Dr.A.Karthikeyan Publications

1. Jayaraman, J., Alagu, K., Appavu, P., Joy, N., Mariadhas, A. ,Impact of Methyl, Ethyl, and Butyl Ester Blends of Freshwater Algae Oil on the Combustion, Performance, and Emissions of a CI Engine, Energy and Fuels, 2020, 34(8), pp. 9763-9770

2. Anderson, A., Karthikeyan, A., Ramesh Kumar, C., Ramachandran, S., Praveenkumar, T.R.,Lowest emission sustainable aviation biofuels as the potential replacement for the Jet-A fuels, Aircraft Engineering and Aerospace Technology, 2020

3. Ravi, S., Karthikeyan, A., Jayaprabakar, J, Experimental study of oxygenated additive in diesel-waste plastic oil-propanol blend operated in a single-cylinder diesel engine, Digest Journal of Nanomaterials and Biostructures, 2020, 15(3), pp. 757-767

4. N. Anbazhaghan , **A. Karthikeyan** , J. Jayaprabakar & A. Prabhu,Evaluation on the consequence of cerium oxide nanoparticle additive in biomass derived fuel blended with diesel for CI engine operation, International Journal of Ambient Energy, Published Online: 19 Jun 2020(Scopus)

5. Saikrishnan, V., **Karthikeyan, A.,** Beemkumar, N,The thermal performance analyses of the solar energy-powered thermal energy storage system with $MgCl_2 \cdot 6H_2O$ as PCM. *J Braz. Soc. Mech. Sci. Eng.* 42, 31 (2020). https://doi.org/10.1007/s40430-019-2106-z **(WoS) IF1.98**

6. J.Jayaprabakar, **Alagu Karthikeyan**, Enzymatic production of biodiesel using lipase catalyst and testing of an unmodified compression ignition engine using its blends with diesel,Renewable Energy, Volume 145, January 2020, Pages 399-407, https://doi.org/10.1016/j.renene.2019.06.061 **(WoS)IF 5.439**

7. V Saikrishnan, **A Karthikeyan**, S Laksmisankar, N Beemkumar, Thermophysical Characteristic Analysis Of Edible Erythritol And Xylitol For Their Use As Phase Change Materials, INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH VOLUME 8, ISSUE 11, NOVEMBER 2019 (Scopus)

8. Saikrishnan, V., **Karthikeyan, A.,** Selvaraj, B,Experimental study on thermal performance of xylitol in a latent heat storage combined with sensible heat storage, AIP Conference Proceedings 2161, 020038 (2019); https://doi.org/10.1063/1.5127629

9. **Karthikeyan Alagu**, Harish Venu, Novel water hyacinth biodiesel as a potential alternative fuel for existing unmodified diesel engine: Performance, combustion and emission characteristics, Energy,Volume 179, 15 July 2019, Pages 295-305, https://doi.org/10.1016/j.energy.2019.04.207 **(WoS) IF 5.537**

10. Beemkumar, N., Yuvarajan, D., Karthikeyan, A., Ganesan, S, Comparative experimental study on parabolic trough collector integrated with thermal energy storage system by using different

reflective materials, Journal of Thermal Analysis and Calorimetry, Volume 137, Issue 3, 15 August 2019, Pages 941-948, https://doi.org/10.1007/s10973-018-07989-6 **(WoS) IF2.471**

11. **A.Karthikeyan** , J.Jayaprabakar ,Energy and exergy analysis of compression ignition engine fuelled with rice bran biodiesel blends, International Journal of Ambient Energy Volume 40, Issue 4, 19 May 2019, Pages 381-387, https://doi.org/10.1080/01430750.2017.1399459 (Scopus)

12. Ravi, S., Karthikeyan, A., Effect of propanol addition on the performance and emissions characteristics of a direct injection diesel engine fuelled with waste plastic oil, International Journal of Ambient Energy, Published online: 02 Oct 2019 (Scopus)

13. Jayaraman, J., **Alagu, K**., Venu, H., Appavu, P., Joy, N., Jayaram, P., Mariadhas, A., Enzymatic production of rice bran biodiesel and testing of its diesel blends in a four-stroke CI engine, Energy Sources, Part A: Recovery, Utilization and Environmental Effects **(WoS) IF1.184**

14. Tipole, P**., Karthikeyan, A**., Bhojwani, V., Deshmukh, S., Babar, H., Tipole, B., Examining the impact of magnetic field on fuel economy and emission reduction in I.C. engines, International Journal of Ambient Energy, Published online: 19 Sep 2019 (Scopus)

15. Kharadi, F.H, **Karthikeyan. A,** 40 K single-stage split-type Stirling cryocooler, International Journal of Ambient Energy, 2019. https://doi.org/10.1080/01430750.2019.1630313 (Scopus)

