

## Department of Mechanical Engineering

### Personal Details

Name:	Dr. Senthur N S
Designation:	Professor
Educational Qualification:	M.E., Ph.D.
Experience:	15 years
Area of Specialization:	Fuels, IC Engine

### Educational Details

S.No.	Degree	Branch/Specialization	Institute/University	Year
1	B.E	Mechanical Engineering	SCAD College of Engineering & Technology- Anna University	2008
2	M.E	CAD/CAM	Kongu Engineering College – Anna University	2011
3	Ph.D.	IC Engine	Hindustan University	16 <sup>th</sup> April 2019

### Publication Details

#### International Journal

1. Influence of Geometry of Injector Nozzle on Performance and Emission Characteristics in Dual-Fuel Powered Compression Ignition Engines, NS Senthur, SA Devi, V Venkatesan, M Loganathan, L Yuheng, International Journal of Vehicle Structures & Systems 16 (6), 902-907 (2024)
2. Iot-Based Patient Health Monitoring System With Heart Rate And Oximeter Lower Alert System, Senthur N.S., Ameen. F, Mohamed Jumail. K, European Chemical Bulletin 12, 2153-2160 (2023)
3. NS Senthur, C Anand, M Ramesh Kumar, PV Elumalai, MI Shajahan (2022) (SCI) Influence of cobalt chromium nanoparticles in homogeneous charge compression ignition engine operated with citronella oil -Energy Science & Engineering 10 (4), 1251-1263
4. PV Elumalai, NS Senthur, M Parthasarathy, SK Das, OD Samuel (2022) Hydrogen in spark ignition engines Application of Clean Fuels in Combustion Engines, 195-213

5. K Purushothaman, RJGR Nirmal, J Dhanasekar, NS Senthur (2022) Design and development of probe release mechanism for cable pusher module of PFBR SG inspection system *Materials Today: Proceedings* 62, 1984-1989
6. PV Elumalai, NS Senthur, M Parthasarathy, SK Dash, OD Samuel, (2021) Effectiveness of hydrogen and nanoparticles addition in eucalyptus biofuel for improving the performance and reduction of emission in CI engine *Greener and Scalable E-fuels for Decarbonization of Transport*, 173-191
7. Senthur, N.S., HR Ganesh, K Arun (2021). Analysis of Hybrid Green Fuel Blended with Diesel as Fuel for Conventional Engine, *Lecture Notes in Mechanical Engineering book series (LNME)*, Springer, Singapore, print isbn :978-981-15-7556-3
8. NS Senthur, S BalaMurugan, H RamGanesh, S Divakara (2021) Experimental analysis on the performance, emission, and combustion characteristics of diesel, and diesel-water emulsions in low heat rejection engine- *Materials Today: Proceedings* 39, 1351-1355
9. Senthur, N.S., H Imamulhasan, H RamGanesh (2020). Analysis of Green Fuel for Diesel Engine, *IOP Conference: Material Science and Engineering* (issn: 1757-899X), 923, 1-11 doi:10.1088/1757-899X/923/1/012061
10. Senthur, N.S. and Ravikumar, T.S. (2020). Performance and emission characteristics analysis of thermal barrier coated LHR engine fueled with eucalyptus-water emulsion. *International Journal of Ambient Energy.*, issn:2162-8246.vol 41(9),pp 1060-1065
11. Senthur, N.S., S. Balamurugan, H. Ramganesh (2020). Comparison of a Thermal Barrier Coated Engine Using Eucalyptus Oil Methyl Ester and Azadirachtalndica Methyl Ester. *IOP Conference: Material Science and Engineering* (issn: 1757-899X), 912(4), 1-10, doi:10.1088/1757-899X/912/4/042008
12. Senthur, N.S., VJ Jose, MM Kumar, ME Raja (2021)Relative assessment of performance and emission characteristics of various biodiesel water emulsion blends in DI diesel engine. *Materials Today : Proceedings* ( Elsevier) issn : 2214-7853, <https://doi.org/10.1016/j.matpr.2020.03.041>
13. Senthur, N.S., S. Balamurugan, H. Ramganesh (2020). Experimental analysis on the performance, emission, and combustion characteristics of diesel, and diesel-water emulsions in low heat rejection engine. *Materials Today : Proceedings* ( Elsevier) issn : 2214-7853, <https://doi.org/10.1016/j.matpr.2020.04.574>
14. Senthur, N.S., Divakara S, (2020). Experimental Investigation of Nano Metal Oxide Blended Eucalyptus Bio Fuel on Common Rail Direct Injected Diesel Engine. *Materials Today : Proceedings* ( Elsevier) issn : 2214-7853 vol-33, pp-2605-2610 <https://doi.org/10.1016/j.matpr.2019.12.426>
15. Senthur, N.S., Maheshkumar, M, (2020). Assessing the Effect of Blending Eucalyptus oil with Water and Their Impact on Convectional Engine. *Springer Smart Innovation, Systems and*

