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Present Position

Associate professor, Department of Automobile Engineering, Madras Institute of Technology, Anna University, Chennai from November-2014.

Present Additional Responsibility

- Zonal Co-ordinator Zone IV, Madras Institute of Technology, Anna University, Chennai from October-2016.
- Vice president Athenium, Madras Institute of Technology, Anna University, Chennai from August-2016.

Previous Positions

- Associate professor, Department of Automobile Engineering, Madras Institute of Technology, Anna University, Chennai from November-2014.
- Assistant Professor, Department of Automobile Engineering, Madras Institute of Technology, Anna University, Chennai during June-2009 and November-2014.
- Lecturer, Department of Automobile Engineering, Madras Institute of Technology, Anna University, Chennai during August-2006 and June-2009.

Previous Additional Responsibility

- Pg Chief Superintendent Me University Examination, Department of Automobile Engineering, Anna University, Chennai from November-2015.
- Chief Superintendent B.tech University Examination, Department of Automobile Engineering, Anna University, Chennai during October-2009 and November-2009.
- Research Coordinator, , Anna University, Chennai during September-2006 and September-2007.
- Programme Officer, , Anna University, Chennai during September-2006 and July-2013.
- Resident Counselor, , Anna University, Chennai during August-2006 and September-2009.

- Vehicle Incharge, Department of Automobile Engineering, Anna University, Chennai from August-2006.
- Nss Program Officer, Department of Automobile Engineering, Anna University, Chennai during August-2006 and July-2011.
- Research Coordinator, , Anna University, Chennai during August-2006 and July-2013.
- Resident Counselor, Anna University, Anna University, Chennai during August-2001 and September-2005.

Other Employment

- Senior Lecturer, Vellore Institute of technology, Vellore for 1.2 years.
- Assistant Professor, Dhanalaksmi college of engineering, Chennai for 0.5 year.
- Teaching Research Associate, College of Engineering, Guindy for 4 years.
- Lecturer, Sapthagiri college of Engineering, Dharmapuri for 3 years.

Degree

- ❖ M.E. in INTERNAL COMBUSTION ENGINEERING , College of Engineering, Guindy, Anna university (1999 - 2001).
- ❖ B.Tech. in Automobile Engineering, Madras Institute of Technology, Chrompet, Anna University (1993 - 1996).

Research Degree

- ❖ Ph.D. in Internal combustion engines, Automobile from Faculty of Mechanical Engineering, College of Engineering, Guindy, Anna University (2001 - 2005).
Title: EMISSION AND PERFORMANCE STUDIES ON LHR ENGINE WITH FUEL ADDITIVES AND EXHAUST AFTER TREATMENT DEVICE.

Area of Specialisation

- Engine and emission control
- Alternate fuels
- Automotive chassis

Membership in Professional Organization

- Combustion Institute (Indian Section) (CIIS)

- > Society of Automotive Engineers (SAE)
- > Institute of Engineers (MIE)

Research Guidance

Number of Ph.D Scholars Guided	: 9
Number of Ph.D Scholars Guiding	: 9
Number of M.E./ M.Tech. Projects Guided	: 20
Number of M.E./ M.Tech. Projects Guiding	: 2

Papers Published in Journals

Research Papers Published in International Journals	: 20
Research Papers Published in National Journals	: 11

