

Dr. Senthil Kumar M– Publications (2016-2020)

1. Kumar, M.S., Vanmathi, M. and Sakthivel, G., 2020. SiC Reinforcement in the Synthesis and Characterization of A356/AL 2 O 3/SiC/Gr Reinforced Composite- Paving a Way for the Next Generation of Aircraft Applications. *Silicon*, pp.1-8.
2. Venkateswara Rao, R. and Senthil Kumar, M., 2020. Effect of pin geometry on material flow characteristics of friction stir welded dissimilar AA6061/AA2014 alloys. *Australian Journal of Mechanical Engineering*, pp.1-15.
3. Natrayan, L. and Kumar, M.S., 2020. Influence of silicon carbide on tribological behaviour of AA2024/Al₂O₃/SiC/Gr hybrid metal matrix squeeze cast composite using Taguchi technique. *Materials Research Express*, 6(12), p.1265f9.
4. Natrayan, L. and Kumar, M.S., 2020. Optimization of squeeze casting process parameters on AA2024/Al₂O₃/SiC/Gr hybrid composite using taguchi and Jaya algorithm. *International Journal of Control and Automation*, 13(2s), pp.95-104.
5. Natrayan, L. and Kumar, M.S., 2020. A potential review on influence of process parameter and effect of reinforcement on mechanical and tribological behaviour of HMMC using squeeze casting method. *Journal of Critical Reviews*, 7(2), pp.1-5.
6. Kumar, M.S., Vanmathi, M., Senguttuvan, G., Mangalaraja, R.V. and Sakthivel, G., 2019. Fly ash constituent-silica and alumina role in the synthesis and characterization of cordierite based ceramics. *Silicon*, 11(6), pp.2599-2611.
7. Natrayan, L., Yogeshwaran, S., Yuvaraj, L. and Kumar, M.S., 2019, October. Effect of graphene reinforcement on mechanical and microstructure behavior of AA8030/graphene composites fabricated by stir casting technique. In *AIP Conference Proceedings* (Vol. 2166, No. 1, p. 020012). AIP Publishing LLC.
8. Vanmathi, M., Kumar, M.S., Ismail, M.M. and Senguttuvan, G., 2019. Optimization of process parameters for al-doping back ground on CO gas sensing characteristics of magnetron-sputtered TiO₂ sensors. *Materials Research Express*, 6(10), p.106423.
9. Natrayan, L., Kumar, M.S. and Chaudhari, M., 2019. Optimization of Squeeze Casting Process Parameters to Investigate the Mechanical Properties Metal Matrix of AA6061/Al Composites 2O by 3/SiC Taguchi Hybrid and Anova Approach. *Advanced Engineering Optimization Through Intelligent Techniques: Select Proceedings of AEOTIT 2018*, 949, p.393.
10. Vanmathi, M., Ismail, M.M. and Kumar, M.S., 2019. Optimization of RF sputtering process parameters on electrical resistivity, deposition rate and

sensitivity of Al-doped ZnO thin films grown on Si substrate using grey-Taguchi technique. *Bulletin of Materials Science*, 42(3), p.123.

