

CURRICULUMVITAE

Mr. S. SenthilM. E., (Ph.D.)

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Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57671874400>

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Webofscience: <https://www.webofscience.com/wos/author/record/AEL-2327-2022>

Research Gate: <https://www.researchgate.net/profile/Senthil-Sampath>

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OBJECTIVE

To accomplish a challenging work environment, which would provide me with valuable learning, and professional growth and help me in contributing meaningfully to the growth of the organization.

ACADEMIC & RESEARCH RESPONSIBILITIES

- ❖ Actively involved in Autonomous – Institute (Faculty publication/Patents/Copyrights)
- ❖ Actively involved in NIRF, ATAL Ranking, ARIIA – document preparations
- ❖ Actively involved in NBA: Research (National Board of Accreditation) at Panimalar Engineering College, Chennai
- ❖ Department Placement Co-coordinator in Panimalar Engineering College
- ❖ Institute Research Coordinator

WORK EXPERIENCE

TOTAL EXPERIENCE: 14 YEARS 6 MONTHS

- ❖ **Unitive Technologies. Pvt. Ltd,**
Designation: Senior Design Engineer,
Duration: July 2025 – December 2025 (6 Months)
- ❖ **Panimalar Engineering college,**
Designation: Assistant professor

Duration: May 2014 to June 2025 (11 Years)

❖ **Prince Shri Venkateshwara Padmavathy Engineering College,**

Designation& Duration: Lecturer – September2010 to September 2011 (1Year)

Designation & Duration: Assistant Professor - July2013toApril2014 (1Year)

❖ **TJ Engineering College**

Designation: Lecturer

Duration: June 2009 to Sep 2010 (1 Year)

EDUCATION

❖ **Doctorof philosophy**

Ph.D., Pursuing inSolar Collector (CourseWorkCompleted) Anna University, 2023 – Till Date

❖ **Masterof Engineering**

M.E.,ComputerIntegratedManufacturing,(7.8CGPA)

G.K.MCollegeofEngineeringandTechnology,AnnaUniversity, 2011-2013

❖ **BachelorofEngineering**

B.E.,MechanicalEngineering,(67%)

G.K.MCollegeofEngineeringandTechnology,AnnaUniversity, 2005-2009

❖ **HigherSecondary School**

HigherSecondaryEducation, (75%)

VallalS.IAzhagarSamiChettiyarHigherSecondarySchool,Chennai

❖ **SecondarySchool**

SecondaryEducation,(52%)

SRDKVivekanandaVidyalayaJuniorCollege,Chennai.

RESEARCH PUBLICATIONS & SCHOLARLY PROFILE

<i>Publication</i>	:	33
<i>Q1 Journals</i>	:	13
<i>H-Index</i>	:	11
<i>I10-Index</i>	:	11

<i>Cumulative Impact Factor</i>	:	110
<i>Citations (Scopus)</i>	:	264
<i>Publication in WoS</i>	:	23
<i>Publication in Scopus</i>	:	25
<i>Research Area</i>	:	Waste to Energy, Thermal Systems
<i>WOS Researcher ID</i>	:	AEL-2327-2022
<i>Scopus ID</i>	:	57671874400
<i>ORCID ID</i>	:	0000-0002-8504-6790
<i>Vidwan ID</i>	:	576987

JOURNALS PUBLISHED - SCOPUS/WoS (SCIE, ESCI, SSCI)