1. Prabhakar S and Annamalai K, " Biodiesels: an alternative renewable energy for next century", Journal of Scientific & Industrial research , published by NATL INST SCIENCE COMMUNICATION. Vol. 70, pp. 875-878 (2011).
2. Nanthagopal K and Annamalai K, "Hydrogen enriched compressed natural gas (HCNG) – a futuristic fuel for internal combustion engines", THERMAL SCIENCE, published by Vinca institute nuclear sciences. Vol. 15, Issue 4, pp. 1145-1154 (2011).
3. Prabhakar S. and Annamalai K., "Experimental study of using hybrid vegetable oil blends in diesel engine", Journal of Scientific & Industrial research, Vol. 71, pp. 612-615 (2012).
4. Prabhakar S, Annamalai K and J Isaac JoshuaRamesh lalvani, " Experimental study of using hybrid vegetable oil blends in diesel engine", Journal of Scientific & Industrial Research, published by NATL INST SCIENCE COMMUNICATION. Vol. 71, Issue 9, pp. 612-615 (2012).
5. Jaichandar, S. and Annamalai K., "Performance and exhaust emission analysis on pongamia biodiesel with different open combustion chambers in a DI diesel engine", Journal of Scientific & Industrial Research, Vol. 71, pp. 487-491 (2012).
6. Jaichandar, S. and Annamalai, K., " Combined effect of injection timing and combustion chamber geometry on the performance of a biodiesel fuelled diesel engine", Energy, published by ELSEVIER SCI LTD. Vol. 47, Issue 1, pp. 388-394 (2012).
7. Jaichandar, S. and Annamalai, K., " Performance and exhaust emission analysis on pongamia biodiesel with different open combustion chambers in a DI diesel engine", Journal of Scientific & Industrial Research, published by NATL INST SCIENCE COMMUNICATION. Vol. 487, pp. 487-491 (2012).
8. Jaichandar, S. and Annamalai, K, "Influences of re-entrant combustion chamber geometry on the performance of Pongamia biodiesel in a DI diesel engine", Energy, published by ELSEVIER SCI LTD. Vol. 44, Issue 1, pp. 633-640 (2012).

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9. Jaichandar, S. and Annamalai, K., " Effects of open combustion chamber geometries on the performance of pongamia biodiesel in a DI diesel engine", Fuel, published by ELSEVIER SCI LTD. Vol. 98, pp. 272-279 (2012).
 10. M Parthasarathy, J. Isaac Joshua Ramesh Lalvani, B. Parthiban, K. Annamalai, "Comparison Of Performance And Emission Characteristic Of Tamuna, Mahua And Pongamia Biodiesel In A DI Diesel Engine", Advanced Materials Research, published by Transtech publicications. Vol. 768, pp. 218-225 (2013).
 11. Jaichandar, S. and Annamalai, K., " Combined impact of injection pressure and combustion chamber geometry on the performance of a biodiesel fueled diesel engine", Energy, published by ELSEVIER SCI LTD. Vol. 55, pp. 330-339 (2013).
 12. J Isaac Joshua Ramesh Lalvani, M. Parthasarathy, A.V. Arunkumar, K. Annamalai, " Performance Improvement On A Single Cylinder Diesel Engine Powered With Pongamia Biodiesel By Incorporating Swirling Grooves", Advanced Materials Research, published by Advanced Materials Research. pp. 199-205 (2013).
 13. Pradeep Kumar Arokiasamy Remigious, Annamalai Kandasamy, and, "An Experimental Investigation into Chosen Parameters of Diesel-Water Emulsion on Combustion Processes", Journal of Chemistry, published by Hindawi Publishing Corporation. Vol. 2013, pp. 1-6 (2013).
 14. Pradeepkumar AR, Annamalai, K & Premkartikkumar, SR, " Adelfa – A futuristic Biodiesel Fuel for DI Diesel Engines A comparative experimental investigation", Chinese Science Bulletin, published by SCIENCE PRESS. Vol. 59, Issue 9, pp. 924-930 (2013).
 15. J Isaac Joshua Ramesh Lalvani, K. Kirubakaran, M. Parthasarathy, R. Sabarish, K. Annamalai, " Performance Characteristics and Emission Analysis of a Single Cylinder Diesel Engine Operated on Blends of Diesel and Waste Cooking Oil", IEEE xplore, published by IEEE. Vol. 978, pp. 781-785 (2013).
 16. Premkartikkumar S R, Pradeep Kumar A R, Annamalai K, " Effectiveness Of Oxygen Enriched Hydrogen-HHO Gas", THERMAL SCIENCE, published by Vinca institute nuclear sciences. Vol. 18, Issue 1, pp. 259-268 (2014).
 17. Pradeep kumar AR, Annamalai, K & Premkartikkumar, SR, "Adelfa (NOME - Nerium Oil Methyl Ester) with DEE as the fuel additive for NOx reduction in DI Diesel engines – An experimental investigation", Journal of Scientific & Industrial research(, Vol. 73, pp. 627-632 (2014).
 18. PREMKARTIKKUMAR S R, K. ANNAMALAI AND A. R. PRADEEPKUMAR, " Significance Of Inlet Air Temperature On Reducing Engine-Out Emissions Of Di Diesel Engine Operating Under The Influence Of Oxygen Enriched Hydrogen Gas", Iranian journal of science and technology-Transactions of Mechanical Engineering, published by SHIRAZ UNIVIVERSITY. Vol. 38, pp. 57-68 (2014).
 19. Parthasarathy M, Muhilan P, Isaac Joshua Ramesh Lalvani J, B Dhinesh, Annamalai K, "Influence Of Ethanol Blending On CI Engine Performance And Exhaust Emissions Operated With Mango seed Oil Methyl Ester", Journal of Chemical and Pharmaceutical Sciences, pp. 326-330 (2015).

20. Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Dhinesh B, Annamalai K, "Experimental Investigation on D.I Diesel engine with Renewable Biodiesel – Adelfa", Journal of Chemical and Pharmaceutical Sciences, pp. 240-242 (2015).
21. Jayaraj S, Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Dhinesh B, Annamalai K, "Effect Of Injection Pressure On B20 Blend In Single Cylinder Diesel Engine", Journal of Chemical and Pharmaceutical Sciences, pp. 426-428 (2015).
22. Dhinesh B, Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Annamalai K, "Study on Performance and Emission Characteristics for Diesel Engine Powered With Biodiesel", Journal of Chemical and Pharmaceutical Sciences, pp. 228-230 (2015).
23. Parthasarathy M, Isaac Joshua Ramesh Lalvani J, Dhinesh B, Annamalai K, "Effect of hydrogen on ethanol–biodiesel blend on performance and emission characteristics of a direct injection diesel engine", Ecotoxicology and Environmental Safety, Vol. 10, (2015).
24. Parthasarathy M, Isaac Joshua Ramesh Lalvani J, Dhinesh B, Annamalai K, " Effect of hydrogen on ethanol–biodiesel blend on performance and emission characteristics of a direct injection diesel engine", Ecotoxicology and Environmental Safety, pp. 2015.08.020 (2015).
25. Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Dhinesh B, Annamalai K, " Experimental Investigation of Combustion, Performance and Emission Characteristics of a Modified Piston ", Journal of Mechanical Science and Technology, Vol. 15, (2015).
26. Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Dhinesh B, Annamalai K, " Pooled Effect of Injection Pressure and Turbulence Inducer Piston on Combustion, performance and Emission Characteristics of a D.I Diesel Engine Powered with Biodiesel Blend", Ecotoxicology and Environmental Safety, Vol. 10, pp. 2015.08.020 (2015).
27. Premkartikkumar SR, Annamalai K & Pradeep kumar, AR, " Impact of ambient air temperature and injection timing on reduction of engine out emissions of DI diesel engine operating under the influence of oxygen enriched hydrogen gas", International Journal of Oil, Gas and Coal Technology, Vol. 9, pp. 109-127 (2015).
28. Parthasarathy M, Isaac Joshua Ramesh Lalvani J, Muhilan P, B Dhinesh, Annamalai K, "Experimental Study of Acetylene Enriched Air in DI Diesel Engine Powered by Biodiesel-Diesel Blends", Journal of Chemical and Pharmaceutical Sciences, pp. 231-233 (2015).
29. Dhinesh B, Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Annamalai K, "An assessment on performance, emission and combustion characteristics of single cylinder diesel engine powered by Cymbopogon flexuosus biofuel", Energy Conversion and Management, Vol. 10, Issue 201603, (2016).
30. M.Annamalai, Dhinesh B, K.Nanthagopal, P.SivaramaKrishnan, Isaac Joshua Ramesh Lalvani J, Parthasarathy M, Annamalai K, "An assessment on performance, combustion and emission behavior of a diesel engine powered by ceria nanoparticle blended emulsified biofuel", Energy Conversion and Management, Vol. 10, pp. 2016.06.062 (2016).

