

Department of Mechanical Engineering

Personal Details

Name:	Dr.S.Aravindh
Designation:	Assistant Professor
Educational Qualification:	M.E.,Ph.D.
Experience:	6.3 years
Area of Specialization:	Polymer Composites, Design of Experiments

Educational Details

S.No.	Degree	Branch/Specialization	Institute/University	Year
1	B.E	Mechanical Engineering	Misrimal Navajee Munoth Jain Engineering College/Anna University	2011
2	M.E	Computer Aided Design	Sri Venkateswara College of Engineering	2013
3	Ph.D	Polymer Composites	Vellore Institute of Technology	2024

Publication Details

Journal published

1. Ramraji Kirubakaran, DineshRamesh Salunke, ShenbagaVelu Pitchumani, Venkatachalam Gopalan, **Aravindh Sampath**,2024, Investigation of nano-hBN/ natural fibers reinforced epoxy composites for thermal and electrical applications using GRA and ANFIS optimization methods, *Polymer Testing*, <https://doi.org/10.1016/j.polymertesting.2024.108561>.
2. Shenbaga Velu Pitchumani , Vimalanand Suthenthiraveerappa, Venkatachalam Gopalan , T G Loganathan, Kulasekaran Narasingamurthi and **Aravindh Sampath**, 2024, Mechanical and vibration characteristics of hybrid natural fibereinforced composite using taguchi grey

relational analysis, *Engineering Research Express*, DOI 10.1088/2631-8695/ad5640

3. Vimalanand Suthenthiraveerappa, Ajithkumar S, Venkatachalam Gopalan, Vignesh Pragasam, **Aravindh Sampath**, Pandivelan Chinnaiyan, Vinoth Kumar Kalidas, Shenbaga Velu Pitchumani, Balamurugan Kulendran and Rajendiran Gopal 2024, Tensile properties of basalt/jute fiber reinforced epoxy composite, *Cogent Engineering*, DOI: 10.1080/23311916.2024.2348083
4. Ramraji Kirubakaran, Dinesh Ramesh Salunke, Shenbaga Velu Pitchumani, Venkatachalam Gopalan and **Aravindh Sampath**, 2024, Development of hBN/natural fibres reinforced polymer composites using grey relation grade analysis for thermal and electrical applications, *Functional Composites and Structures*, 6, 025002, <https://doi.org/10.1088/2631-6331/ad3edd>.
5. Pitchumani, S.V., Sivakumar, M., **Aravindh**, Gopalan Venkatachalam, 2024, Investigation into the mechanical and thermal properties of coir fibre-reinforced PVC composites using RSM-based different algorithm techniques. *Biomass Conversion and Biorefinery* <https://doi.org/10.1007/s13399-024-05542-0>
6. Gopalan Venkatachalam, **Sampath Aravindh**, Mebin Paul Mark, Pitchumani Shenbaga Velu, KB Bharathraj, Aswin K Varghese, Viswanath Perinkulam Subramani, Ramachandran Ramakrishnan and Selvaraj Manickam, **2024**, Investigation of mechanical characteristics of coir fibre/hexagonal boron nitride reinforced polymer composite, *Materials Research Express*, DOI 10.1088/2053-1591/ad176c.
7. Gopalan Venkatachalam, Umopathy Jayanthi, Arumugasamy Suja, Senthil Gnanaaksaya, **Sampath Aravindh**, Pitchumani Shenbaga Velu, Kulendran Balamurugan and Rajendiran Gopal, **2023**, Virtual Fatigue Behaviour Analysis of Coir Fibre-Reinforced PVC Composites, *International Journal of Polymer Science*. <https://doi.org/10.1155/2023/6685837>.
8. Venkatachalam Gopalan, **Aravindh Sampath**, Loganathan, Vignesh Pragasam and Pandivelan,**2022**, Investigations on Tensile and Flexural Behaviours of Fly Ash / Coir Reinforced Polymer Matrix Composites, *Brazilian Archives of Biology and Technology*. Vol.65, <https://doi.org/10.1590/1678-4324-2022210473>.
9. **Aravindh, S.** and Venkatachalam, G., **2023**, Investigation of electrical resistance on coir fiber reinforced P- Polyvinyl chloride composites, *International Journal of Polymer Analysis and Characterization*, DOI: 10.1080/1023666X.2023.2250616.
10. **Aravindh S**, Venkatachalam G, **2023**, Investigations on Dielectric Constant of Coir Powder-Reinforced PVC Composites. *Journal of Natural Fibers*.

