RAVI KUMAR, Ph.D.

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MEMBERSIP OF PROFESSIONAL SOCIETIES

Institution of Engineers (IE-Fellow), India

Indian Society of Heating, Refrigerating & Air Conditioning Engineers (ISHRAE)

American Society of Heating, Refrigerating Air Conditioning Engineers (ASHRAE)

Institut International du Froid International Institute of Refrigeration (IIFIIR)

American Society of Mechanical Engineers (ASME)

Indian Society of Heat and Mass Transfer (ISHMT)

EDUCATION

Ph.D.	Mechanical	2000	University of Roorkee, Roorkee, India
M.Tech.	Thermal	1990	Regional Engineering College, Bhopal, India
B.E.	Mechanical	1987	Regional Engineering College, Bhopal, India

AREA OF SPECIALISATION

Refrigeration & Air-conditioning; Two-phase Flow & Heat Transfer; Fire Dynamics

CURRENT AREA OF RESEARCH

Two-phase flow: boiling and condensation of refrigerants; transfer processes in capillaries and microchannel; fire dynamics, nuclear safety: LOCA.

EXPERIENCE

Teaching & Research	18 Years (Professor since September 04, 2009)
Industry	15 Months

PROJECTS

1. Experimental Investigation of 700 MWe Specific Full Length Channel Deformation (Sagging) Behaviour under Heat-up Condition, Department of Atomic Energy Rs. 68.48 Lac.
2. Experiments in Design Fire Environment Facility Relevant to NPPS, Department of Atomic Energy Rs. 199.95 Lac.
3. Channel heat-up Study under Slumped Fuel Condition for PHWR, Department of Atomic Energy, Rs. 69.02 Lac.
4. Sustainable Technologies for Distributed Level Application and Energy Support to Rural Development, Department of Science & Technology, Rs. 66.895 Lac.
5. Assessment of Radiation Heat Transfer for 19 Pin PHWR fuel bundle under Heat-up Condition, Department of Atomic Energy, Rs. 54.96 Lac.

6. Critical Heat Flux Data Collection under Pool Boiling Conditions, Department of Atomic Energy, Rs. 7.72 Lac.
7. Studies on Effectiveness of Iodine and Heat Removal from PHWR Primary Containment during LOCA by Spray System, Department of Atomic Energy, Rs.111.89 Lac (completed).
8. Enhancement of Heat Transfer during Condensation of Ozone Safe Refrigerants Over Single Horizontal Integral-Fin Tubes, Department of Science & Technology, Rs. 19.5 Lac (completed).
9. Development of Fire Test Facility for Defining the Design Fire Environment Relevant for NPPs, Department of Atomic Energy, Rs. 400.00 Lac (completed). (completed).
10. Full Length Channel Heat Up Experiments, Department of Atomic Energy, Rs. 236.62 Lac
11. Experimental Investigation of the Rewetting of Fuel Rod Cluster, Department of Atomic Energy, Rs. 78.95 Lac (completed).
12. Experimental Investigation of the Asymmetric Heating of Pressure Tubes, Department of Atomic Energy, Rs. 77.23 Lac (completed).
13. Studies on The Enhancement of Heat Transfer and Ventilation Strategies during High Performance Evaporative Cooling of Buildings, Department of Science & Technology, New Delhi and Indo-German (DST-DFG) Programme of Co-operation in Science & Technology, Rs. Rs. 5.24 lac (completed).
14. Development of Energy Efficient Heat Exchangers for Refrigeration & Air-conditioning Industries, Department of Science & Technology, New Delhi and Ministry of Science & Technology, Kiev, Ukraine, Rs. 6.55 Lac (completed).
15. A Parametric Study of Performance of a Coriolis Mass Flow Rate Meter, Department of Science & Technology, Rs. 19.88 Lac (completed).
16. A Study of Forced Convection Condensation of Eco-friendly Refrigerants Inside a Horizontal Tube, Department of Science & Technology, Rs. 18.96 Lac (completed).
17. Channel heat-up Experiment: ballooning of pressure tube, Department of Atomic Energy, Rs. 43.47 Lac (completed).
18. Modernisation of mechanical engineering laboratories, Ministry of Human Resources & Development, Rs. 9.0 Lac (completed).
19. Channel Heat-up Experiment: pressure tube sagging in accidental coolant loss, Department of Atomic Energy, Rs. 40.50 Lac (completed).
20. Center for Heat Transfer Studies in Eco-friendly Refrigeration Systems, Ministry of Human Resources & Development, Rs. 7.00 Lac (completed).