- V.T. Vimalananth^a, Mukilarasan Nedunchezhiyan, Sathiyamoorthi Ramalingam, Poyyamo zhi Natesan, **Senthil Sampath** “Hybrid computational fluid dynamics (CFD)–experimental characterization of swirl-enhancing intake valve designs for improved combustion and reduced emissions” **Applied Thermal Engineering, Elsevier, Jan 2026 (SCIE, Q1, IF: 6.9)** (Anna University Annexure-1) <https://doi.org/10.1016/j.applthermaleng.2025.129640>
- **S. Senthil**, Thiruselvam Krishnamoorthi, N. Poyyamo zhi, Sathiyamoorthi Ramalingam, Mukilarasan Nedunchezhiyan, Prajith Prabhakar “Computational Evaluation and Thermal Optimization of Advanced Heat Sinks in Proton Exchange Membrane Fuel Cells” **Thermal Science and Engineering Progress, Elsevier, Oct 2025 (SCIE, Q1, IF: 5.4)** (Anna University Annexure-1) <https://doi.org/10.1016/j.tsep.2025.104199>
- Sakthimurugan Veeraraghavan, Gopal Kaliyaperumal, **Senthil Sampath**, Ravikumar Jayabal, Mukilarasan Nedunchezhiyan, Pethuraj Manickaraj, Melvin Victor DePoures, Damodharan Dillikannan Optimized Injection Strategy for Hydrogen-Waste Transformer Oil Biodiesel Dual-Fuel Engines: A Novel Waste-to-Energy Solution Towards Environmental Protection **Process Safety and Environmental Protection, Elsevier, August 2025 (SCIE, Q1, IF: 7.8)** (Anna University Annexure-1) <https://doi.org/10.1016/j.psep.2025.107749>
- K. Thiruselvam, S. Ganesan, E. Vengadesan, **S. Senthil** “Enhancement of Compression Ignition Engine Performance and Emission Reduction Using Pyrolyzed Waste Plastic Oil Blended with Aluminum Oxide Nanoparticles” **Environmental Progress & Sustainable Energy, Wiley, May 2025 (SCIE, Q2, IF: 2.3)** (Anna University Annexure-1)

<https://doi.org/10.1002/ep.70008>

- Muthukumar K, Loganathan T, Senthil Kumar S, Prajith Prabhakar, Vishnu S, **Senthil S** Hydrogen-Rich Syngas production from Food waste via Supercritical water Gasification: Influence of gasification temperature and polyaniline and potassium carbonate (PANI-K₂CO₃) catalyst—**International Journal of Hydrogen, Elsevier**, May 2025 (SCIE, Q1, IF: 8.3) (Anna University Annexure-1) <https://doi.org/10.1016/j.ijhydene.2025.05.375>
- Mukilarasan Nedunchezhiyan, Ravikumar Jayabal, Sathiyamoorthy Ramalingam, **Senthil Sambath** “Enhancing Thermal Efficiency in Fluidized Bed Cooling Towers: An Experimental Approach to Bed Design”, **Journal of Thermal Science and Technology, Dergipark**, April 2025 (SCIE, Q4, IF: 0.4) (Anna University Annexure-1) [doi:10.47480/isibted.1567713](https://doi.org/10.47480/isibted.1567713)
- Mukilarasan Nedunchezhiyan, Sathiyamoorthi Ramalingam, Poyyamozi Natesan, **Senthil Sampath** “CFD-based optimization of solar water heating systems: Integrating evacuated tube and flat plate collectors for enhanced efficiency”, **Case Studies in Thermal Engineering, Elsevier**, March 2025 (SCIE, Q1, IF: 6.4) (Anna University Annexure-1) <https://doi.org/10.1016/j.csite.2025.106017>
- Thiruselvam Krishnamoorthi, K. Rajesh, R. Sathiyamoorthi, S. **Senthil**, N. Poyyamozi “Synergistic effect of nano additives for combustion and emission mitigation in a hydrogen-enriched CI engine using Cocos nucifera oil methyl ester”, **International Journal of Hydrogen Energy, Elsevier**, March 2025 (SCIE, Q1, IF: 8.3) (Anna University Annexure-1) <https://doi.org/10.1016/j.ijhydene.2025.02.143>
- Sathiyamoorthi Ramalingam, **Senthil Sampath**, Thiruselvam Krishnamoorthi, Murugapoopathi Saravanamuthu, Damodharan Dillikannan, “A comparative study on the effect of Dimethyl ether (DME) and Diethyl Ether (DEE) additives on neat Lemongrass oil powered single cylinder diesel engine via Energy and Exergy analysis”, **Chemical Engineering and Processing - Process Intensification, Elsevier**, January 2025 (SCIE, Q1, IF: 3.9) (Anna University Annexure-1) (Anna University Annexure-1) <https://doi.org/10.1016/j.cep.2025.110187>
- S. Padmanabhan, N. Punitha, N. Poyyamozi, **S. Senthil**, D. Damodharan, K. Sakunthala “Sustainability improvement of spark-ignition engine performance enhanced with nanoparticles and hydroxy gas” **International Journal of Hydrogen Energy, Elsevier**, December 2024 (SCIE, Q1, IF: 8.3) (Anna University Annexure-1) <https://doi.org/10.1016/j.ijhydene.2024.11.342>

