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List of Publications

- 1. E. Vengadesan, R. Senthil, 'A review on recent development of thermal performance enhancement methods of cc flat plate solar air collector', Renewable and Sustainable Energy reviews, Volume 134, 2020.
- 2. G Vijayan, PP Shantharaman, R Senthil, R Karunakaran, 'Thermal performance analysis of a low volume fraction Al 2 O 3 and deionized water nanofluid on solar parabolic trough collector', Journal of Thermal Analysis and Calorimetry, October 2020.
- 3. BMS Punniakodi, R Senthil, 'Effect of conical coiled heat transfer fluid tube on charging of phase-change material in a vertical shell and coil type cylindrical thermal energy storage', Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, October 2020.
- 4. V Gopalsamy, R Senthil, M Varatharajulu, R Karunakaran, 'Application of Response Surface Methodology to Predict the Optimized Input Quantities of Parabolic Trough Concentrator', International Journal of Renewable Energy Development, October 2020, Volume 9, Issue 3, Pages 393-400.
- 5. R Senthil, A Patel, R Rao, S Ganeriwal, 'Melting Behavior of Phase Change Material in a Solar Vertical Thermal Energy Storage with Variable Length Fins added on the Heat Transfer Tube Surfaces', International Journal of Renewable Energy Development, October 2020, Volume 9, Issue 3, Pages 361-367.
- 6. R Senthil, K Kishore Kumar, Kodak Rohan Rajendra, Aniyush Juneja, 'Enhancement of absorptance of absorber surfaces of a flat plate solar collector using black coating with graphene', Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, September 2020.
- 7. KNB Akshai, R Senthil, 'Economic evaluation of grid connected and standalone photovoltaic systems using PVSyst', IOP Conference Series: Materials Science and Engineering, Volume 912, 2020.

- 8. E Vengadesan, R Senthil, 'A review on recent development of thermal performance enhancement methods of flat plate solar water heater', Solar Energy, Volume 206, Pages 935-961, August 2020.
- 9. R Senthil, 'Effect of charging of phase change material in vertical and horizontal rectangular enclosures in a concentrated solar receiver', Case Studies in Thermal Engineering, Volume 21, October 2020.
- 10. J Thavamani, R Senthil, 'Performance analysis of retrofitted domestic vapour compression refrigeration system using hydrocarbon refrigerants', International Journal of Ambient Energy, March 2020.
- 11. R Senthil, 'Enhancement of productivity of parabolic dish solar cooker using integrated phase change material', Materials Today: Proceedings, March 2020.
- 12. R. Senthil, M. Cheralathan 'Enhancement of the thermal energy storage capacity of a parabolic dish concentrated solar receiver using phase change materials', Journal of Energy Storage, Volume 25, October 2019.
- 13. R. Senthil, 'Effect of position of heat transfer fluid tube on melting of phase change material in cylindrical thermal energy storage', Energy Sources Part A: Recover, Utilization and Environmental Effects, August 2019.
- 14. R. Senthil, S. Yuvaraj, 'A comprehensive Review on Bioinspired Solar Photovoltaic Cells', International Journal of Energy Research, Volume 43, Issue 3, Pages 1068-1081, March 2019.
- 15. M Gupta, S Makda, R Senthil, 'The latest trends in synthesis of dye-sensitized solar cells', IOP Conference Series: Materials Science and Engineering, Volume 402, March 2018.
- 16. R Senthil, P Sundaram, 'Improvement of thermal energy storage density of parabolic dish solar absorber with organic phase change materials', Volume 402, March 2018.
- 17. R Senthil, 'Effect of secondary reflector on thermal performance of linear fresnel concentrated solar collector', International Journal of Mechanical and Production Engineering Research and Development, Volume 8, Issue 4, August 2018, Pages 943-950.
- 18. R Senthil, P Sundaram, 'Effective utilization of parabolic dish solar collectors for the heating and thermo-electric power generation', International Journal of Mechanical Engineering and Technology, Volume 9, Issue 2, 2018.
- 19. K Barkavi, R Senthil, 'Power management of thermoelectric generator in a parabolic dish solar collector', International Journal of Mechanical Engineering and Technology, Volume 9, Issue 6, 2018.
- 20. R Senthil, P Sundaram, M Kumar, 'Experimental investigation on packed bed thermal energy storage using paraffin wax for concentrated solar collector', Materials Today: Proceedings, Volume 5, Issue 2, Pages 8916-8922, January 2018.

