

BIO DATA

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Professional Qualification : M.E., Ph.D.

Date of Birth : 29.09.1969

Professional Experience : 28 years

Current area of Research : IC Engine, Alternative fuels, Bio fuels, Nano fluids, Heat transfer

Research Supervision : PhD - 5

Research Publications : 76 (Conference - 24+8, Journal - 3+41)

Awards : Bagged best paper award 5 times in a National and International conferences.

Academics

Level	Board/ University /Institute	Year of passing	% Marks
Ph.D (Mechanical)	Anna University, Chennai	2014	
M.E (Thermal Engineering)	Government College of Technology, Coimbatore, Anna University, Chennai	2005	75
A.M.I.E (Mechanical)	Institution of Engineers (India), Calcutta	2002	64
DIPLOMA (Mechanical)	T.P.E.V.R. Govt. Polytechnic Vellore	1988	86
SSLC	S.N.K.M.H.S.School. Vellore	1985	82

TOTAL EXPERIENCE: Teaching & Industrial experience of 28 years

TEACHING EXPERIENCE (14 Years)

Name of the College	Designation	From	To
VIT University, Vellore	Associate Professor	June-2015	Till date
Sri Sairam Engineering College, Chennai	Assistant Professor	July-2013	May-2015
SMK Fomra Institute of Technology, Chennai	Associate professor	April-2011	June-2013
Md. Sathak AJ college of Engineering, Chennai	Assistant Professor	Sep-2007	April-2011
Sri Andal Alagar Engineering College, Chennai	Assistant Professor	July-2006	Sep-2007
Sri Ramanujar Engineering College, Chennai	Assistant Professor	June-2005	July-2006

INDUSTRIAL EXPERIENCE (14 Years)

Details of Publications

1. Radha krishna gopidesi, Rajavarapu rambabu, Chunchu balarama krishna, Yemineni siva sankara rao & Srikanth reddy, **Premkartikkumar SR** (2020): Compatibility of a diesel engine for jatrophia and tamarind seed oil mixed biofuel and its impact on environment, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 10, No. 3, pp.2451–56.
2. Radha Krishna Gopidesi & **S. R. Premkartikkumar** (2019): Evaluating the characteristics of a diesel engine fuelled with water in diesel emulsion and hythane gas in a dual-fuel mode, International Journal of Ambient Energy, DOI: 10.1080/01430750.2019.1670258.
3. Radha Krishna Gopidesi & **S. R. Premkartikkumar** (2019): A review on emulsified fuels and their application in diesel engine, International Journal of Ambient Energy, DOI: 10.1080/01430750.2019.1667435.
4. Gopidesi, R.K. and **Premkartikkumar, S.R.** (2019) 'Performance, emission, and combustion analysis of diesel engine fuelled with emulsified biodiesel', Progress in Industrial Ecology – An International Journal, Vol. 13, No. 3, pp.292–301.
5. Radha Krishna Gopidesi & **S. R. Premkartikkumar** (2019): Abating environmental pollutants of a diesel engine by using emulsified fuel, International Journal of Ambient Energy, DOI: 10.1080/01430750.2019.1614983.
6. Nagarjuna Kumma, Radha Krishna Gopidesi, T Raja Rao, K Mohan Kumar and **Premkartikkumar SR**, Experimental Investigation on Diesel Engine Fuelled with Hythane Gas, International Journal of Mechanical Engineering and Technology, 10(2), 2019, pp. 571- 575.
7. S. Vijaya Kumar Reddy & **S. R. Premkartikkumar** (2019): An overview of recent developments in nanocoatings and biodiesel production for diesel engine application, International Journal of Ambient Energy, DOI: 10.1080/01430750.2019.1608858