CONTINUING EDUCATION COURSES ORGANISED

- Refrigeration & air-conditioning System Design for the Officers of Prasar Bharti (Broadcasting Corporation of India), May 19-31, 2003.
- Air-conditioning System Design & Maintenance for the Officers of Prasar Bharti (Broadcasting Corporation of India), May 19-29, 2004.
- Air-conditioning System Design & Maintenance for the Officers of Prasar Bharti (Broadcasting Corporation of India), July 19-28, 2005.

CONFERENCES

- Joint Organizing Secretary, XIII National Conference of India Society of Mechanical Engineers, Indian Institute of Technology, Roorkee, December 30-31, 2003.
- Treasurer, 3rd Uttarakhand State Science & Technology Conference, November 10-11, 2008
- Principal Coordinator, Indo German Winter Academy, December 13-19, 2012.
- Convernor, FiRE 2016

SCHOLARSHIPS AND AWARDS

1. DAAD (Germany) fellowship under IIT-DAAD faculty exchange Programme, 2007.
2. DST-DFG (Germany) fellowship 2008-10.
3. DST-MST (Ukraine) fellowship 2008-10.
4. Indo Ireland Cooperative Science Programme (2011-13)
5. Star performer in IIT Roorkee during the academic years 2003-04, 2004-05 and 2005-06.
6. Outstanding Teacher Award, Indian Institute of Technology Roorkee- 2011.

STUDENTS

Doctoral (Ph.D.)

SN	Thesis Title	Name of Student	Duration	Status
1	A Study of the Flow Characteristics of Refrigerant HFC-134a Flowing inside a Capillary Tube	Md. Kaleem Khan	Jan 2004-May 2008	2008
2	Performance Evaluation of Double Pass Solar Air Collector with and without Porous Material	Ramani Bharat	Jan 2005-Sep 2008	2008
3	Investigations on Pool and Cross Flow Boling outside Tube Bundles	Vikas Lakhera	Jul 2004-July 2009	2009
4	Pool Boiling of Nanofluids	R Kathir Ravan	Jul 2006-Sept 2010	2010
5	Augmentation of Heat Transfer During Forced Condensation of Refrigerants inside Horizontal Tubes	R K Shrivastava	Jul 2004-Ma 2010	2010
6	Heat Transfer during Condensation of Refrigerants over Single Horizontal Finned tubes	P P Rathode	Jul 2006-Jul 2010	2010
7	Flow Characteristics of R-407C in Adiabatic and Diabatic Coiled Capillary Tubes	Madhup Mittal	Jan 2007-Sep 2010	2010

8	Heat Transfer Enhancement by inserts during Condensation of R-245fa inside a Horizontal Tube	Parmanand Kumar	Jul 2006-Nov 2010	2010
9	Experimental Simulation of Heat Transfer During the Accidental Coolant Loss	Gopal Nandan	Jan 2004-Apr 2011	2011
10	A Study on the Rewetting of Hot Surfaces by Impinging Jet Cooling	Chitranjan Agrawal	Jul 2009-2013	2013
11	Asymmetrical ballooning of fuel rod cluster	Ashwini Yadav	Dec 2009 Aug 2014	2014
12	Condensation Heat Transfer of R-134a inside Helically Coiled Horizontal Tubes	Abhinav Gupta	Dec 2009 Jun 2015	2015
13	Study of Flow Boiling Heat Transfer of Refrigerants through Tubes	Arijit Kundu	Jan 2011 Jun 2015	2015
14	Vapour Condensation of Refrigerant over a Horizontal Integral-Fin Tube	Sanjeev Kumar Sajjan	Aug 2011	2016
15	Rewetting of Fuel Rod Bundle in AHWR	Mithlesh Kumar	Jul 2010	in progress
16	Experimental Investigation of Fire in Nuclear Power Plant	B. K. Dhurander	Jan 2012	Submitted
17	Assessment of Radiation Heat Transfer for 19 Pins PHWR Fuel Bundle under Heat-up Condition	Mukesh Sharma	Jan 2013	in progress
18	A Study on the Flow of Refrigerants Through a Capillary Tube	D Santosh Kumar	Jul 2013	in progress
19	Hydrological and Thermal Failures Studies in Nuclear Power Plants	Sujoy Negi	Dec 2013	in progress
20	Investigations on the Condensation of Refrigerants inside a Horizontal Tube	Anand Solanki	Jul 2014	in progress
21	Effect of Surface Roughness on CHF of a Calendria Tube of a PHWR	Subodh Kumar Yadav	Dec 2014	in progress
22	Investigations on the High Efficiency Solar Heater for Rural Applications	Ankit Dev	Jan 2016	In progress
23	Channel heat-up under Slumped Fuel Condition for PHWR	Ketan Ajay	Aug 2016	In Progress

