

## FACULTY PROFILE

### Personal Information

Full Name: Dr.P.B. Senthilkumar

Designation: Assistant Professor

Official Email ID: senthil.auto@kcgcollege.com

Date of Joining in KCG: 01.07.2024



### Educational Qualifications

Degree	Specialization	University / Institution	Year of Passing
Ph.D.	Automobile Engineering	Vel Tech University	2023
M.E./M.Tech	Automotive Mechatronics (G-ARC)	Vel Tech University	2015
B.E./B.Tech	Automobile Engineering	Anna University	2013

### ACADEMIC PERFORMANCE

### Experience

Teaching Experience	Industry Experience	Research Experience
10.5 Years	NIL	NIL
<b>Total Experience: 10.5 Years</b>		

### Previous Organization

Name of the Organization	Designation	Period		Experience	
		From	To	Years	Months
Vel Tech University	Assistant Professor	29.06.2015	31.05.2024	8 Years	11 Months

## **Courses Taught**

Undergraduate Courses: Automotive Electrical and Electronics, Construction Vehicle, Two and Three-Wheeler, I.C. Engine, Automobile Engineering, Automotive Safety, Design Thinking

Postgraduate Courses: Advanced I.C. Engine, Two and Three-Wheeler

## **FDPs / Workshops Attended**

1. Faculty Development Program on OBE, Research Empowerment through Technology organized by KCG College of Technology, Chennai from 1st July to 5th July, 2025
2. Virtual Faculty Development Program on “The World of Steel: Properties, Processes & Products” organized by IIT PALS from 28th July to 30th July, 2025
3. Virtual International Faculty Development and Training Program (FDP) on Smart and Sustainable Solutions in Mobility: Clean Combustion, Waste to energy & Quality Systems organized by Easwari Engineering College, Chennai from 23<sup>rd</sup> June to 28<sup>th</sup> June, 2025.
4. Bosch Training Program – Train the Trainer on Vehicle Diagnostics organized by Bosch, Bangalore from 16th June, 2025 & 17th June, 2025
5. Online Lecture Series on Industrial energy efficiency and its assessment Methodology organized by IIT PALS, September, 2024.
6. Engineering Solutions for Sustainable Future: Uniting Disciplines to Tackle Carbon Footprint Reduction, Organized by ATAL FDP, KCG College of Technology from 04th to 09th November, 2024.

**FDPs / Workshops Organized**

1. Value Added Program on Vehicle Air Conditioning System by BOSCH & Department of Automobile Engineering, KCG College of Technology, Chennai on 9th August,2025
2. One day Seminar on Seminar on Advanced Driver Assistance Systems (ADAS) organized by BOSCH & Department of Automobile Engineering, KCG College of Technology, Chennai on 28<sup>th</sup> April,2025
3. Value Added Program on Testing of Battery organized by BOSCH & Department of Automobile Engineering, KCG College of Technology, Chennai on 11<sup>th</sup> April ,2025
4. One day Seminar on Clean Combustion & Emission Strategies organized by Department of Automobile Engineering, KCG College of Technology, Chennai on 3<sup>rd</sup> August,2024

**SCIENTIFIC CONTRIBUTION****Online Profiles**

Google Scholar:

[https://scholar.google.com/citations?hl=en&authuser=1&user=181EAacAAAAJ#d=gs\\_hdr\\_drw&t=1767338166798](https://scholar.google.com/citations?hl=en&authuser=1&user=181EAacAAAAJ#d=gs_hdr_drw&t=1767338166798)ORCID: <https://orcid.org/0000-0002-3675-0829>

Scopus ID: 57446771000

Total Number of Research paper	Citations	h-index	i10-index
<b>11</b>	<b>65</b>	<b>6</b>	

**Research Publications****International Journals:**

1. Backiyaraj, A., Parthasarathy, M., Murugu Nachippan, N., **Senthilkumar, P.B.**, Kumaran, T, 2023, **Influence of nano AL O on compression ignition engine characteristics fuelled with Mahua biodiesel**, Materials Today: Proceedings, 2023, 72, pp. 2238–2244.
2. **P. B. Senthilkumar**, M. Parthasarathy, R. Nagarajan, N. Murgunachiappan, P. V. Elumalai, and B. H. Varaprasad, 2022, **The effect of thermal degradation and thermogravimetric analysis on pyrolysis oil production from waste milk packet for CI engine application**, Journal of Thermal Analysis and Calorimetry, 147, 9677–9691 (2022). <https://doi.org/10.1007/s10973-022-11226-6>.
3. **Senthilkumar P B**, Parthasarathy M, Asif Afzal, C Ahamed Saleel, Erdem Cuce, Shaik Saboor, Tanya Gera, 2022, **The influence of exhaust gas recirculation on the characteristics of compression ignition engines powered by tamanu methyl ester**, International Journal of Low-Carbon Technologies, Volume 17, Pages 856–869, <https://doi.org/10.1093/ijlct/ctac046>.
- 4.M. Parthasarathy, P. V. Elumalai, M. Murgunachiappan, **P. B. Senthilkumar**, Saboor Shaik, Mohsen Sharifpur, Nima Khalilpoor, 2022, **Influence of Injection Pressure on the Dual-Fuel Mode in CI Engines Fueled with Blends of Ethanol and Tamanu Biodiesel**, International Journal of Chemical Engineering, 6730963 <https://doi.org/10.1155/2022/6730963>.
5. **P.B. Senthilkumar**, M. Parthasarathy, L. Aravind, R.G. Sathya Narayanan, B. Vegesh, D.R. Sam Nelson, 2022, **Design and analysis of a rear diffuser in a sedan car**, Materials Today: Proceedings, Volume 59, Part 2, Pages 1324–1339, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2021.11.542>.
6. **Senthilkumar, P. B.**, Logesh, K., Bhanderi, M. M., Goyal, V., Randeep, S., & Arya, A., 2020, **Additive manufactured portable vertical axis windmill**, International Journal of Ambient Energy, 41(6), 703–706. <https://doi.org/10.1080/01430750.2018.1484812>.
7. Senthilkumar, P.B., Arunraj, R. Divasharma, Goyal, V. Parmar, J.B., 2018, **Experimental investigation on diesel engine using ethanol and ethanol blends with LHR**, International Journal of Mechanical and Production Engineering Research and Development, ISSN (P): 2249-6890; ISSN (E): 2249-8001, Special Issue, May 2018, 62-67.

