


1.	Name	Rajeev Kumar Garg	
2.	Designation	Professor	
3.	Correspondence Address	Department of Chemical Engineering, Shaheed Bhagat Singh State University (Formerly SBSSTC Ferozepur), NH-05, Ferozepur, 152004	
4.	Phone No./ email	+91-8288012013 rkg_garg@rediffmail.com	
5.	Date of Birth	07 May 1971	
6.	Educational Qualification	PhD (Chemical Engg.) [2009] M.E. (Chemical Engineering) [1995] B.E. (Chemical Engineering) [1992]	
7.	Work Experience	Teaching Experience: 25 years Administrative: 16 years Controller of Examinations Head of Department, Chemical Engineering Department Dean Academics/ Officer-in-Charge Academic Affairs Coordinator M Tech Chemical Engineering Member Board of Studies Chemical Engineering, IKGPTU Jalandhar Member Board of Studies Chemical Engineering, MRSPTU Bathinda Member Board of Studies Chemical Engineering, SBSSU/SBSSTC, Ferozepur Industrial experience : 3 years 9 months Assistant Manager, HPL Chemicals Pvt Ltd, Dera Bassi, Patiala GET, BPCL, Mahul, Bombay	4/6/2015 onwards 18/7/2009-04/06/2015 13/8/2001-23/01/2004 Nov 2008-March 2011 August 2007 - 2010 onwards 2015 onwards 2015 onwards 14/07/1995 – 26/08/1998 04/01/1993-07/08/1993
8.	Area of Specialization	Research : 6 years Modeling & Simulation	
9.	Research Publications (Annexure- A)	International Journal 17 Book Chapters 03 International Conferences 14 National Conferences 27	

10.	Ph. D. Guidance	--	02 completed
11.	M Tech Guidance	01 in progress	13 completed
12.	Professional Membership	Life Member IChE Life Member ISTE	
13.	Funded Projects	03 completed	
		Modernization of Heat Transfer Laboratory	Rs 1.5 lacs
		Modernization of Computational Laboratory	Rs 5.75 lacs
		Modernization of PIDC Laboratory	Rs. 10 lacs
14.	Invited Talks	03	
15.	FDPs / STCs	Conducted: 01 in collaboration with CIPET Amritsar	Recent Trends in Polymers, Composites & Their Engineering Applications
		Attended (Annexure-B)	
		One week	08
		Two weeks	09
16.	Conference Organization	Co-convener of National Conference Frontiers in Material Research and Applications FMRA 2015 Member of organizing team of FMRA 2017	
17.	Workshops Attended	04	
		Applications of Chemical Engineering in Alternative Sources of Energy	30 th October 2015
		COMSOL Multiphysics Modeling Workshop	2nd Aug 2013
		Industry-Academia workshop on "Design of Refinery Distillation Columns" conducted by Petroleum Federation of India in association with EIL, IOC and PCRA	23rd -24th October 2013
		NBA Workshop at Thapar University Patiala	9-11 May 2013
18.	Achievements	Set up the examination cell in the college for conduct and evaluation of examinations and conducted the examinations successfully Department of Chemical Engineering was granted accreditation by NBA during my tenure as HOD Passed M.E. in First class with distinction	