11. Natrayan L. Senthil kumar MS, 2019 “Optimization of tribological behaviour on squeeze cast Al6061/Al₂O₃/SiC/Gr HMMCs based on taguchi method and artificial neural network,”. *Journal of Advanced Research in Dynamical and Control Systems*, 11(7):493-500.
12. Natrayan, L., Aravindaraj, E., Santhosh, M.S. and Kumar, M.S., 2019. Analysis And Optimization Of Connecting Tie Rod Assembly In Agriculture Application. *Acta Mechanica Malaysia*, 3(1), pp.06-10.
13. Senthil Kumar, M., Managalaraja, R.V., Senthil Kumar, K. and Natrayan, L., 2019. Processing and characterization of AA2024/Al₂O₃/SiC reinforces hybrid composites using squeeze casting technique. *Iranian Journal of Materials Science and Engineering*, 16(2), pp.55-67.
14. Natrayan, L., Kumar, M.S. and Palanikumar, K., 2018. Optimization of squeeze cast process parameters on mechanical properties of Al₂O₃/SiC reinforced hybrid metal matrix composites using taguchi technique. *Materials Research Express*, 5(6), p.066516.
15. Rao, R.V. and Kumar, M.S., 2018. Experimental investigation on effect of welding parameters on the friction stir welding of AA 6061. *Materials Today: Proceedings*, 5(5), pp.12265-12272.
16. Natrayan, L. and Kumar, M.S., 2018. Study on Squeeze Casting of Aluminum Matrix Composites—A Review. In *Advanced Manufacturing and Materials Science* (pp. 75-83). Springer, Cham.
17. Casting, A.T., 2018. Development and Investigation of Microstructure and Mechanical Properties of Cast and Hot Forged. *Advanced Manufacturing and Materials Science: Selected Extended Papers of ICAMMS 2018*, p.85.
18. Santhosh, M.S., Sasikumar, R., Natrayan, L., Kumar, M.S., Elango, V. and Vanmathi, M., 2018. Investigation of mechanical and electrical properties of Kevlar/E-glass and Basalt/E-glass reinforced hybrid composites. *International Journal of Mechanical and Production Engineering Research and Development*, 8(3), pp.591-598.
19. Gopinath, A., SenthilKumar, M. and Babu, A., 2018. Evaluation of Mechanical Properties and Microstructure of Polyester and Epoxy Resin Matrices Reinforced with Jute, E-glass and coconut Fiber. *Materials Today: Proceedings*, 5(9), pp.20092-20103.

- 20.** Aravindaraj, E., Natrayan, L., Santhosh, M.S. and Kumar, M.S., 2018. Design and Analysis of Connecting Tie Rod Assembly for Automotive Application.
- 21.** Chaudhari, M. and Kumar, M.S., 2018. Reinforcement and Cutting Tools Interaction during MMC Machining-A Review. In *Nano Hybrids and Composites* (Vol. 22, pp. 47-54). Trans Tech Publications Ltd.
- 22.** Kumar, M.S., Natrayan, L., Hemanth, R.D., Annamalai, K. and Karthick, E., 2018. Experimental investigations on mechanical and microstructural properties of Al 2 O 3/SiC reinforced hybrid metal matrix composite. In *IOP Conf Ser Mater Sci Eng* (Vol. 402, p. 012123).
- 23.** Prabhu, R., Natrayan, L. and Kumar, M.S., 2017. Modeling and Cyclic Stress Analysis of Automotive Alloy Wheel Rim.
- 24.** Hemanth, R.D., Kumar, M.S., Gopinath, A. and Natrayan, L., 2017. Evaluation of mechanical properties of e-glass and coconut fiber reinforced with polyester and epoxy resin matrices. *International Journal of Mechanical and Production Engineering Research and Development*, 7(5), pp.13-20.
- 25.** Natrayan, L., Singh, M. and Kumar, M.S., 2017. An experimental investigation on mechanical behaviour of SiCp reinforced Al 6061 MMC using squeeze casting process. *Inter J Mech Prod Engi Res Develop*, 7(6), pp.663-668.
- 26.** Vijayakumar, V. and Kumar, M.S., 2016. Manufacturing and analysis of aluminium silicon carbide composite spur gear. *Advances in Natural and Applied Sciences*, 10(7 SE), pp.141-154.
- 27.** Vinay Prakash, K., Bakthavachalam, R. and Senthil Kumar, M., 2016. Design and Optimization of Core Balancing Fixture in Vibration Sorting Rig (VSR). In *Applied Mechanics and Materials* (Vol. 852, pp. 568-574). Trans Tech Publications Ltd.
- 28.** Patil, P.M. and Kumar, M.S., 2016. Lightweight options for seat structure in a bus. *Journal of Advanced Engineering Research*, 3(1), pp.72-77.