Dr.B.ANBARASAN M.E., Ph.D.

Personal Details:
Date of Birth: **06.09.1989**
E-Mail: **anbarasan5mech@gmail.com**
Permanent Address: **Ramalingam patty, Kamatchipuram (po), Dindigul Tamil Nadu 624 622- India**
Mobile No. : **+91-9600372658**
Marital Status: **Married**
ORCID ID: **0000-0002-7032-3417**

Career Objective

To be a part of the teaching community and strive for excellence in the research and teaching profession with dedication, focus proactive approach, positive attitude and passion and create a spark in the student's community which would create a positive change in the world.

Educational Qualification

Jul' 2017 – Feb' 2023 ANNA UNIVERSITY, CHENNAI.
Doctor of Philosophy in Mechanical Engineering (Part-time Mode)
Web: http://ceg.annauniv.edu
Project Title: **EXPERIMENTAL INVESTIGATION ON VARIABLE COMPRESSION RATIO ENGINE USING NANOPARTICLES, KAPOK OIL METHYL ESTER AND DIESEL BLEND WITH EGR**

Jul' 2011 – Jun' 2013 COLLEGE OF ENGINEERING, GUINDY.
Master of Engineering in Internal Combustion Engineering
Web: http://ceg.annauniv.edu
Project Title: **PERFORMANCEAND EMISSION CHARACTERISTICS OF COUNTRY BORAGE METHYL ESTER DIESEL BLEND IN A C.I ENGINE**

Jul' 2007 – Jun' 2011 M.KUMARASAMY COLLEGE OF ENGINEERING, KARUR.
Bachelor of Mechanical Engineering
Web: https://www.mkce.ac.in/
Project Title: **STONE COLLECTING MACHINE**

Work Experience

Teaching

- **Assistant Professor** – Dhanalakshmi Srinivasan College of Engineering and Technology at Mamallapuram, Chennai, Tamil Nadu, India Department of Mechanical Engineering (May'2013 – April' 2015).

- **Assistant Professor** – PSNA College of Engineering and Technology, Dindigul, Tamil Nadu, India Department of Mechanical Engineering (Aug ’2016- Present)

Additional Roles and Responsibilities:

- **Department Research Coordinator** – PSNA College of Engineering and Technology, Dindigul (Jun ‘2023 – Present)
- **Establishment of Drone Lab-** Drone Lab in-charge (June’2024- present)

Achievements

Acted as a mentor for the project titled "Intelligent ET Sensing System and Water Accounting System for Irrigation Commands Utilizing Drones" 48-hour hackathon hosted by Chennai Institute of Technology in collaboration with Bonfiglioli.

Acted as a mentor for the project titled "Drone-based Intelligent ET Sensing System and Irrigation Water Accounting System for Irrigation Commands." The Garuda India Hackathon is organized by Garuda Aerospace and DMI Engineering College at DMI Engineering College in Kanyakumari**.**

Funded Projects:

Ongoing: Received a grant as a CO-PI of Rs.9.7 Lakhs from Bureau of Indian Standards, New Delhi, “Development of procedure for Determination of Polycyclic Aromatic Hydrocarbons (PAHs) — Gas Chromatography with Mass Spectrometric Detection (GC-MS) Method” under R&D project scheme in May 2024.

Submitted: Submitted a grant as a PI of Rs.7.92 Lakhs from Bureau of Indian Standards, New Delhi “PGD 0102-Impurities in domestic supply of compressed biogas blended PNG in India and their effects on metrological performance of gas meters” under R&D project scheme in April 2024.

Submitted: Submitted a grant as a PI of Rs.5.60 Lakhs from Bureau of Indian Standards, New Delhi “TED 0254-Study for reviewing Performance requirements for Constant Speed Compression Ignition (CI) Internal combustion engines” under R&D project scheme in August 2024.

Submitted: Submitted a grant as a PI of Rs. 27.7 Lakhs in Indian Council of Social Science Research, New Delhi “Enhancement of solar still productivity using phase change material and Nano enhanced phase change material (ICSSR-RMM-2024-9037)” Research Proposal for Major Research Projects (2024-25) in November 2024.

