Profile Page

Name	:	Dr Sangeeta Garg
Designation	:	Professor
Department	:	Chemical Engineering
Qualification	:	PhD Chemical Engineering (NIT Jalandhar) M Tech Material Science and Engineering (NIT Jalandhar) B.E Chemical Engineering (Panjab University, Chandigarh)
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Research Interests :

Polymers, Bio degradable Polymers, blends and composites
Environment Engineering, Advance oxidation Processes, Waste water Treatment

Other Profile Links :

Google Scholar Link :

Sangeeta Garg Click Here

Personal Web Link :

Researchgate Click Here
Scopus Click Here
Orcid Click Here
Vidwan Profile Click Here
PUBLONS Click Here

Journal Publications :

Year	Journal	Publication
2022	Nanotechnology for Environmental Engineering	Sangeeta Garg, Pratibha Attri, Jatinder Kumar Ratan; Degradation of 4-aminopyridine using biomediated Ag-doped Cu2O nanoparticles under visible light
2022	Environmental Science and Pollution Research, https://doi.org/10.1007/s11356-021-18269-6	Pratibha Attri,Sangeeta Garg & Jatinder Kumar Ratan; Silver nanoparticles from Tabernaemontana divaricate leaf extract: mechanism of action and bio?application for photo degradation of 4?aminopyridine

2021	Nanotechnology for Environmental Engineering; https://doi.org/10.1007/s41204-021-00159-4	Sandeep Singh, Sangeeta Garg & Amit D. Saran; Photocatalytic activity of CdS and CdSe quantum dots for degradation of 3-aminopyridine
2021	Chemical Papers; https://doi.org/10.1007/s11696-021-01694-9	Robin Marlar Rajendran, Sangeeta Garg & Shailendra Bajpai; Economic feasibility of arsenic removal using nanofiltration membrane: A mini review
2021	Iran. J. Chem. Chem. Eng. Vol. 40, No. 2, 2021	Sudha Minz ; Sangeeta Garg; Renu Gupta;Effect of Operating Parameters, Reaction Kinetics and Comparative Assessment of Fluidized-Bed Fenton Oxidation of 4-Nitrophenol
2021	Research on Chemical Intermediates	Pratibha Attri,Sangeeta Garg & Jatinder Kumar Ratan; Kinetic modelling and proposed mechanistic pathway for photocatalytic degradation of 4?aminopyridine using cuprous oxide nanoparticles
2021	J Food Sci Technol https://doi.org/10.1007/s13197-020-04926-0	Naina Gautam, Sangeeta Garg, Shashikant Yadav; Underutilized ?nger millet crop for starch extraction, characterization, and utilization in the development of ?exible thin ?lm
2021	Starch, DOI: 10.1002/star.202100156	Naina Gautam, Sangeeta Garg, Shashikant Yadav; Development of Flexible and Thin Films from Underutilized Indian Finger Millet (Eleusine coracana) Starch
2021	Materials Today: Proceedings	Pratibha Attri , Sangeeta Garg , Jatinder Kumar Ratan , Ardhendu S. GiriComparative study using advanced oxidation processes for the degradation of model dyes mixture: Reaction kinetics and biodegradability assay
2020	Polymers and Polymer Composites; DOI: 10.1177/0967391120922429	Aanchal Mittal , Sangeeta Garg, Anshuman Premi and Ardhendu Sekhar Giri; Synthesis of polyvinyl alcohol/modified starch-based biodegradable nanocomposite films reinforced with starch nanocrystals for packaging applications
2020	Materials Today: Proceedings; https://doi.org/10.1016/j.matpr.2019.11.210	Aanchal Mittal , Sangeeta Garg, Shailendra Bajpai; Fabrication and characteristics of poly (vinyl alcohol)-starch-cellulosic material based biodegradable composite film for packaging application
2020	Carbohydrate Polymers; Volume 240, Pages 116225	Aanchal Mittal Sangeeta Garg Shailendra Bajpai; Thermal decomposition kinetics and properties of grafted barley husk reinforced PVA/starch composite films for packaging applications"
2020	Environ. Eng. Res. 2021; https://doi.org/10.4491/eer.2019.145	Minz Sudha, Gupta Renu, Garg Sangeeta; Mineralization and degradation of 4-Nitrophenol using homogeneous Fenton oxidation process
2020	Journal of Indian Chemical Society	Pratibha, Sangeeta Garg & Jatinder Kumar Ratan; Degradation of 4-amino pyridine onto cuprous oxide nanoparticles synthesized from Tabernaemontana divaricate extract
2019	Journal Toxicological & Environmental Chemistry (DOI-10.1080/02772248.2019.1621314)	Rajkamal Kushwaha, Sangeeta Garg & Shailendra Bajpai; Modeling and optimization of Nile blue sulphate mineralization by heterogeneous Fenton oxidation
2019	Iranian Polymer Journal, 28(5), 379-390	Aanchal Mittal, Sangeeta Garg, & Shailendra Bajpai; Lauric acid-grafted barley (Hordeum vulagare L.) husk for application in biocomposite films: optimization method in synthesis and characterization.
2019	Polymer Testing, 105937 (DOI - 10.1016/j.polymertesting.2019.105937)	Aanchal Mittal, Sangeeta Garg, & Shailendra Bajpai; The influence of fatty acid chain length on the chemical, physical and morphological properties of the grafted barley husk for application in biocomposites.
2018	Chemical Engineering Communications; 10.1080/00986445.2017.1412310	Sudha Minz, Sangeeta Garg & Renu Gupta; Catalytic wet peroxide oxidation of 4-Nitrophenol over Al–Fe PILC: Kinetic study using Fermi’s equation and mechanistic pathways based on TOC reduction