<https://doi.org/10.1080/15440478.2023.2239501>.

11. **Aravindh, S.** and Venkatachalam, G, **2022**, Investigation on Elastic Constants of Microfibril Reinforced Poly Vinyl Chloride Composites Using Impulsive Excitation of Vibration, *Polymers*, Vol. 14, <https://doi.org/10.3390/polym14235083>.
12. Nagendran, Shanmuganathan, Gayathri, Suresh, **Aravindh**, Prakash, **2018**, Investigations on Mechanical Behavior of Al6061-TiO₂-SiC Produced by Stir Casting, *International Journal of Engineering & Technology*, Vol.7 <https://doi.org/10.14419/ijet.v7i3.34.19228>.
13. Karthick N, **Aravindh S**, Gayathri N, Nagendran N, Siddarthan K R, Thenamuthan, **2018**, Design and Analysis of Battery Box Lifter, *International Journal of Engineering & Technology*, Vol.7. <https://doi.org/10.14419/ijet.v7i3.34.19333>.
14. Rajamanickam, Manjunathan, Mariyappan, **Aravindh**, **2018**, Comparative Analysis of MRR on Abrasive Water Jet Machining Parameters over Aerospace Alloys: Inconel 825 & Ti-6al-4v, *International Journal of Pure and Applied Mathematics*, Vol.118.
15. Gayathri, Prakash, Manikandan, Karthick, **Aravindh**, Rohini, **2018**, Rejection Rate Analysis on Rail Wheels, *International Journal of Engineering & Technology*, Vol.7.
16. Sunil Kumar, Palanisamy, **Aravindh**, Mohan, **2017**, Design and analysis of windmill blades for domestic applications, *International Journal of Mechanical Engineering and Technology*, Vol,8.
17. Anandakumar, Baya Molla, Fisha Biruke, **Aravindh**, **2017**, Analysis of copper mixed kerosene servotherm in EDM of Monel 400, *Materials Science and Engineering*, Vol.197, doi:10.1088/1757-899X/197/1/012004.
18. Sathiyamoorthy, Arumugam, Anbazhagan, Nandagopal **Aravindh**, **2016**, Analysis of electrochemical machining tool by using ANSYS CFX 15, *Journal of Chemical and Pharmaceutical Sciences* Vol.9.
19. Nagendran, Seenuvas, Gayathri, Karthick, **Aravindh**, **2016**, Numerical Analysis of Ballistic Impact on Combination of Polymer and Aluminum, *Journal of Chemical and Pharmaceutical Sciences*, Vol. 9.
20. **Aravindh** and Umanath K, **2015**, Delamination in Drilling of Natural Fibre Reinforced Polymer Composites Produced by Compression Moulding. *In Applied Mechanics and Materials*, Vol. 766–767, <https://doi.org/10.4028/www.scientific.net/AMM.766-767.796>.

