

Profile Page



Name	:	Dr Renu Gupta
Designation	:	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
Renewable Energy
Rheology of complex fluids
Trickle bed reactors
Waste to Energy
Biomass conversion processes

Other Profile Links :

Google Scholar Link :

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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
2022	Chemosphere, Volume 286, Part 3, January 2022, 131837	Renuka Garg, Renu Gupta, Nirmal Singh, Ajay Bansal, Eliminating pesticide quinalphos from surface waters using synthesized GO-ZnO nanoflowers: characterization, degradation pathways and kinetic study
2021	Environmental Engineering Research, vol 26(3): 190145, 2021	Minz Sudha, Gupta Renu, Garg Sangeeta, Mineralization and degradation of 4-Nitrophenol using homogeneous Fenton oxidation process
2021	Environmental Science and Pollution Research, 28, pages 57009–57029	Garg, Renuka; Gupta, Renu; Singh, Nirmal; Bansal, Ajay, Characterization and performance evaluation of synthesized ZnO nanoflowers, nanorods, and their hybrid nanocomposites with graphene oxide for degradation of Orange G
2021	Materials Today: Proceedings, vol 44, 1163-1168, 2021	Vikash Kumar, Renu Gupta, Ajay Bansal, Influence of RhB dye concentration on ZnS nanoflowers decorated TiO ₂ photoanode in dye sensitized solar cell
2021	Korean Journal of Chemical Engineering, 38, 485–497(2021)	Renuka Garg, Renu Gupta, Ajay Bansal, Degradation mechanism, reaction pathways and kinetics for the mineralization of Bisphenol A using hybrid ZnO/graphene oxide nano-catalysts
2021	ACS Applied Nano Materials, 4, 6212–6222	Kumar, Vikash; Gupta, Renu; Bansal, Ajay, Hydrothermal Growth of ZnO Nanorods for Use in Dye-Sensitized Solar Cells
2021	Iranian Journal of Chemistry and Chemical Engineering, vol 40, 539-550	Sudha Minz, Sangeeta Garg, Renu Gupta, Effect of Operating Parameters, Reaction Kinetics and Comparative Assessment of Fluidized-Bed Fenton Oxidation of 4-Nitrophenol
2021	Material Today Proceedings, vol 44, 855-859	Renuka Garg, Renu Gupta ?, Ajay Bansal, Synthesis of g-C ₃ N ₄ /ZnO nanocomposite for photocatalytic degradation of a refractory organic endocrine disrupter
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
2023	2nd International Conference on Advances in Water Treatment & Management, ICAWTM-23, Pandit Deendayal Energy University, Gandhinagar, Gujarat, 11-12, March 2023	Zarina Lehal, Dr Neetu Divya, Dr Renu Gupta
2022	INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL, CHEMICAL AND MECHANICAL ENGINEERING "ICACCME-2022" at DAV University Jalandhar on 6th May, 2022.	Aditi singh, Vinita, Renu Gupta "Studies on effect of conversion and order of reaction on Volume of Plug Flow Reactor"
2022	INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL, CHEMICAL AND MECHANICAL ENGINEERING "ICACCME-2022" at DAV University Jalandhar on 6th May, 2022.	Palvi, Renu Gupta "Sustainability of Biofuel towards human civilization and more towards environment"
2021	International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment organized by Department of Chemical Engineering, National Institute of Technology Tiruchirappalli, March 12-13, 2021.	Renuka Garg, Renu Gupta, Nirmal Singh, Ajay Bansal "Hydrothermally synthesized recyclable titania nanotubes as photocatalyst for UV assisted degradation of imidacloprid
2021	Atam Nirbhar Bharat: Technological Transformation and Preparedness in the Post COVID World" Deenbandhu Chhotu Ram University of Science & Technology, Murthal 22- 23 March 2021	Renuka Garg, Renu Gupta, Ajay Bansal 'Application of ZnO based nanocomposites for removal of hazardous pollutants from aquatic systems'
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues (IMRSE- 2021) National Institute of Technology Jalandhar, June 25-27, 2021	Renuka Garg, Renu Gupta, Nirmal Singh, Ajay Bansal Hydrothermally synthesized titania nanotubes for UV assisted degradation of Imidacloprid
2021	National Conference on Sustainable Research in Energy and Environment (SREE021) National Institute of Technology, Jalandhar, 15-16 Jan, 2021.	Renuka Garg, Renu Gupta, Nirmal Singh, Ajay Bansal 'Degradation of bisphenol A from aqueous systems using synthesized hybrid nanocomposite
2021	Sustainable Research in Energy and Environment (SREE-2021), Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, 15-16 Jan, 2021.	Renuka Garg, Vikash Kumar, Renu Gupta, Nirmal Singh, Ajay Bansal 'Application of Zinc oxide as nano-catalyst for removal of hazardous pollutants in wastewater
2021	National Conference on Sustainable Research in Energy and Environment (SREE021) National Institute of Technology, Jalandhar, 15-16 Jan, 2021.	Vikash Kumar, Renu Gupta, Ajay Bansal, Eosine Y sensitized TiO ₂ as photoanode for application in dye sensitized solar cell
2021	International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment , NIT Tiruchirappalli, March 12-13, 2021.	Renuka Garg, Renu Gupta, Ajay Bansal, Nirmal Singh, "Eliminating pesticide quinalphos from surface waters using synthesized GO-ZnO nanoflowers: characterization, degradation pathways and kinetic study"
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues (IMRSE- 2021) DR B R Ambedkar National Institute of Technology Jalandhar, June 25-27, 2021	Sudha Minz, Renu gupta, Sangeeta Garg, Catalytic oxidation of 4-Nitrophenol over heterogeneous Al-Ti pillared clay catalyst

