Name	Dr. S. Arivazhagan
Designation	Professor & Principal
Contact details (Phone number & Official Mail ID)	+918939828346,+919840009245 principal@stjosephstechnology.ac.in arivazhagan67@gmail.com
Date of birth	23.05.1967
Qualification:	B.E.(Mech.), M.E. (Ref.&AC), Ph.D.
Years of Experience:	***Total 34 Years 5 Months***
	Teaching: 32Years 5 Months
	Industry: 2 Years
Area of research:	Thermal Engineering, Refrigeration & Air-conditioning
Subjects handled in UG	Engineering Thermodynamics Thermal Engineering I & II Gas Dynamics & Jet Propulsion Heat & Mass Transfer Advanced I C Engines Power Plant Engineering Engineering Graphics
Guide ship Details:	
Research Guidance:	03 Completed; 05 On-going

Journal Publication Details: 19	**Publications (List of papers published in SCI Journals, in year wise descending order).** 1. Gopinath D, Ganapathy Sundaram E, Thennarasu P, Arivazhagan S (2023), "Reducing gasoline engine emissions using novel bio-based oxygenates: A review", Emergent Materials, 1-21. 2. Thennarasu P, Ganapathy Sundaram E, Gopinath D, Arivazhagan S (2023), "Performance optimization of gasoline engine fueled with ethanol/n-butanol/gasoline blends using response surface methodology", Biofuels, 1-23. 3. Gavaskar, T., Ramanan M, V., Arun, K., Arivazhagan, S. (2023), " 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, Vol. 275, pp. 127296 4. V Ashok Kumar, K Muninathan, **S Arivazhagan,** N Monish, M Venkata Ramanan, Vaddi Seshagiri Rao, Gurunathan Baskar (2023), "Investigations on carbonization operating conditions of ANSYS customized kiln for charcoal production from Prosopis juliflora biomass and ANN model prediction for optimized operating conditions" Fuel, Vol.350, pp 128838 5. Ashok Kumar, S Arivazhagan, K Muninathan (2022), "Experimental and computational study of melting phase-change material for energy storage in shell and tube heat exchanger" Journal of Energy Storage, Vol.50, pp. 104614 6. P Thamizhvalavan, N Yuvaraj, **S Arivazhagan** (2022), " Abrasive Water Jet Machining of Al6063/B4C/ZrSiO4 Hybrid Composites: a Study of Machinability and Surface Characterization Analysis" Silicon, Vol. 14, No. 3, pp. 1093-1121 7. Chandramohan, P, Murugesan, S. N. & **Arivazhagan, S.** (2021), "Experimental Investigation of Multi-Jet Air Impingement in Various Conditions and Analysis using Desirability Based Response Surface Methodology" Journal of Applied Fluid Mechanics, Journal of Applied Fluid Mechanics , 14(1), pp. 131–145 (Impact Factor: 1.09) 8. Leo, G.M.L., Sekar, S., **Arivazhagan, S.** (2020), "Experimental investigation and ANN modelling of the effects of diesel/gasoline premixing in a waste cooking oil-fuelled HCCI-DI engine" Journal of Thermal Analysis and Calorimetry, doi:10.1007/s10973-020-09418-z 9. G. M. Lionus Leo, S. Sekar, **S. Arivazhagan** (2019) , "experimental investigation, ann modelling and topsis optimization of gasoline premixed hcci-di engine with direct injection of fecl3 nano additive blended WCO", Transactions of FAMENA, Vol. 42 No.3 10. G. M. Lionus Leo, S. Sekar, **S. Arivazhagan** (2018), "Experimental investigation, optimization and ANN model prediction of a gasoline premixed waste cooking oil fueled HCCI–DI engine", Journal of the Brazilian Society of Mechanical Sciences and Engineering (2018) 40:49 https://doi.org/10.1007/s40430-018-0967-1 11. Thamizhvalavan P., **S. Arivazhagan**, N. Yuvaraj & B. Ramesh (2018), 'Machinability study of abrasive aqua jet parameters on hybrid metal

matrix composite',Materials and Manufacturing Processes, Accepted for publication. article: https://doi.org/10.1080/10426914.2018.1544707(Impact Factor : 2.274)