Masters (M.Tech.)

SN	Thesis Title	Name of Student	Status
1	Heat Transfer During Pool Boiling of R-134a over a Horizontal Tube	KK Gupta	2002
2	Heat Transfer During Condensation of R-134a Over a Horizontal Integral-Fin tube	SK Vishvakarma	2003
3	Evaluation of Air Exchange Efficiency in a Naturally Ventilated Room	Vinod Gupta	2004
4	Modeling of Pool Boiling over Horizontal Tubes	M Suresh	2004

5	Augmentation of Heat Transfer During Flow Boiling Inside a Horizontal Tube	Sachin Kulkarni	2004
6	A Study of Heat Transfer during Pool Boiling of Water over a Large Diameter Tube	Manoj Pandey	2005
7	An Experimental Study of Flow Boiling Heat Transfer in a Microchannels	Alok Pandey	2005
8	Flow Boiling Characteristics of R-134a Refrigerant Inside a Horizontal Tube	Saurabh Jain	2005
9	Heat Transfer Studies During Forced Air Precooling of Perishable Food Products	U Narain Murthy	2005
10	Modeling of Condensation Process over Single Horizontal Integral-Fin Tubes	Saurabh Gupta	2005
11	Modeling of Condensation Process inside Smooth Horizontal Tubes	Anil Verma	2005
12	Studies of Flow Boiling Heat Transfer Enhancement Inside a Horizontal tube Using Turbulence Promoters	Anuj Kumar	2006
13	Numerical analysis of Ventilation System of an Isolation Room in a Hospital	Rajeev Kumar	2006
14	Prediction of Dry Out and Post Dry Out Behaviour of Clad Surface During Flow of Water Over a Vertical Heated Rod	Mukesh Kumar	2006
15	Experimental and Theoretical Analysis of Phase Change energy Storage System	TLVS Sankar	2006
16	Cold preservation of Perishable Food Products	Omer Adil Zainal Albayati	2006
17	Heat Transfer Mechanism in Nucleate Pool Boiling under High Heat Flux Condition	Basant Singh Sikarwar	2007
18	Boundary Estimation of Two Dimensional Inverse Heat Conduction Problem	Shiv Shankar Singh Patel	2007
19	Experimental and Theoretical Analysis of Latent Heat Energy Storage System with & without Extended Surfaces	Md. Fahad Naziri	2007
20	Investigation of Nucleate Pool Boiling Heat Transfer in a Vertical Tube Bundle	Vineet kumar	2008
21	Investigation of Convection Heat Transfer from Plain and Corrugated Plates	Satya Prakash	2008
22	Enhancement of the Cooling Efficiency of an Evaporative Cooling System	Sagar Pradhan	2008
23	Heat Transfer Coefficient of an AD warm heat is supplied from the bottom plain and corrugated surface.	Bhupindra Mangla	2009

