

Dr. M. Vikneswaran, M.Tech., Ph.D.

Assistant Professor

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Profile Summary:

Dr. M. Vikneswaran Working as an Assistant Professor in the Department of Mechanical Engineering at SRMIST, Ramapuram. He completed his Bachelor's degree in Mechanical Engineering at SASTRA University, Thirumalaisamudram, Tamilnadu, India. He secured a Master of Engineering in Automobile Engineering at SASTRA University, Thirumalaisamudram, Tamilnadu, India. He Pursued Ph.D. in the field of Internal combustion engines at Annamalai University, Annamalainagar, Tamilnadu, India. He has been in the teaching profession for 2 years and has 4 years of research experience in the field of IC engines. He has published more than 20 research papers in National and International Journals.

Area of Specialization:

IC engines, Alternate fuels, Endoscopic Combustion visualization techniques

Skillset: AutoCAD, Solidworks, Converge, RSM,

Selected Publications:

Web of Science/SCI/Scopus

1. **Vikneswaran, M.**, Saravanan, C.G., Manickam, M., Sasikala, J., Femilda Josephin, J.S., Pugazhendhi, A., Varuvel, E.G., **2022**. A study on the feasibility of bergamot peel oil-gasoline blends for spark-ignition engines. *Journal of Cleaner Production*, 339, 130515. <https://doi.org/10.1016/j.jclepro.2022.130515> (IF: 11.072)
2. **Vikneswaran, M.**, Saravanan, C.G., Sasikala, J., Ramesh, P., Geo, E., **2022**. Combustion analysis of higher order alcohols blended gasoline in a spark ignition engine using endoscopic visualization technique. *Fuel*, 322, 124134. <https://doi.org/10.1016/j.fuel.2022.124134> (IF: 8.035)

3. **Vikneswaran, M.**, Saravanan, C.G., Raman, V., Kirubakaran, R.K., Pandiarajan, P., Sonthalia, A., Varuvel, E.G., **2022**. Effect of intake port design modifications on diesel engine characteristics fuelled by pine oil-diesel blends. *Energy Sources, Part A Recovery, Utilization and Environmental Effects*, 1–17. <https://doi.org/10.1080/15567036.2022.2038312> (IF: **2.902**)
4. Rajakrishnamoorthy, P., Saravanan, C. G., Natarajan, R., Karthikeyan, D., Sasikala, J., Femilda Josephin, J. S., **Vikneswaran, M.**, Sonthalia, A., & Varuvel, E. G., **2023**. Exhaust emission control of SI engines using ZSM-5 zeolitesupported bimetals as a catalyst synthesized from coal fly ash. *Fuel*, 340, 127380. <https://doi.org/10.1016/J.FUEL.2022.127380> (IF: **8.035**)
5. Vasanthakumar, R., Loganathan, M., Chockalingam, S., **Vikneswaran, M.**, Manickam, M., **2023**. A study on the effect of hydrogen enriched intake air on the characteristics of a diesel engine fueled with ethanol blended diesel. *International Journal of Hydrogen Energy*, 48(53), 20507. <https://doi.org/10.1016/j.ijhydene.2023.02.113> (IF: **7.139**)
6. Vasanthakumar, R., Loganathan, M., Chockalingam, S., **Vikneswaran, M.**, Venkatramanan. S., **2023**. Investigation of the Effect of Hydrogen Enrichment on the Performance, Emission, and Combustion Characteristics of a Diesel Engine. *Current Materials Science*, [10.2174/2666145416666230406132721](https://doi.org/10.2174/2666145416666230406132721).
7. Sundaram, S., Singaravelu, C., & **Vikneswaran, M.** (2022). Comparative investigation of surface modification and corrosion behaviour on SS304 and SS316 Coated with Inconel 625 in Air and Molten Salt Environment. *Surface Topography: Metrology and Properties*, 10(4), 045023. <https://doi.org/10.1088/2051-672X/ACA3BE> (IF: **2.185**)
8. Saravanan, C.G., **Vikneswaran, M.**, Prasanna Raj Yadav, S., Edwin Geo, V., Sasikala, J., Ashok, K., **2022**. Experimental study of feasibility of orange peel oil as a partial replacement for gasoline fuel in SI engine with and without MAO coated piston. *Fuel*, 315, 123173. <https://doi.org/10.1016/j.fuel.2022.123173> (IF: **8.035**)
9. Sathyanarayanan, S., Suresh, S., Saravanan, C.G., **Vikneswaran, M.**, Dhamodaran, G., Sonthalia, A., Josephin, J.S.F., Varuvel, E.G., **2022**. Experimental investigation and performance prediction of gasoline engine operating parameters fueled with diisopropyl ether-gasoline blends: Response surface methodology-based optimization. *J Clean Prod* 133941. <https://doi.org/10.1016/J.JCLEPRO.2022.133941> (IF: **11.072**)
10. Chidambaram Ganapathy, S., Seshadri, T., Jayaraman, S., Raman, **Vikneswaran, M.**, V., Babu Arondoss, M., Josephin Joseph Shobana Bai, F., & Geo Varuvel, E., **2022**. Experimental study of droplet combustion and diesel engine characteristics for Azolla biodiesel. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 44(4), 10359-10377. <https://doi.org/10.1080/15567036.2022.2146238> (IF: **2.902**)
11. Thiruvenkatachari, S., Saravanan, C.G., Raman, V., **Vikneswaran, M.**, Varuvel, E.G., **2022**. An experimental study of the effects of fuel injection pressure on the characteristics of a diesel engine fueled by the third generation Azolla biodiesel. *Chemosphere* 308, 136049. <https://doi.org/10.1016/J.CHEMOSPHERE.2022.136049> (IF: **8.943**)