ANNEXURE-A

Journals

1. **Garg R.K.**, Krishnan V.V., Srivastava V.K., Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor, Korean J. Chem. Engg., 23(4), 531-539, 2006
2. **Garg R.K.**, Srivastava V.K., Modeling and Simulation of Non Isothermal Thermal Cracker, J. Chem. Engg. of Japan, 39(10), 1057-4, 2006
3. **Garg R.K.**, Vashishta, M., Srivastava V.K., A Modeling Approach to Reaction of Non Newtonian Fluids in Tubular Reactor, Polymer-Plastics Technology and Engg, 46 (10), 965-971, 2007
4. Arora R, **Garg R K**, Grover N K, Numerical Studies on Droplet Evaporation at High Ambient Temperature and Pressures, International Journal of Advances in Thermal Science & Engineering, Vol. 1 (2), 2010, 133-137
5. Kalra P, **Garg R K**, Grover N. K., Kumar A, Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route, Asian Journal of Engineering and Applied Technology Vol-1 No. 2 July-Dec 2012, Pg 36-39, ISSN 2249-068X
6. Kumar B, **Garg R K** and Singh U, Utilization of Fly ash as Filler in HDPE/ Flyash Polymer Composites: A Review, International Journal of Applied Engineering Research, Vol 7, 11, 2012, pg 1679- , ISSN 0973-4562
7. Kalra P, **Garg R K**, Kumar A, Electrical characterization of NiO-CGO composites SOFC anode precursor- prepared via combustion synthesis route, International Journal of Innovative Research in Science, Engineering and Technology, Volume 3 Issue 5 May 2014, Pages 12071-12077, ISSN: 2319-8753.
8. Kalra P, **Garg R K**, Kumar A, Modeling of a High Temperature Solid oxide Fuel Cell, Journal of Energy Technologies and Policy Vol.5, No.2, 2015, ISSN 2224-3232 (Paper) ISSN 2225-0573 (Online).
9. Yadav P.K., **Garg R K**, Catalytic Cracking MAT Reactor Performance using Pseudo Reaction Kinetics, International Journal of ChemTech Research, Vol 10(5),2017, pp 150-165. (ISSN:0974-4290, ISSN - Online :2455-9555)
10. Yadav P.K., **Garg R K**, Modeling and Simulation of Fluidized Catalytic Cracking Riser Reactor Using Pseudo Reaction Kinetic: A Review, International Journal of Engineering and Technology, Vol 9 (3), Jun-July,2017, pp 1667-1681. DOI:10.21817/ijet/2017/v9i3/170903017
11. Yadav P.K., **Garg R K**, Study of Modeling Approach for Fluid Catalytic Cracking Riser Reactor Using Pseudo Component Reaction Kinetics, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), Vol 5 (5), 2017, pp 646 – 651. (ISSN: 2321-8169).
12. Kalra P, **Garg R K**, Grover N. K., Modelling of a One Dimensional anode Supported High temperature Tubular SOFC, International Journal of ChemTech Research, Vol 10 (6), 2017, pp 784-792, ISSN: 0974-4290, online 2455-9555

13. Kalra P, **Garg R K**, Kumar A, Electrochemical Analysis of a Anode Supported Axially Symmetrical One Dimensional Solid Oxide Fuel Cell, Indian Journal of Science & Technology, Vol.10, No.19, 2017, pp 1-9, ISSN 0974-6846 (Paper) ISSN 0974-5645 (Online).
14. Kalra P, **Garg R K**, Kumar A, Design of a High Temperature Solid Oxide Fuel Cell: a Review, International Journal for Research in Applied Science & Engineering Technology, Vol.5, No.9, 2017, pp 1089-1096, ISSN 2321-9653.
15. Kalra P, **Garg R K**, Kumar A, Kinetic Analysis of Reactions at Triple Phase Boundaries of anode supported Tubular SOFC, Asian Journal of Chemistry, Vol. 30, 3, 2018 pp 561-566
16. Kalra P, **Garg R K**, Kumar A, Parametric sensitivity analysis for a natural gas fueled high temperature tubular solid oxide fuel cell, Heliyon, Volume 6, Issue 7, 2020, e04450, ISSN 2405-8440
17. Goyal V., Asati A.K., **Garg R. K.**, Arora A., Experimental studies on natural bank type heating/cooling energy saving Air conditioning system, Proceedings of Institution of Mechanical Engineers Part E: Journal of Process Mechanical Engineering, Vol. 238, 1, 2022

Book Chapters

1. Kalra P, **Garg R K**, Kumar A, Solid Oxide Fuel Cells- A Future Source of Power and Heat Generation, Engineering Applications of Nano-Science & Nano-Materials, Special edition of Material Science Forum 757, Tayade R. and Bansal A. (eds), TransTech publications, pp 217-241, ISSN print 0255-5476 ISSN cd 1662-9760 ISSN web 1662-9752
2. Sood N, **Garg R K**, Jha M.K., Arora A. , Treatment of Leachate by Using Natural Adsorbents, Recent Advances in Bioenergy Research Volume II, © Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala-2013, Electronic version published by SSS-NIRE edited by Sachin Kumar, S. K. Tyagi, pp 217-241
3. Goyal V., Asati A., Garg R. K., A Review on the Performance of Earth Air Heat Exchanger Coupled with Other Systems, Technology Innovation in Mechanical Engineering. Lecture Notes in Mechanical Engineering, Chaurasiya, P.K., Singh, A., Verma, T.N., Rajak, U. (eds), 2022, Springer Nature Singapore, pp 521-531, Print ISBN978-981-16-7908-7, Online ISBN978-981-16-7909-4