2018	Indian Chemical Engineer, 60(1), (1-21)	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	Asia-Pacific Journal of Chemical Engineering, (WILEY Publication), 13(3), 1-16	Rajkamal Kushwaha, Sangeeta Garg, Shailendra Bajpai & Ardhendu Sekhar Giri; Degradation of Nile blue sulphate dye onto iron oxide nanoparticles: Kinetic study, identification of reaction intermediates, and proposed mechanistic pathways
2018	Research on Chemical Intermediates, (Springer Publications), 39, 1-28	Rajkamal Kushwaha, Sangeeta Garg & Shailendra Bajpai; Modified generalized kinetic model and degradation mechanistic pathways for catalytic oxidation of NBS dye in Fenton like oxidation process
2017	Journal of Polymer & Composites; Volume 5, Issue 3	Deepak Kohli, Sangeeta Garg, A.K. Jana; Poly Vinyl Alcohol/Kaolinite Clay/Grafted Cellulosic Fibre Based Hybrid Composite Films: Physical, Mechanical, Optical and Biodegdrability Studies
2017	Journal of Thin Films, Coating Science Technology and Application; 2455-3344 (Online) Volume 4, Issue 3	Deepak Kohli, Sangeeta Garg, A.K Jana; Effect of Varying Particle Size and Content of Barley Husk on the Physical, Mechanical and Diffusional Properties of Poly Vinyl Alcohol/Barley Husk Composite Films
2016	Carbohydrate polymers, 151, 926-938	Aanchal Mittal, Sangeeta Garg, Deepak Kohli, Mithu Maiti, Asim Kumar Jana, Shailendra Bajpai; Effect of cross linking of PVA/starch and reinforcement of modified barley husk on the properties of composite films
2016	Indian Chemical Engineer (Taylor and Francis), 59(2), 136-158	Deepak Kohli, Sangeeta Garg, A K Jana & Mithu Maiti; Synthesis of graft copolymers for green composite films and optimization of reaction parameters using Taguchi (L16) orthogonal array
2015	International Journal of Research; Vol.6, Issue 1, 2015	Deepak Kohli, Sangeeta Garg, A.K. Jana; Effect of Barley Husk on the mechanical and barrier properties of Polyvinyl alcohol biodegradable films
2014	Chinese Journal of Polymer Science (Springer Publication), 32(3), 268-279	Sangeeta Garg & A K Jana; Preparation of LDPE-acetylated/butyrylated starch blend blow films and characterization
2014	Journal of Industrial Pollution Control, 30(1), 129-138	Deepak Kohli, Sangeeta Garg, A K Jana & Punya Chopra; Sorption of para-nitrophenol and para-chlorophenol using cross-linked starch based bio-adsorbent: thermodynamics, kinetics and column studies
2013	International Journal of Research in Mechanical Engineering & Technology; IJRMET Vol. 3, Issue 2, May - Oct 2013	Deepak Kohli, Dr. Sangeeta Garg, Dr. A.K Jana; Thermal and Morphological Properties of Chemically Treated Barley Husk Fiber
2013	Jr. of Industrial Pollution Control; 30(1) pp 129-138	DEEPAK KOHLI , SANGEETA GARG , A.K JANA , AJAY BANSAL AND PUNIYA CHOPRA; SORPTION OF PARA-NITROPHENOL AND PARA-CHLOROPHENOL USING CROSS-LINKED STARCH BASED BIO-ADSORBENT: THERMODYNAMICS, KINETICS AND COLUMN STUDIES
2012	Indian Chemical Engineer (Taylor and Francis), 54, 1-13	Deepak Kohli, Sangeeta Garg & A K Jana; Synthesis of cross-linked starch based polymers for sorption of organic pollutants from aqueous solutions
2011	Carbohydrate Polymers, 83, 1623-1630	Sangeeta Garg, Asim Kumar Jana; Characterization and evaluation of acylated starch with different acyl groups and degrees of substitution
2011	Journal of Applied Polymer Science, 119, 3, 1383-1392	Sangeeta Garg, Asim Kumar Jana; Effect of propylation on the characteristics of corn starch and variation of properties with different degrees of substitution
2011	Journal of Applied Polymer Science, 122, 4, 2197-2208	Sangeeta Garg, Asim Kumar Jana; Effect of propylation of starch with different degrees of substitution on the properties and characteristics of starch?low density polyethylene blend films

