

Research Publication of Internal DC Member 1

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S.No	Journal Papers	Year
1.	CFD studies on different configurations of drying chamber for thin-layer drying of leaves AK Babu, G Kumaresan, V Antony Aroul Raj, R Velraj Energy Sources, Part A: Recovery, Utilization, and Environmental Effects 42 ...	2020
2.	Experimental Evaluation of PVA as Novel Humidifier Material for Humidification-Dehumidification Applications R Santosh, G Kumaresan, S Monisha, GK Kumar, R Velraj Journal of Testing and Evaluation 49 (4)	2020
3.	Experimental Investigations of Thin-layer Drying of Leaves in a Heat-Pump Assisted Tray-type Batch Drying Chamber RV A.K. Babu, G. Kumaresan, V. Antony Aroul Raj Journal of Mechanical Engineering 66 (4), 254-265	2020
4.	Experimental parametric investigation of waste heat powered humidification dehumidification system for production of freshwater from wastewater RV R. Santosh, G. Kumaresan, G. Krishna Kumar Desalination 484, 1-13	2020
5.	Modified “K”-type multilevel inverter topology with reduced switches, DC sources, and power loss MAJS Suppurayan Selvaraj, Govindaraj Kumaresan International Transactions on Electrical Energy Systems, 1-19	2020
6.	Investigation of humidification-dehumidification desalination system through waste heat recovery from household air conditioning unit R Santosh, G Kumaresan, S Selvaraj, T Arunkumar, R Velraj Desalination 467, 1-11	2019
7.	CFD and experimental analysis of phase change material behaviour encapsulated in internally finned spherical capsule	2019

	G Kumaresan, R Santosh, H Revanth, G Raju, S Bhattacharyya EDP Sciences	
8.	Augmenting the productivity of solar still using multiple PCMs as heat energy storage KKRV V.S.Vigneswaran, G. Kumaresan, B.V. Dinakar Journal of Energy Storage 26, 1-11	2019
9.	Study of effect of Al and Cu microparticles dispersed in D-Mannitol PCM for effective solar thermal energy storage GK M. Pramothraj, R. Santosh, M. R. Swaminathan Journal of Thermal Analysis and Calorimetry, 1-10	2019
10.	Heat transfer studies on solar still assisted with and without latent heat storage material RV V.S. Vigneswaran, G. Kumaresan, S. Elansezhian Desalination and water treatment 140, https://doi.org/10.5004/dwt.2019.23314	2019
11.	Technological advancements in solar energy driven humidification-dehumidification desalination systems - A review GK R. Santosh, T. Arunkumar, R. Velraj Journal of Cleaner Production 207, 826-845	2018
12.	Using Computational Fluid Dynamics for optimizing various configuration of tray driers RV AK Babu, V Antony Aroul Raj, G Kumaresan THERMACOMP2018, IISc, Bangalore	2018
13.	Experimental and numerical investigation of solar flat plate cooking unit for domestic applications RV G. Kumaresan, R. Santosh, G. Raju Energy 157, 436-447	2018
14.	Review of leaf drying: Mechanism and influencing parameters, drying methods, nutrient preservation, and mathematical models RV A.K. Babu, G. Kumaresan, V. Antony Aroul Raj Renewable and Sustainable Energy Reviews 90, 536-556	2018
15.	Numerical Analysis of Baffle Cut on Shell Side Heat Exchanger Performance with Inclined Baffles NSK G Kumaresan, R Santosh, P Duraisamy, R Venkatesan Heat Transfer Engineering 39 (13-14), 1156-1165	2017
16.	Effect of Fin Orientations in a Spherically Encapsulated Phase Change Materials for Effective Heat Transfer Enhancement VR Kumaresan Govindaraj, Karthik Panchabikesan , David C.Denkenberger CHEMICAL ENGINEERING TRANSACTIONS 62, 277-282	2017
17.	Experimental analysis of solar photovoltaic unit integrated with free cool thermal energy storage system RV P. Sudhakar, G. Kumaresan	2017

	Solar Energy 158, 837-844	
18.	Investigation on phase change behavior of paraffin phase change material in a spherical capsule for solar thermal storage units RV K. Hariharan, G. Senthil Kumar, G. Kumaresan Heat Transfer Engineering 39 (9), 775-783	2017
19.	Experimental and numerical studies of thermal performance enhancement in the receiver part of solar parabolic trough collectors RV G. Kumaresan, P. Sudhakar, R. Santosh Renewable and Sustainable Energy Reviews 77, 1363-1374	2017
20.	Performance evaluation of solar box cooker assisted with latent heat energy storage system for cooking application GK P. Sudhakar, R. Santosh , V. S. Vigneswaran IOP Conference Series: Earth and Environmental Science 67 (doi:10.1088/1755 ...	2017
21.	CFD analysis of effects of baffle cut on shell side heat exchanger performance with inclined baffle NSK G. Kumaresan, R. Santosh, P. Duraisamy, R. Venkatesan IX International Conference on Computational Heat and Mass Transfer	2016
22.	Performance assessment of a solar domestic cooking unit integrated with thermal energy storage system RV G. Kumaresan, V.S. Vigneswaran, S. Esakkimuthu Journal of Energy Storage 6, 70-79	2016
23.	Misfire detection in a multi-cylinder Diesel engine: A Machine Learning Approach GK AK Babu, V Antony Aroul Raj Journal of Engineering Science and Technology 11 (2), 278 - 295	2016
24.	Effects of the properties and the structural configurations of fatty acid methyl esters on the properties of biodiesel fuel: a review A Gopinath, K Sairam, R Velraj, G Kumaresan Proceedings of the Institution of Mechanical Engineers, Part D: Journal of ...	2015
25.	Effect of dispersion of various nanoadditives on the performance and emission characteristics of a CI engine fuelled with diesel,biodiesel and blends—A review RV T.Shaafi, K.Sairam, A.Gopinath, G.Kumaresan Renewable and Sustainable Energy Reviews 49, 563-573	2015
26.	CFD analysis of flow and geometric parameter for a double walled solar cooking unit G Kumaresan, G Raju, S Iniyan, R Velraj Applied Mathematical Modelling 39 (1), 137-146	2015