16. Kharadi, F.H., **Karthikeyan, A.,** Virendra, B., Inamdar, A., Investigate the effect of regenerator mesh on cooling performance, International Journal of Ambient Energy, 2019. https://doi.org/10.1080/01430750.2019.1653973 (Scopus)

17. Beemkumar Nagappan, **Karthikeyan Alagu**, Yuvarajan Devarajan, Heat transfer enhancement of a cascaded thermal energy storage system with various encapsulation arrangements, Thermal science, 2019, Vol. 23, No. 2A, pp. 823-833 DO:10.2298/TSCI160926227N (WoS) IF 1.093

18. P Tipole, **A Karthikeyan**, V Bhojwani, S Deshmukh, H Babar, B Tipole, Reduction in the exhaust emissions of four-stroke multi- cylinder SI Engine on application of multiple pairs of magnets, International Journal of Ambient Energy 39 (8), 823- 829. https://doi.org/10.1080/01430750.2017.1354321 (Scopus)

19. Tipole, P., **Karthikeyan, A.,** Bhojwani, V. Sundare, A., Shah, P, Investigation on a diesel engine's performance with integration of magnetic flux on the fuel line, International Journal of Ambient Energy, 39(7), pp. 726-731,2018. https://doi.org/10.1080/01430750.2017.1341431 (Scopus)

20. Beemkumar Nagappan, **Karthikeyan Alagu**, Yuvarajan Devarajan, and Dinesh Babu Munuswamy, Energy and Exergy Analysis of Multi-Temperature PCMs Employed in a Latent Heat Storage System and Parabolic Trough Collector, Journal of Non-Equilibrium Thermodynamics Volume 43, Issue 3, 26 July 2018, Pages 211-220, https://doi.org/10.1515/jnet-2017-0066 **(WoS)IF 2.157**

21. **Karthikeyan Alagu**, Beemkumar Nagappan, Jayaprabakar Jayaraman, Anderson Arul GnanaDhas, Impact of antioxidant additives on the performance and emission characteristics of C.I engine fuelled with B20 blend of rice bran biodiesel, Environmental Science and Pollution Research, vol 25,Issue 18, pp 17634-17644,2018. https://doi.org/10.1007/s11356-018-1934-1 **(WoS) IF 2.8.**

22. Beemkumar,N. **Karthikeyan,A.,** Saravanakumar,B. Jayaprabakar.J, Performance improvement of D-sorbitol PCM-based energy storage system with different fins, International Journal of Ambient Energy, Volume 39, Issue 4, 19 May 2018, Pages 372-376. https://doi.org/10.1080/01430750.2017.1303642 (Scopus)

23. Saikrishnan, V., **Karthikeyan, A**., Laksmisankar,S, Experimental investigation of a combined solar parabolic dish and trough collector for wax melting application, International Journal of Mechanical and Production Engineering Research and Development, Volume 8, Issue 1, February 2018, Pages 897-906 (Scopus)

24. Shrikant Madiwale, **Karthikeyan Alagu** and Virendra Bhojwani, Investigation Of Cottonseed Oil Biodiesel With Ethanol As An Additive on Fuel Properties, Engine Performance, Combustion and Emission Characteristics of a Diesel Engine, Thermal Science, Published Online First-Issue,2018, https://doi.org/10.2298/TSCI180604235M **(WoS)**

25. Madiwale, S., **Karthikeyan, A**., Bhojwani, V,Properties investigation and performance analysis of a diesel engine fuelled with Jatropha, Soybean, Palm and Cottonseed biodiesel using Ethanol as an additive, Materials Today: Proceedings, Volume 5, Issue 1, 2018, Pages 657-664. https://doi.org/10.1016/j.matpr.2017.11.130 (Scopus)

26. Saikrishnan, V.,**Karthikeyan, A.,**Jayaprabakar, J , Analysis of ethanol blends on spark ignition engines", International Journal of Ambient Energy, Volume 39, Issue 2, 2018, Pages 103-107. https://doi.org/10.1080/01430750.2016.1269678 (Scopus)

27. Tipole, P., **Karthikeyan, A.,** Bhojwani, V, Performance analysis of vapour compression cycle water chiller with magnetic flux at the condenser exit, Energy and buildings, Volume158,1January2018,Pages282-289, https://doi.org/10.1016/j.enbuild.2017.08.028 **(WoS) IF 4.495.**

28. S. Madiwale, **A. Karthikeyan**, V. Bhojwani ,Cottonseed oil biodiesel with ethanol as an additive-an alternative fuel for diesel engine, ARPN Journal of Engineering and Applied Sciences Volume 12, Issue 17, 1 September 2017, Pages 5160-5167(Scopus)