2020	International Conference ICMPC-2020 held at IIT Indore	Vikash Kumar, Renu Gupta, Ajay Bansal, Influence of RhB dye concentration on ZnS nanoflowers decorated TiO ₂ photoanode in dye sensitized solar cell
2020	International Conference ICMPC-2020 held at IIT Indore	Renuka Garg, Renu Gupta, Ajay Bansal, Synthesis of g-C ₃ N ₄ /ZnO Nanocomposite for Photocatalytic Degradation of a Refractory Organic Endocrine Disrupter
2020	International Online Conference on Sustainable Research Technology and Development (IOCSRT-2020) on September 24 - 25, 2020.	Nikesh Kumar, Renu Gupta, Ajay Bansal, Effect of Elasticity on Mass Transfer Coefficient in Airlift Reactors
2020	International Online Conference on Sustainable Research Technology and Development (IOCSRT-2020) on September 24 - 25, 2020.	Renuka Garg, Renu Gupta, Ajay Bansal, Synthesis and characterization of graphitic carbon nitride nanosheets for degradation of azo dye
2020	International Online Conference on Sustainable Research Technology and Development (IOCSRT-2020) on September 24 - 25, 2020.	Vikash Kumar, Renu Gupta, Ajay Bansal, PEDOT:PSS conjugated pencil graphite based counter electrode as a replacement of Pt in DSSCs
2019	International conference on Humanizing Work and Work Environment (HWWE 2019)	Renuka, Renu Gupta, Ajay Bansal, "Degradation of Acid Orange 7 in aqueous solutions using titania based photocatalyst"
2019	Constellation Cheminar (CCC 2019), from 12-13 Oct., 2019 by Department of Chemistry, NIT, Jalandhar.	Renuka, Renu Gupta, Ajay Bansal, "Photocatalytic degradation of azo dyes using synthesized nanocatalyst" International conference on Chemical
2019	International conference 72th Indian Chemical Engineering Congress (Chemcon 2019, from 15-19 Dec. 2019 Department of Chemical Engineering, IIT Delhi.	Renuka, Renu Gupta, Ajay Bansal, "Degradation of pesticides using advanced oxidation processes"
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 gC ₃ N ₄ / 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 TiO ₂ 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)	Vikash Kumar, Ajay Bansal, Renu Gupta, "Synthesis of rGO/TiO ₂ nanocomposite for the efficient photocatalytic degradation of RhB dye

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

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
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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	Synthesis of rGO/TiO2 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	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