8. S Vijaya kumar Reddy, **Premkartikkumar SR**, Performance and Emission Analysis Of Plasma Sprayed TiO₂ Coated Piston, International Conference on Progress in Automotive Technologies (ICPAT 2019), Vellore Institute of Technology, Vellore.
9. Kautkar Nitin Uttamrao, **Premkarthikkumar SR**, Preparation, And Microstructure Analysis Of Plasma Sprayed Fly Ash Coating On Fg 350 Gray Cast Iron, International Conference on Progress in Automotive Technologies (ICPAT 2019), Vellore Institute of Technology, Vellore.
10. Radha Krishna Gopidesi, N Subrahmanya Phani Kumar, B Balaji, K Siva Krishna, **Premkarthikkumar SR**, Evaluation Of Common Rail Direct Injection Engine Performance, Emission, And Combustion Characteristics, International Conference on Progress in Automotive Technologies (ICPAT 2019), Vellore Institute of Technology, Vellore.
11. Radha Krishna Gopidesi, Anjaneyulu K, Nagarjuna K, Raja Rao T, **Premkartikkumar SR**, Experimental Investigation Of Performance, Emission And Combustion Characteristics Of Bi-Fuel Engine with exhaust gas recirculation, International Conference on Progress in Automotive Technologies (ICPAT 2019), Vellore Institute of Technology, Vellore.
12. Kautkar Nitin Uttamrao & **Premkartikkumar, SR** 2018, 'A review on an emission as well as performance characteristics of nanoemulsified biodiesel fuelled diesel engine', Proceedings of international conference on Advances and challenges for sustainable ecosystem (ICACSE 2018), Thiruchirapalli, pp. 32-35.
13. Gopidesi Radha Krishna & **Premkartikkumar, SR** 2018, 'Abating environmental pollutants of a diesel engine by using emulsified fuel', Proceedings of international conference on Advances and challenges for sustainable ecosystem (ICACSE 2018), Thiruchirapalli, pp. 21-26.
14. Gopidesi, R.K. and **Premkartikkumar, S.R.** (2018) 'Review on effects of performance, emission and combustion characteristics of emulsified fuel in bifuel engine', Progress in Industrial Ecology – An International Journal, Vol. 12, Nos. 1/2, pp.59–66.
15. K. N. Uttamrao and **SR. Premkartikkumar**, "Production of biodiesel from refined cotton seed oil as well as its effects as fuel in diesel engine," Int. J. Mech. Prod. Eng. Res. Dev., vol. 8, no. 3, 2018.
16. **SR. Premkartikkumar**, V. Ashok, A. R. Bhabhra, and A. Beladiya, "Design and analysis of a new airfoil for rc aircrafts and uavs," Int. J. Mech. Eng. Technol., vol. 9, no. 4, 2018.
17. Radha Krishna Gopidesi, **Premkartikkumar SR**, Naveen Kumar Chinthala, Narendra Kumar S, 2018, Investigation of performance and emission characteristics of di diesel engine fuelled with mahua ethyl esters, Pak. J. Biotechnol., Vol. 15, pp. 107-110.
18. Gopidesi Radha Krishna & **Premkartikkumar, SR** 2018, Applications of Emulsions as an Alternate Fuel for Bi-fuel engines- Review, International Journal of Pure and Applied Mathematics, vol. 118, no. 18, pp. 4149-4155.
19. K. Datta Sai, R. K. Gopidesi, **SR. Premkartikkumar**, and K. Nagarjuna, "Effects of water diesel emulsion on diesel engine," Int. J. Mech. Prod. Eng. Res. Dev., vol. 8, no. 1, 2018.
20. N. Saraf, A. Devarajan, S. S. Mokashi, G. Rao, V. Dalal, and **SR. Premkartikkumar**, "Molten salt reactors and their development over the years - a review," Int. J. Mech. Prod. Eng. Res. Dev., vol. 8, no. 3, 2018.
21. Gopidesi Radha Krishna & **Premkartikkumar, SR** 2017, 'Applications of emulsions as