29. S. Madiwale, **A. Karthikeyan**, V. Bhojwani and M. Dombale, Improvement of palm oil biodiesel properties using ethanol as an additive and its effect on diesel engine performance, combustion and emissions, ARPN Journal of Engineering and Applied Sciences, Vol. 12, no. 13, July 2017, PP 3987-3994. (Scopus)

30. N.Beemkumar, **A. Karthikeyan**, D. Yuvarajan, S. Lakshmi Sankar, Experimental Investigation

on Improving the Heat Transfer of Cascaded Thermal Storage System Using Different Fins,Arabian Journal Science and Engineering Volume 42, Issue 5, 1 May 2017, Pages 2055-2065, https://doi.org/10.1007/s13369-017-2455-9 **(WoS) IF 0.865.**

31. Anbarasu.A., **Karthikeyan.A**., Effect of Injection Pressure on the Performance and Emission Characteristics of CI Engine using Canola Emulsion Fuel, International Journal of Ambient Energy, vol 38, Issue 3, pp 314-319. https://doi.org/10.1080/01430750.2015.1092472 (Scopus)

32. **Karthikeyan, A.,**Venkatesh, D.,Ramkumar, T., Experimental investigation on spark ignition engine using blends of bio ethanol produced from citrus peel wastes ,International journal of Ambient Energy, Vol 38.Issue 2,PP 112-115,2017, https://doi.org/10.1080/01430750.2015.1048900 (Scopus)

33. J.Jayaprabakar, **A.Karthikeyan,** V.Rameshkumar, Effect of injection timing on the combustion characteristics of ricebran and algae biodiesel blends in a compression-Ignition engine, International Journal of Ambient Energy, Vol 38,Issue 2,PP 116- 121,2017. https://doi.org/10.1080/01430750.2015.1048901 (Scopus)

34. N.Beemkumar**, A.Karthikeyan**, Heat Transfer Enhancement of LHSS System using Different Encapsulating Material with and without Fins, International Journal of Ambient Energy,Vol 38,Issue 1,PP 77-84,2017. https://doi.org/10.1080/01430750.2015.1035801 (Scopus)

35. **A Karthikeyan**, J Jayaprabakar and Richard Dude Williams, Experimental Investigations on Diesel engine using Methyl esters of Jatropha oil and fish oil, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1,2017. **DOI:** 10.1088/1757-899X/197/1/012020 (Scopus)

36. S. Madiwale, **A. Karthikeyan**, V. Bhojwani, A comprehensive Review of Effect of Biodiesel Additives on Properties, Performance, and Emission, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1,2017. **DOI:** 10.1088/1757-899X/197/1/012015 (Scopus)

37. Beemkumar, N., **Karthikeyan, A.,** Saravanakumar,B., Jayaprabakar, J, Performance Improvement of Energy Storage System with nano additives in HTF, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1,2017. **DOI:** 10.1088/1757-899X/197/1/012036 (Scopus)

38. Beemkumar,N., **Karthikeyan,A.,** Keshava Reddy, K.S., Rajesh, K.,Anderson, Thermal Analysis of Fluidized Bed and Fixed Bed Latent Heat Thermal Storage System, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1,2017. **DOI:** 10.1088/1757-899X/197/1/012033 (Scopus)

39. Beemkumar, N., **Karthikeyan, A.,** Keshava Reddy, K.S., Ra- jesh, K., Anderson, A, Analysis of Thermal Energy Storage Tank by ANSYS and Comparison with Experimental Results to Improve its Thermal Efficiency, IOP Conference Series: Materials Science and Engineering, Vol

197, No.1, 2017. **DOI:** 10.1088/1757-899X/197/1/012039 (Scopus)

40. Jayaprabakar, J., **Karthikeyan, A.,** Saikiran, K., Beemkumar, N., Joy, N. Comparative study of performance and emissions of a CI engine using biodiesel of microalgae, macroalgae and rice bran, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1, 2017. **DOI:** 10.1088/1757-899X/197/1/012017 (Scopus)

41. Beemkumar, N., **Karthikeyan, A.,** Manoj, A., Stallan, J.P., Amithkishore, P, Investigation of Sensible and Latent Heat Storage System using various HTF, IOP Conference Series: Materials Science and Engineering, Vol 197, No.1, 2017. **DOI:** 10.1088/1757-899X/197/1/012038 (Scopus)

42. Pralhad Tipole , **A. Karthikeyan**, Applying a magnetic field on liquid line of vapour compression system is a novel technique to increase a performance of the system, Applied Energy, volume182, 15 November2016,Pages 376–382, https://doi.org/10.1016/j.apenergy.2016.08.129 **(WoS) IF 8.426.**