- **S.Senthil**, NPoyyamozi, RSathiyamoorthi, NDilipRaja, MMuthukannan, “Experimental analysis of hemispherical combustion geometry diesel engine (neemoil) biodiesel with nano additives” **Interactions**, Springer, August 2024 (SCOPUS) <https://doi.org/10.1007/s10751-024-02095-6>
- B Prabhu, Elumalai Vengadesan, **Sampath Senthil**, T Arunkumar “Comprehensive energy and environmental-economic performance analysis of a flat plate solar water heater with a modified absorber” **Thermal Science and Engineering Progress**, Elsevier, August 2024 (SCIE, Q1, IF: 5.4) (Anna University Annexure-1) <https://doi.org/10.1016/j.tsep.2024.102848>
- K Thiruselvam, S Senthil, S Murugapoopathi, Kastian T.T. Amesho “Sustainable engine transformation: assessing hydrogen enrichment and CeO₂ nanoparticle effects on neat palm biodiesel-fueled CI engines” *Environment, Development and Sustainability*, Springer, (SCIE, Q1, IF: 4.2) (Anna University Annexure-1) <https://doi.org/10.1007/s10668-024-05051-0>
- Thiruselvam Krishnamoorthi, **Senthil Sampath**, Murugapoopathi Saravanamuthu, Elumalai Vengadesan, Damodharan Dillikannan “Combined influence of thermal barrier coating and nanoparticle on performance and emissions of DI diesel engine fueled with neat palm oil biodiesel: An Experimental, Statistical and Energy and Exergy Analysis” **Process Safety and Environmental Protection**, Elsevier, (SCIE, Q1, IF: 7.8) (Anna University Annexure-1) <https://doi.org/10.1016/j.psep.2024.03.108>
- Elumalai Vengadesan, T. Arunkumar, Thiruselvam Krishnamoorthi, **Sampath Senthil** “Thermal performance improvement in solar air heating: An absorber with continuous and discrete tubular and v-corrugated fins” **Thermal Science and Engineering Progress**, Elsevier, January 2024 (SCIE, Q1, IF: 5.4) (Anna University Annexure-1) <https://doi.org/10.1016/j.tsep.2024.102416>
- C. B. Priya, Ravi Kumar V, D. Umamaheswari, R. Venkatesh, Karthigairajan M., S. Kaliappan, Manzoore Elahi M. Soudagar, Sami Al Obaid, **Senthil S** “Bio-degradable waste banana and neem fiber reinforced epoxy hybrid composites: characteristics study” **Journal of Mechanical Science and Technology**, Springer, January 2024 (SCIE, Q1, IF: 1.5) (Anna University Annexure-1)
- K. Rajesh, R. Sathiyamoorthi, **S. Senthil**, Mukilarasan N, D. Damodharan, Ravikumar J “Optimization and synthesis process of biodiesel production from coconut oil using central composite rotatable design of response surface methodology”, Proceedings of the Institution

of Mechanical Engineers, **Part E: Journal of Process Mechanical Engineering**, Sage, January 2024 (**SCIE,Q3, IF: 2.2**) (Anna University Annexure-1)
<https://doi.org/10.1177/09544089241230251>