24	Augmentation of Flow Boiling Heat Transfer inside a Horizontal Tube	Nutan K Banala	2009
25	Parametric Study of a Coriolis Mass Flow Rate Meter	Ashish Vasudev	2009
26	Exergy analysis of Power plant	Pankaj Sharma	2009
27	Investigation of Convective Heat transfer from Heated Bottom Plain and Corrugated Plate of Rectangular Air Duct	Tabish Alam	2010
28	Analytical and experimental investigation of Heat Transfer Characteristics of Fins	Sanjeev K Sajjan	2010
29	Analysis of a Salt Gradient Solar Pond	Hari Mohan	2010
30	Performance Analysis of Double Pass Solar Air heater	Hari K Yadav	2010
31	Performance Evaluation of Coriolis Mass Flow Rate Meter	Prabhakar Singh	2010
32	Heat Transfer Studies during Cold Preservation of Food Products	Rajshekhar Tamboli	2011
33	A Study of Pool Boiling of Ozobe Safe Refrigerants	Kapil Gupta	2011
34	Heat Boiling Studies in Microchannels	Pradeep Singh	2011
35	Flow Boiling Heat Transfer of Ozone Safe Refrigerants	Amit Kumar	2011
36	Experimental Investigation and Analysis of Liquid Fuels Pool Boiling	Pramod Ramteke	2012
37	Experimental Investigation and Analysis of Fire Involving Solids	Ajit Kumar	2012
38	A Study of the Flow of Refrigerant R-134a through Capillary Tube	Nitin Rai	2012
39	S Pool Boiling of Ammonia/Water Mixture over a Horizontal Tube	Sandeep Rathi	2012
40	A Study of Pool Boiling of Refrigerants over a Horizontal Tube	Atul Ranjan	2012
41	Design and Development of Solar Dryer for Herbs	Pragati S. Gautam	2012
42	Performance Evaluation of Flat Plate Solar Dryer	Veer Singh	2013
43	Effect of Surface Roughness on Pool Boiling Characteristics of Calendria Tube using Water under Subcool Conitions	Ashish Bhatt	2013
44	A Study of Heat Transfer during Pool Boiling over a reentrant Cavity Horizontal Tube	Jitendra Kaushik	2013
45	Experimental and Analytical Investigation of Cable Fire	Himanshu Bansal	2013
46	To Investigate the Effect of Ventilation on the Development of Fire in a Compartment	Sriyak Yadav	2013

47	Effect of Nozzle Diameter on the Rewetting of Hot Surfaces	Shrikant Tiwari	2013
48	Burning Characteristics of Powered and Unpowered Cables	Sandeep Kumar Gupta	2014
49	Effect of Surface Roughness on Heat Flux of and Calendria Tube under Pool Boiling of Water	Subodh Kumar Yadav	2014
50	Pool Boiling Heat Transfer over Large Diameter Tubes	Ankit Dev	2015
51	Study of Large Scale Wood Crib Fire in a Compartment	Chandrakant Gangwar	2015

Undergraduate (B.E.)

Supervised 39 projects.

RESEARCH PUBLICATIONS

LAST 10 YEARS

1. Avinash Chaudhary, Akhilesh Gupta, Surendra Kumar, Ravi Kumar, Thermal environment induced by jatropha oil pool fire in a compartment, Journal of Thermal Analysis and Calorimetry, DOI: 10.1007/s10973-016-5722-1, July 2016.
2. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting of Hot Vertical Rod during Jet Impingement Surface Cooling, Heat and Mass Transfer, Vol. 52, pp. 1203–1217, 2017.
3. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting of Vertical Hot Surface with Round Water Jet Impingement Cooling, Heat and Mass Transfer, Vol 18 (13), 2017.
4. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting of Hot Vertical Rod during Jet impingement surface cooling, Heat and Mass Transfer, DOI 10.1007/s00231-015-1637-9.
5. A.K. Khatua, Parmanand Kumar, H.N. Singh, Ravi Kumar, Measurement of enhanced heat transfer coefficient with perforated twisted tape inserts during condensation of R-245fa, Heat and Mass Transfer, Vol (52), pp. 683-692, 2016.
6. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Determination of Rewetting Velocity during Jet Impingement Cooling of Hot Vertical Rod, J. Thermal Analysis and Calorimetry, Vol. 123 (1), pp. 861–871, 2016.
7. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Maximum Surface Heat Flux during Jet Impingement Quenching of Vertical Hot Surface, J Enhanced Heat Transfer, Vol. 22 (3), pp. 199–219, 2015.
8. S.K. Sajjan, Ravi Kumar, Akhilesh Gupta, Experimental Investigation during Condensation of R-600a Vapour over Single Horizontal Integral Fin Tubes, Int. J. Heat and Mass Transfer, Vol. 88, pp. 247-255, 2015.