2007	European polymer journal, 43, 9, 3976-3987	Sangeeta Garg, Asim Kumar Jana; Studies on the properties and characteristics of starch–LDPE blend films using cross-linked, glycerol modified, cross-linked and glycerol modified starch

Conference Publications :

Year	Conference	Publication
2021	International conference on Recent Developments on Materials, Reliability, Safety and Environmental issues – 2021 June 25-27, 2021	Aanchal Mittal, Sangeeta Garg and Shailendra Bajpai; Development of Sustainable packaging using PVA/starch and grafted barley husk with improved properties
2021	2nd INTERNATIONAL CONFERENCE ON CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2021)	Pankaj Kumar Shrimal, Sangeeta Garg and Ardhendu Sekhar Giri; Synthesis of biodegradable composite film from Polyvinyl Alcohol (PVA)/ Amla leaf fibre (ALF) for packaging application".
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues	Rajendran R. M., Garg S., and Bajpai S; Modelling the membrane performance of methylene blue dye removal using spiral wound Nanofiltration membrane
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues	Rajendran R. M., Garg S., and Bajpai S; Influence of co-ion on arsenic (III) removal using negatively charg ed HFN300 polyethersulfone Nanofiltration membrane at pilot scale
2021	International Conference on "Recent Developments on Materials, Reliability, Safety and Environmental Issues	Singh S., Garg S., Saran A., "Solar light driven photo catalytic activity of CdSe quantum dots",
2020	International conference CHEMBION 2020	Naina Gautam, Sangeeta Garg, Shashikant Yadav; Synthesis and characterization of nanoparticles: utilized as nanofiller in food packaging (Paper ID-A600)
2020	International Conference on Industrial and Manufacturing Systems (CIMS-2020)	Pankaj Kumar Shrimal, Sangeeta Garg and Ardhendu Sekhar Giri; A Quantitative Study of Chemical Hazards and Work Place Safety In Chemical industries
2020	International Conference on "Chemical, Bio and Environmental Engineering (CHEMBIOEN-2020)	Singh S., Garg S., Saran A; Size controllable method for synthesis of core-shell semiconductor nanoparticles
2020	International Conference on "Chemical, Bio and Environmental Engineering (CHEMBIOEN-2020)	Meshram A., Singh S., Gera P., Saran A., Garg S., "Photocatalytic degradation of synthetic dye using Cadmium based core shell semiconductor nanoparticles"
2020	International Online Conference on "Sustainable Technologies in Water Treatment and Desalination (STWTD-2020)	Singh S., Garg S., Saran A., "Synthesis of CdS quantum dots by size controllable micro-emulsion method for photo catalytic application
2019	International conference on "Advancement in Engineering and Technology", 15-16 March, 2019	Sangeeta Garg, Manpreet Singh, Taruna Meena & Anchal Mittal; Cross linking of the PVA matrix and evaluation of light transmittance and barrier properties
2019	International Conference on "New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019)" 15- 16 Feb, 2019,	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai; Grafting of Barley husk an industrial waste for application in biocomposites: Statistical modelling and optimization
2019	International Conference on "New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019)" 15- 16 Feb, 2019	Deepak Sahu, Jaspreet Chawla & Sangeeta Garg; Numerical Studies on Fire Behavious inide the confined area