43. Anbarasu.A, **Karthikeyan.A**, Diesel Engine Performance and Emission Evaluation Using Canola Biodiesel Emulsion Fuel, Australian Journal of Mechanical Engineering, Vol 14,Issue 3, pp 174-181,Jul 2016. https://doi.org/10.1080/14484846.2015.1093222 (Scopus)

44. Anbarasu.A,**Karthikeyan.A**.,Performance and Emission Characteristics of Diesel Engine using Cerium Oxide Nanoparticle Blended Biodiesel Emulsion Fuel, Journal of EnergyEngineering(JEE),volume142,Issue1,March2016.https://doi.org/10.1061/(ASCE)EY.1943-7897.0000270 **(WoS) IF 1.895**.

45. Anbarasu.A., **Karthikeyan.A**., Balaji.M., Performance and EmissionCharacteristics of Diesel Engine using Alumina Nanoparticle Blended Biodiesel Emulsion Fuel", Journal of Energy Resources Technology, volume 138, Issue 2, Nov 2015, https://doi.org/10.1115/1.4031834 **(WoS) IF1.131**

46. J.Jayaprabakar, **A.Karthikeyan**, Performance of Micro Algae methyl esters in a compression Ignition engine, Journal of the Balkan Tribological Association, Scibulcom Ltd, Vol 22, Book 3, ISSN 1310-4772, Vol 22, Issue 3, PP 2711-2717, 2016**.(Web of Science) IF 0.737.**

47. Saikrishnan, V.,**Karthikeyan, A**.,Thermal behaviour study of phase change material of a latent heat storage system, Materials Today: Proceedings, Volume 3, Issue 6, 2016, Pages 2518-2524, https://doi.org/10.1016/j.matpr.2016.04.170 (Scopus)

48. Beemkumar,N.,**Karthikeyan, A.,** Experimental analysis of heat transfer characteristics of solar energy based latent heat storage system, Materials Today: Proceedings, Volume 3, Issue 6, 2016, Pages 2475-2482 https://doi.org/10.1016/j.matpr.2016.04.165 (Scopus)

49. J.Jayaprabakar,**A.Karthikeyan**, Experimental Investigations on Performance and Emission

Characteristics of Rice bran and Alga Biodiesel Blends in a Diesel Engine, Materials Today: Proceedings, Volume 3, issue 6, 2016, pages 2468–2474. https://doi.org/10.1016/j.matpr.2016.04.164 (Scopus)

50. J .Jayaprabakar, **A.Karthikeyan**, Combustion characteristics of a CI engine fuelled with Macro and Micro Algae biodiesel blends, Journal of Chemical and Pharmaceutical sciences, 68- 71, Special issue 7, 2015. (Scopus)

51. J.Jayaprabakar, **A.Karthikeyan**, Experimental Investigation on the Performance and Emission Characteristics of a CI engine with Rice bran and Micro Algae biodiesel blends,Journal of Chemical and Pharmaceutical sciences, 19-22, Special issue 7, 2015. (Scopus)

52. Beemkumar, N., **Karthikeyan, A.**, Parthasarathy, C., Bradley Bright, B. Heat transfer analysis of latent heat storage system using D-sorbitol as PCM, ARPN Journal of Engineering and Applied Sciences,Volume 10, Issue 11, 2015, Pages 5017-5021(Scopus)

53. **Karthikeyan. A.** Rajasekar, R., Effect of compression ratio, Injection timing and injection pressure on the performance of diesel engine fuelled with b20 blend of jatropha methyl ester,International Journal of Applied Engineering Research,Volume 9, Issue 22, 2014, Pages 17167-17180(Scopus)

54. J.Jayaprabakar, **A.Karthikeyan**, Analysis on the Performance, Combustion and Emission Characteristics of a CI Engine Fuelled With Algae Biodiesel, Applied Mechanics and Materials, Trans Tech Publications, Vol 591,pages 33-37,2016. **DOI:** 10.4028/www.scientific.net/AMM.591.33 (Scopus)

55. Baskar, **A.Karthikeyan ,**Heat Transfer Characteristics of Acetone/Water Mixture in a Tubular Heat Exchanger with Turbulator**,** Proceedings of the International Conference on Advanced Nanomaterials and Emerging Engineering Technologies, ICANMEET-2013, Pages 627-630, **DOI:** 10.1109/ICANMEET.2013.6609370 (Scopus)

56. **A.Karthikeyan**, Emission control in Two Wheelers using Magnesium Nano particle as a Catalyst, Applied Mechanics and Materials ,Vol 766-767, 2015, pp 343-347. https://doi.org/10.4028/www.scientific.net/AMM.766-767.343