Recognized supervisor:

Recognized supervisor in Anna university Chennai, under the faculty of Mechanical Engineering- **Reference number:4320024.**

Publications in International Journals:

TJ-01 **B Anbarasan**, K Muralidharan C Sakthi Rajan T Rajkumar (2024) "Cobalt chromite nanoparticle effects on kapok diesel emulsion performance and emission characteristics at various injection pressures" Environmental Progress & Sustainable Energy e14385.

TJ-02 Sakthi Rajan C, Muralidharan K, **Anbarasan B** & Ramesh Kumar A (2024) "Environmental effects on the performance and emission characteristics of adding diethyl ether into a biodiesel-powered LHR engine" Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, vol. 46 (1), 7310–7322.

TJ-03 **B Anbarasan**, Sakthi Rajan, C, Balamurugan S. and Venkatesh J (2024) Biodiesel blends for eco-friendly CRDI-VCR engines: enhancing exhaust emissions and engine performance to minimize pollutant emissions.

TJ-04 Rajan CS, **B Anbarasan**, Venkatesh J, Balamurugan S, Karthick R. (2024) Effects of Water-Based Nano-Fluid Emulsions on Pollutant Emissions Using an Internet-of-Things-Based Emission Monitoring System. Engineering Proceedings. 61(1):7.

TJ-05 **B Anbarasan**, Karthick R., Chandramurthy S. R. and Rajkumar T. (2023) "Effect on higher compression ratio on unmodified CI engine powered by biodiesel blend", Multidisciplinary Science Journal, 6(5), p. 2024071.

TJ-06 **B Anbarasan** Karuppusamy, M. and Senthamaraikannan, B, 2023. Investigation on effects of cobalt-chromite nanoparticle blends in compression-ignition engine. Materials Research Express, 10(8), p.085502.

TJ-07 Rajkumar T, Dinesh S, **Anbarasan B**. and Balamurugan S, 2023. Effect of welding process parameters on surface topography and mechanical properties of friction-stir-welded AA2024/AA2099 alloys. Materials Research Express, 10(2), p.026507.

TJ-08 Balamurugan S, Jayakumar K, **Anbarasan B**. and Rajesh M, 2023. Effect of tool pin shapes on microstructure and mechanical behaviour of friction stir welding of dissimilar aluminium alloys. Materials Today: Proceedings, 72, pp.2181-2185.

TJ-09 Sivalingam S, **B Anbarasan**, Asokan, V. and Vaidhyanathan, Y, 2022. An Experimental Assessment of Brake Thermal Efficiency and Exhaust Emissions of a Non-road Genset Diesel Engine Fueled with Aloevera Emulsified Diesel Fuel. In Recent Advances in Materials and Modern Manufacturing: Select Proceedings of ICAMMM 2021 (pp. 205-223). Singapore: Springer Nature Singapore.

TJ-10 **B Anbarasan**. and Karuppusamy M, 2021. The combined effects of cobalt chromite nanoparticles and variable injection timing of preheated biodiesel and diesel on performance, combustion and emission characteristics of CI engine. Heat and Mass Transfer, 57, pp.1565-1582.

TJ-11 Pooja S, **Anbarasan B**, Ponnusami V. and Arumugam A, 2021. Efficient production and optimization of biodiesel from kapok (Ceiba pentandra) oil by lipase transesterification process: Addressing positive environmental impact. Renewable Energy, 165, pp.619-631.

TJ-12 Rajan C.S, Gopinath, G, Devaraju A. and **Anbarasan** B, 2021. Non-linear analysis of double skinned composite hollow columns using geopolymer concrete. Materials Today: Proceedings, 39, pp.662-668.

TJ-13 Sivalingam S., Palanisamy P. and **B Anbarasan**, 2021. Experimental investigation on Jatropha oil Methyl Ester fuelled CI engine using high EGR. Materials Today: Proceedings, 39, pp.274-278.