2019	World congress on "Disaster management", 29 Jan-01 Feb, 2019	Deepak Sahu, Jaspreet Chawla & Sangeeta Garg; Numerical studies on development of fuel inside the large size enclosure
2019	National conference on “Advances in Chemical and Environment Engineering”, April 23-24, 2019	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai; Studies on the mechanical, water resistance properties and biodegradability of PVA/starch based composite films
2019	National conference on “Advances in Chemical and Environment Engineering”, April 23-24, 2019	Sangeeta Garg, Manpreet Singh, Taruna Meena & Anchal Mittal; A review on natural polymers based biodegradable films for packaging applications
2019	National conference on “Advances in Chemical and Environment Engineering”, April 23-24, 2019	Deepak Sahu, Jaspreet Chawla & Sangeeta Garg; Studies of Fire Dynamics in a Multi Room Facility
2019	National conference on “Advances in Chemical and Environment Engineering”, April 23-24, 2019	Pratibha, Sangeeta Garg, Jatinder Kr Ratan, Ardhendhu S. Giri; Eco friendly development of Cuprous oxide nanoparticles using Tabernaemontanadivaricta and its photocatalytic activity against pharmaceutical compound
2019	National conference on “Advances in Chemical and Environment Engineering”, April 23-24, 2019	Robin R Marlar, Ravishankar Yadav, Sangeeta Garg & Shailendra Bajpai; Overview on modelling of arsenic removal with Nanofiltration membrane
2018	International conference CHEMCON 2018	Naina Gautam, Sangeeta Garg, Shashikant Yadav; Fabrication, Characterization of chitosan/tulsi extract based biodegradable film for coating application (CH P439)
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Rajkamal Kushwaha, Sangeeta Garg & Shailendra Bajpai; Application of Artificial neural network for the removal of toxic metal ions from aqueous solution
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Rajkamal Kushwaha, Sangeeta Garg & Shailendra Bajpai; One pot synthesis and use of silica coated iron oxide nanoparticles as selective adsorbents for heavy metal ions
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Robin R Marlar, Sanjeevani Hooda, Sangeeta Garg & Shailendra Bajpai; Hybrid Membrane Treatment for Arsenic removal from drinking water
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Robin R Marlar, Sanjeevani Hooda, Sangeeta Garg & Shailendra Bajpai; A review on Arsenic removal using pressure driven nanofilteration membrane process
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Jaspreet Chawla, Sangeeta Garg, Aanchal Mittal & Anshuman Premi; Evaluation of the physio-chemical properties of PVA/starch nanocomposite films reinforced with starch nanocrystals
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai; Chemical modification of cellulose with palmitic acid for application in composite films
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Abhishek & Sangeeta Garg; Murraya Koenigii leaf extract mediated synthesized iron oxide nanoparticles
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Abhishek & Sangeeta Garg; Decolorization of Victoria blue B dye using green synthesized iron oxide nanoparticles
2018	National conference on “Advances in Chemical Science & Technology”, April 27-28, 2018	Pratibha, Sangeeta Garg & Jatinder Kr Ratan; A recent technology used for the treatment of pharmaceutical wastewater

