

Profile Page



Name : Dr Renu Gupta
Designation : Associate Professor
Department : Chemical Engineering
Qualification : PhD Chemical Engineering (NIT Jalandhar)
M E Chemical Engineering (Panjab Univesity)
B E Chemical Engineering (Panjab University)
Address : A 6 NIT Campus
Dr B R Ambedkar National Institute of Technology
Jalandhar, Punjab - 144011
Email : bansalr@nitj.ac.in
Phone : 01812690301 Ext 2405

Research Interests :

Reaction Engineering
Multiphase Flow
Advanced Oxidation Processes
Heterogeneous Catalysis

Other Profile Links :

Google Scholar Link :

Google scholar profile [Click Here](#)

Personal Web Link :

Research gate profile [Click Here](#) Scopus Profile [Click Here](#) Vidwan Profile [Click Here](#) orcid [Click Here](#) id [Click Here](#) Researcher ID [Click Here](#)

Journal Publications :

Year	Journal	Publication
2021	Environmental Engineering Research	Minz Sudha, Gupta Renu, Garg Sangeeta, Mineralization and degradation of 4-Nitrophenol using homogeneous Fenton oxidation process
2020	Solar Energy, 196,589-596	Vikash Kumar, Renu Gupta, Ajay Bansal, Role of chenodeoxycholic acid as co-additive in improving the efficiency of DSSCs
2020	Chem. Eng. Technol. 2020, 43, No. 5, 995–1004	Nikesh Kumar, Renu Gupta, Ajay Bansal, Effect of Surface Tension on Hydrodynamics and Mass Transfer Coefficient in Airlift Reactors
2020	International Journal of Environmental Science and Technology	Renuka Garg, Renu Gupta , Ajay Bansal, Photocatalytic degradation of imidacloprid using semiconductor hybrid nano-catalyst: Kinetics, surface reactions and degradation pathways

2018	Chemical Engineering Research and Design, 136C, 315-323	Nikesh Kumar, Ajay Bansal, Renu Gupta, Shear rate and Mass Transfer Coefficient in Internal Loop Airlift Reactors involving non-Newtonian Fluids
2018	Indian Chemical Engineer, vol. 60, pp. 16-36.	Sudha Minz, Sangeeta Garg, Renu Gupta, Catalytic Wet Peroxide Oxidation of 4-Nitrophenol Over Al-Fe, Al-Cu and Al-Cu-Fe Pillared Clays
2018	Chemical Engineering Communications, issue 5, vol 205, 667-679	Minz Sudha, Garg Sangeeta, Gupta Renu, Catalytic wet peroxide oxidation of 4-Nitrophenol over Al-Fe PILC: Kinetic study using Fermi's equation and mechanistic pathways based on TOC reduction
2013	Bioprocess and Biosystems Engineering vol. 36, pp. 1011-1018	Renu Gupta & Ajay Bansal, Axial Dispersion in Packed Bed Reactors involving viscoelastic and viscoelastic non-Newtonian fluids
2012	Indian Chemical Engineer, vol. 54, pp. 180-189	Renu Gupta & Ajay Bansal, Quantifying Effect of Surface tension and Viscosity on Dispersion in
2011	Bulletin of Chemical Reaction Engineering & Catalysis, vol. 6, pp. 115-122	Vijay Sodhi & Renu Gupta, Pressure Drop Hysteresis of Hydrodynamic States in Packed Tower for foaming Systems
2010	Industrial and Engineering Chemistry Research, vol.49, pp.9525-9528	Renu Gupta & Ajay Bansal, Effect of Bed Configuration on Dispersion in a Packed-Bed Reactor
2010	Bulletin of Chemical Reaction Engineering & Catalysis, vol. 5, pp. 31-37	Renu Gupta & Ajay Bansal, Hydrodynamics Studies on Trickle Bed Reactor for Foaming Liquids

Conference Publications :