9. S.K. Sajjan, Ravi Kumar, Akhilesh Gupta, Experimental Investigation of Vapour Condensation of Iso-butane over Single Horizontal plain tube under different Vapour Pressure, Applied Thermal Engineering, Vol. 76, pp. 435-440, 2015.
10. Arijit Kundu, Ravi Kumar, Akhilesh Gupta, Evaporative heat transfer of R134a and R407C inside a smooth tube with different inclinations, Int. J. Heat and Mass Transfer, Vol. 76, pp. 523–533, 2014.
11. Abhinav Gupta, Ravi Kumar, Akhilesh Gupta, Condensation of R-134a inside a Helically Coiled tube-in-shell Heat Exchanger, Experimental Thermal and Fluid Science, Vol. 54, pp. 279-289, 2014.
12. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Effect of Nozzle Geometry on The Rewetting of Hot Surface during Jet Impingement Cooling, Experimental Heat Transfer, Vol. 27, pp.256–275, 2014.
13. A.K. Yadav, Ravi Kumar, Akhilesh Gupta, Chatterjee, B, Deb Mukhopadhyay, Lele H.G., Experimental Investigation on Circumferential and Axial Temperature Gradient over Fuel Channel under LOCA, Heat and Mass Transfer, Vo. 50, pp. 737-746, 2014.
14. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Effect of Jet Diameter on the Maximum Surface Heat Flux during Quenching of Hot Surface, Nuclear Engineering Design, Vol. 265, pp. 727-236, 2013.
15. A.K. Yadav, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Prasanna Majumdar, Deb Mukhopadhyay, Thermomechanical Behavior of Pressure Tube Under Small Break Loss of Coolant Accident for PHWR, ASME J. of Pressure Vessel Technology, Vol. 135, pp. 041601-1-9, 2013.
16. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Determination of rewetting on hot horizontal surface with water jet impingement through a sharp edge nozzle, Int J Thermal Science, Vol. 71 310-323, 2013.
17. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Determination of Rewetting on Hot Horizontal Surface With Water Jet Impingement Through a Sharp Edge Nozzle, ASME J. Thermal Science and Engineering Applications Vol. 5, 011007-1-10, 2013.
18. P.C. Ramteke, Ravi Kumar, Akhilesh Gupta K., P.K. Sharma, Experimental Investigation and CFD Simulation of Hydrocarbon Pool Fire, J. of Applied Fire Science, Vol. 22 (2), pp. 201-222, 2013.
19. Chitranjan A., O.F. Lyons, Ravi Kumar, Akhilesh Gupta, D.B. Murray, Rewetting of a hot horizontal surface through mist jet impingement cooling, Int. J. of Heat and Mass Transfer Vol. 58 188–196, 2013.
20. Yadav, A.K, Prasanna Majumdar, Ravi Kumar, Barun Chatterjee, Akhilesh Gupta, Deb Mukhopadhyay, Experimental simulation of asymmetric heat up of coolant channel under small break LOCA condition for PHWR, Nuclear Engineering and Design. Vol. 255, pp. 138-145, 2013.
21. A.K. Yadav, Prasanna Majumdar, Ravi Kumar, Barun Chatterjee, Akhilesh Gupta, H.G. Lele, Experimental investigation of symmetric and asymmetric heating of pressure tube under accident conditions for Indian PHWR, Nuclear Engineering and Design, Vol. 254, pp. 300-307, 2013.
22. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting and Maximum Surface Heat Flux during Quenching of Hot Surface by Round Water Jet Impingement, Int. J. Heat & Mass Transfer, Vol. 55, pp. 4772–4782, 2012