- K.Thiruselvam,S.Ganesan,**S.Senthil**“Efficacyofperformanceandmitigatepollutionof CI engine: Delonix regia biodiesel with n-butanol and exhaust gas recirculation” **Environmental Progress & Sustainable Energy**, Wiley, October 2023 (**SCIE, Q2, IF: 2.3**) (Anna University Annexure-1)<https://doi.org/10.1002/ep.14315>
- Elumalai Vengadesan,Veeman Dhinakaran,**Sampath Senthil**,Pandiyam Renugadevi, RamalingamSenthil“Performanceaugmentation of solar air heater using absorber with multi-functional encapsulated PCM tubes” **Journal of Energy Storage**, Elsevier, July 2023 (**SCIE, Q1, IF: 9.8**) (Anna University Annexure-1)<https://doi.org/10.1016/j.est.2023.108296>
- S.Murugapoopathi,S.Surendranath,T.Ramachandran,Kassian.T.T.Amesho, **S.Senthil** “Energy and Exergy analysis of VCR engine fueled with rubber-seed oil methyl ester using response surface methodology” **Energy**, Elsevier, June 2023 (**SCIE, Q1, IF: 9.4**) (Anna University Annexure-1)<https://doi.org/10.1016/j.energy.2023.128238>
- K.Rajesh,R.Sathiyamoorthi,**S.Senthil**,S.Murugapoopathi,D.Damodharan“Analysisof performance and emission patterns of novel biofuel feedstock neat coconut fatty acid distillate(CFAD) fuelled single-cylinder diesel engine”,**Heat Transfer**, Wiley, March 2023 (**ESCI, IF: 3.6**)<https://doi.org/10.1002/htj.22849>
- N MaryJasmin, T Beena, **S Senthil**, S Sakthi, M Ramesh Kumar, S Rahul Alex, Ram Subbiah“Machinability behavior of synthesized beryllium composite” **Materials Today Proceedings**, Elsevier, November 2022 (**Scopus**) <https://doi.org/10.1016/j.matpr.2022.10.218>
- T.S.Senthil,M.Puviyarasan,S.RameshBabu, **S.Senthil**“Mechanical Characterization of wire arc additive manufactured and cast Inconel 825:A comparative study” **Materials Today Proceedings**, Elsevier, April 2022 (**Scopus**) <https://doi.org/10.1016/j.matpr.2022.04.096>
- NedunchezhiyanMukilarasan,R.Karthikeyan,SathiyamoorthiRamalingam,Damodharan Dillikannan, J.Ravikumar, **Senthil Sampath**, Gopal Kaliyaperumal “Influence of baffles in heat transfer fluid characteristics using CFD evaluation” **International Journal of Ambient Energy**, pp.1-14,**Taylor&Francis** Publication, April 2022(**ESCI,IF:1.086**)

<https://doi.org/10.1080/01430750.2022.2063175>

- Sathiyamoorthi Ramalingam, G. Sankaranarayanan, **S. Senthil**, R. A. Rohith & R. Santhosh Kumar “Effect of Cerium oxide nanoparticles derived from biosynthesis of *Azadirachta indica* on stability and performance of a research CI engine powered by Diesel-Lemongrass oil blends” **Energy & Environment**, pp. 1-23, SAGE Publication, Feb 2022 (SSCI, Q3, IF:4.2) (Anna University Annexure-1) <https://doi.org/10.1177/0958305X221077386>

JOURNALS (UGC CARE/GOOGLE SCHOLAR)

- T. S. Senthil, S. Senthil, C. Vinoth Kumar, M. Puviyarasan “Analysis of mechanical properties of heat treated EN-24 Steel using non-destructive ultrasonic techniques” *Journal of Emerging Technologies & Innovative Research*, vol. 8, issue-4, April-2021
- S. Senthil, K. Thiruselvam, K. Yesuraj, S. Kaushik Rathan "Design and Analysis of valveless pulsejet engine" *International Journal of Research & Analytical Reviews*, vol. 7, issue-2, June-2020
- K. Thiruselvam, B. Balamugundan, S. Senthil, R. Saravanan “Optimization of thermal barrier coating material for diesel engine cylinder liner,” *International Journal of engineering research & technology*, vol. 6, issue-2, April-2019
- T. Mayavan, T. S. Senthil, C. Vinoth Kumar, S. Senthil “Heat transfer and pressure drop of analysis of louvered fin heat exchanger using computational fluid dynamics,” *Journal of applied science and computations*, vol. 6, issue-4, pp-313-319, April-2019
- R. Sathiyamoorthi, B. Maheswaran, S. Senthil “Comprehensive design and FEM analysis of piston and connecting rod using ANSYS for two-wheeler engines,” *Journal of innovation in Mechanical engineering*, vol. 2, issue-1, Jan-Jun-2019.