16. Senthur, N.S., H.Ramganes (2020)., Experimental Investigation of NO<sub>x</sub> Emission from Eucalyptus- Antioxidants Blends Powered DI Diesel Engine. Research Journal of Chemistry and Environment. Issn : 0972-0626 , vol: 24, pp 6-9
17. Senthur, N.S., Divakara . S, Maheshkumar, M, (2019). Evaluation of favorable blending and their properties of eucalyptus biodiesel. International Journal of Vehicle structures and systems, Issn: 0975-3060 vol: 12(4), 232-236, DOI:10.4273/ijvss.12.3.01
18. Senthur, N.S., Imamulhasan, H, Shafquathinsulthan S, Balamurugan S, Maheshkumar,M. (2019).Experimental on Eucalyptus Oil with Additives blend as Fuel for Diesel Engine. International Journal of Innovative Technology and Exploring Engineering, ISSN 2278-3075 8(10) 1416- 1419.
19. Senthur, N.S., Ravikumar, T.S., Imamulhasan, H, Ramganes, H.(2019). Optimization of emulsified eucalyptus Biodiesel and reduction of NO<sub>x</sub> in the IC engine. AIP conference proceedings journal 2128 : 50005-50011. <https://doi.org/10.1063/1.5117977>
20. Senthur, N.S. and Ravikumar, T.S. (2019). Effects of various biodiesel blends on LHR engine. World journal of engineering. ISSN: 1708-5284, 16 (1) : 94-102. <https://doi.org/10.1108/WJE-05-2018-0157>
21. Senthur, N.S. and Ravikumar, T.S. (2018). Comparative evaluation of performance and emission characteristics of jatropa, pongamia, mahua and eucalyptus oil based biodiesel in diesel engine. International Journal of Mechanical and Production Engineering Research and Development., issn:2249-8001, 8(4):813-822
22. Senthur, N.S., Ravikumar, T.S. (2016). An experimental investigation on performance, combustion and emission parameters biodiesel-water emulsion on a Di Diesel engine International Journal of Engineering Sciences & Research Technology, Issn: 2277-9655, Vol 5(8), Page 54-62,
23. Senthur, N.S., Ravikumar, T.S. (2016). An experimental investigation on chosen parameters of performance and emission characteristics of eucalyptus oil as fuel in a di diesel engine. International Journal of Applied Engineering Research, issn 0973- 4562 vol. 10 no.57 (2015) page 172-175
24. Senthur, N.S., SR Premkartikkumar, K Annamalai (2015). Effect of emulsified fuel on performance and emission characteristics in DI diesel engine, Journal of Chemical and Pharmaceutical Sciences, ISSN 2349-8552, 7, 215-218
25. Senthur, N.S., Ravikumar, T.S., Pradeepkumar, A.R. and Sasi Rekha, S. (2015). Experimental investigation on performance, combustion, and emission characteristics of two different biodiesel fuels in a DI diesel engine – a comparative analysis. Journal of Chemical and Pharmaceutical Sciences., ISSN 2349-8552, 7:232-235.

26. Senthur, N.S., Ravikumar, T.S. and Cijil John, B. (2014). Eucalyptus oil- a promising biodiesel fuel for direct injection diesel engines. Research journal of applied sciences., ISSN: 1993-6079, 9(8):538-542.
27. Senthur, N.S., Ravikumar, T.S. and Cijil John, B. (2014). Eucalyptus biodiesel; an environmental friendly fuel for compression ignition engines. American Journal of Engineering Research., ISSN:2637-3785, 3(3):144-149.

### International Conference

Senthur, N.S “Design and Fabrication of Autonomous Switch Control System”, 3 rd international conference on energy control computing and electronics systems. (ICECCES) Mohan Babu University 2022.

Senthur, N.S “Design of Autonomous Switch Control System Without Internet”, International Conference On Intelligent Systems and Control. Karpagam College of Engineering, Coimbatore (ISCO) 2023.

Senthur, N.S “Design of Autonomous Switch Control System Without Network Connectivity” international conference on recent trends in computing and communication engineering (ICRTCCE). SIMATS Engineering, Chennai 2023.

Senthur, N.S, “A Novel Review On Gold Stocks of Various Countries and Their Liability for Investors: A Literature Review”. 3 rd International Conference On Emerging Approaches in Business Management – Rediscovering Quality Business Practices (ICEABM). SRM Institute of Science and Technology, Vadapalani Campus, 2023

Senthur, N.S.“ Analysis of Green fuel for Diesel Engine.”International Conference on Technologies Advancements in Materials, Design, Manufacturing and Energy Sectors. (ICTAMDMES’20), St. Joseph College of Engineering, Chennai. 2020

Senthur, N.S.“Comparison of Thermal Barrier Coated Engine Using Eucalyptus oil Methyl Ester and Azadirachtaindica Methyl Esters.”International Conference on Advances in Mechanical Engineering. (ICAME-2020), SRM Institute of Science and Technology, Chennai. 2020

