2024). Application of solar energy with weeding robot in agriculture field. *AIP Conference Proceedings*, 3139, 030017. <https://doi.org/10.1063/5.0225576>
26. Uganya, G., Rajalakshmi, D., Kumar, K. A., Ravi, S., Sunheriya, N., & Kanan, M. (2024). Deep Learning Based Intrusion Detection System with Integration of Blockchain Technology and Internet of Things. *2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSSES)*, 1–6. <https://doi.org/10.1109/icses63760.2024.10910598>
27. Umale, P., Bhute, S., Rathi, H., Umale, P., Sunheriya, N., & Kashyap, D. (2024). Prospective of chemical hazards in pharmaceutical industry: Role and prevention. *AIP Conference Proceedings*, 3188, 100027. <https://doi.org/10.1063/5.0240424>

Patent Publication

Sr. No.	Title	Application Date	Application Number	Publication Date
1.	A SOLAR BASED SYSTEM FOR WATER DISTILLATION	02/07/2023	202321044246	22/09/2023
2.	AN AUTOMATIC QUANTIFIABLE CEREAL DISPENSER	14/09/2024	202421069639	22/11/2024
3.	A SPICE PULVERIZER MACHINE	14/09/2024	202421069638	22/11/2024
4.	A SOLAR POWERED WATER DISTILLATION SYSTEM	09/10/2024	202421076773	06/12/2024