12. Nandakumar, C., Saravanan, C. G., Raman, V., **Vikneswaran, M.**, Sasikala, J., Femilda Josephin, J. S., & Geo Varuvel, E. 2022. Ternary gasoline – Pomegranate peel oil (PPO)- tertiary butyl alcohol (TBA) blend as an enabler to improve the spark-ignited engine performance and emissions. *Fuel*, 329, 125396. <https://doi.org/10.1016/j.fuel.2022.125396> (IF: 8.035)
13. Selvakumar, P., Saravanan, C.G., Ramkumar, R., **Vikneswaran, M.**, 2022. Thermal Plant Condenser Tube Advanced Applied Research on Scale Formation with and Without Magnets in the Water Lines. *International Journal of Engineering Trends and Technology*, 70(5), 173-184. <https://doi.org/10.14445/22315381/IJETT-V70I5P219>
14. Thanigaivelan, V., Loganathan, M., **Vikneswaran, M.**, Venkatramanan, S., Manickam, M., 2021. Effect of hydrogen and ethanol addition in cashew nut shell liquid biodiesel operated direct injection (DI) diesel engine. *International Journal of Hydrogen Energy*, 47(8), 5111-5129. <https://doi.org/10.1016/j.ijhydene.2021.11.128> (IF: 7.139)
15. Chinnamuthu, N., Ganapathy, S.C., **Vikneswaran, M.**, Varuvel, E.G., Raman, V., 2021. Computational analysis of turbulence enhancement in a compression ignition engine with modified inlet design. *Environmental Science and Pollution Research*, 28, 33866–33879. <https://doi.org/10.1007/s11356-020-10157-9> (IF: 5.190)
16. Manoj Babu, A., Saravanan, C.G., **Vikneswaran, M.**, Edwin Geo, V., Sasikala, J., 2021. Analysis of performance, emission, combustion and endoscopic visualization of micro-arc oxidation piston coated SI engine fuelled with low carbon biofuel blends. *Fuel*, 285, 119189. <https://doi.org/10.1016/j.fuel.2020.119189> (IF: 8.035)
17. Narayanamoorthy, R., Sivaprakasam, S., Saravanan, C.G., Sivaraj, P., **Vikneswaran, M.**, 2021. Experimental investigation of 2-methyl furan as an additive with camphor blended gasoline blend for SI engines. *Fuel*, 306, 121748. <https://doi.org/10.1016/j.fuel.2021.121748> (IF: 8.035)
18. Ravikumar, V., Senthilkumar, D., Saravanan, C.G., Edwin Geo, V., **Vikneswaran, M.**, Solaimuthu, C., 2021. Study on the effect of 2-butoxyethanol as an additive on the combustion flame, performance and emission characteristics of a spark ignition engine. *Fuel*, 285, 119187. <https://doi.org/10.1016/j.fuel.2020.119187> (IF: 8.035)
19. Thiruvengkatachari, S., Saravanan, C.G., Edwin Geo, V., **Vikneswaran, M.**, Udayakumar, R., Aloui, F., 2021. Experimental investigations on the production and testing of azolla methyl esters from *Azolla microphylla* in a compression ignition engine. *Fuel*, 287, 119448. <https://doi.org/https://doi.org/10.1016/j.fuel.2020.119448> (IF: 8.035)
20. Loganathan, M., Madhavan, V.M., Arun Balasubramanian, K., Thanigaivelan, V., **Vikneswaran, M.**, Anbarasu, A., 2020. Investigation on the effect of diethyl ether with hydrogen-enriched cashew nut shell (CNS) biodiesel in direct injection (DI) diesel engine. *Fuel*, 277, 118165. <https://doi.org/10.1016/j.fuel.2020.118165> (IF: 8.035)
21. **Vikneswaran, M.**, Saravanan, C.G., Sasikala, J., 2020. Endoscopic visualization of combustion flame to study the effect of 1,4-dioxane as an additive on the spatial flame characteristics of spark ignition engine. *Fuel*, 276, 118072. <https://doi.org/10.1016/j.fuel.2020.118072> (IF: 8.035)