Year	Conference	Publication
2018	International Conference, 71st Congress (CHEMCON 2018)	Nikesh Kumar, Ajay Bansal and Renu Gupta, Hydrodynamics study in internal loop airlift reactor
2018	International Conference, 71st Congress (CHEMCON 2018)	Minz Sudha, Gupta Renu, Garg Sangeeta, Catalytic wet hydrogen peroxide oxidation of 4-nitrophenol using interlayered pillared clay catalysts
2018	International Conference, 71st Congress (CHEMCON 2018)	Vikash Kumar, Renu Gupta, Ajay Bansal, Facile synthesis of visible light driven gC3N4/ ZnO nanocomposite for the degradation of coomassie brilliant blue dye
2018	International Conference, 71st Congress (CHEMCON 2018)	Renuka, Renu Gupta, Ajay Bansal, Hydrothermal synthesis of titanium dioxide nanotubes as photocatalyst for degradation of refractory organic compounds
2018	International Conference, 71st Congress (CHEMCON 2018)	Anjali Baudh, Rubal Preet, Nidhi Dubey, Renu Gupta, Ajay Bansal, Assessment of photocatalytic activity of doped TiO2 for degradation of 2,4 DCP
2018	International Conference, 71st Congress (CHEMCON 2018)	Nilanjan Dutta, A. K. Tiwari, Renu Gupta, Ajay Bansal, "Forced convection heat transfer from a blunt headed cylinder in power law fluids
2018	International conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering (EGRWSE-2018)	Minz Sudha, Gupta Renu, Garg Sangeeta, "Al-Fe and Al-Ti pillared saponite clay catalysts: Preparation and Characterization
2018	International conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering (EGRWSE-2018)	7. Minz Sudha, Gupta Renu, Garg Sangeeta, "Degradation of 4-chlorophenol using homogeneous Fenton's oxidation process: Kinetic study

2016	National Conference on Application of Biotechnology in Industry & Society	Sudha Minz, Renu Gupta and Sangeeta Garg, Effect of Temperature on Degradation of 4-Nitrophenol
2016	69th Indian Chemical Engineering Congress (CHEMCON 2016)	Simranjit Kaur, Raj Kumar Gupta, Renu Gupta & Ajay Bansal, Study on Fluid Catalytic Cracking Riser Modeling
2016	69th Indian Chemical Engineering Congress (CHEMCON 2016)	Simranjit Kaur, Ajay Bansal, Renu Gupta & Vikash Kumar, UV-Aided Photocatalytic Synthesis of ZnO Reduced Graphene Oxide Composites for Photocatalytic Degradation of Rhodamine B
2016	National Conference on Application of Biotechnology in Industry & Society	Nikesh Kumar and Renu Gupta, Studies on Adsorption of Safranin o Dye over Treated Neem
2016	69th Indian Chemical Engineering Congress (CHEMCON 2016)	Vikash Kumar, Simranjit Kaur, Ajay Bansal, Renu Gupta, A Review on the Optimization of Dye Sensitized Solar Cell
2016	National Conference on Application of Biotechnology in Industry & Society	Nikesh Kumar, Ajay Bansal and Renu Gupta, Characterization of Rheologically Complex fluids
2016	National Conference on Advances in Chemical & Environment Engineering	Sudha Minz, Renu Gupta and Sangeeta Garg, Degradation of Phenolic Compounds Using Fenton's reagent and its Kinetic Study
2016	National Conference on Advances in Chemical & Environment Engineering	Sudha Minz, Renu Gupta and Sangeeta Garg, Degradation of 4-Chlorophenol using Bentonite Based Catalyst in Wet Peroxide Oxidation Process
2016	National Conference on Advances in Chemical & Environment Engineering	Nikesh Kumar, Ajay Bansal and Renu Gupta, Performance of Airlift Reactors involving non-Newtonian Fluids- A Review
2016	69th Indian Chemical Engineering Congress (Chemcon 2016)	Nikesh Kumar, Ajay Bansal and Renu Gupta, Flow Regime Transition in Internal Loop Airlift Reactor
2016	69th Indian Chemical Engineering Congress (CHEMCON 2016)	Renuka, Renu Gupta and Ajay Bansal, Mass Transfer Studies in Packed Bubble Column
2015	National Conference on Advanced Oxidation Processes	Sudha Minz, Sangeeta Garg, Renu Gupta, Al-Fe Pillared clay as a Heterogeneous catalyst in the catalytic wet peroxide oxidation of 4- Nitrophenol
2015	68th Indian Chemical Engineering Congress (CHEMCON-2015)	Sudha Minz, Renu Gupta, Sangeeta Garg, Degradation of 4-Nitrophenol Using Fenton's Reagent and its Kinetic Study
2014	International Conference on Emerging Trends in Traditional & Technical Textiles	Nikesh Kumar and Renu Gupta, Kinetics and Thermodynamic Studies for Adsorption of Safranin Dye on Neem Leaves
2013	International Conference on Advances in Chemical Engineering (ICACE 2013)	Renu Gupta and Ajay Bansal, Effect of Operating Parameters on Bodenstein Number in Trickle Bed Reactors
	International conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering (EGRWSE-2018)	9. Vikash Kumar, Ajay Bansal, Renu Gupta, "Synthesis of rGO/TiO ₂ nanocomposite for the efficient photocatalytic degradation of RhB dye