31. Dhinesh B, Isaac Joshua Ramesh Lalvani J, Parthasarathy M, , Annamalai K, "An experimental analysis on the influence of fuel borne additives on the single cylinder diesel engine powered by Cymbopogon flexuosus biofuel", Journal of the Energy Institute, Vol. 10, pp. 2016.04.010 (2016).

Papers Presented in Programmes

Research Papers Presented in International Programmes : 16

Research Papers Presented in National Programmes : 9

1. Annamalai K. and Jeyachandran K, "Experimental Investigation on Control of Particulate Emissions using cera-fiber filter in a DI Diesel Engine" presented in a International level conference on 2004 Fall Technical Conference , organised by ASME Internal Combustion Engine Division, USA from 24-Oct-2004 to 27-Oct-2004.
2. Annamalai K. and Jeyachandran K, "Experimental Investigation on Control of Pollutants Emissions and Performance by using 2-Ethoxy Ethanol Blended Diesel in an Insulated DI Diesel Engine" presented in a International level conference on International Mechanical Engineering Conference, organised by Kuwait society of engineers - mechanical, Saudi arabia from 05-Dec-2004 to 08-Dec-2004.
3. Annamalai K. and Jeyachandran K, "Experimental Investigation on the Control of Particulate Emissions using cera-fiber filter in an insulated DI Diesel Engine" presented in a International level conference on Greentech 2005, an International Conference on Environment, Ecology and Pollution, organised by Arunai Engineering College, India from 05-Jan-2006 to 06-Jan-2006.
4. Nandagopal K, Annamalai K, "Performance Evaluation of DI Diesel Engine Fuel by Waste Cooking Oil (Bio-Diesel) Emulsified With Diesel " presented in a International level conference on Bio-Fuels Vision -2015 , organised by College of Engineering, India from 13-Oct-2006 to 15-Oct-2006.
5. Banugopan V N and Annamalai K , "Experimental investigation of preheated fuel in an ethanol driven ci engine" presented in a National level conference on NCICEC 2009, organised by Bapuji Institute of Engineering and Technology, India from 10-Dec-2009 to 12-Dec-2009.
6. Jaichandar S and Annamalai K, "A study of the performance and emission characteristics of a direct injection diesel engine fuelled with Jatropha Methyl Ester and it's diesel blends" presented in a International level conference on ICAME, organised by NIT, Surat, India from 04-Jan-2010 to 06-Jan-2010.
7. "The Status of Biodiesel as an alternative fuel for diesel engine - an overview" presented in a National level conference on NCSE, organised by Chitkara Institute of Engineering and Technology, Chandigarh, India from 15-Jan-2010 to 16-Jan-2010.
8. Jaichandar S and Annamalai K, "PRoduction properties and Characteristics of biodiesel as vehicular Fuel- A review " presented in a National level conference on NCAERA, organised by Sriram Engineering College, Chennai, India from 22-Apr-2010 to 23-Apr-2010.