12. Chandramohan, P, Murugesan, S. N. & **Arivazhagan, S** (2017), 'Experimental Investigation and CFD Analysis of Influence of Swirl, Arrangement of Nozzle, Cross Section And Diameter of Jets on Heat Transfer inMulti-Jet Air Impingement Cooling', Thermal Science ISSN: 0354-9836 Accepted for publication.https://doi.org/10.2298/TSCI170620177C(Impact Factor: 1.45)
13. Chandramohan, P,Murugesan, S. N.& **Arivazhagan, S** (2017), 'Heat Transfer Analysis of Flat Plate Subjected To Multi-Jet Air Impingement Using Principal Component Analysis and Computational Technique', Journal of Applied Fluid Mechanics, vol. 10, no.1, pp. 293-306, ISSN : 1735- 3572 (Impact Factor: 1.09)
14. S .Gowri P. Thamizhvalavan, M. Kanthababu, **S. Arivazhagan** (2015), "Experimental Investigations on Material Removal Rate in Abrasive Water jet machining of Al/B4C /ZrSiO4 Hybrid Metal Matrix Composites", Journal of Applied Sciences Research, Vol.14, No.11, pp.144-150
15. **Arivazhagan S**., Saravanan R. and Renganarayanan S. (2006), 'Experimental studies on HFC based two-stage half effect vapour absorption cooling system', Applied Thermal Engineering, Vol. 26, No. 14-15, pp.1455-1462.
16. **Arivazhagan S**., Saravanan R. and Renganarayanan S. (2006), 'Comparison of exergetic performance of HFC based single and half effect absorption cooling systems', International Journal of Exergy, Vol. 3, No. 4, pp. 402-418.
17. **Arivazhagan S**., Murugesan S.N., Saravanan R. and Renganarayanan S., (2005), 'Simulation studies on R134a-DMAC based half effect absorption cold storage systems', Energy Conversion and Management, Vol. 46, pp. 1703-1713.
18. Aswan Abdul Razak, Jacob George, **S. Arivazhagan** and N. Vinayagam (2012), "Experimental investigation and modeling of a four stroke single cylinder DI diesel engine under various injection timings" International Journal of Engineering Science and Technology Vol. 4 No.08. pp. 3930-3941
19. S. Abinav Viswanath, V. Dinesh, **S. Arivazhagan** and N. Vinayagam, (2012) "Modeling and Analysis of Performance, Combustion and Emmission Characteristics of Jatropha Methyl Ester Blend Diesel for CI Engine with variable Compression Ratio" International Journal of Engineering Science and Technology, Vol. 4 No.07, pp.3457-3471.

