

Dr.A.Gnanavelbabu – Publications (2016-2020)

1. Caldeira, R.H. and Gnanavelbabu, A., 2020. A simheuristic approach for the flexible job shop scheduling problem with stochastic processing times. *SIMULATION*, p.0037549720968891.
2. Caldeira, R.H., Gnanavelbabu, A. and Vaidyanathan, T., 2020. An effective backtracking search algorithm for multi-objective flexible job shop scheduling considering new job arrivals and energy consumption. *Computers & Industrial Engineering*, 149, p.106863.
3. Rajkumar, K., Rajesh, M., Ramraji, K., Sabarinathan, P. and Gnanavelbabu, A., 2020. Electrolyte and Machining Parameters Optimization of Wire Electrochemical Cutting of Aluminum/Titanium Diboride Composite. *Trends in Manufacturing and Engineering Management*, pp.39-50.
4. Ramraji, K., Rajkumar, K., Rajesh, M. and Gnanavelbabu, A., 2020. A Comparative Study on Abrasive Water Jet Machining Characteristics of Entry and Exit Layers of Glass and Basalt Woven Polymer Composites. *Trends in Manufacturing and Engineering Management*, pp.27-37.
5. Rajkumar, K., Balasubramaniyan, C., Ramraji, K., Gnanavelbabu, A. and Sabarinathan, P., 2020. Desirability Approach Machining Study on Aluminum Composite Through Wire-Cut Electric Discharge Technique. *Trends in Manufacturing and Engineering Management*, pp.15-25.
6. Loganathan, P., Gnanavelbabu, A. and Rajkumar, K., 2020. Influence of ZrB₂/hBN particles on the wear behaviour of AA7075 composites fabricated through stir followed by squeeze cast technique. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, p.1350650120929501.
7. Gnanavelbabu, A. and Rajkumar, K., 2020. Experimental Characterization of Dimensional and Surface Alternation of Straight and Angular Cutting on Self-lubricating Composite: A Wire EDM Approach. *ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING*.
8. Ayyanar, S., Gnanavelbabu, A., Rajkumar, K. and Loganathan, P., 2020. Studies on High Temperature Wear and Friction Behaviour of AA6061/B 4 C/hBN Hybrid Composites. *Metals and Materials International*, pp.1-18.
9. Gnanavelbabu, A., Arunachalam, V., Surendran, K.S. and Saravanan, P., 2020. Optimization of Abrasive Water Jet Machining Parameters on AA6061/B 4 C/hBN Hybrid Composites using Grey-RSM. *MS&E*, 764(1), p.012011.

10. Gnanavelbabu, A., Arunachalam, V., Surendran, K.S. and Rajkumar, K., 2020. Optimization of machining parameters in CNC turning of AA6061-B4C-CNT hybrid composites using Grey-fuzzy method. *MS&E*, 764(1), p.012010.
11. Loganathan, P., Gnanavelbabu, A., Rajkumar, K. and Ayyanar, S., 2020. A comparative study of solid lubricant types on the microstructure and mechanical behaviour of AA7075-zirconium boride aerospace composites. *MS&E*, 764(1), p.012001.
12. Gnanavelbabu, A., Surendran, K.S. and Kumar, S., 2020. Influence of ultrasonication power on grain refinement, mechanical properties and wear behaviour of AZ91D/nano-Al₂O₃ composites. *Materials Research Express*, 7(1), p.016544.
13. Rajkumar, K., Ramraji, K., Manojkumar, M. and Gnanavelbabu, A., 2020. Validation of tensile strength of notched hybrid polymer composite using Whitney-Nusimer point stress model. *Materials Today: Proceedings*.
14. Nambiraj, K.M., Rajkumar, K., Rajesh, M. and Gnanavelbabu, A., 2020. Effect of Solid Lubricant in Dry Machining on Al-B 4 C Composite. In *Advances in Lightweight Materials and Structures* (pp. 587-596). Springer, Singapore.
15. Rajkumar, K., Ramraji, K., Nambiraj, K.M. and Gnanavelbabu, A., 2020. A study on wear assessment of AA6061-B4C-Nanographite hybrid composite. *Materials Today: Proceedings*, 27, pp.696-701.
16. Gnanavelbabu, A., Surendran, K.S. and Rajkumar, K., 2020. Performance Evaluation of Abrasive Water Jet Machining on AA6061-B 4 C-HBN Hybrid Composites Using Taguchi Methodology. In *Advances in Unconventional Machining and Composites* (pp. 651-660). Springer, Singapore.
17. Rajesh, M., Rajkumar, K., Gnanavelbabu, A. and Nambiraj, K.M., 2020. The Role of HBN Solid Lubricant Reducing Cutting Forces of Dry Machined Al-B 4 C Composite. In *Advances in Unconventional Machining and Composites* (pp. 697-705). Springer, Singapore.
18. Gnanavelbabu, A. and Saravanan, P., 2020. Experimental Investigations of Abrasive Waterjet Machining Parameters on Titanium Alloy Ti-6Al-4V Using RSM and Evolutionary Computational Techniques. In *Advances in Unconventional Machining and Composites* (pp. 413-425). Springer, Singapore.
19. Rajkumar, K., Ramraji, K., Namratha, G., Manoj, S. and Gnanavelbabu, A., 2020. A study of bio and tribo modifier on degradation of magnesium-calcium carbonate biomaterial. *Materials Today: Proceedings*, 27, pp.691-695.
20. Rajkumar, K., Ramraji, K., Hariprakash, V.P. and Gnanavelbabu, A., 2020. Comparison study of mechanical and dynamic vibration properties of hole defect