9. "Performance of CI Engine using Jatropha Biodiesel " presented in a National level conference on NCAERA, organised by Sriram Engineering College, Chennai, India from 22-Apr-2010 to 23-Apr-2010.
10. Jaichandar S and Annamalai K, "Performance and emission Studies on Biodiesel by using Different Combustion Chamber in a DI Diesel Engine" presented in a International level conference on ICETRE, organised by Anna University, Chennai, India from 18-Aug-2010 to 21-Aug-2010.
11. Terrin Babu.P. and Annamalai K, "Experimental investigation on performance and emission characteristics of dual fuel split injection of ethanol and diesel in ci engine" presented in a International level conference on FAME 2010, organised by Sathyabama University, Chennai, , India from 25-Nov-2010 to 27-Nov-2010.
12. Srivathsan.P.R. and Annamalai K, "Experimental investigation on a low heat rejection engine" presented in a International level conference on FAME 2010, organised by Sathyabama University, Chennai, , India from 25-Nov-2010 to 27-Nov-2010.
13. Pradeep Kumar. A.R. Annamalai. K, Premkartikkumar.SR and, "Analytical investigations on heat transfer in low heat rejection di diesel engine" presented in a International level conference on FAME 2010, organised by Sathyabama University, Chennai, , India from 25-Nov-2010 to 27-Nov-2010.
14. Banugopan.V.N. and Annamalai K, "Experimental investigation on d.i. diesel engine fuelled by ethanol diesel blend with varying inlet air temperature" presented in a International level conference on FAME 2010, organised by Sathyabama University, Chennai, , India from 25-Nov-2010 to 27-Nov-2010.
15. Prabhakar S. and Annamalai K, "Analysis of chosen parameters of ci engine for nerium oil – an alternative fuel" presented in a International level conference on FAME 2010, organised by Sathyabama University, Chennai, , India from 25-Nov-2010 to 27-Nov-2010.
16. Gopalakrishnan .P. and Annamalai K, "Experimental investigation on control of emission in d.i. diesel engine fuelled by ethanol diesel blend with varying inlet temperature" presented in a International level conference on ASPACC, organised by Combustion Institute , Hyderabad, India from 10-Dec-2010 to 13-Dec-2010.
17. Prabhakar S. and Annamalai K, "Effect of selective catalytic reduction on emission characteristics of a diesel engine" presented in a International level conference on ASPACC, organised by Combustion Institute , Hyderabad, India from 10-Dec-2010 to 13-Dec-2010.
18. Annamalai K and Prabhakar S., "Experimental investigation on the performance and emission characteristics of naturally aspirated di diesel engine fuelled with methyl ester of nerium " presented in a International level conference on ASPACC, organised by Combustion Institute , Hyderabad, India from 10-Dec-2010 to 13-Dec-2010.
19. Annamalai K and Prabhakar S., "A new energy for diesel engine" presented in a International level conference on ORSI2010, organised by Thigarajar college of Engineering, Madurai, India from 15-Dec-2010 to 17-Dec-2010.

20. M.Parthasarathy, J.Isaac JoshuaRamesh Lalvani, V.N.Banugopan, K.Annamalai, "Experimental Studies On DI Diesel Engine Using Hydrogen With Tamanu-Ethanol Blends" presented in a National level conference on NCICEC 2013, organised by SVNIT, Surat, India from 13-Dec-2013 to 16-Dec-2013.
21. J. Isaac JoshuaRamesh Lalvani,M. Parthasarathy, V.N. Banugopan and Dr.K.Annamalai, "Combustion Improvement on a Direct Injection Diesel Engine" presented in a National level conference on NCICEC 2013, organised by SVNIT, Surat, India from 13-Dec-2013 to 16-Dec-2013.
22. Vigneswaran, J. Isaac JoshuaRamesh Lalvani, M.Parthasarathy and, "Surface Roughness Improvement in a DI Diesel Engine for Low" presented in a National level conference on NCICEC 2013, organised by SVNIT, Surat, India from 13-Dec-2013 to 16-Dec-2013.
23. Pradeep Kumar. A.R. Annamalai. K, Premkartikkumar.SR and, "Effect of Injection Pressure on Performance Characteristics of Adelfa" presented in a National level conference on NCICEC 2013, organised by SVNIT, Surat, India from 13-Dec-2013 to 16-Dec-2013.
24. Sr. Premkartikkumar, K. Annamalai and A. R. Pradeepkumar, "Reducing engine-out emissions of DI diesel engine using oxygen" presented in a National level conference on NCICEC 2013, organised by SVNIT, Surat, India from 13-Dec-2013 to 16-Dec-2013.
25. Pradeep kumar.A.R. and Annamalai K, "3D thermal analysis of the cylinder head of a partially stabilized zirconia coated water cooled di diesel engine" presented in a International level conference on ORSI2010, organised by Thigarajar college of Engineering, Madurai, India from 15-Dec-2014 to 17-Dec-2010.

