

Faculty Profile



Name of the Faculty: Dr. N. MUTHUKUMARAN

Designation: Assistant Professor

Department: Mechanical Engineering

Date of Joining: 14/11/2005

Faculty ID AICTE ID: 1-3536235228
ANNA UNIVERSITY ID: 6135081

E-Mail Address: muthukumarapme@gmail.com

Qualification: ME., PhD

Specialization: Thermal Engineering, IC Engines and Alternative fuels

Professional Experience: 17 years

Research Guidance: Yes (1 student pursuing)

Awards and Honors: Active young Research Award-2019

Patents:

Title of the invention on “Fiber reinforced plastic composite material used in embossing bumper” -2021

Publications:

(i) International Journals:

1. The influence of Coal fly ash as a catalyst on production of bio fuel from Mahua oil on DI Diesel Engine -IRJET (2014).
2. Preparation of Biofuel by Catalytic Cracking of Mahua oil and Its Impact on Diesel engine Performance – IJET (2015).
3. Synthesis of Cracked *Calophyllum Inophyllum* oil using Fly Ash Catalyst for Diesel Engine Application – FUEL (ELSEVIER-2015).
4. Combustion of Cotton Seed Oil Derived Fuel by Catalytic Cracking in Diesel Engine - IRJET (2015).
5. Sensitivity Analysis of Delamination Factor in Drilling GFR Polyester Composites Using Brad and Spur Drill – JAMR (ASP-2018).
6. Synthesis of Cracked Mahua oil using Coal Ash Catalyst for Diesel Engine Application - Tylor and Francis (IJAE-2018).
7. Design and operating parameters on the Biomass gasification system –JOICS (2019)
8. Production of Biofuel by Catalytic Cracking Process using Coal Ash Catalyst and its Effects on DI Diesel Engine – IJSRR (2019).
9. Analysis the Process Parameters of Fluidised Bed Gasification System Using Corn Stalks -IJAST (2020).
10. Investigation of swirl induced piston on the engine characteristics of biodiesel fueled

diesel engine -FUEL (ELSEVIER-2020).

(ii) International Conferences:

1. The 11th International Exergy, Energy and Environment Symposium (IEEEES-11), has presented a technical paper in the five days Symposium during 14th-18th July 2019. Dept. of Automobile Engineering, SRM Institute of Science and Technology, Chennai.
2. International conference on “Recent Trends in Aero Science and Engineering & Technologies (TECHZILLA-19) has presented a technical paper entitled Experimental Investigation on Cotton Seed Oil Derived Fuel by Catalytic Cracking Process in DI Diesel Engine on 6th Sep 2019, Jeppiaar Institute of Technology, Sriperumbudur.
3. International conference on “Technological Advances in Mechanical Engineering” has presented a technical paper entitled Evaluation of Engine Performance on Biofuel from Vegetable Oil Through Catalytic Cracking in DI Diesel Engine during 19-20th Sep 2019, AMET, Chennai.
4. AITCE Sponsored First International conference on “Advanced Technologies in Electrical Engineering (ICATEE-2019) has presented a technical paper entitled Technological Improvement on Energy Effective Methods Applied to a Solar Cavity Collector during 4-5th Oct 2019, Kamaraj College of Engineering & Technology, Madurai.
5. International conference on Technological in Material, Design, Manufacturing and Energy Sectors (ICTAMDMES-20) during 20-21 Feb 2020. St. Joseph’s College of Engineering, Chennai.

(iii) National Conferences:

1. National Conference on “Recent Advances in Material Science and Manufacturing Engineering” During 15-16th Oct 2018 (RAMME-2018), FEAT, Annamalai University.