PATENTS

- **Patent Titled:** “Submarine Drone to Monitor and Digest Blocks in Pipelines and Drainages” has been published on 01-09-2023. Application no: 202341053326
Authors: Mr.T.S. Senthil, Dr.K.S.Jai Aultrin, Ms.P.Renugadevi, Mr.S.Senthil
Status: Published
- **Patent Titled:** “Building a Layer Base Additive Manufacturing process for the fabrication of designed Mesostructured” has been published on 01-09-2023. Application no: 202341053327
Authors: Mr.T.S. Senthil, Dr.S.John Leon, Mr.A.Satheesh Kumar, Mr.S.Senthil
Status: Published
- **Patent Titled:** “Multilayered Composite Material and Method of Producing the same” has been published on 08-09-2023. Application no: 202341057417
Authors: Dr.K.Yesuraj, Dr.K.R. Padmavathi, Mr.S.Senthil, Dr.V.K.Jeba Singh, Mr. A. Ramesh, Mr.T.S. Senthil
Status: Published
- **Patent Titled:** “A Tool Wear Monitoring and measurement apparatus having real time Digital Interfaces” has been published on 17-02-2023. Application no: 202341003252
Authors: Mr.T.S. Senthil, Mr.V. Rajangam, Mr.S.Senthil, Dr.K.R. Padmavathi,
Status: Published

BOOK CHAPTER

- S. Murugapoopathi, Ramalingam Sathiyamoorthi, **S. Senthil** “Critical review on various recycling methods of indium from flat panel displays,” Metal Value Recovery from Industrial Waste Using Advanced Physicochemical Treatment Technologies. (2025), Elsevier <https://doi.org/10.1016/B978-0-443-21884-2.00015-0>

FDP/WORKSHOPS ORGANIZED AND ATTENDED

- Attended 7 days FDP on “Thermal Engineering” at Panimalar Institute of Technology, Chennai in Jan 2016.
- Attended National Seminar on “Environmentally friendly material processes for surface engineering” at Panimalar Engineering College, Chennai in Oct 2017.
- Attended 7 days faculty development program for “Finite element analysis” at Panimalar

Institute of Technology, Chennai in Nov 2017.

- Attended 7 days Faculty Development programme on "Engineering Mechanics- GE6253" at MisrimalNavajeeMunoth Jain Engineering College, Chennai in Dec 2017.
- Co-Coordinator for 2 weeks AICTE sponsored FDP on "Advanced technologies in manufacturing" at Panimalar Engineering College, Chennai in Nov 2019.
- Attended short term online course on "Modeling and simulation using MATLAB" at NITTR, Chandigarh, May 2019.
- Attended short term online course on "Recent trends in automobile technology" at NITTR, Chandigarh, May 2019.
- Attended short term online course on "Outcome-based curriculum" at NITTR, Chandigarh, June 2019.
- Attended short term online course on "Green manufacturing" at NITTR, Chandigarh, Feb 2020.
- Attended 7 days Faculty Development programme on "Heat Transfer and Computational Fluid dynamics towards industrial applications" at Sri Sairam Institute of Technology, Chennai in Jun 2020.
- Attended 3 days Faculty Development programme on "Computational Fluid Dynamics and Engineering Simulations" at Sri Sairam Engineering College, Chennai in Jun 2020.
- Attended 5 days Faculty Development programme on "Engineering Thermodynamics Essentials" at Sri Venkateswara College of Engineering, Chennai in May 2020.
- Attended 5 days Faculty Development programme on "Introduction to Finite Element Analysis" at Panimalar Institute of Technology, Chennai in May 2020.
- Attended 5 days Faculty Development programme on "Design of heat exchanger for HVAC Applications" at Sri Sairam Engineering College, Chennai in May 2021.
- Attended 6 days Faculty Development programme on "Research scopes in Advanced Manufacturing Processes" at S.A. Engineering College, Chennai in Apr 2022.
- Attended 6 days Faculty Development programme on "Emerging Technologies in Mechanical Engineering" at Jeppiaar Institute of Technology, Chennai in Mar 2022.
- Attended 6 days Faculty Development programme on "Research scopes in Advanced Manufacturing Processes" at S.A. Engineering College, Chennai in Apr 2022.
- Attended 5 days Faculty Development programme on "CAD using Solid Works" at S.A. Engineering College, Chennai in Sep 2023.
- Attended 1 week Faculty Development programme on "3D and 4D Printing in Mechanical Engineering" at Panimalar Engineering College, Chennai in Aug 2024.

PERSONAL DETAILS

Age : 38
Sex : Male
Date of Birth : 14/01/1988
Father Name : P Sampath
Mother Name : S Shanthi
Nationality : Indian
Languages Known : Tamil, English
Permanent Address : No: 10, 1st Cross Street, Thirumalai Avenue, South Mada
Street, Thiruvottiyur, Chennai – 600019.

DECLARATION

I hereby confirm that the information given above is true to the best of my knowledge.

(S. Senthil)