23. Chitranjan, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Effect of Jet Diameter on the Rewetting of Hot Horizontal Surfaces during Quenching, Experimental Thermal and Fluid Science, Vol.42, 25-37, 2012.
24. Gopal Nandan, Prasanna Majumdar., P.K. Sahoo, Ravi Kumar, Barun Chatterjee, Deb Mukhopadhyay, H.G. Lele, Study of Ballooning of a Completely Voided Pressure Tube of Indian PHWR Under Heat-up Condition,., Nuclear Engineering and Design, Vol. 243, pp.301– 310, 2012.
25. Vikas Lakhera, Akhilesh Gupta, Ravi Kumar, Enhanced Boiling outside 8 × 3 Plain and Coated Tube Bundles, Heat Transfer Engineering, Vol. 33(9), pp.763–764, 2012.
26. Kathiravan, R., Ravi Kumar, Akhilesh Gupta, Ramesh Chandra, Preparation and Pool Boiling Characteristics of Silver Nanofluids over a Flat Plate Heater, Heat Transfer Engineering, Vol. 33, No.2, pp.69–78, 2012.
27. Gopal Nandana, P.K. Sahoo, Ravi Kumar, Barun Chatterjee, Deb Mukhopadhyay, H.G. Lele, Thermo-mechanical Behavior of Pressure Tube of Indian PHWR at 20 Bar Pressure, International Journal of Aerospace and Mechanical Engineering, Vol. 5(3), pp. 209-217, 2011.
28. Kathiravan, R., Ravi Kumar, Akhilesh Gupta, Ramesh Chandra and P.K. Jain,, Pool Boiling Characteristics of Multiwalled Carbon Nanotube (CNT) based Nanofluids over a Flat Plate Heater, Int J Heat & Mass Transfer, Vol 54, 1289-1296, 2011.
29. M.K. Mittal, Ravi Kumar, Akhilesh Gupta, An Experimental Study of the Flow of R-407C in an Adiabatic Helical Capillary tube, Int J Refrigeration Vol. 3 3, pp. 8 4 0 – 8 4 7, 2010.
30. M.K. Mittal, Ravi Kumar, Akhilesh Gupta, An experimental study of the flow of R-407C in an Adiabatic Spiral Capillary Tube, ASME J Thermal Science and Engineering Application, Vol. 1(4), 041003, 2010.
31. Gopal Nandan, P.K. Sahoo, Ravi Kumar, Barun Chatterjee, Deb Mukhopadhyay, H.G. Lele, Experimental Investigation of Sagging for a Completly Voided Pressure tube if Indian PHWR under heatup Condition, Nuclear Engineering Design, Vol. 240(10), pp. 3504-3512, 2010.
32. B.M. Ramani, Akhilesh Gupta and Ravi Kumar, Performance of a Double Pass Solar Air Collector, Solar Energy, Vol. 84, pp.1929–1937, 2010.
33. Kathiravan, R., Ravi Kumar, Akhilesh Gupta, Ramesh Chandra, Preparation and Pool Boiling Characteristics of Copper Nanofluids over a Flat Plate Heater, Int. J. Heat & Mass Transfer, Vol.53, pp.1673-1681, 2010.
34. Gopal Nandan, P.K. Sahoo, Ravi Kumar, Barun Chatterjee, Deb Mukhopadhyay, H.G. Lele, Thermo-mechanical Behavior of Pressure Tube of Indian PHWR at 20 Bar Pressure, Int J Mechanical, Industrial and Aerospace Eng, Vol.4(1), pp.63-71, 2010.
35. Akhilesh Gupta, Ravi Kumar, Kumar, V., Nucleate Pool Boiling Heat Transfer over a Bundle of Vertical Tubes, Int Comm Heat & Mass Transfer, Vol. 37, pp. 178-181, 2010.
36. M.A. Akhavan-Behabadi, Ravi Kumar, and M.R. Salimpour, Azimi, R., Pressure Drop and Heat Transfer Augmentation due to Coiled Wire Inserts during Laminar Flow of Oil inside a Horizontal Tube, Int J Thermal Science Vol. 49(2), pp. 373-379, 2010.
37. V.P. Zhelezny, V. Sergey Nichenko, V.S. Yuri, B.V. Kosoy, Ravi Kumar, Influence of Compressor Oil Admixtures on Theoretical Efficiency of a Compressor System, Int J Refrigeration, Vol. 32, pp. 1526-1535, 2009.

