

Name: Dr. Surendra Singh Kachhawaha

List of Publications

Journal (International/national)

1. Kumar, A., Kachhwaha, S. S., Mishra, R. S., “Gas Turbine Power Plant Cycles at High Temperatures”, **J. Scientific and Industrial Research**, vol. 74, January 2015, pp. 52-57.
2. Vaibhav Jain, Gulshan Sachdeva & Surendra S Kachhwaha, “Comparative performance Study of Vapour Compression Cascaded System at Optimum condensing Temperature”, submitted for publication in **Energy Policy**, (2015).
3. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Estimation of optimum heat exchanger area of vapor compression-absorption integrated system using modified irreversibility method”, submitted in **International Journal of refrigeration** (2014).
4. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Thermodynamic modeling and parametric study of a low temperature vapour compression absorption system based on modified Gouy-Stodola equation”, **Energy** 79(2015)407-418.
5. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Performance analysis of vapour-compression absorption cascaded refrigeration system”, **Journal of Energy in Southern Africa**, Vol 25 No 4, November 2014, 23-36.
6. Rajinder Singh and Surendra Singh Kachhwaha, ‘Heat transfer and pressure drop analysis of chilled water and ice slurry in a plate heat exchanger’ accepted for publication in **J Therm Sci Eng Appl**. (2015).
7. G. Nagababu, S. S. Kachhwaha, V Savsani and R. Banerjee, “Evaluation of offshore wind potential for western coast of India: A preliminary study”, submitted for publication in **Current Science of India** (2015).
8. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Energy, exergy, economic and environment (4E) based comparative performance study and optimization of vapour compression absorption integrated refrigeration system”, submitted for publication in **Energy Journal** (2015).
9. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “NLP model based thermoeconomic optimization of vapour compression-absorption cascade refrigeration system”, accepted for publication in **International Journal of Energy Conversion and Management** (2015).
10. Gulshan Sachdeva, Vaibhav Jain, S.S. Kachhwaha, , “Performance Study of Cascade Refrigeration system Using Alternative Refrigerants”, **International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering**, Vol: 8, NO: 3, (2014).