TJ-14 **Anbarasan B**. Venkatesh J. Jamunarani 2019 Experimental research on performance and emission characteristics of country borage methyl ester - Diesel blend in a compression ignition engine International Journal of Recent Technology 8(2) pp.1835–1839

TJ-15 Karthik S, Muralidharan K. and **Anbarasan B** 2018. Material selection for fin based on Thermal analysis using Ansys and ANN. International Journal of Mechanical Engineering and Technology (IJMET), 9(11), pp.560-567.

Publications in International Conferences:

TJ-16 **Anbarasan, B** & Murugaboopathi S (2024) Analysis of energy, exergy, and emissions in a diesel engine powered by cotton silk seed oil biodiesel with varying injection timings" organized by SRMICET 5th international conference on advances in mechanical engineering (ICAME 2024).

TJ-17 Murugaboopathi S & **Anbarasan B** (2024) "Energy and exergy analysis of FPC collectors using different nanofluids" organized by SRMICET 5th international conference on advances in mechanical engineering (ICAME 2024).

TJ-18 **Anbarasan B** 2024 **"**Effect of methyl ester and diesel blends on engine evaluation in real world drive conditions" organized by ADITYA Engineering college.

TJ-19 **Anbarasan B.** Venkatesh J. Jamunarani (2019) "Experimental Research on Performance and Emission Characteristics of Country Borage Methyl Ester - Diesel Blend in a Compression Ignition Engine" organized by International conference on multi -disciplinary research studies and education.

Research and Development

Technical Reviewer for many internationally reputed journals like, Springer, Taylor and Francis, IOP, WOS.
Trusted reviewer award from IOP Publishers.

Areas of Interest

- INTERNAL COMBUSTION ENGINE
- HEAT TRANSFER
- ALTERNATIVE FUELS
- FLUID MECHANICS
- DRONE TECHNOLOGY

Technical Skills

Teaching and Learning

- Teaching various Mechanical Engineering Related Subjects like
  Engineering Graphics, Engineering Mechanics, Fluid Mechanics, IC Engines, Heat and Mass Transfer, Lean Manufacturing, Renewable Energy Sources.

- Completed a short term course on “ENGINE RESEARCH” at NIT Trichy.
- Completed the professional short term course in “CFD USING ANSYS FLUENT” at AU-FRG Institute for CAD-CAM Anna university
- Successfully completed the NITTTR 8 Modules conducted by AICTE
- I have attended the more than 10 workshop, Faculty Development Program and Seminar related the Mechanical Engineering.
- Our team has organized the STTP “Future perspective and challenges of clean energy utilization in India” Sponsored by AICTE.
- I have completed short term course conducted by IIT Madras in the topic of “Drops, Spray and Atomization” on JAN 2024.
- I have completed the GAIN Course conducted by IIT Kanpur in the topic of fuel /engine interaction in practical internal combustion engines for future emission compliances and efficiency improvements” on NOV 2023.
- I have completed a Six-week training program conducted by PSG STEP in the title of “Technology based Entrepreneurship Development Program on “Accelerating Start-ups in Drones and Industrial Robots" on June 2024.
- I have completed a Drone training program conducted by Garuda aerospace, Chennai. August 2024.

References

Dr. K. Muralidharan, Professor, Dept. of Mechanical Engineering, PSNA College of Engineering and Technology, Tamil Nadu, India. Email: muralidha@gmail.com Mobile: +91 9443775518

Dr. K. N. Sheeba, Associate Professor, Department of Chemical Engineering, National Institute of Technology, Trichy, Tamil Nadu, India Email: sheeba@nitt.edu Mobile: +91 9952842613.

Dr. A. Arumugam, Associate Professor**,** Department of Biotechnology, SASTRA University, Thanjavur, Tamil Nadu, India. E-mail: aruchemxl@scbt.sastra.edu, Mobile:+91 9500235554.

Declaration:

I hereby declare that the information given above by me is true and complete to the best of my knowledge.

Dr. B. ANBARASAN

Place: Dindigul
Date: 04.12.2024