2. National Conference on “Recent Trends in Mechanical Engineering and CFD Application” (RTMECA-2018), has presented a paper entitled Performance and Emission Analysis on Non-Edible Oil Derived Fuel by Catalytic Cracking in DI Diesel Engine during 2nd -3rd Nov 2018, FEAT, Annamalai University.
3. National Conference on “Recent Trends in Manufacturing and Material Science Engineering” (NCRTMMSE 2K19), has presented a paper entitled Preparation of Bio-Fuel by catalytic cracking reaction of vegetable oil using coal ash catalyst and its effect on DI Diesel Engine during 4th March 19, Er. Perumal Manimegalai College of Engineering, Hosur.
4. National Conference on “Current Research Outcomes in Mechanical Engineering” (NC-CROME’19) has presented a paper entitled Characterization of Coal Fly ash Catalyst by SEM and EDS Analysis for Biofuel Preparation during 15th to 16th March 2019.
5. TEQIP-III Sponsored 2nd National Conference on “Recent Innovations in Innovations in Welding and Surface Engineering (RIWASE-2019)” has presented a paper entitled Production, Characterization of Biofuel obtained by Catalytic Cracking Using fly ash Catalyst on DI Diesel Engine. during 26-27th July 2019, GCE, Bargur.
6. National Conference on “Recent Trends in Chemical and Environmental Biotechnology (RTCEB)” has presented a paper entitled Effect of Biofuel on Diesel Engine Emission Using Coal Ash Catalyst during 14- 15th Feb 2020, FEAT, Annamalai University.
7. National Conference on “Energy Science and Technology (NCEST-2020)” has presented a paper entitled Experimental Investigation on Cotton Seed Oil Derived Fuel by Catalytic Cracking Process in DI Diesel Engine on 4th March 2020, Periyar

University, Salem.

Conferences/Workshops/
Seminar/ Short Term Refresher
Courses Attended

1. MHRD-AICTE Sponsored Two Weeks SDP on “FUZZY LOGIC: THEORY AND ENGINEERING PRACTICES” During 16-28th June 2008, NIT, Trichy.
2. AICTE sponsored Two Weeks SDP on “AUTOMOTIVE MATERIAL and ELECTRONICS” During 1-13th June 2009, FEAT, Annamalai University.
3. MHRD Sponsored Two Weeks FDP on “RENEWABLE ENERGY TECHNOLOGY” During 21-26th June 2010. NIT Calicut.
4. Two Weeks FDP on “ENTREPRENURSHIP” (DST-NIMAT- 2017) During 15-30th NOV 2017, FEAT, Annamalai University.
5. Two Weeks FDP on “ENTREPRENURSHIP” (MST-NSTEDB) During 12-24 Nov 2018, Centre for Entrepreneurship Development (Tamilnadu) Madurai.
6. AICTE Sponsored One Week STTP on “Methodologies and Best Practices of Vibration Analysis in Automotive Industry” During 13-19th June 2019, GCE, Bargur.
7. TEQIP-III Sponsored One Week FDP on “Strategies and Tools for Effective Online Teaching and Learning” during 4 – 8th Aug 2020. GCE, Bargur. (On line mode).
8. AICTE Sponsored One Week STTP on “Cyber Physical Manufacturing system for Future Industries (CPMS)” during 10 -15th Aug 2020, IFET College of Engineering, Villupuram. (on line mode)
9. MHRD Sponsored Two Weeks FDP on “Design of MMOCs, Digital Skill and E-Content Development” during 17- 30th Aug 2020, Annamalai University.

Conferences/Workshops/
Seminars Organized

1. National Workshop on “Emerging Trends in Cryogenic Technology” During 14-15, March 2006, FEAT, Annamalai University.
2. One day workshop on “Automotive Material” – 7th April 2007, FEAT, Annamalai University.
3. Two-day Workshop on “Future Fuel for Low Emission Engine” 26-27 Feb 2008, FEAT, Annamalai University.
4. DRDO Sponsored workshop on “Bio-Fuel and its Application in IC Engines”- 30th Aug 2010, FEAT, Annamalai University.
5. CSIR Sponsored Two-day Workshop on “Recent Development and Future Trends of Nanotechnology In Automobile” 12-13th April 2017.

Other Contributions (If any)

1. Three Weeks Industrial Training on “MECHANICAL ENGINEERING IN TELECOM INDUSTRY” During 18th May -5th June 2020, BSNL, Chidambaram.