Conference

International

1. **Garg R. K.** and Srivastava V.K., Modeling of Non-Newtonian Reactive Systems in Tubular Reactor, Proceedings of AIChE Annual Meeting, San Francisco, California, USA, 2006

2. **Garg R. K.** and Srivastava V.K., A Modeling Approach to Thermal Cracking in an Annular Reactor-Quencher, Proceedings of AIChE Annual Meeting, Salt Lake City, Utah, USA, 2007
3. **Garg R. K.** and Krishnan V.V., Multi-Reaction Equilibria in SOFC's Operating Directly on Hydrocarbons, Proceedings of Millennium Energy Summit 2007, CGCRI, Kolkata, India, 2007
4. Kalra P., **Garg R K**, Kumar A, Nano NiO-CGO SOFC anode composites precursor-Combustion synthesis and characterization, International Conference on Frontiers in Nanoscience, Nanotechnology and their Applications, NanoSciTech-2012, Deptt. of Chem. Engg., Panjab University, Chandigarh, Feb 16-18 2012
5. **Garg R K**, Arora A, Kumar R, The Role of communication technology in enhancing the accessibility of higher education, International conference of role of technology in enhancing the quality of higher education at Kanya Mahavidyalaya, Jalandhar, Oct 26-27 2012
6. Arora A, Mehra R, **Garg R K**, Tyagi A K, Measurement of indoor radon concentration in the dwellings of Bathinda district of Punjab from June – August 2010, ICRM-2011 (International conference on recycling and reuse of materials), Mahatma Gandhi University, Kerala, August 5-7 2011
7. Arora Rajiv, **Garg R K**, Grover N K, Toor A., Comparative Study of cubic Equations of State for Predicting Phase Behaviour of n-Heptane- Nitrogen Systems, 2nd International Conference and Exhibition on Waste to Wealth And 6th International Conference On Combustion, Incineration Pyrolysis & Emission Control, Malaysian Nuclear Agency, Kuala Lumpur, Malaysia, July 26-29, 2010
8. Arora Rajiv, **Garg R K**, Grover N K, Renewable Energy Resources in India: Sustainable development through eco-friendly approach, International Conference on Business Ethics and Human Values, Panjab University, Chandigarh, India, Dec 23-24, 2010
9. Kalra P., **Garg R K**, Modeling of a Solid Oxide Fuel Cell with Internal Reforming, International conference on Frontiers of Material Research and Application (ISBN: 978-93-83842-92-6) held on Oct 30-31 2014 at SBSSTC, Ferozepur.
10. Kalra P., **Garg R K**, Advanced Materials for a Solid Oxide Fuel Cell, International conference on Frontiers of Material Research and Application (ISBN: 978-93-83842-92-6) held on Oct 30-31 2014 at SBSSTC, Ferozepur.
11. Yadav P., **Garg R K**, Modeling Approach for Fluid Catalytic Cracking Reaction Kinetics, International conference on Frontiers of Material Research and Application (ISBN: 978-93-83842-92-6) held on Oct 30-31 2014 at SBSSTC, Ferozepur.
12. Kumar B, **Garg R K** and Singh U, Evaluation of Polypropylene Composites filled with Talc Particles as Filler, International conference on Frontiers of Material Research and Application (ISBN: 978-93-83842-92-6) held on Oct 30-31 2014 at SBSSTC, Ferozepur.
13. Agarwal D, **Garg R K**, Removal of Chromium (+6) & Flouride (F-) from Water by Adsorption on Peepal (Ficus Religiosa) Leaves Biomass, International conference on Harnessing Engineering, Technology and Innovation for Sustainable Growth, HETIS 2016 held on 30 Sept – 1 October 2016, held at Dr SSB University Institute of Chemical Engg & Tech, Panjab University, Chandigarh
14. Goyal V., Asati A., **Garg R. K.**, A review on the Effect of Soil Composition, Climate and Rainfall on the Performance of Earth Air Heat Exchanger, International Conference on Latest Trends in Civil, Mechanical and Electrical Engineering (LTCMEE-2021) held on April 12-13 2021 at Maulana Azad National Institute of Technology, Bhopal