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
------	-------	-----------	---------	----------------	------

Book Chapter	Degradation of 4-Chlorophenol Using Homogeneous Fenton's Oxidation Process: Kinetic Study", Chapter 21, Lecture Notes in Civil Engineering, Sustainable Engineering, Vol 30, 213-224	Springer	Sudha Minz, Renu Gupta, Sangeeta Garg	ISBN : 978-981-13-6716-8	2019
Book Chapter	Al-Fe and Al-Ti Pillared Saponite Clay Catalysts: Preparation and Characterization", Chapter 5, Lecture Notes in Civil Engineering, Sustainable Engineering, Vol 30,37-48	Springer	Sudha Minz, Renu Gupta, Sangeeta Garg	ISBN : 978-981-13-6716-8	2019
Book	Studies on rice straw baggase ash as pozzolanic materials	Lambert Academic Publishing	Renu Gupta, Poonam Gera, Anuj Kumar	ISBN 978-613-9-91541-5	2018
Book Chapter	Nanotechnology: Novel Perspectives and Prospects/ Synthesis and Assessment of Photocatalytic activities of undoped and Mn doped ZnO nanoparticles	McGraw Hill	Rubal Preet, Ajay Bansal, Renu Gupta, Sukhdeep Kaur	ISBN (13): 978-93-392-2109-6, ISBN (10): 93-392-2109-5	2015
Book Chapter	Advances in Chemical Engineering/Studies on Dynamic Liquid Saturation in a Trickle Bed reactor for Foaming Liquids	McMillan Publishers	Renu Gupta, Ajay Bansal and Vijay Sodhi	ISBN 10: 0230-63812-0, ISBN 13: 978-0230-63812-9	2009
Book Chapter	Synthesis of rGO/TiO ₂ Nanocomposite for the Efficient Photocatalytic Degradation of RhB Dye", Chapter 26, Lecture Notes in Civil Engineering, Sustainable Engineering, Vol 30, 265-280	Springer	Vikash Kumar, Ajay Bansal, Renu Gupta	ISBN : 978-981-13-6716-8	

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Investigator	R & D	Mass Transfer Studies in Lab Scale Airlift Reactor	TEQIP-II, NIT Jalandhar	December 2015	December 2016	50000/-	Completed	Dr Ajay Bansal
Investigator	R & D	Effect of Surface Tension and Foaming on Mass Transfer in packed Bed Reactor	TEQIP-II, NIT Jandhar	December 2016	March 2017	42093/-	Completed	Dr Ajay Bansal

Principal Investigator	R & D	Synthesis and Characterization of Catalyzed for Decomposition of 4-NP	TEQIP-II, NIT Jandhar	December 2016	March 2017	48238/-	Completed	Dr Sangeeta Garg
Investigator	R & D	Studies on the Fabrication of Dye-Sensitized Solar Cell	TEQIP-II, NIT Jandhar	December 2016	March 2017	35622/-	Completed	Dr Ajay Bansal

Professional Affiliations :

Designation	Organization
Fellow	Institution of Engineers
Life Member	Indian Institute of Chemical Engineers
Life Member	Indian Society for Technical Education
Associate Member	International Congress of Environment Research

Admin. Responsibilities :

Position Held	Organization	From	To
Head of Department	Dr B R Ambedkar National Institute of Technology, Jalandhar	Sept 2013	Sept 2014
Associate Dean Faculty Welfare	Dr B R Ambedkar National Institute of Technology, Jalandhar	Feb 2015	Aug 2015