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21. Loganathan, P., Gnanavelbabu, A., Rajkumar, K. and Ayyanar, S., 2020. Microstructural Characteristics and Mechanical Behaviour of AA7075/TiB2 Composite. In *Materials Science Forum* (Vol. 979, pp. 40-46). Trans Tech Publications Ltd.
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23. Caldeira, R.H. and Gnanavelbabu, A., 2019. Solving the flexible job shop scheduling problem using an improved Jaya algorithm. *Computers & Industrial Engineering*, 137, p.106064.
24. Mathiyazhagan, K., Gnanavelbabu, A. and Prabhuraj, B.L., 2019. A sustainable assessment model for material selection in construction industries perspective using hybrid MCDM approaches. *Journal of Advances in Management Research*.
25. Rajkumar, K., Varun, S., Prasanna, G., Sreyas, C. and Gnanavelbabu, A., 2019. Tribological Analysis by Concentration Effect of Boron Carbide and Graphite on the Aluminum Composites. In *Materials Science Forum* (Vol. 969, pp. 163-168). Trans Tech Publications Ltd.
26. Rajkumar, K., Gnanavelbabu, A. and Nambiraj, K.M., 2019. Accelerated Testing Model Prediction of Fatigue Life of AA5083-H111—AA6061-T6 Friction Stir Weldment. In *Advances in Manufacturing Processes* (pp. 573-581). Springer, Singapore.
27. Loganathan, P., Gnanavelbabu, A. and Rajkumar, K., 2018. Analysis and characterization of friction behaviour on AA7075/ZrB2 composite under dry sliding condition. *Materials Research Express*, 6(2), p.026576.
28. Gnanavelbabu, A., Saravanan, P., Rajkumar, K., Karthikeyan, S. and Baskaran, R., 2018. Optimization of WEDM process parameters on multiple responses in cutting of Ti-6Al-4V. *Materials Today: Proceedings*, 5(13), pp.27072-27080.
29. Gnanavelbabu, A., Saravanan, P., Rajkumar, K., Sabarinathan, P. and Karthikeyan, S., 2018. Mechanical strengthening effect by various forms and orientation of glass fibre reinforced isophthalic polyester polymer composite. *Materials Today: Proceedings*, 5(13), pp.26850-26859.

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34. Mugendiran, V. and Gnanavelbabu, A., 2018. Analysis of formability and twist angle in AA5052 alloy by single point incremental forming process.
35. Rajkumar, K., Nambiraj, K.M., Gnanavelbabu, A. and Sabarinathan, P., 2018. Machining characteristics evaluation of aluminium composites based on cBN and PCD inserts. *Materials Today: Proceedings*, 5(2), pp.8424-8430.
36. Gnanavelbabu, A., Saravanan, P., Rajkumar, K., Karthikeyan, S. and Baskaran, R., 2018. Effect of abrasive waterjet machining parameters on hybrid AA6061-B4C-CNT composites. *Materials Today: Proceedings*, 5(5), pp.13438-13450.
37. Gnanavelbabu, A. and Arunagiri, P., 2018. Ranking of MUDA using AHP and Fuzzy AHP algorithm. *Materials Today: Proceedings*, 5(5), pp.13406-13412.
38. Gnanavelbabu, A., Saravanan, P., Rajkumar, K. and Karthikeyan, S., 2018. Experimental investigations on multiple responses in abrasive waterjet machining of Ti-6Al-4V alloy. *Materials Today: Proceedings*, 5(5), pp.13413-13421.
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41. Mugendiran, V. and Gnanavelbabu, A., 2018. Analysis of hole flanging on AA5052 alloy by single point incremental forming process. *Materials Today: Proceedings*, 5(2), pp.8596-8603.
42. Gnanavelbabu, A., Muthazhagan, C., Rajkumar, K., Ayyanar, S. and Loganathan, P., 2018. Experimental Investigation and Reliability Analysis on Wear Performance of AA6061-B4C-Nanographite Hybrid Composites. *Materials Today: Proceedings*, 5(2), pp.8436-8445.
43. Saravanan, P., Gnanavelbabu, A. and Pandiaraj, P., 2018. Effect of Pre-Annealing on Thermal and Optical Properties of ZnO and Al-ZnO Thin Films. *International Journal of Nanoscience*, 17(01n02), p.1760017.
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