National

1. **Garg R. K.** and Srivastava V.K., Modeling of Ethane Thermal Cracker- a 2-D Approach, Proceedings of CHEMCON 2005, Indian Chemical Engineering Congress, IIT Delhi, India, 2005
2. **Garg R. K.** and Srivastava V.K., Modeling of Thermal Cracker, Proceedings of the seminar on Recent Trends in Science, Technology and its Applications, Muzaffarnagar, UP, India, 2006
3. **Garg R. K.** and Srivastava V.K., Modeling and Simulation of Ethane Thermal Cracker: A Comparative Study, Proceedings of CHEMCON 2007, Indian Chemical Engineering Congress, IChE Kolkata, India, 2007
4. **Garg R. K.** and Krishnan V.V., Prediction of Nernst Voltage in a Direct Hydrocarbon Solid Oxide Fuel Cell, Proceedings of ICAER 2007, IIT, Mumbai, India, 2007
5. **Garg R. K.** and Srivastava V.K., Modeling of Ethane Thermal Cracking under Non-Isothermal Constant Heat Flux Condition, Proceedings of CHEMCON 2008, Indian Chemical Engineering Congress, Department of Chemical Engineering, Panjab University, Chandigarh, India, 2008
6. **Garg R. K.** and Srivastava V.K., Mathematical Treatment of Thermal Cracker for Ethane, Proceedings of CHEMCON 2011, Indian Chemical Engineering Congress, Department of Chemical Engineering, MS Ramaiah Institute of Technology Bangalore & Bangalore Regional Centre IChE, Bangalore, India, 2011
7. **Garg R. K.** and Srivastava V.K., Thermal Cracking of Methylcyclohexane: Mathematical Treatment and Optimization of Model Parameters, Proceedings of CHEMCON 2012, Indian Chemical Engineering Congress, Department of Chemical Engineering, NIT Jalandhar, India, 2012
8. Srivastava V. K. and **Garg R. K.**, Emergency Preparedness and Disaster Mitigation, Proceedings of Conference on Management and Technology of Control of Disasters, S.D. College of Engg. & Tech., Muzaffarnagar, UP, India, 2013
9. Arora R, **Garg R K**, Grover N K, Calculation of thermo physical properties of n-heptane & nitrogen mixture using vapour liquid equilibrium, National Conference on Global Trends in Mechanical Engineering, Rayat & Bahra Institute of Engineering & Bio-Technology, Mohali, India, April 16-17 2010
10. 22. Arora R, **Garg R K**, Grover N K, Simulation of Thermodynamic properties for n-heptane-nitrogen mixture at equilibrium, International Conference on Emerging Trends in Technology & Education, Sri Sukhmani Institute of Engineering & Tech., Dera Bassi, Punjab, India, April 15-16, 2010
11. Kalra P., **Garg R K**, Kumar A, Effect of fuel concentration on electrical properties of NiO-CGO composites-SOFC anode precursor- prepared via combustion synthesis route, Advanced Materials & Radiation Physics, AMRP-2011, Dept. of Physics, SLIET Longowal 2nd National Conference, 4-5 Nov. 2011
12. **Garg R K**, Modelling and Simulation of Distillation Column, Advances in Modelling, Optimization and Computing (AMOC-2011), Dept. of Mathematics, IIT Roorkee International Conference, 5-7 Dec, 2011
13. Arora A, **Garg R K**, Mehra R, Tyagi A K, Measurement of indoor radon concentration in the dwellings of Bathinda district of Punjab for the period September-november 2010, WMR-2011 (National conference on waste management and recycling), SLIET Longowal Punjab, Dec 9-10 2011
14. 17. Arora A, **Garg R K**, Mehra R, Tyagi A K, Statistical model of lifetime fatality risk due to indoor radon concentration of Bathinda District for period Dec 2010 to Feb 2011, National conference on advances and applications in statistics, Punjab University, Chandigarh Feb. 20 2012