Professional Society Membership

1. Indian society for technical education, IIT Campus New Delhi 110116, Life Membership, Membership No LM111845.

Program Attended

FDP/Workshop attended

1. Participated in the FDP on “**Teaching and Learning Process**” organized by the **Academic Staff College, Vellore Institute of Technology**, Chennai from 08-February-2023 to 12-February-2023.
2. Participated One Week Online Faculty Development Programme on “**Advanced Applications in Composite Materials**”, organized by Department of Mechanical Engineering, *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Avadi*, Chennai from 17.05.2021 to 22.05.2021.
3. Participated one day webinar ‘**Online lightweight materials and its applications**’ organized by Department of Mechanical and Automobile Engineering, *Arasu Engineering College, Kumbakonam* on 02.06.2021.
4. Participated 5 days faculty development programme on “**Data visualization and analysis for research scholars**” organized by the Department of Mechatronics Engineering, *Chennai Institute of technology* from 31.05.2021 to 4.06.2021.
5. Attended the two weeks online FDP on “**Advances in composite material, manufacturing process and optimization techniques**” organized by *AMET* (June 1st to 14th 2021).
6. Participated five days virtual FDP on “**ME8493 Thermal Engineering**” (28-12-2020 - 04.01.2021), *Sri Ram Engineering College*.
7. Participated one-week online faculty development programme on “**Purely the fundamental of mechanical engineering**” organized by the Department of Mechanical Engineering, *Chennai Institute of technology* from 01.06.2020 to 05.06.2020.
8. Participated in a one-day workshop on “**Mathematical model for mechanical response of nonlinear elastic materials**” 31st May, 2020 organized by the Department of Mechanical Engineering, *Audisankara Group of Institutions Gudur, Nellore (Dt), A.P.*

9. Attended the one-day event “**The Art of writing a research paper**” at *VIT Chennai* on February 15,2020.
10. Attended the one day workshop on “**Importance of FEA in industries**” held in *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College* on February 7th 2019.
11. Participated two days National workshop on “**Recent trends in fabrication and Characterization of Nano Composites related to combat vehicle components**” organized by Department of Mechanical Engineering, *S.A. Engineering College, Chennai* on 5th and 6th July 2018.
12. Attended the one day workshop entitled “**Enhanced technologies used in IC Engine**” organized by **i3 Design Technologies** and held in *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College* on September 7th 2018.
13. Participated as delegate in one day seminar program on “**Advanced technologies in product development and reverse Engineering**” at *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College* on January 11 2019.
14. Attended one day workshop on “**Art of writing funding proposals and Research articles**” on 17th November 2018.*Kings Engineering College, Chennai.*
15. Completed the **TOT- in manufacturing sector** on 16-10-2018 held at *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College.*
16. Participated five days FDTP on “**FEA using ANSYS Workbench and solid works simulations and smart manufacturing using Mastercam**” organized by the Department of Mechanical Engineering held on 13-18 th December at *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College.*
17. Participated two days FDP on “**Topology optimization using Autodesk Inventor**” at *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College* on September 28& 29,2018.
18. Participated FDP on “**Research methodologies in engineering and technology**” conducted by the Department of Electrical and Electronics engineering, *Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College* in association with computer society of India-Chennai chapter on 8th and 9th of May 2014.
19. Participated in the one-day national level workshop -**Green composites**, held at *Sri Sairam Institute of technology, Chennai* held on August 27,2014.
20. Participated FDP on “**Computer aided design**” at *Vel tech multi tech Dr.Rangarajan Dr.Sakunthala Engineering college* on 10th to 18th June 2015.

21. Participated in one day workshop on “**Recent trends in engineering tribology and surface Characterization**” organized by the Department of Mechanical Engineering, *Sri Venkateswara College of Engineering*, Sriperumbudur on 29th, September 2012.
22. Participated two-day workshop on “**Mechanical behaviors of composites**” organized by the Department of Mechanical Engineering, *Sri Venkateswara College of Engineering*, Sriperumbudur on 30th and 31st, march 2012.
23. Attended one day seminar on “**latest advancement in automotive testing**” jointly organized by atalon and *Sri Venkateswara College of Engineering* on 12th march 2012.
24. Attended one day seminar on “**Simulation, measurement and condition monitoring**” jointly organized by atalon and *Sri Venkateswara College of Engineering* held on 7th September 2012.

Other Details

Patent Published

1. Gopalan Venkatachalam, P. Shenbaga Velu, **Aravindh Sampath**. “*Flexible Electrical Insulation Cable from Coir Fiber PVC Composite and method of Preparation there of*”. Application No. 202441001074.

Orchid ID

<https://orcid.org/0000-0003-2429-7155>

Email id

aravindh.mech@npsbcet.edu.in
mecharavindh01@gmail.com