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 Jalandhar	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 Jalandhar	December 2016	March 2017	48238/-	Completed	Dr Sangeeta Garg
Investigator	R & D	Studies on the Fabrication of Dye-Sensitized Solar Cell	TEQIP-II, NIT Jalandhar	December 2016	March 2017	35622/-	Completed	Dr Ajay Bansal
	R & D	Synthesis and Characterization of Doped Zinc Oxide Nanoparticles for Degradation of Chlorophenol	TEQIP-II, NIT Jalandhar	09.01.19	20.05.19	49000/-	Completed	
	R & D	Preparation of Cement Composites using Waste Biomass Ash	TEQIP-III, NIT Jalandhar	August 2017	March, 2018	20000	Completed	Dr Poonam Gera
	R & D	Synthesis and Characterization of Doped Nanoparticles for Degradation of Chlorophenol	TEQIP-III, NIT Jalandhar	August 2017	March, 2018	22000	Completed	Ms Rubalpreet
	R & D	Performance Evaluation of Dye Sensitized Solar Cell fabricated with ZnS modified TiO ₂ photoanode	NCPRE, IIT Bombay	2019	2020	Chemicals and Testing facility provided	Completed	Dr Ajay Bansal, Mr Vikash Kumar

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Conference	National	Sustainable Research on Energy and Environment (SREE-2021)	online mode	15.01.2021	16.01.2021	Organising secretary

STC	National	Advances in Chemical, Biochemical and Allied Industries (ACBAI-2020)	Online mode	06.11.2020	10.11.2020	Coordinator
Conference	International	International Conference on Chemical, Bio & Environmental Engineering" (CHEMBIOEN 2021)	online	August-22, 2020	August 24, 2020	Convener
Webinar	National	Webinar 'Awareness Program on Air Pollution - Swachh aur Swasth Bharat ke liye Swachh Hawa'	Online mode	26 March 2021		Convener
Webinar	National	Rubal Memorial Lecture	Online Mode	19 April, 2021		Coordinator
Workshop	National	Energy Sector in Climate Change Scenario	Dr B R Ambedkar National Institute of Technology, Jalandhar	22.03.22	22.03.22	Coordinator
International Conference	International	International Conference on " Recent Advances" in Biotechnology (icRAB-22)	Online	02-12-22	04-12-22	Conference Chair
Conference	International	International Conference on " Chemical, Bio & Environmental Engineering" (CHEMBIOEN 2022)	Online	04-11-22	05-11-22	Conference Chair
Conference	International	International Chemical Engineering Conference 2021	Online	16-09-21	19-09-21	Organizing secretary
	National					
Conference	International	International Chemical Engineering Conference 2021	Online	16-09-21	19-09-21	Organizing secretary

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
Life Member	The Indian Science Congress Association (L41178)
Life Member	Indian Chemical Society (L 8472)
Life Member	INDIAN DESALINATION ASSOCIATION (LM 559)

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Vikash Kumar	Synthesis of Nanostructured Hybrid Photoanodic Materials for Dye Sensitized Solar Cell	Completed	2022	Dr Ajay Bansal
Baneesh Patial	Removal of organic pollutants	Ongoing	2022	Dr Ajay Bansal
Nikesh Kumar	Hydrodynamic and Mass Transfer Studies on Rheologically Complex Fluids in Airlift Reactors	Completed	2021	Dr Ajay Bansal
Renuka	Degradation of Refractory Organic Compounds using Semiconductor Hybrid Nanocomposites	Completed	2021	Dr Ajay Bansal
Ruchi	Biomedical Waste	Ongoing	2021	Dr Ritu Shitak
Sudha Minz	Study on degradation of 4-Nitrophenol using homogeneous and heterogeneous Fenton oxidation process	Completed	2019	Dr Sangeeta Garg

