



AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING

Nizara Educational Campus, Muthapudupet, Avadi IAF, Chennai – 600 055.

Ph: 044 – 26842627 / 26842086

DEPARTMENT OF MECHANICAL ENGINEERING

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| NAME & INITIALS | R MANIKANDAN | |
| DESIGNATION | ASSISTANT PROFESSOR | |
| EDUCATIONAL QUALIFICATION | M.E.,(Ph.D.) | |
| EXPERIENCE | 20 Years | |
| DATE OF JOINING | 09 / 08 / 2010 | |
| EMAIL ID | r.manikandan@aalimec.ac.in | |
| AREA OF SPECIALISATION | CAD/CAM ,Composite Materials & Surface Coatings | |

EDUCATIONAL QUALIFICATION

| DEGREE | BRANCH / SPECIALIZATION | INSTITUTION | UNIVERSITY | YEAR |
|--------|-------------------------|-----------------------------------|--------------------|----------|
| B.E | MECHANICAL | ADHIYAMAAN COLLEGE OF ENGINEERING | PERIYAR UNIVERSITY | 2004 |
| M.E | CAD/CAM | MADHA ENGINEERING COLLEGE | ANNA UNIVERSITY | 2010 |
| Ph.D. | MECHANICAL ENGINEERING | - | ANNA UNIVERSITY | Pursuing |

PROFESSIONAL MEMBERSHIPS

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| IAENG – INTERNATIONAL ASSOCIATION OF ENGINEERS |
| INSTITUTE OF RESEARCH ENGINEERS AND DOCTORS |
| INTERNATIONAL ASSOCIATION OF ENGINEERS |
| SEEK DIGITAL LIBRARY |
| ISTE – LIFE MEMBER |

FDP / WORKSHOP / SEMINAR / STTP ATTENDED

- **NATIONAL LEVEL AICTE SPONSORED SEMINAR-“KAIZEN-The stepping stone for innovation and invention”** at Rajalakshmi Engineering College, Chennai during the period of 20th & 21st March 2009.
- One day workshop on **syncopated approach & skill matrix ineffective communication** on 9th Jan-2010 at P.B.College of Engineering, Chennai.
- 6th INUP-“**Nano Fabrication Technologies**” Familiarization Workshop at **IIT-BOMBAY** during the period of 30 Nov-2011 to 04-Dec-2011
- 9th INUP-HANDS ON TRAINING- “**Nano Fabrication Technologies**” Workshop at **IIT-BOMBAY** during the period of 23- April- 2012 to 27-April- 2012
- Attended AICTE recognized Short Term Course on “**NANOMATERIALS: CHARACTERIZATION & APPLICATIONS**” from 18.11.2013 to 22.11.2013 at **NITTTR, Chandigarh**.
- FDP on **GRAPHICAL SYSTEM DESIGN IN ENGINEERING APPLICATIONS** -16th June 2015.
- Certified person – **Boiler Operations** (Non- IBR)- by Thermax

ACHIEVEMENT DETAILS

- 30% increase in production rate at S.P.General Engineering, Hosur.
- 97% result produced in Automotive Chasis Design, while working in Sri Ram Engineering College, Chennai.
- 100% result produced in Production Technology, while working in P.B.College of Engineering, Chennai.
- 96.5% result produced in Gas Dynamics and Jet Propulsion in A.M.S.College of Engineering, Chennai.
- 96.5% result produced in Process Planning & Cost Estimation in A.M.S.College of Engineering, Chennai.
- 100 % result produced in Unconventional Machining Process
- 100 % result produced in Basic Civil & Mechanical Engineering
- Fabricated Solar Car with student team members
- Fabricated Compaction Factor Test Apparatus with student team members
- Fabricated HC Refrigeration Test Rig – Developed R&D Set up – Thermal Lab Equipment

PATENTS

- **A NOVEL CYLINDRICAL PROTECTIVE ENCLOSURE FOR POULTRY WITH INTEGRATED FOOD AND WATER SYSTEMS** - Application No.202441071620 A The Patent Office Journal No. 40/2024 Dated 04/10/2024 90889
- **INNOVATIVE OIL CAP DESIGN FOR ENHANCED LEAKAGE CONTROL AND OIL CONSERVATION**
Application No.202441071623 A The Patent Office Journal No. 40/2024 Dated 04/10/2024 90891
- **AI-DRIVEN GEAR PROFILE ERROR DETECTION SYSTEM FOR PRECISION MANUFACTURING** Application No.202441100785 A The Patent Office Journal No. 52/2024 Dated 27/12/2024 130015

PUBLICATION DETAILS

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| Experimental Investigation on the Tribological Characterization and Mechanical/Thermal Properties of Hybrid Composites (Al6061/SiC/B4C) – Surface review and letters-(2024) - SCI |
| Design and simulation analysis of a Rack & Pinion seat recliner mechanism - AIP Conference Proceedings (2024) SCOPUS INDEXED |
| Combustion performance and emission characteristics of aloe vera diesel-emulsified fuel in a DI diesel engine- Environmental Science and Pollution Research(2024) - SCI |
| Effect of reinforcement particles (SiC / Alumina) addition on Al6061 alloy and optimization of dry sliding wear properties using GRA- Surface review and letters(2024) - SCI |
| An investigation on thermo-mechanical characterization of activated carbon/coconut shell powder reinforced natural composites - Journal of Process Mechanical Engineering (2022)- SCI |
| A study on mechanical and morphological analysis of banana/sisal fiber reinforced IPN composites - Fibers and Polymers 22 (8), 2261-2268 (2021) - SCI |
| Effect of cascara/testa natural fiber reinforced (epoxy based) hybrid composites Journal of Physics: Conference Series 1921 (1), 012093 (2021) SCOPUS INDEXED |
| Tribology Characterization of Plasma Sprayed Zirconia-Alumina and Fused Zirconia-Alumina Composite Coated Al-Si Alloy at Different Sliding Velocity and Load Conditions- Silicon (2021) SCI I |
| A study on developing 3-dimensional architecture array of solar park above railways Materials Today: Proceedings 45 (2), 2444-2448 (2021) SCOPUS INDEXED |
| Experimental analysis of basalt fiber reinforced egg shell/water hyacinth loaded epoxy composites Materials Today: Proceedings 45 (2), 1660-1663 (2020) SCOPUS INDEXED |
| Effect of various phase change materials (paraffin wax/hydrogenated vegetable oil) packed in a fabricated shell and tube type heat exchanger Materials Today-Proceedings 45 (2), 1427-1432 (2020) SCOPUS INDEXED |
| Experimental analysis of basalt fiber reinforced egg shell/water hyacinth loaded epoxy composites Materials Today: Proceedings 45 (2), 1660-1663 (2020) SCOPUS INDEXED |
| Effect of various phase change materials (paraffin wax/hydrogenated vegetable oil) packed in a fabricated shell and tube type heat exchanger Materials Today-Proceedings 45 (2), 1427-1432 (2020) SCOPUS INDEXED |
| Investigation on the thermal properties of the multilayered ceramic coatings deposited using atmospheric plasma spraying Materials Research Innovations 19 (sup8), S8-301-S8-305 (2015) SCI INDEXED |
| Comparison and Effect of Different Shot Peening Parameter on Steel Blades with 12%Cr Journal of Recent Research in Engineering and Technology (2015) |
| Performance and Combustion Characteristics of a Compression Ignition Engine Using Honne oil blends International Journal of Machine and Construction Engineering (2015) |