11. Nikhil Dev, Samsher, S. S. Kachhwaha, Rajesh Attri, “GTA modeling of combined cycle power plant analysis” **Ain Shams Engineering Journal** (2014) x, xxx-xxx.
12. Nikhil Dev, Samsher, S. S. Kachhwaha, Rajesh Attri, “Digraph and matrix method for assessing the role of design parameters in Gas Turbine Power Plant efficiency” accepted for publication in **Alexandria Engineering Journal** (Elsevier 2014).
13. Nikhil Dev, Samsher, S. S. Kachhwaha, “Development of reliability index for cogeneration cycle power plant using graph theoretic approach”, **Int J Syst Assur Eng Manag**, DOI 10.1007/s13198-014-0235-4, February 2014.
14. Nikhil Dev, Samsher, S. S. Kachhwaha, Rajesh Attri, “Development of reliability index for combined cycle power plant using Graph Theoretic Approach” **Ain Shams Engineering Journal** (2014) 5, 193–203.
15. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Exergy analysis of a Vapour Compression–Absorption Cascaded Refrigeration System using modified Gouy–Stodola equation”, **Int. J. Exergy**, Vol. 15, No. 1, pp.1–23(2014).
16. Amit Pal, & S S Kachhwaha, “Biodiesel Production of Waste Cooking Oil through Ultrasound Cavitation”, **International Journal of Engineering Research and Technology**. Vol-6(3) 291-306, 2013.
17. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Exergy analysis of a vapor compression vapour absorption cascade system”, **International Journal of Air-conditioning and Refrigeration**, Vol. 21, No. 4 (2013) 1350026-10.
18. Vaibhav Jain, S.S. Kachhwaha, Gulshan Sachdeva, “Thermodynamic performance analysis of a vapor compression–absorption cascaded refrigeration system”, **Energy Conversion and Management** 75 (2013) 685–700.
19. Amit Pal, Prem Kumar & S S Kachhwaha, “Experimental Investigation of E-Diesel Blends in a VCR C I Engine”, **J. Engg. Sc. Mgmt. Ed.** Vol-6(II), 107–115, 2013.
20. Rajinder Singh and Surendra Singh Kachhwaha, ‘Experimental Studies on a Scraped Surface Ice Slurry Generator’ **International Journal of Engineering Science and Innovative Technology (IJESIT)** Vol.2, Issue 4, July 2013, PP. 117-131.
21. Pal, A., Kachhwaha, S. S., “Waste Cooking Oil: A promising feedstock for biodiesel production through power ultrasound and hydrodynamic cavitation”, **J. Scientific and Industrial Research**”, vol 72, June 2013, pp 387-392.
22. Nikhil Dev, Samsher, S. S. Kachhwaha, “Exergy analysis and simulation of a 30MW cogeneration cycle, **Frontiers of Mechanical Engineering**, 2013, 8(2): 169–180.
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24. Nikhil Dev, Samsheer, S. S. Kachhwaha, “System modeling and analysis of a combined cycle power plant”, **Int J Syst Assur Eng Manag**, ISSN 0975-6809, August 2012, Springer.
25. **Nikhil Dev**, Samsheer, S.S.Kachhwaha “Graph Theoretic Assessment of Critical Component in Combined-Cycle Power Plant” **International Journal of Engineering Studies**, vol 4, No.1 (2012), pp 1-13.
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32. Singh, R., and Kachhwaha, S. S., “Development of Scraped Surface Ice Slurry Generator”, **Newsletter of ASHRAE India Chapter**, December,2010, vol. 12 (2).
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34. Kachhwaha, S. S., Prabhakar, S., “Heat and mass transfer study in a direct evaporative cooler”, **J. Scientific and Industrial Research**, vol. 69, September 2010, pp. 705-710.
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37. Agrawal, G., Kachhwaha, S. S., and Mishra, R. S., "Parametric Study of Induced Draft Counter Flow rectangular Cooling Tower Based on Exergy Analysis", **J. Scientific and Industrial Research**, vol. 69, April 2010, pp. 284-292.
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39. Singh, R., Kachhwaha, S. S., "Thermal Hydraulic Analysis of a Plate heat Exchanger", **J. Scientific and Industrial Research**, vol. 69, February 2010, pp. 121-124.
40. Kachhwaha, S. S., Dhar, P. L., and Kale, S. R., "Experimental Studies and Numerical Simulation of Evaporative Cooling of Air with Water Spray: Part I - Horizontal Parallel Flow", **Int. J. Heat Mass Transfer**, Vol. 41, No. 2, pp. 447-464, (1998).
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1. Nikhil Dev, Samsher, S. S. Kachhwaha & R. Attri, "Some studies on the performance analysis of combined cycle power plant", **GTINDIA2014-8271, Proceedings of the ASME 2014 gas turbine India conference, Dec. 15-17, 2014 N. Delhi, INDIA.**
2. Nikhil Dev, Samsher, S. S. Kachhwaha & R. Attri, "Evaluation of gas turbine power plant efficiency using graph theoretic approach", **GTINDIA2014-8276, Proceedings of the ASME 2014 gas turbine India conference, Dec. 15-17, 2014 N. Delhi, INDIA.**
3. Zunaid M., Murtaza Q., Samsher & Kachhwaha, S. S., "Analysis of air and water spray Interaction in down DRAFT parallel flow shower cooling tower", **Paper ID: HMTTC1300536**, published in the Proceedings of **22th National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, held at IIT Kharagpur, India, December 28-31, 2013.**
4. Vaibhav Jain, Gulshan Sachdeva & Surendra S Kachhwaha "Performance Analysis of Hybrid Refrigeration System under Fouled Conditions", **Paper ID: HMTTC1300296**, published in the Proceedings of **22th National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, held at IIT Kharagpur, India, December 28-31, 2013.**
5. Rajinder Singh & Surendra S Kachhwaha, "Heat transfer and Pressure Drop Analysis of a Plate Heat exchanger using ice slurry", **Paper ID: HMTTC1300505**, published in

the Proceedings of **22th National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, held at IIT Kharagpur, India, December 28-31, 2013.**

