



Dr. V. S. Shai Sundaram

Assistant Professor - Research
Mechanical Engineering

Contact

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About Me

Dr. V. S. Shaisundaram, a committed educator, researcher, and innovator in Mechanical Engineering with a Ph.D. and over 10 years of academic experience. My expertise lies in energy systems, thermal engineering, internal combustion engines, and sustainable technologies. I have published 54 research papers, authored 12 book chapters, filed 16 patents, and presented at 28 conferences. Currently serving as an Assistant Professor at VISTAS, I actively contribute to academic governance, innovation cells, and research initiatives. I have guided numerous student projects, organized national workshops, and served as a reviewer and editorial board member for reputed journals. Recognized with multiple awards including Best Teacher and Research Excellence, my focus is on bridging academic theory with practical innovation. I am deeply committed to fostering a culture of curiosity, creativity, and sustainability in engineering education. My vision is to drive impactful, socially relevant research and mentor the next generation of responsible technologists and innovators.

Research Interests

- Thermal Barrier Coatings
- Biofuels
- Nano additives
- Waste Recycle Management
- IC Engines
- Renewable Energy

Education

PhD in Mechanical Engineering, Vels Institute of Science, Technology and Advanced Studies, Chennai (2021)

M.Tech – Energy Technology, (Gold Medal) Puducherry University, (2013)

B.E - Mechanical Engineering , (FWD), Anna University, Chennai (2011)

Publication Details

- Total Journal Publications : 59
- Book Chapters : 12
- SCI : 15
- Scopus : 27
- Others : 17
- Patent Granted : 11
- Patent Published : 05
- Book Published : 02
- NPTEL Courses Completed : 06

Research Metrics

- ❖ Citations : 689
- ❖ h-index : 16
- ❖ i10-index : 21

Research Experience

- Conducted doctoral research on the impact of thermal barrier coatings with cerium oxide nanoparticles on various biodiesel fuels in CI engines, focusing on emission reduction and performance enhancement.
- Investigated novel biodiesel sources (pumpkin seed, tamarind, watermelon, grape seed oils) with nanoparticle additives for sustainable IC engine operation.
- Designed and fabricated systems such as hybrid windmills, solar-powered devices, and efficient biomass stoves.
- Led consultancy projects on autonomous rovers and solar mobile chargers in collaboration with industry partners.
- Specialized in experimental and computational analysis of thermal systems, alternative fuels, and nanoparticle-enhanced combustion.
- Reviewer and editorial board member for journals such as International Journal of Ambient Energy, Scientific Reports, Journal of Energy Institute, Energy, Environment, Development and Sustainability.

Consultancy Projects

1. Development of hybrid Windmill, Seed Grant – VISTAS, INR 1.2 Lakh (2019)
2. Autonomous Rover, ARCOM Tech Solutions Limited, INR 50,000 (2022)
3. Solar Mobile Charger, ARCOM Tech Solutions Limited, INR 1.6 Lakh (2023)