International Conference: 08	1. K Muninathan, **S Arivazhagan**, R Yuvaraj, K Madhupriya, M Shanmathi (2020), "CFD Analysis on Performance Improvement of Impeller Mixing Solid Waste in Anaerobic Digestion", IEEE International Conference on System, Computation, Automation and Networking (ICSCAN), pp.1-5. 2. S. Sekar, T.N.Valarmathi, **S. Arivazhagan**, S. N. Murugesan, ' Optimization of Absorption Heat Transformer for Water Purification using Response Surface Methodology', International Conference on Polygeneration, Chennai, India 2015 3. **S. Arivazhagan**, S. N. Murugesan, S. Sekar, 'Simulation Studies on Kalina Cycle Systems: Comparison of Performance of Environment Friendly Working Fluids with Conventional Working Fluids', International Conference on Polygeneration, Chennai, India 2015 4. P. Chandramohan, Anish Sekar, **S.Arivazhagan**, S.N.Murugesan, "Analysis of Heat Transfer and Fluid Flow Characteristics of Swirl and Non-Swirl Impinging Jet for Cooling of Electronic Components" 2013 International Conference on Energy Efficient Technologies for Sustainability 5. Rengasamy G., Saravanan R., **Arivazhagan S.**, Sivakumar K. and Narendran C. (2008), **"**Renewable energy based 40 TR - NH_3-H_2O GAX operated absorption cooling system" **,** International Sorption Heat Pump Conference 2008, 23-26 September, 2008, Seoul, KOREA 6. Saravanan R., **Arivazhagan S.** and Renganarayanan S. (2007), " Experimental studies on both single and half effect R134a-DMAC based vapour absorption cooling systems: A performance comparison", 2nd International Conference on Solar Air-conditioning, October 18th and 19th, 2007,Tarragona, Costa Dorada, Spain. 7. **Arivazhagan S**., Saravanan R. and Renganarayanan S. (2005), 'R134a-DMAC Based Half Effect Vapour Absorption Refrigeration System', International Sorption Heat Pump Conference, June 22-24, 2005, Denver, CO, USA. 8. Arivazhagan S., Saravanan R. and Renganarayanan S. (2003), 'Simulation Studies on Compression Absorption Cycle using R 134a and DMAC as Working fluids for Heating Applications', International Conference on Emerging Trends in Refrigeration and Air-conditioning, ACRECONF 2003, New Delhi, pp. 207-214.
National Conference:02	1."Advances in Mechanical Engineering" 13-14 May 2005, Organized by Vasavi College of Engineering, Hydrabad. 2." Recent Trends in Science and Technology" 26-27 May 2005, Organized by Dr. M G R Educational and Research Institute, Chennai. 3. "Optimization technique and its Applications" Sep 2009 , Organized by Rajalakshmi Engineering College, Thandalam, Chennai. 4. Presented a paper title "fixture layout optimization using PSO" organized by Vel's University, Chennai.

	5. Presented a paper title "fixture layout optimization using SA" organized by Vel's University, Chennai
Patent Published:	02
FDP/Workshop/STTP Conducted:	Coordinated a two week Faculty Development Program titled, "Renewable Energy based Cooling Systems – Opportunities & Challenges" funded by AICTE with a grant of **Rs. 6.5 Lakhs** during Nov 18 – 29 ,2013. Coordinated an online Faculty Development Program titled, "Green Technology and Sustainability Engineering" funded by AICTE Training And Learning Academy, with a grant of **Rs. 93,000** during Sep 7 – 11 , 2020.
NPTEL Courses Attended	1. **8 Weeks** Online Certification Program on **"Steam and Gas Power Turbines"** from **Feb – Apr 2019** - **Elite (FDP)** 2. **12 Weeks** Online FDP Program on **"Energy Conservation and Waste Heat Recovery "** from **July – Oct 2019** – **Elite (FDP)**
Funded Projects:	Completed an AICTE funded project with a grant of **Rs.11.02 Lakhs** for Modernization of Internal Combustion Engines Laboratory with Latest Equipment in St. Joseph's College of Engineering under **MODROBS** scheme.
Professional Body Membership:	• ***FIE*** - **Fellow,** Institution of Engineers (India) (F-114961-6) • ***Member, ASHRAE*** - American Society for Heating, Refrigerating and Air-conditioning Engineers) (MBR # 8396471) • ***Member, ISHRAE*** - Indian Society for Heating, Refrigerating and Air-conditioning Engineers (M-10450) • ***Life Member, ISTE*** - Indian Society for Technical Education (LM 21502)
Professional Society Responsibilities	• ***President*** **ISHRAE** Chennai Chapter **(2021-22)** • ***President Elect*** **ISHRAE** Chennai Chapter **(2020-21)** • ***Secretary*** - **ISHRAE** Chennai Chapter **(2019-20)** • ***Treasurer*** - **ISHRAE** Chennai Chapter **(2012-13)** • ***Chair*** – Students' Activities, • **ISHRAE** Chennai Chapter **(2011-12)**