6. Rajinder Singh & Surendra S Kachhwaha, "Experimental Performance of a Scraped Surface Ice Slurry Generator using PG, MEG and DEG as Antifreezes", **Paper ID: HMTTC1300222**, published in the Proceedings of **22th National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, held at IIT Kharagpur, India, December 28-31, 2013.**
7. Vaibhav Jain, Gulshan Sachdeva & Surendra S Kachhwaha, "Comparative performance Study of Vapour Compression Cascaded System at Optimum condensing Temperature", paper no. 121, **IVth International conference on Advances in Energy research, IIT Bombay (10-12 Dec., 2013).**
8. Rajinder Singh & Surendra S Kachhwaha, "Experimental Study of the Ice slurries in Plate Heat Exchanger", **Paper no.: NCRAC 2013-A-137, 3rd National Conference on Refrigeration and Air Conditioning (NCRAC-2013)**, IIT Madras, Chennai, 12-14 December 2013.
9. **K. Sangani & Kachhwaha, S. S., "Feasibility Studies of a Noval Small Scale Biomass Operated Micro-turbine based Trigeneration System"** Published in the proceedings of International Congress on Renewable Energy (ICORE)-2012 to be held at PDP, Gandhinagar on 6-7 December, 2012.
10. Pal A., & Kachhwaha S. S., "Application of ultrasound energy for biodiesel production of non-edible oils and CI engine performance testing", Published in the proceedings of National Symposium on **Ultrasonics (NSU XIX)** organized by Ultrasonic society of India and CSIR-National Physical Laboratory, New Delhi (30-31st Oct., 2012).
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12. Singh, R., Kachhwaha, S. S., "Experimental Studies on Scraped Surface Ice Slurry Generator", ICERD5-1036, published in the proceedings of **International Conference on Energy research & Development, organized by State of Kuwait**, 9-11 April 2012.
13. Zunaid M., Murtaza Q., & Kachhwaha, S. S., "Performance analysis of downdraft parallel flow shower cooling tower", **Paper ID: ISHMT_IND_06_009**, published in the Proceedings of **21th National and 10th International ISHMT-ASME Heat and Mass Transfer Conference, held at IIT Madras, Chennai, India, December 27-30, 2011.**
14. Agrawal G., Kachhwaha, S. S., & Kumar S., "Exergetic analysis and Parametric study of an induced draft wet cooling tower using an integrated model for spray, fill and rain zones", **Paper ID: ISHMT_IND_06_007**, published in the Proceedings of **21th**

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15. Pal A., & Kachhwaha S. S., “Biodiesel Production of non-edible oils through ultrasound energy”, Published in the proceedings of **International Conference on Current Trends in Technology (NUiCONE-2011)** organized by Institute of Technology, NIRMA University, Ahmedabad, 8-10 Dec., 2011.
16. Khatri K. K., & Kachhwaha, S. S., “Thumba (Citrullus colocyntis) seed oil: A sustainable source of Biodiesel”, Code: FO-4, **Presented in National Symposium 2011** on Evolving Paradigm to improve Productivity from Dynamic management and Value Addition for Plant Genetic Resources, organized by Department of Botany, USSC, Gujarat University, Ahmedabad, 13-15 October, 2011.
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21. Gautam, S., Pal, A., Kachhwaha, S. S., Sharma, O. P. and Babu, M. K. G., “Biodiesel production from Tumba oil (Citrulus colocynthis) through hydrodynamic cavitation”, published in the **16th ISME conference on Mechanical Engineering for Sustainable development, Indian Institute of Technology, Delhi, Dec. 2-4, 2010.**
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23. Pal, A., Kachhwaha, S. S., Maji, S., and Sharma, P. B., “Recent developments in Biodiesel: Part I – Biodiesel production technology” published in the **1st International Conference on New Frontiers in Biofuels, Delhi Technological University, New Delhi, Jan. 18-19, 2010.**
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42. Kachhwaha, S. S. and Lal, S., “Developments in Pulverized Coal-fired Steam Generation Technology”, published in the proceedings of All India Seminar on **Emerging Trends in Mechanical Engineering** organized by National Institute of Technology, Kurukshetra [March 29-30, 2005].
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44. Kachhwaha, S. S., "Design of a Photovoltaic System for General Purpose Home Appliances", presented in the Seminar on "**Exploitation of Non-conventional Energy Resources in Rajasthan**" to be held at Gyan Vihar School of Engineering and Technology, Jaipur (17th April, 2003).
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