



Department of Mechanical Engineering

Chennai-119

Publication details from January 2023 to till date

Dr. S. ARIVAZHAGAN

1. V Ashok Kumar, K Muninathan, S Arivazhagan, N Monish, M Venkata Ramanan, Vaddi Seshagiri Rao, Gurunathan Baskar, Investigations on carbonization operating conditions of ANSYS customized kiln for charcoal production from Prosopis juliflora biomass and ANN model prediction for optimized, Fuel.350,128-8382023.
2. V. Ashok kumar , Dr S. Arivazhagan , T. Balaji Experimental investigation of an automobile radiator using carbon based hybrid nano coolant International Journal of Thermal Sciences, Volume 193, November 2023, 108497
3. T. Gavaskar · Venkata Ramanan M , K. Arun , S. Arivazhagan , The combined effect of green synthesized nitrogen-doped carbon quantum dots blended jackfruit seed biodiesel and acetylene gas tested on the dual fuel engine, Energy, Volume:275, 15 July 2023, 127296, <https://doi.org/10.1016/j.energy.2023.127296>
4. Thennarasu Palani, Ganapathy Sundaram Esakkimuthu, Gopinath Dhamodaran & Arivazhagan Sundaraganesan (2023) Performance optimization of gasoline engine fueled with ethanol/n-butanol/gasoline blends using response surface methodology, Biofuels, DOI: 10.1080/17597269.2023.2215631.
5. Gopinath D, Ganapathy Sundaram E, Thennarasu P, Arivazhagan S, Reducing gasoline engine emission using novel bio-based oxygenates: a review, <https://doi.org/10.1007/s42247-023-00470-7>

Dr. N. ARUNKUMAR

1. M. Ganesh, N. Arunkumar, N.E.arun Kumar & R. Sathish (2023) Investigation of surface grinding on Inconel under distinct cooling conditions, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217896](https://doi.org/10.1080/10426914.2023.2217896)
2. Arunkumar, N., Ganesh, M., Rajaram, M. *et al.* Deep hole drilling of AISI 1045: effect on hole quality & tool wear under flood, emulsion, and mist cooling technique. *J Braz. Soc. Mech. Sci. Eng.* **45**, 195 (2023). <https://doi.org/10.1007/s40430-023-04123-y>
3. Sathishkumar, N., Arunkumar, N., Rohith, S.V. *et al.* Effect of varying unit cell size on energy absorption behaviour of additive manufactured TPMS PETG lattice structure. *Prog Addit Manuf* (2023). <https://doi.org/10.1007/s40964-023-00407-w>
4. M. Siva, N. Arunkumar, M. Subramanian & R. Elakkiyadasan (2023) Influence of micro-electrical discharge machining parameters on the surface morphology of the nickel-coated electrode, Materials and Manufacturing Processes, 38:1, 89-104, DOI: [10.1080/10426914.2022.2105869](https://doi.org/10.1080/10426914.2022.2105869)
- 5.N.E. Arun kumar, A. Suresh Babu, M. Subramanian & N Arunkumar (2022) Influence of MQL on performance evaluation of EN19 steel under centreless grinding, Materials and Manufacturing Processes, 37:14, 1618-1629, DOI: 10.1080/10426914.2022.2032142

Dr. M. ARUN

1. Biksha Gogulothu, Nagabooshanam, M ARUN, Manihot esculenta tuber microcrystalline cellulose and woven bamboo fiber-reinforced unsaturated polyester composites: mechanical, hydrophobic and wear behavior, Material Research Express, Volume 10 pp 1- 10, 2023

Dr.K.M.KUMAR

1. Ravindran, P., Kumar, K.M., Rangasamy, S. *et al.* Plain Kevlar and a CNT-reinforced Kevlar epoxy polymer composite: Comparative study of its mechanical, low velocity and ballistic impact properties. *Iran Polym J* **32**, 239–249 (2023). <https://doi.org/10.1007/s13726-022-01122-z>

Dr.R.SELVAM

1. Ravindran, P., Kumar, K.M., Rangasamy, S. et al. Plain Kevlar and a CNT-reinforced Kevlar epoxy polymer composite: Comparative study of its mechanical, low velocity and ballistic impact properties. *Iran Polym J* 32, 239–249 (2023).
<https://doi.org/10.1007/s13726-022-01122-z>

Dr. L. BALAMURUGAN

1. Suresh N, Balamurugan L, Jayabalakrishnan D. Influence of SiC and WC reinforcements on the mechanical characteristics of AA6061 hybrid metal matrix composites. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. 2023;237(3):955-970.
doi:10.1177/09544089221141353

Dr.K.ARUN

1. T. Gavaskar · Venkata Ramanan M , K. Arun , S. Arivazhagan , The combined effect of green synthesized nitrogen-doped carbon quantum dots blended jackfruit seed biodiesel and acetylene gas tested on the dual fuel engine, Energy, Volume 275, 15 July 2023, 127296