- an alternate fuel for bi-fuel engines- review', Proceedings of international conference on Advances in Science, Technology and Management, Vellore, pp. 8-11.
22. Pradeepkumar A R, Annamalai K, **Premkartikkumar, SR**, Effect of partially stabilized zirconia (Zr₂O) in improving the efficiency of emulsified fuel, IOP Conf. Ser.: Mater. Sci. Eng. 263 062051.
 23. Somya Ranjan Gochhayat, Kunjan Modi, Amrutkar Pranit Sanjay, Satwik Talegaonkar, Saumen Dutta, Shivam Sanjay Singh and **Premkartikkumar SR** 2017, Determination of Flow Characteristics In Fire-Tube Boiler Using Numerical Simulation, International Journal of Mechanical Engineering and Technology 8(11), pp. 121–128.
 24. S Vijaya Kumar Reddy, **Premkartikkumar SR**, Radha Krishna Gopidesi and Nitin Uttamrao Kautkar, 2017, A Review on Nano Coatings for Ic Engine Applications, International Journal of Mechanical Engineering and Technology 8(9), pp. 70–76.
 25. **Premkartikkumar SR**, Gopidesi Radha Krishna, Nitin Uttamrao Kautkar, 2017, A futuristic fuel - Hydrogen, International Journal of Advance Research in Engineering, Science & Technology, vol. 4, no. 9, pp. 1-4.
 26. **Premkartikkumar, SR**, 2016, 'Enhancing diesel engine combustion using hydrogen enriched fuels – A Review', International Journal of ChemTech Research, vol. 9, no. 1, pp. 1-6.
 27. **Premkartikkumar, SR**, 2015, 'Using hydrogen as a fuel in diesel engine – A Review', International Journal of ChemTech Research, vol. 8, no. 8, pp. 188-193.
 28. **Premkartikkumar, SR**, Pradeepkumar, AR, 2015, 'Effect of using hydrogen mixed gases as a fuel in internal Combustion engines – A Review', International Journal of Innovative Research in Advanced Engineering (IJRAE), vol. 9, no. 2, pp. 27-31.
 29. **Premkartikkumar, SR**, Annamalai K, Pradeepkumar A R, 2015, 'Renewable alternative fuel for diesel engines - diesohol', Journal of Chemical and Pharmaceutical Sciences, vol. 7, pp. 212-214.
 30. Pradeepkumar A R, Annamalai K, **Premkartikkumar, SR**, Senthur N S, 2015, 'Effect of emulsified fuel on performance and emission characteristics in di diesel engine', Journal of Chemical and Pharmaceutical Sciences, vol. 7, pp. 215-218.
 31. **Premkartikkumar, SR**, 2015, 'Reducing oxides of nitrogen (NO_x) emission of DI diesel engine using refrigerated methanol blend as a fuel', International Journal of ChemTech Research, vol. 7, no. 5, pp. 2469-2473.
 32. **Premkartikkumar, SR**, 2015, 'Influence of oxygen enriched hydrogen gas as a combustion catalyst in a DI diesel engine operating with varying injection time of a diesel fuel,' RSC Advances, vol. 5, no. 39, pp. 30583-30591.
 33. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2015, '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, no. 1, pp. 109-127.
 34. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2015, 'A renewable alternative fuel for diesel engines - Diesohol', Proceedings of the National Conference on Recent trends and developments in sustainable green technologies (NCRTDSGT 2015), Chennai, pp. 1-4.
 35. Pradeep Kumar, AR, Annamalai, K, **Premkartikkumar, SR**, & Senthur, NS 2015, 'Effect of Emulsified Fuel on Performance and Emission Characteristics in DI Diesel Engine', Proceedings of National Conference on Recent trends and developments in sustainable green technologies (NCRTDSGT 2015), Chennai, pp. 1-4.

36. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2014, 'Effectiveness of oxygen enriched hydrogen-HHO gas addition on DI diesel engine performance, emission and combustion characteristics,' Thermal Science, vol. 18, no. 1, pp. 259-268.
37. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2014, '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, vol. 38, no. M1, pp. 57-68.
38. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2014, 'Adelfa –A futuristic Biodiesel Fuel for DI Diesel Engines A comparative experimental investigation', Chinese Science Bulletin, vol. 59, no. 9, pp. 924-930.
39. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2014, 'Adelfa (NOME-Nerium Oil Methyl Ester) with DEE as the fuel additive for NO_x reduction in DI Diesel engines - An experimental investigation', Journal of Scientific & Industrial Research, vol. 73, no. 1, pp. 627-632.
40. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2013, 'An Experimental Investigation into Chosen Parameters of Diesel-Water Emulsion on Combustion Processes', Journal of Chemistry, vol. 2013, pp. 1-6.
41. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2013, 'Using hydrogen as a fuel in automotive engines – An investigation', International Journal of innovative technology and research, vol. 1, no. 1, pp. 90-93.
42. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2013, 'Influence of injection timing on emission parameters of Adelfa biodiesel (Nerium oil methyl ester - NOME) fuelled in DI CI engine', International Journal of Innovative Technology and Research, vol. 1, no. 1, pp. 99-102.
43. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2013, 'Effect of addition of oxygen enriched hydrogen gas produces by electrochemical reaction in the reduction of pollutants coming out from a DI diesel engine', International Journal of ChemTech Research, vol. 5, no. 4, pp. 1523-1531.
44. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2013, 'Experimental Investigation On Emission Parameters Of Transesterified Adelfa Oil (Methyl Ester Of Nerium Oil)', International Journal of Chem Tech Research, vol. 5, no. 4, pp. 1654-1670.
45. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2013, 'Reducing engine-out emissions of DI diesel engine using oxygen enriched hydrogen gas as a combustion additive', Proceedings of the National Conference on I.C. Engines and Combustion (NCICEC-2013), Surat, pp. 1-4.
46. Pradeep Kumar, AR, Annamalai, K, **Premkartikkumar, SR**, & Arularasu, S 2013, 'Effect of injection pressure on performance characteristics of Adelfa (Nerium Oil Methyl Ester – NOME) fuelled DI diesel engine', Proceedings of National Conference on IC engines and combustion (NCICEC-2013), pp.15-19.
47. Thiyagarajan, B, **Premkartikkumar, SR**, Vamsikrishna, N, Praveenkumar, B & Sreenath, R 2013, 'An innovative way to increase the heat transfer rate of a heat exchanger using phase change material', Proceedings of the National conference on Recent Trends in Green Energy and Green Structures (RTGEGS) , Chennai, Feb 22-23, 2013. pp. 1-6
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- fuel of 21 st century', Proceedings of the National conference on Recent Trends in Green Energy and Green Structures (RTGEGS) , Chennai, Feb 22-23, 2013. Pp. 13-17.
49. Varun Vasudevan & **Premkartikkumar, SR** 2013, 'Performance and Emission Characteristics in diesel engine fueled with diethyl ether/diesel fuel blends – A Review', Proceedings of the National conference on Recent Trends in Green Energy and Green Structures (RTGEGS) , Chennai, Feb 22-23, 2013. Pp. 32-38
 50. Arnesh Melvin, T, **Premkartikkumar SR**, Krishnaprasad, V, Saminathan, J & Praveenkumar, P 2013, 'Effect of thermal barrier coating on performance and emission characterstics of DI diesel engine- A Review', Proceedings of the National conference on Recent Trends in Green Energy and Green Structures (RTGEGS) , Chennai, Feb 22-23, 2013. pp. 52-57.
 51. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2012, 'Effect of inlet air temperature on increasing fuel economy and reducing smoke emission of DI diesel engine operating under the influence of oxygen enriched hydrogen', Archives Des Sciences, vol. 65, no. 11, pp. 531-543.
 52. Pradeepkumar, AR, Annamalai, K & **Premkartikkumar, SR** 2012, 'Environment friendly biodiesel for diesel engines – Adelfa an experimental investigation with modified compression ratio', Archives Des Sciences, vol. 65, no. 11, pp. 20-33.
 53. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2012, 'Automotive engines with hydrogen – An analysis and investigation', Journal of Engineering Today, vol. 14, no. 2, pp. 227-230.
 54. Pradeep kumar, AR, Annamalai, K & **Premkartikkumar SR** 2012, 'Performance and emission characteristics two different biodiesel fuel in DI diesel engine' Journal of Engineering Today, vol. 14, no. 2, pp. 231-234.
 55. Pradeep Kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2012, 'Performance comparison of DI diesel engine and LHR engine with biodiesel as fuel', Proceedings of international conference on Advances in Mechanical Engineering (ICAESM-2012), Nagapattinam, pp. 313-316.
 56. Pradeep Kumar, AR, Annamalai, K & **Premkartikkumar, SR** 2012, 'Effect of Thermal Barrier Coating on DI Diesel Engine Fuelled with P20 Biodiesel', Proceedings of international conference on Emerging Trends in Science, Engineering and Technology (INCOSET 2012), Tiruchirappalli, Springer, pp. 55-62.
 57. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2012, 'Hydrogen fuelled dual fuel engine with variable compression ratio', Proceedings of the National Conference on Emerging Trends in Mechanical Engineering (NCE TIME'12), Chennai, pp. 21-23.
 58. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2012, 'Automotive engines with hydrogen – An analysis and investigation', Proceedings of the National Conference on Contemporary Approaches in Mechanical Engineering (NCCAME-2012), Chengalpet, pp. 227-230.
 59. Pradeepkumar, AR, Annamalai, K & **Premkartikkumar, SR** 2012, 'Performance and Emission characteristics of two different biodiesel fuels in DI diesel engine', Proceedings of the National Conference on Contemporary Approaches in Mechanical Engineering (NCCAME-2012), Chengalpet, pp. 231-234.
 60. Pradeep Kumar, AR, Annamalai, K, Prabhakar, S, Banugopan, VN, & **Premkartikkumar, SR** 2011, 'Experimental investigation in a semi adiabatic ceramic coated DI diesel engine', International Journal of Thermal Science and Engineering,