Senthur, N.S.“ Analysis of Hybrid Green fuel blended with Diesel as Fuel for Conventional Engine.”International Conference on Innovations in Mechanical Engineering. (ICIME-2020)Guru Nanak Institutions, Telangana. 2020

Senthur, N.S.“ Experimental Analysis on the performance, emission and combustion Characteristics of Diesel and Diesel Water Emulsion in Low heat Rejection Engine.” International Conference on Recent trends in Metallurgy, Materials science and manufacturing. (IMME19) National Institute of Technology, Tiruchirappalli. 2019

Senthur, N.S. “Relative Assessment of performance and emission characteristics of various biodiesel water emulsion blends in DI Diesel Engine.” International Conference on Advances in Materials Research (ICAMR 2019) Bannari amman Institute of Technology , Sathyamangalam 2019

Senthur, N.S. “ Experimental Investigation of Nox emission from eucalyptus Antioxidants blends powered Di Diesel Engine.” International Conference on Renewable Energy and Sustainable Environment.(RESE 2019) Dr. Mahalingam College of engineering and technology, Pollachi, 2019

Senthur, N.S. “ Experimental Investigation of Nano metal oxide Blended eucalyptus Bio fuel on Common Rail Direct injected Diesel engine.” Conference on Nano Technology –Ideas Innovation and Initiatives , Syed ammal Engineering College, Ramanathapuram, 2019

Senthur, N.S. “ Analysis Test of Eucalyptus oil with additives blend as a fuel for diesel engine” International Conference on Sustainable Development Design. Kalasalingam Academy of Research and Education , Srivilliputhur,2019

Senthur, N.S. “ Investigation of eucalyptus oil and additives blend as a fuel for diesel engine.” International Conference on Mechanical Engineering Design (ICMechD 2019) SSN college of engineering ,2019

Senthur, N.S. “ Evaluation of favorable blending and their properties of eucalyptus biodiesel,”International Conference On Mechanical And Building Sciences [ICMBS&#39; 19]. SNS College of Technology,Coimbatore March 27 & 28, 2019.

Senthur, N.S. “ Optimization of emulsified eucalyptus Biodiesel and reduction of NOx in the IC engine.” International Conference on Materials Manufacturing and Machining [ICMMM 2019], Bannari Amman Institute of Technology, 2019

Senthur, N.S. and Ravikumar, T.S. “Eucalyptus oil - a promising alternative fuel for compression engine,” International Conference On Advances In Mechanical Engineering (ICAME-2015), Anna university, university college of engineering, Villupuram, Tamil Nadu, 2015. ISBN 978-93-85477-29-4.

Senthur, N.S. and Ravikumar, T.S. “An experimental investigation on chosen parameters of performance and emission characteristics of eucalyptus oil as fuel in a di diesel engine,” International Conference On Innovative Trends In Mechanical And Civil Engineering (ICITMC-2015), Pet Engineering College, vallioor, Tirunelveli, 2015.

### **PAPERS PRESENTED IN NATIONAL CONFERENCES**

Senthur, N.S. and Ravikumar, T.S. “Experimental investigation on performance, combustion, and emission characteristics of two different biodiesel fuels in a di diesel engine – a comparative analysis,” National Conference On Recent Trends And Developments In Sustainable Green Technologies (NCRTDSTGT 2015), Madras instituteof technology campus- anna university, chromepet, Chennai, 2015

Senthur, N.S. “Investigation and Optimization of coated carbide tool for Different Machining parameters” (NCIMMS-2011), Kongu Engineering College, Erode, 2011.

Senthur, N.S. “Investigation of petrol Evaporation during the tank splash loading using CFD“ (RTME-2011), SSM College of Engineering, Komarapalayam 2011.

Senthur, N.S. “Optimization & Investigation of coated carbide tool for Different Machining parameters” Emerging Trends in Mechanical Engineering (ETME-2011), SNS College of Technology, Coimbatore, 2011.

### Program Attended

#### FDP/STTP

Actively participating in FDPs, PDPs, STTPs, Conferences and Workshops.

### Other Details

#### Patents

1) Patent Application No – 201941035581

Title : Portable Air Conditioner For Vehicles

Published Date : 18-10-19

2) Patent Application No – 201941051560

Title : Automatic Spraying Seed Dispensed From A Planter

Published Date : 20-12-19

3) Patent Application No – 202041003044A

Title : IAH-CAR: Intelligent Way To Adjusting The HEIGHT OF A Car According To Road Condition

Published Date : 31/01/2020

4) Patent Application No – 202041006033A

Title : IBAS – Vehicle Intelligent – Balancing Advanced Vehicle Structure

Published Date : 21-02-2020

#### Research Proposal submitted to funding Agency

S.NO	PROJECT TITLE FUNDING AGENCY	YEAR	AMOUNT
1	Iot Based Patient health monitoring system with heart rate and oximeter alert system <b>Tamil nadu state council for science and technology (Project scheme)</b>	2022	7500