- 21. R Senthil, 'Enhancement of heat absorption of parabolic dish solar receiver using tapered surface cavities', JP Journal of Heat and Mass Transfer, Volume 15, Issue 2, Pages 181-193, May 2018.
- 22. R Senthil, M Cheralathan, 'Simultaneous testing of a parabolic dish concentrated PCM and non-PCM solar receiver', International Journal of Mechanical and Production Engineering Research and Development, Volime 7, Issue 6, Pages 79-85, 2017.
- 23. R Senthil, P Sundaram, 'Recent Trends in the Carbon Capture and Storage Technologies', Technology, Volume 8, Issue 10, October 2017, Pages 885–891.
- 24. R Senthil, M Muthuveeran, SM Harish, N Raj Kumar, 'Experimental investigation on a PCM integrated concentrated solar receiver for hot water generation', International Journal of Mechanical Engineering and Technology, Volume 8, Issue 9, Pages 391-398, 2017.
- 25. R Senthil, AP Nishanth, 'Optical and thermal performance analysis of solar parabolic concentrator', International Journal of Mechanical and Production Engineering Research and Development, Volume 7, Issue 5, Pages 367-374, October 2017.
- 26. R Senthil, 'Recent developments in the design of high temperature solar receivers', International Journal of Mechanical Engineering and Technology, Volume 8, Issue 8, Pages 1223-1228, 2017.
- 27. R Senthil, K Thyagarajan, P Senguttuvan, 'Experimental study of a parabolic dish concentrated cylindrical cavity receiver with PCM', International Journal of Mechanical Engineering and Technology, Volume8, Issue 11, Pages 850-856, 2017.
- 28. R Senthil, S Prabhu, M Cheralathan, 'Effect of heat transfer fluid input parameters on thermal output of parabolic dish solar receiver using design of experiment techniques', International Journal of Mechanical Engineering and Technology, Volume 8, Issue 8, Pages 1148-1156, 2017.
- 29. R Senthil, S Araavind, K Vigneshwar, Adithya Suresh Athreya, 'Optical and Thermal Analysis of Concentrated Solar Thermal Collectors: A Review', International Journal of Mechanical Engineering and Technology, Volume 8, Issue 12, Pages 760-766, December 2017.
- 30. R Senthil, P Sundaram, 'Effect of phase change materials for thermal management of buildings', International Journal of Civil Engineering and Technology, Volume 8, Issue 9, Pages 761-767, 2017.
- 31. P Sundaram, R Senthil, 'Thermal performance enhancement of solar parabolic trough collector using secondary reflector', International Journal of Engineering and Technology, Volume 8, Issue 6, Pages 2964-2969, 2017.

- 32. R Senthil, P Sundaram, M Kumar, A Vaishya, 'Effect of Integrated Phase Change Material on Thermal Performance of the Point Focus Concentrated Solar Receiver', International Journal of Pure and Applied Mathematics, Volume 114, Issue 12, Pages 135-143, 2017.
- 33. R. Senthil, M. Cheralathan, 'Effect of the PCM in a solar receiver on thermal performance of parabolic dish collector', Thermal Science, Volume 21, Issue 6, Pages 2803 2812, 2017.
- 34. R. Senthil, 'Effect of uniform and variable fin height on charging and discharging of PCM in a horizontal cylindrical thermal storage', Thermal Science, Volume 23, Issue 2, Pages 1981-1988, 2017.
- 35. P Sundaram, R Senthil, V Praveena, 'Effect of Receiver Configuration on Thermal Performance of Solar Compound Parabolic Collector', Volume 10, Issue 1, Pages 543-545, 2017.
- 36. R Senthil, M Gupta, C Rath, 'Parametric analysis of a concentrated solar receiver with Scheffler reflector', International Journal of Mechanical and Production Engineering Research and Development, Volume 7, Issue 5, Pages 261-268, 2017.
- 37. R Senthil, C Rath, M Gupta, 'Enhancement of uniform temperature distribution on the concentrated solar receiver with integrated phase change material', International Journal of Mechanical Engineering and Technology, Volume 8, Issue 9, Pages 315-320, September 2017.
- 38. R. Senthil, M. Cheralathan, 'Effect of non-uniform temperature distribution on surface absorption receiver in parabolic dish solar concentrator', Thermal Science, Volume 21, Issue 5, Pages 2011-2019, 2017.
- 39. P Sundaram, R Senthil, 'Effect of selective coatings on solar absorber for parabolic dish collector', Indian Journal of Science and Technology, Volume 9, December 2016.
- 40. R Senthil, M Cheralathan, 'Effect of once-through and recirculated fluid flow on thermal performance of parabolic dish solar receiver', Indian Journal of Science and Technology, Volume 9, Issue 33, Pages 1-5, 2016.
- 41. R Senthil, M Cheralathan, 'Thermal performance of solid and liquid energy storage materials in a parabolic dish solar cooker', Int J Chem Sci, Volume 14, Pages 1977-1983, 2016.
- 42. R Senthil, M Cheralathan, 'Effect of container size on thermal performance of sugar alcohol (D-Mannitol) in concentrated solar receiver', International Journal of Chemical Sciences, 14 (4), Pages 2349-2357, 2016.
- 43. P Sundaram, R Senthil, 'Productivity enhancement of solar desalination system using paraffin wax', Int J Chem Sci, Volume 14, Pages 2339-2348, 2016.

- 44. R Senthil, M Cheralathan, 'Energy and exergy analysis of a parabolic dish concentrated solar receiver with integrated PCM', International Journal of Advance Research in Science and Engineering, 5 (10), Pages 117-121, 2016.
- 45. R Senthil, M Cheralathan, 'Enhancement of heat absorption rate of direct absorption solar collector using graphite nanofluid', International Journal of ChemTech Research, Volume 9, Issue 9, Pages 303-308, January 2016.
- 46. R Senthil, M Cheralathan, 'Natural heat transfer enhancement methods in phase change material based thermal energy storage', International Journal of ChemTech Research, Volume 9, Issue 5, Pages 563-570, 2016.