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Zarina	Synthesis of the Mg Doped thin film	Ongoing	2022	Dr Neetu Divya
Nitish Saini	Removable Source Charging Systems	Completed	2022	Dr Parmod Kumar
Beena	Synthesis of Neodymium Doped TiO ₂ for Degradation of 2,4 Dichlorophenol	Completed	2021	Dr Poonam Gera
Kirandeep	Degradation of methyl orange using boron and copper doped ZnO photocatalyst	Completed	2020	Dr Shashikant Yadav
Nilanjan Dutta	Effect of channel confinement on study laminar forced convection heat transfer in non-Newtonian fluids from a heated a blunt headed cylinder	Completed	2019	Dr Anurag Tiwari
Anjali Baudh	Photocatalytic degradation of 2,4DCP using phosphorus and nitrogen doped ZnO photocatalyst	Completed	2019	-
Mr Anuj	AA comparative study of biomass ash as pozzolanic materials in cementing system	Completed	2018	Dr Poonam Gera
Ms Nidhi Dubey	Photocatalytic degradation of 2,4 dichlorophenol using non metal doped TiO	Completed	2018	Ms Rubal Preet
Mr Sourabh Patel	Development of Hybrid gCN/ZnO nanocomposite for the Photocatalytic Degradation of Amoxycilin	Completed	2017	Dr Ajay Bansal
Ankita Sharma	Studies on Degradation of Chlorophenols under UV and Solar Radiation using Modified Titanium Dioxide Photocatalyst	Completed	2017	Dr Ajay Bansal
Neha Jain	To Study The Effect of Concentration and Temperature on The Rheology of Simple and Complex Fluids	Completed	2017	Dr Ajay Bansal
Renuka	Gas Holdup and Mass Transfer Studies in Packed Bubble Column	Completed	2016	Dr Ajay Bansal
Aetukuri Rajmohan	Hydrodynamics and Mass Transfer Studies in Bubble Columns for Newtonian and Non-Newtonian Fluids	Completed	2016	Dr Ajay Bansal
Akanksha Pandey	Tribological Studies on Polymer Nanocomposites	Completed	2016	
Vishakha Wadhawan	Pressure Drop Studies in Upflow Packed Bed Reactor	Completed	2015	Dr Ajay Bansal
Nikesh Kumar	Removal of safranin O dye using Neem (Azadirachta indica) Leaves a low cost Adsorbent	Completed	2014	-
Shailendra Kumar	Adsorption of orange G from aqueous solution by Magnesium oxide (MgO) nanoparticles	Completed	2014	

Saurabh Srivastava	Domestic Waste Water Treatment By Electrocoagulation Using Aluminium Electrodes	Completed	2014	Dr Ajay Bansal
Afkham Mir	Drag Coefficient Estimation for non-Spherical Particles in non Newtonian Fluids	Completed	2013	Dr Ajay Bansal
Sunny Kumar	Removal of Dyes from Wastewater by Electrocoagulation	Completed	2012	Dr Ajay Bansal
Rubal Preet	Chromium(III) uptake by Bentonite Adsorption -Desorption Studies	Completed	2011	Dr Ajay Bansal
Sunil Kumar	Removal of Chromium(VI) from Wastewater by Electrocoagulation	Completed	2011	Dr Ajay Bansal

Patents :

Name	Reg./Ref. No.	Date of Award/Filing	Organization	Status
Air Cooled and Breathable Single Piece Bodysuit for Personal Protection	202011034189	10.8.20	NIT Jalandhar	Published
Controlled Artificial Gravity Generating Bed	202111001877	15.01.21	NIT Jalandhar	Published
A Controlled Pushup Exercise Device for Astronauts	202111043897	Sept 21	NIT Jalandhar	Published

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
Head of Department	Dr B R Ambedkar National Institute of Technology, Jalandhar	05.02.2021	15.02.2023
Warden (Girls Hostel -II)	NIT Jalandhar	March, 2013	September, 2014
Head, Centre for Energy & Environment	Dr B R Ambedkar National Institute of Technology, Jalandhar	16.02.2023	Till date

Award and Honours :

Title	Activity	Given by	Year
Best paper award in National Conference SREE 2021	Application of Zinc oxide as nano-catalyst for removal of hazardous pollutants in wastewater (Renuka, Renu Gupta, Ajay Bansal)	Department of Chemical Engineering NIT Jalandhar	2021
Best paper award in National Conference SREE 2021	Degradation of Bisphenol A from aqueous systems using synthesized hybrid nanocomposite (Renuka, Renu Gupta, Ajay Bansal)	Department of Chemical Engineering NIT Jalandhar	2021

Best paper award in National Conference SREE 2021	Eosine Y sensitized TiO ₂ as photoanode for application in dye sensitized solar cell (Vikash Kumar, Renu Gupta, Ajay Bansal)	Department of Chemical Engineering NIT Jalandhar	2021
Best paper Award in International Conference IOSCRT-2020	International Online Conference on Sustainable Research Technology & Development (IOSCRT-2020), 24-25 Sep, 2020, Panjab University, Chandigarh, India. (Vikash Kumar, Renu Gupta, Ajay Bansal)	Panjab University, Chandigarh, India.	2020
Honours	M.E (Chemical Engineering)	Panjab University	1994
Honours	B.E (Chemical Engineering)	Panjab University	1991