38. Kathiravan, R., Ravi Kumar, Akhilesh Gupta, Pool Boiling Characteristics of Carbon Nanotube based Nanofluids over a Horizontal Tube, ASME J Thermal Science and Engineering Application Vol. 1, 022001-7, 2009.
39. Kathiravan, R., Ravi Kumar, Akhilesh Gupta, Ramesh Chandra, Characterization and Pool Boiling Heat Transfer Studies of Nanofluids, ASME J Heat Transfer , Vol. 131, 088902, 2009.
40. M.K. Mittal K., Ravi Kumar, Akhilesh Gupta, Numerical Analysis of Adiabatic Flow of Refrigerant through a Spiral Capillary Tube, Int J of Thermal Science volume 48(7), pp. 1348– 1354, 2009.
41. M.A.A. Behabadi, Ravi Kumar, and A. Mohammadpour, Effect of Twisted tape Insert on Heat Transfer and Pressure Drop in Horizontal Evaporators for the Flow of R-134a, Int J Refrigeration, Vol. 32, pp.922-930, 2009.
42. M.K. Khan, Ravi Kumar, P.K. Sahoo, Flow Characteristics of Refrigerants Flowing through Capillary Tubes- A Review, J Applied Thermal Engineering Vol. 29, issue 8-9, pp. 1426-1439, 2009.
43. M.K. Khan, Ravi Kumar, P.K. Sahoo, Experimental Investigation on the Flow of R-134a Through Adiabatic and Diabatic Capillary Tubes, ASHRAE Trans. Vol. 115 Part 1, pp. 82-92, 2009.
44. M.K. Khan, Ravi Kumar, P.K. Sahoo, Performance Prediction of Adiabatic Capillary Tubes by Conventional and ANN approaches- A Comparison, ASHRAE Trans. Vol. 115 Part 1, pp. 93-105, 2009.
45. M.K. Khan, Ravi Kumar, P.K. Sahoo, Experimental Investigation on Diabatic Flow of R-134a Through Spiral Capillary Tubes, Int J Refrigeration, Vol. 32, pp. 261-271, 2009.
46. M.A.A. Behabadi, Ravi Kumar, and M. Jamali, Investigation of Heat Transfer and Pressure Drop during Swirl Flow Boiling of R-134a in a Horizontal Tube, Int J Heat & Mass Transfer Vol. 52, 1918-1927, 2009.
47. Vikas Lakhera, Akhilesh Gupta, Ravi Kumar, Investigation of Coated Tubes in Cross-Flow Boiling, Int J Heat and Mass transfer Vol. 52, Issues 3-4, 31, pp. 908-920, 2009.
48. M.K. Khan, Ravi Kumar, P.K. Sahoo, An Experimental Study of the Flow of R-134a through an Adiabatic Helically Coiled Capillary Tube, HVAC & R Research Vol.14(5), pp. 749-762, 2008.
49. M.K. Khan, Ravi Kumar, P.K. Sahoo, Experimental and Numerical Investigation of R-134a Flow through Lateral Type Diabatic Capillary Tube, HVAC & R Research Vol. 14, No. 6, pp. 871-904, 2008.
50. Ravi Kumar, Ravi Kumar, Akhilesh Gupta, Analysis of the Ventilation System of an Isolation Room for a Hospital, Int J Ventilation, Vol. 7, No. 2, pp. 139-149, 2008.
51. M.K. Khan, Ravi Kumar, P.K. Sahoo, An Experimental Study of the Flow of R-134a inside an Adiabatic Spirally Coiled Capillary Tube, Int. J. Refrigeration, Vol.31, pp. 970-978, 2008.
52. Akhavan-Behabadi, M. A., Ravi Kumar, Rajabi-najar, A., Augmentation of Heat Transfer by Twisted Tape Inserts during Condensation of R-134a inside a Horizontal Tube, J of Heat and Mass Transfer, Vol. 44, pp. 651-657, 2008.
53. M.K. Khan, Ravi Kumar, P.K. Sahoo, A Homogeneous Flow Model for Adiabatic Helical Capillary Tube, ASHRAE Trans., Vol. 114(1). Pp. 239-248, 2008.
54. Ravi Kumar, Anil Kumar, U.N. Murthy, Heat Transfer Studies During Forced Air Precooling of Perishable Food Products, Biosystems Engineering , Vol. 99 (2) pp. 228-233, 2008.
55. O. A. Z. Albayati, Ravi Kumar and Gopal Chauhan, Forced Air Precooling Studies of Perishable Food Products, Int. J. Food Engineering , Vol.3, no. 6 (8), pp. 1-11, 2007.

56. M.K. Khan, Ravi Kumar, P.K. Sahoo, Flow Characteristics of Refrigerants Flowing Inside an Adiabatic Spiral Capillary Tube, Int J HVAC & R Research, Vol. 13 (5), pp. 731-748, 2007.
57. M.A.A. Behabadi, Ravi Kumar, S.G. Mohseni, Condensation Heat Transfer of R-134a inside a Microfin Tube with Different Tube Inclinations, Int J Heat & Mass Transfer Vol. (5), pp. 4864-4871, 2007.
58. R.K. Srivastava, A.K. Verma, Ravi Kumar, Bikash Mohanty, Prediction of Condensation Heat Transfer Coefficient Inside a Plain Horizontal Tube, Int. J. Heat Exchangers, Vol. 8, pp. 139-150, 2007.