22. Manoj Babu, A., Saravanan, C.G., **Vikneswaran, M.**, Edwin Jeo, V., Sasikala, J., 2020. Visualization of in-cylinder combustion using endoscope in spark ignition engine fueled with pine oil blended gasoline. *Fuel*, 263, 116707. <https://doi.org/10.1016/j.fuel.2019.116707> (IF: 8.035)
23. Nandakumar, C., Raman, V., Saravanan, C.G., **Vikneswaran, M.**, Prasanna Raj Yadav, S., Thirunavukkarasu, M., 2020. Effect of nozzle hole geometry on the operation of kapok biodiesel in a diesel engine. *Fuel*, 276, 118114. <https://doi.org/10.1016/j.fuel.2020.118114> (IF: 8.035)
24. Prabhakaran, P., Saravanan, C.G., Vallinayagam, R., **Vikneswaran, M.**, Muthukumaran, N., Ashok, K., 2020. Investigation of swirl induced piston on the engine characteristics of a biodiesel fueled diesel engine. *Fuel*, 279, 118503. <https://doi.org/10.1016/j.fuel.2020.118503> (IF: 8.035)
25. Velavan, A., Saravanan, C.G., **Vikneswaran, M.**, James Gunasekaran, E., Sasikala, J., 2020. Visualization of in-cylinder combustion flame and evaluation of engine characteristics of MPFI engine fueled by lemon peel oil blended gasoline. *Fuel*, 263, 116728. <https://doi.org/10.1016/j.fuel.2019.116728> (IF: 8.035)
26. Saravanan, C.G., Raj Kiran, K., **Vikneswaran, M.**, Rajakrishnamoorthy, P., Yadav, S.P.R., 2020. Impact of fuel injection pressure on the engine characteristics of CRDI engine powered by pine oil biodiesel blend. *Fuel*, 264, 116760. <https://doi.org/10.1016/j.fuel.2019.116760> (IF: 8.035)

Google scholar link: <https://scholar.google.com/citations?user=NxZsLycAAAAJ&hl=en>

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