15. Arora A, **Garg R K**, Sharma S, Wasson B, Kaur S, Radiation pollution in human habitat, National Conference on Material Science Application in energy and environment, DAV college Jalandhar. March 3 2012
16. Kalra P, **Garg R K**, Kumar A, Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route, AFTMME-2012 at PTU Jalandhar, Oct 5-7 2012
17. Arora A, **Garg R K**, Koundle A, Maneet, Rajat, Supercritical fluid like CO₂ for the treatment of hospital waste, Biomedical Engineering and Assistive Technologies at NIT Jalandhar, 6-7 Dec 2012 ISBN-13: 978-81-925454-1-7
18. Arora A, **Garg R K**, Koundle A, Rajat, Sehgal R, Sources and Treatment Techniques of Hospital Waste Management: a Review, National conference on Green Chemistry held at SRM University, Ghaziabad, 18-19 Sept 2012 ISBN 978-93-81583-58-6
19. Kumar B, **Garg R K** and Singh U, Effect of flyash as a filler on properties of HDPE/Flyash Polymer Composites, International Conference on Sustainable Technology For Energy and Environment in Process Industries and Indo-US Joint International Conference on Energy and Environment. Chemcon-2012, NIT Jalandhar, Dec 2012
20. Sood Navneet, **Garg R K**, Jha M.K., Arora A., Treatment of Leachate by Using Natural Adsorbents, National Conference on Recent Advances in Bioenergy Research held at SSSNIRE, Kapurthala, 7-8 Dec 2012, ISBN 978-81-927097-1-0
21. Arora A, Upadhyaya S, Aditi, **Garg R K**, Koundle A, Isopropylation of m-cresol with isopropyl alcohol over zeolite catalyst, Chemcon-2012 at NIT Jalandhar, Dec 27-30, 2012
22. Kumar R, Sharma L, **Garg R K**, Subhash, Arora A, Adsorption of Congo Red on Fly Ash, Chemical Constellation CHEMINAR -2012 at NIT Jalandhar, Sept 10-12, 2013
23. Kalra P, **Garg R K**, Kapoor S, Applications of Solid Oxide Fuel cells: A Review, National conference on Frontiers of Material Research and Application (ISBN: 978-93-85777-23-3) held on Oct 30-31 2015 at SBSSTC, Ferozepur.
24. Kaur M., Kumar B, **Garg R K**, Effect of Modified Fly Ash as a Filler on Properties of Nylon-6, National conference on Frontiers of Material Research and Application (ISBN: 978-93-85777-23-3) held on Oct 30-31 2015 at SBSSTC, Ferozepur.
25. Yadav P K, **Garg R K**, Catalytic Cracking Reactor Modeling and Simulation using Pseudo-Reaction Kinetics Approach, National conference on Frontiers of Material Research and Application (ISBN: 978-93-85777-23-3) held on Oct 30-31 2015 at SBSSTC, Ferozepur.
26. Kaushik M, Koundle P, **Garg R K**, Adsorptive Removal of Chloropyrifos Insecticide using Watermelon Seeds as Adsorbent, National conference on Frontiers of Material Research and Application (ISBN: 978-93-85777-23-3) held on Oct 30-31 2015 at SBSSTC, Ferozepur.
27. Kalra P, **Garg R K**, Kumar A, Advanced Synthesis Techniques for Various Components of Solid Oxide Fuel Cells: A Review, National conference on Frontiers of Material Research and Application (ISBN: 978-93-86256-10-2) held on Oct 30-31 2016 at SBSSTC, Ferozepur.

ANNEXURE-B

FDPs/STCs attended

One-week duration

Title	Conducted by	From/to
Research Methodology: Tools & Techniques	SBSSTC	
Applied Soft Computing	SBSSTC	
Managerial Skills	SBSSTC	
Modelling & Simulation using MATLAB	NITTTR Chd	
Soft Skills for Technical Teachers	SBSSTC	
Engineering Materials	SBSSTC	
Business and Soft Skills Development in Institutions	NITTTR Chd	
Renewable Energy Based Technologies	NITTTR Chd	

Two weeks duration

Title	Conducted by	From/to
Induction Training Programme for Faculty of Engineering Colleges	NITTTR Chd	
Recent Advances in Petrochemical Technology	NIT Jalandhar	
Concepts of Renewable Energy Sources	Centre for Energy Studies, IITD	
Multi Criteria Optimization Tools in Research	SBSSTC	
Nature Inspired Computational Intelligence	SBSSTC	
Analytical Techniques for Detection of Environmental Pollutants	SBSSTC	
Recent Trends in Polymers, Composites & Their Engineering Applications	SBSSTC	
Intelligent Computational Techniques	SBSSTC	
Modern Sophisticated Analytical Techniques and Their Application in Pharmaceuticals	ISF College of Pharmacy, Moga	