Current Sponsored Projects

1. "Design and fabrication of light weight impact attenuator" (July-2017 - January-2018). Project Cost: 19000.00.
2. "3D printed aluminium composite pedal assembly and steering wheel" (July-2017 - January-2018). Project Cost: 20000.00.
3. "Determination of performance and combustion characteristics of a diesel engine fuelled with biodiesel of Jatropha oil and lemon grass oil blend with " (July-2017 - January-2018). Project Cost: 20000.00.
4. "Experimental investigation on performance of a diesel engine fuelled with diesel bio diesel blend using nano particle as an additive " (July-2017 - January-2018). Project Cost: 23000.00.

Sponsored Projects Completed

1. "Electronic Vehicle Dynamic Control", funded by Centre for Technology Development and Transfer (February-2014 - August-2014). Project Cost: 25000.00.
2. "Fuel Level indicator" (October-2015 - March-2016). Project Cost: 21000.00.

Programme Chaired

1. Chairman, National level conference titled "RECENT TRENDS IN AUTOMOBILE ENGINEERING" conducted by S. A. ENGINEERING COLLEGE, Poonamallee, Chennai from 09-Feb-2011.
2. Chairman, National level conference titled "UNIVERSAL INNOVATIONS IN MECHANICAL ENGINEERING" conducted by K.S.Rangasamy College of Technology, Tiruchengode from 11-Feb-2011.
3. Chairman, National level conference titled "EMERGING TRENDS IN MECHANICAL ENGINEERING" conducted by Nagarjuna College of Engineering & Technology. Bangalore from 04-May-2011.
4. Chairman, National level conference titled "ADVANCES AND INNOVATIONS IN CIVIL AND MECHANICAL ENGINEERING" conducted by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENGINEERING COLLEGE, CHENNAI from 17-Aug-2012.

Programme Organized

1. Co-ordinator, National level Short Course on "Faculty Development Programme on Automotive Electrical and Electronics" from 10-Jun-2013 to 16-Jun-2013.

Invited Lectures

1. Delivered a Lecture on "Technology Advancements in Automotive Engines" in Special Lecture organized by Kingston Engineering College, Katpadi, Vellore 632 059 (08-Sep-2010).
2. Delivered a Lecture on "USE OF BIODIESEL IN IC ENGINES" in Guest Lecture organized by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENG, Avadi, Chennai (24-Aug-2012).
3. Delivered a Lecture on "RECENT TRENDS IN IC ENGINES" in Resource person organized by Velammal Engineering college, Chennai - 600066 (02-Nov-2012).
4. Delivered a Lecture on "AUTOMOBILE ENGINEERING" in Guest Lecture organized by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENG, Avadi, Chennai (15-Mar-2013).
5. Delivered a Lecture on "TRANSMISSIONS" in Guest Lecture organized by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENG, Avadi, Chennai (15-Mar-2013).
6. Delivered a Lecture on "AUTOMOTIVE CHASSIS" in Guest Lecture organized by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENG, Avadi, Chennai (15-Jul-2013).
7. Delivered a Lecture on "ALTERNATIVE ENERGY SOURCES" in Guest Lecture organized by VEL TECH HIGH TECH Dr.RANGARAJAN Dr.SAKUNTHALA ENG, Avadi, Chennai (14-Mar-2014).