Dr. R. SATHISH

1. Velmurugan G., Jasgurpreet Singh Chohan, Muhammed Abraar S. A., Sathish R., Senthil Murugan S., Nagaraj M., Suresh Kumar S., Siva Shankar V. & Elil Raja D. Investigation of Nano SiO₂ Filler Loading on Mechanical and Flammability Properties of Jute-Based Hybrid Polypropylene Composites, *Silicon* (2023).
2. M. Ganesh, N. Arunkumar, N.E.arun Kumar & R. Sathish (2023) Investigation of surface grinding on Inconel under distinct cooling conditions, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217896](https://doi.org/10.1080/10426914.2023.2217896)

Dr.N.E ARUNKUMAR

1. N.E. Arun Kumar, M. Ganesh, A. Suresh Babu & R. Elakkiyadasan (2023) Effect of Cryo-treatment of wires on machining performance of WEDM, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217897](https://doi.org/10.1080/10426914.2023.2217897)

2. M. Ganesh, N. Arunkumar, N.E. Arun Kumar & R. Sathish (2023) Investigation of surface grinding on Inconel under distinct cooling conditions, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217896](https://doi.org/10.1080/10426914.2023.2217896)
3. N.E Arun Kumar, M Subramanian, A Suresh Babu & Elakkiyadasan R (2023) Performance evaluation of cryogenic treated and untreated brass electrode in wire-EDM, Materials and Manufacturing Processes, 38:7, 816-827, DOI: [10.1080/10426914.2023.2165664](https://doi.org/10.1080/10426914.2023.2165664)

Dr. G. M. LINOUS LEO

1. S. Madhu , G.M. LionusLeo , P. Prathap , Yuvarajan Devarajan , Ravikumar Jayabal , Effective utilization of waste pork fat as a potential alternate fuel in CRDI research diesel engine – Waste reduction and consumption technique Process Safety and Environmental Protection, Volume 172, April 2023, Pages 815-824

Dr.T.GAVASKAR

1. T. Gavaskar · Venkata Ramanan M , K. Arun , S. Arivazhagan , The combined effect of green synthesized nitrogen-doped carbon quantum dots blended jackfruit seed biodiesel and acetylene gas tested on the dual fuel engine, Energy, Volume:275, 15 July 2023, 127296, <https://doi.org/10.1016/j.energy.2023.127296>
2. Akshay Loyte, Jiwak Suryawanshi, Girish Bhiogade, Yuvarajan Devarajan, Raja T & Gavaskar T (2023) Novel approach for efficient operation and reduced harmful emissions on a dual-fuel research engine propelled with hydrogen-enriched natural gas and diesel, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45:3, 8218-8238, DOI: [10.1080/15567036.2023.2224737](https://doi.org/10.1080/15567036.2023.2224737)
3. Sagar Baligidad a, Arunkumar T a, Gavaskar Thodda b, K Elangovan , Fabrication of HAp/rGO nanocomposite coating on PEEK: Tribological performance study, Surfaces and Interfaces Volume 38, June 2023, 102865, <https://doi.org/10.1016/j.surfin.2023.102865>
4. Thodda, G., Kathapillai, A., Madhavan, V.R. et al. Experimental analysis on the influence of compression ratio, flow rate, injection pressure, and injection timing on the acetylene — diesel aspirated dual fuel engine. *Environ Sci Pollut Res* **30**, 61217–61233 (2023). <https://doi.org/10.1007/s11356-022-21483-5>
5. Gavaskar Thodda, Venkata Ramanan Madhavan & Lakshmanan Thangavelu (2023) Predictive Modelling and Optimization of Performance and Emissions of Acetylene

Fuelled CI Engine Using ANN and RSM, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45:2, 3544-3562, DOI: 10.1080/15567036.2020.1829191

Mr.KMB.KARTHIKEYAN

1. AH Abishini, KMB Karthikeyan Application of MCDM and Taguchi super ranking concept for materials selection problem, Materials Today Proceedings, Volume 72, Part 4, 2023, Pages 2480-2487

Mr.M.SUBRAMANIAM

1. M. Siva, N. Arunkumar, M. Subramanian & R. Elakkiyadasan (2023) Influence of micro-electrical discharge machining parameters on the surface morphology of the nickel-coated electrode, Materials and Manufacturing Processes, 38:1, 89-104, DOI: [10.1080/10426914.2022.2105869](https://doi.org/10.1080/10426914.2022.2105869)