8. Dr. N. Gomathi, **P.B. Senthil Kumar**, Haritha S, Sivaiah P, Sai Sowmiya G, 2017, **Internet of things-based accident detection and prevention**, International Journal of Mechanical Engineering and Technology, ISSN 0976-6359 Vol 8 issue 9-page no.196-2014.
9. K. Logesh, V.K. Bupesh Raja, R. Arun Raj, **P.B. Senthilkumar**, 2017, A review of recent trends on reinforcement of fiber metal laminates with nano clay and multi walled carbon nano tube, International journal of Chemtech research, vol 10, issue 3, page no.395-399, ISSN 0974-4290.
10. R. Arunraj, **P.B. Senthilkumar**, S. Mariappa, 2015, **Multi zone Model to Predict a NO<sub>x</sub> and Soot Formation Single Cylinder LHR Diesel Engine running on Bio-diesel**, International Journal of Applied Engineering Research, vol 10, Issue 84, ISSN 0973-4562.
11. R. Ramesh Kumar, **P.B. Senthilkumar**, M. Thamaraikannan, 2015, **Design and Analysis of Disc Brake and Its Structural Components**, International Journal of Applied Engineering Research, vol 10, Issue 84, PP.226-232.
12. R. Ramesh Kumar, M. Thamaraikannan, **P.B. Senthilkumar**, 2015, **Design and Analysis of Spur Gear Using Finite Element Analysis**, International Journal of Applied Engineering Research, vol 10, Issue 84, PP.233-237

#### **Conferences:**

1. **Experimental Studies on Compression Ignition Engine Operated with Blends of Tamanu Biodiesel and Diesel**, International Symposium on Energy Management and Sustainability (ISEMAS), 2022, Turkey.
2. **Assessment on Performance and Emission Characteristics of CI Engine Powered by Tamanu Biodiesel**, International Conference on Energy and Materials Technologies (ICEMT-2021) Organized by the department of Mechanical Engineering, SSNCE during Aug 20-21, 2021.
3. **Experimental Studies on Compression Ignition Engine Operates with Blends of Tamanu Biodiesel and Diesel**, National Conference on Recent Advances in Mechanical Sciences - NCRAMS 21 at Rajalakshmi Engineering College, Chennai.
4. **An Assessment of CI Engine Characteristics Fuelled with Waste Plastic Pyrolysis Oil**, International Conference on Advanced composite materials and

manufacturing ICAMM- 2K20 Organized by the department of Mechanical Engineering, Bharat University, Chennai.

**5. Assessment on performance, combustion and emission characteristics of C.I. engine powered by various biodiesel with EGR**, International Conference on Advances in Renewable Energy and Green Technology ICARE, 2019 at Vellore Institute of Technology.

**6. Combined effect of injection pressure and EGR on CI engine fueled with tamanu ethyl ester**, International Conference on Advances in Renewable Energy and Green Technology ICARE, 2019 at Vellore Institute of Technology.

**7. Fabrication and characterization of epoxy resin/nylon/ coconut coir reinforced hybrid composite material**, Second International conference on Frontiers in automobile and mechanical engineering.

**8. Simulation on Single Cylinder CI Engine Fuelled with Tamanu Biodiesel**, National Conference on Robotics and Automation Engineering at organized by Department of Mechatronics Engineering of Er. Perumal Manimekalai college of Engineering, Hosur.

**9. Experimental Investigation of CI Engine Powered with Diethyl Ether and Biodiesel with Diesel Blend as Fuel**, National conference on materials, Design and construction, NCDMC at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai.

**10. Performance and Emission characteristics of a Multi- cylinder Diesel Engine operated with Mango seed oil and Diesel blends**, National Conference on Design, Materials & Constructions (NCDMC"16), pp.27-32, 2016, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai.

### **Research Guidance**

No. PG Projects:02

No. UG Projects:12

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### **Books / Book Chapters**

1. Backiyaraj, A., Kumaran, T., Parthasarathy, M., Murugu Nachippan, N., Senthilkumar, P.B. Vehicle Aerodynamics and Different Testing Methods, Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics, 2022, pp.388–406.

### **Professional Memberships**

1. Society of Automotive Engineers
2. International Association of Engineers

### **Administrative / Academic Responsibilities**

1. HERO ASDC Lab Co-ordinator
2. IIT PALS InnoWAH Co-ordinator
3. Bosch – Centre of Excellence Co-ordinator
4. Department Placement & Training Co-ordinator
5. Fuels and Lubricants Lab In-charge