vol. 1, no. 1, pp. 1-5.

61. **Premkartikkumar, SR**, Annamalai, K, Prabakar, S, Banugopan, VN & Pradeepkumar, AR 2011, 'Revolution in automotive engines with hydrogen as a fuel – An analysis and investigation', Proceedings of the International Conference on Engineering, Science and Technology (ICEST-2011), Perambalur, pp. 273-277.
62. Pradeepkumar, AR, Annamalai, K, Prabakar, S, Banugopan, VN & **Premkartikkumar, SR** 2011, 'Low heat rejection engine an innovative technology for a better efficiency', Proceedings of the International Conference on Engineering, Science and Technology (ICEST-2011), Perambalur, pp. 278-282.
63. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2011, 'Eco friendly fuel for DI diesel engines - Hydrogen', Proceedings of the International Conference on Green Technology and Environmental Conservation (GTEC-2011), Chennai, pp. 135-139.
64. Pradeep Kumar, AR , Annamalai, K, **Premkartikkumar, SR**, Prabhakar , S, Banugopan, VN & Mallika Parveen, C 2011, 'Environment friendly fuel for DI diesel engines – Biodiesel', Proceedings of the Green Technology and Environmental Conservation (GTEC-2011), Chennai, pp. 121-124.
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66. **Premkartikkumar, SR**, Annamalai, K, Prabakar, S, Banugopan, VN & Pradeepkumar, AR 2011, 'A potential alternative fuel for DI diesel engine - Hydrogen', Proceedings of the National Conference on Advances and Innovations in Mechanical Engineering (AIME-2011), Chennai, pp. 66-71.
67. Pradeepkumar, AR, Annamalai, K, Prabakar, S, Banugopan, VN & **Premkartikkumar, SR** 2011, 'Thermal barrier coatings for DI diesel engines – An energy efficient technology', Proceedings of the National Conference on Advances and Innovations in Mechanical Engineering (AIME-2011), Chennai, pp. 52-57.
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69. Pradeep Kumar, AR, Annamalai, K, **Premkartikkumar, SR**, Mallika Parveen, C, Prabhakar, S, & Banugopan, VN 2011, 'Performance and emission characteristics of Biofuel in Low Heat Rejection engines', Proceedings of National Conference on Advancement and Recent Innovations in Mechanical Engineering (ARIME 2011), pp. 41-43.
70. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2011, 'Emission characteristics of a DI diesel engine with hydrogen as fuel', Proceedings of the National Conference on Modeling and Optimization of Automotive Systems (MAAS-2011), Coimbatore, pp. 13.
71. Pradeepkumar, AR, Annamalai, K & **Premkartikkumar, SR** 2011, 'Performance characteristics of a semi adiabatic DI diesel engine', Proceedings of the National Conference on Modeling and Optimization of Automotive Systems (MAAS-2011), Coimbatore, pp. 37.
72. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2011, 'An emerging trend in automotives with hydrogen as a fuel', Proceedings of the National Conference on Future Engineering in Automobile Technology (NCFEAT'11), Chennai, pp. 84.

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74. **Premkartikkumar, SR**, Annamalai, K & Pradeepkumar, AR 2011, 'Use of hydrogen to enhance the performance of diesel engine', Proceedings of the National Conference on Emerging Trends in Energy Engineering, Chennai, pp. 46-49.
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