Mr. M. GANESH

1. Nimel Sworna Ross, M Ganesh, M Belsam Jeba Ananth, M Kumar, Ritu Rai, Munish Kumar Gupta, Mehmet Erdi Korkmaz, Development and potential use of MWCNT suspended in vegetable oil as a cutting fluid in machining of Monel 400 Journal of Molecular Liquids Volume 382, 15 July 2023, 121853
2. N.E. Arun Kumar, M. Ganesh, A. Suresh Babu & R. Elakkiyadasan (2023) Effect of Cryo-treatment of wires on machining performance of WEDM, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217897](https://doi.org/10.1080/10426914.2023.2217897)
3. M. Ganesh, N. Arunkumar, N.E. Arun Kumar & R. Sathish (2023) Investigation of surface grinding on Inconel under distinct cooling conditions, Materials and Manufacturing Processes, DOI: [10.1080/10426914.2023.2217896](https://doi.org/10.1080/10426914.2023.2217896)
4. Arunkumar, N., Ganesh, M., Rajaram, M. et al. Deep hole drilling of AISI 1045: effect on hole quality & tool wear under flood, emulsion, and mist cooling technique. *J Braz. Soc. Mech. Sci. Eng.* **45**, 195 (2023). <https://doi.org/10.1007/s40430-023-04123-y>

Mr.K.MUNINATHAN

1. K Muninathan, M Venkata Ramanan , Enhancement of Sapindus trifoliatus (soapnut) biodiesel yield, engine performance, and reduce emissions using Mg-doped CaO nanocatalyst , Journal of Renewable and Sustainable Energy , Volume 15, Issue 2 (2023), 2023

2. V Ashok Kumar, K Muninathan, S Arivazhagan, N Monish, M Venkata Ramanan, Vaddi Seshagiri Rao, Gurunathan Baskar, Investigations on carbonization operating conditions of ANSYS customized kiln for charcoal production from Prosopis juliflora biomass and ANN model prediction for optimized, Fuel.350,128-8382023.
3. Kota Muninathan, Madhavan Venkata Ramanan Enhancement of Sapindus Trifoliatus Biodiesel Production and Performance using Mg-doped CaO Nanocatalyst, <https://doi.org/10.21203/rs.3.rs-2365132/v1>
4. Muninathan, K. and Ramanan, V.M., 2023. Enhancement of Sapindus trifoliatus (soapnut) biodiesel yield, engine performance, and reduce emissions using Mg-doped CaO nanocatalyst. JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, 15(2).

Mr. M. SIVA

1. M. Siva, N. Arunkumar, M. Subramanian & R. Elakkiyadasan (2023) Influence of micro-electrical discharge machining parameters on the surface morphology of the nickel-coated electrode, Materials and Manufacturing Processes, 38:1, 89-104, DOI: [10.1080/10426914.2022.2105869](https://doi.org/10.1080/10426914.2022.2105869)

Mr. R. ELLAYIKIYADSAN

1. N.E Arun Kumar, M Subramanian, A Suresh Babu & Elakkiyadasan R (2023) Performance evaluation of cryogenic treated and untreated brass electrode in wire-EDM, Materials and Manufacturing Processes, 38:7, 816-827, DOI: [10.1080/10426914.2023.2165664](https://doi.org/10.1080/10426914.2023.2165664)
2. M. Siva, N. Arunkumar, M. Subramanian & R. Elakkiyadasan (2023) Influence of micro-electrical discharge machining parameters on the surface morphology of the nickel-coated electrode, Materials and Manufacturing Processes, 38:1, 89-104, DOI: [10.1080/10426914.2022.2105869](https://doi.org/10.1080/10426914.2022.2105869)

Mr. G. ASHWIN PRABHU

1. Pratap Kumar, Anil Raj, A. R. Venkatraman, Arul Kulandaivel, G. Ashwin Prabhu, S. K. Narendranathan, and Nagaraj Ashok, Analysis of Temperature Distribution and Mechanical Properties of Friction Stir Welding of Al-Cu Joints Using Hardened H13

Mr. V. ASHOK KUMAR

1. V. Ashok kumar , Dr S. Arivazhagan , T. Balaji Experimental investigation of an automobile radiator using carbon based hybrid nano coolant International Journal of Thermal Sciences, Volume 193, November 2023, 108497
2. V Ashok Kumar, K Muninathan, S Arivazhagan, N Monish, M Venkata Ramanan, Vaddi Seshagiri Rao, Gurunathan Baskar, Investigations on carbonization operating conditions of ANSYS customized kiln for charcoal production from Prosopis juliflora biomass and ANN model prediction for optimized, Fuel.350,128-8382023.

Mr. N. SATHISHKUMAR

1. Sathishkumar, N., Arunkumar, N., Rohith, S.V. *et al.* Effect of varying unit cell size on energy absorption behaviour of additive manufactured TPMS PETG lattice structure. *Prog Addit Manuf* (2023). <https://doi.org/10.1007/s40964-023-00407-w>

Mr. D.SAKTHIVEL

1. SA Alur, MM Shivashimpi, KM Akkoli, NR Banapurmath, D Sakthivel, Yogesh Diliprao Sonawane, Saiful Islam, Prabhakar Sharma, Mohammad Amir Khan, Abdul Razak, Optimization and modelling of EGR rate and MIS for POME fuelled CRDI diesel engine, Case Studies in Thermal Engineering, Volume 49, September 2023, 103170