



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

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CONTACT

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RESEARCH AREA

INTERNAL

COMBUSTION ENGINES

SKILL SET

SOLIDWORKS	●●●●●
AUTOCAD	●●●●●
CONVERGE (ICE)	●●●●●
MS OFFICE	●●●●●
RSM, ANN	●●●●●
MATLAB	●●●●●

RESEARCHER ID

ORCID

0000-0002-2922-7423

SCOPUS

57210818152

GOOGLE SCHOLAR

NxZsLycAAAAJ

WEB OF SCIENCE

AFS-7162-2022

LANGAUGES KNOWN

Tamil	●●●●●
English	●●●●●

PROFESSIONAL SUMMARY

- Having **one and half years of teaching experience** in the mechanical engineering
- **Four years of research experience** in the field of **Internal Combustion engines and Alternate fuels**, carried out experimental and numerical research on exploring the operational feasibility of **various biofuels** in the IC engines.
- **One year experience as a design engineer**, worked in a R&D project for the development of innovative and efficient fish processing equipment.

WORK EXPERINCE

- **Assistant Professor** 18/01/2023 to Present
Department of Mechanical Engineering 27/07/2016 to 31/10/2017
E.G.S. Pillay Engineering College, Nagapattinam
- **Project Fellow** 02/08/2018 to 30/06/2022
Department of Mechanical Engineering
Annamalai University, Annamalainagar
- **Design Engineer** 13/11/2017 to 01/08/2018
College of Fisheries Engineering, TNJFU, Muttam

EDUCATION QUALIFICATION

- **Ph.D. in Mechanical Engineering** Awarded
Annamalai University 21/11/2022
- **M. Tech in Automobile Engineering** CGPA 8.374
(5-Yrs Int. with B. Tech in Mechanical Engg.)
- **HSC/12th – Computer Science Group** 92.75%
SASTRA University 07/2010 – 06/2015
- **HSC/12th – Computer Science Group** 92.75%
Thanthai Periyar Government higher secondary school 06/2008 – 03/2010
- **SSLC/10th** 94.60%
Karaikal Ammaiyyar Government aided high School 06/2006 – 04/2008

RESEARCH PROJECTS

- Title: “Study of Spatial Flame Characteristics of a SI engine using Endoscopic Combustion Analyzer”
Sponsored by: *PURSE-II, Department of Science and Technology, India*
- Title: “Development of Innovative Fisheries Interventions for the productive maximization in Fisheries Industries in Tamilnadu”
Sponsored by: *NABARD and TANIL, Tamilnadu*
- Ph.D. Title: “Experimental and Numerical Study of In-Cylinder Flame and Engine Characteristics of Gasoline Engine Fuelled by Oxygenated Additives”

RESEARCH PUBLICATIONS

- Total research articles published: 29
 - Scopus Indexing: **h-index: 09**
 - Google Scholar Indexing: **h-index: 10 i10: 10**
 - Number of Citations: **264**

List of publications enclosed in Annexure - I

CERTIFICATION COURSES

- Completed 8 weeks online course on “**Material Science and Engineering**”, held between Jan 23 and Mar 23, through **NPTEL platform** and **passed** the course with **79%**.
- Successfully completed Vanderbilt University's Online Offering of “**Introduction to Programming with MATLAB**”, December 2015 through **COURSERA** online platform.
- Completed the University of Edinburgh's Online Offering of “**Critical Thinking in Global Challenges**”, April 2013 through **COURSERA** online platform.

WORKSHOP ORGANIZED

- Conducted four one day workshop on “**Computer Aided Designing – Sketching, Part Modelling, Assembly, 2D Drawing – Solidworks (version 2016)**”, at College of Fisheries Engineering, TNJFU.

WORKSHOP/FDP ATTENDED

S. No.	Items	Nos.
1.	Workshop (National/International)	05
2.	FDP/STP	05
3.	Webinar	05
4.	Paper presentation	01

SUBJECTS HANDLED

- Material Science and Metallurgy
- Unconventional Machining Process
- Ethics in Engineering
- Advanced Engines and Emission Systems
- Internal Combustion Engines
- Alternate fuels for IC engines

STRENGTH & WEAKNESS

STRENGTHS	WEAKNESS
<ul style="list-style-type: none">• Workaholic• Good Team worker• Can handle research projects• Taking responsible roles• Technical writing skills	<ul style="list-style-type: none">• Fluency in English

REFERENCES

1. Dr. C. G. Saravanan, Ph.D., Professor and Director (Mining Engineering) Department of Mechanical Engineering Faculty of Engineering and Technology Annamalai University Annamalainagar - 608602 Tamilnadu, India Mobile: +91 9843064772 Email: rsdk66@yahoo.com	2. Dr. Edwin Geo Varuvel, Ph.D., Professor Department of Mechanical Engineering Faculty of Engineering and Natural Sciences, Istinye University, Istanbul, Turkey Mobile: +90 501 348 21 99 Email: vedwingeo@gmail.com
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Signature *M. V. Kumar*

Annexure - I - LIST OF PUBLICATIONS

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 zeolite supported 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*, Article in Press. (IF: 7.135)
6. 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)
7. 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)
8. 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)
9. 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)
10. 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)
11. 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)
12. 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>

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. Thiruvenkatachari, 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 Geo, 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/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/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)

27. Velavan, A., Saravanan, C.G., **Vikneswaran, M.**, 2019. The Impact of Formation of Oxide Layer on the Piston Crown Using Micro - Arc Oxidation on the Characteristics of the Spark Ignition Engine. *Key Eng. Mater.* 813, 31–36. <https://doi.org/10.4028/www.scientific.net/KEM.813.31> (IF: 0.45)
28. Tanveer, M., Roy, S.M., **Vikneswaran, M.**, Renganathan, P., Balasubramanian, S., **2018**. Surface aeration systems for application in aquaculture: A review. *International Journal of Fisheries and Aquatic Studies*, 6(5):342-347. <https://www.fisheriesjournal.com/archives/2018/vol6issue5/PartE/6-5-23-591.pdf> (IF: 5.69)
29. Mohammad Tanveer, Sivakumar, M., Balasubramanian, S., **Vikneswaran, M.**, Sabanayagam, S., and Jagan, P., **2018** Analysis of engineering properties of shrimp feed pellets. *Green Farming*, Vol. 9 (5) : 892-896.