2018	International Conference on “Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering”, March 29-31, 2018	Sudha Minz, Renu Gupta & Sangeeta Garg; Degradation of 4-chlorophenol using homogenous Fenton’s oxidation process: kinetic study
2018	International Conference on “Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering”, March 29-31, 2018	Sudha Minz, Renu Gupta & Sangeeta Garg; AL-Fe and Al-Ti pillared saponite clay catalysts: Preparation and Characterization
2018	International Conference on “Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering”, March 29-31, 2018	Sangeeta Garg, Aanchal Mittal & Anshuman Premi; Synthesis and characterization of graft copolymers of starch for the application of packaging films
2018	International Conference on “Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering”, March 29-31, 2018	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai; Application of response surface methodology to optimize the reaction parameters for grafting of cellulosic
2016	International Conference CHEMCON-2016, December 27-30, 2016	Kushwaha, R. K., Garg, S., Bajpai, S.; Synthesis and characterization of mesoporous silica coated Iron oxide nanoparticles: Applications in adsorptive removal of nile blue sulphate dye
2016	International Conference CHEMCON-2016, December 27-30, 2016,	Attri, P., Garg, S., Ratan, J. K., Giri, A. S.; A comparative study on oxidation of reactive model dyes mixture by advanced oxidation processes: Reaction kinetic and biodegradability assay
2016	International Conference on Redefining Textiles: Cutting Edge Technology of the Future, RTCT-2016, April 8-10, 2016	Mittal, A., Garg, S., Maiti, M., Bajpai, S., Giri, A. S.; Evaluation of the mechanical properties, water resistant and biodegradability of crosslinked PVA/starch composite films reinforced with fiber
2016	International Conference on Redefining Textiles: Cutting Edge Technology of the Future, RTCT-2016, April 8-10, 2016	Kushwaha, R. K., Garg, S., Bajpai, S.; Synthesis and characterization of iron oxide nanoparticles: application in removal of cadmium and lead metal ions from waste water
2016	International Conference CHEMCON-2016, Dec 27-30, 2016.	Robin R Marlar, Sangeeta Garg & S. Bajpai; Colored waste water treatment using spiral wound nano filtration membrane
2016	International Conference CHEMCON-2016, Dec 27-30, 2016.	Aanchal Mittal, Sangeeta Garg & S. Bajpai; Biocomposite Films Reinforced with Modified Cellulosic Fibre And Nanofibrils
2015	Chemcon 2015 "Chemical Engineering: From Laboratory to Industry" 27-30 December,	Mittal A., Garg S., & Maiti M.; Studies on the properties and biodegradability of PVA/starch composite films reinforced with barley husk fiber
2015	Chemcon 2015 "Chemical Engineering: From Laboratory to Industry" 27-30 December	Minz S., Gupta R., & Garg S.; Degradation of 4-nitrophenol using Fenton’s reagent and its kinetic study
2015	International Conference Chemcon 2015 "Chemical Engineering: From Laboratory to Industry" 27-30 December,2015	Rajkamal Kushwaha, Sangeeta Garg; Removal of cadmium and lead metal ions from synthetic wastewater using iron oxide nanoparticles (nano-Fe3O4)
2015	International Conference Chemcon 2015 "Chemical Engineering: From Laboratory to Industry" 27-30 December,2015	Nidhi Aggrwal, Sangeeta Garg & Manjeet Kaur; Waste water treatment using green synthesized iron nanoparticles
2014	International Conference on Emerging Trends in Traditional and Technical Textiles, 11-12th April, 2014	Deepak Kohli, Sangeeta Garg, & A K. Jana; Preparation and studies on the mechanical properties of poly vinyl alcohol films reinforced with Barley husk

2013	International Conference CPIE-2013, March 29-31st, 2013	Punya Chopra, Sangeeta Garg & A K Jana; Optimization of swelling degree and gel mass of starch - PVA blend films after cross linking with Sodium Hexa meta Phosphate
2012	International Conference on "Sustainable Technologies for energy and Environment in Process Industries" (CHEMCON-2012)	Punya Chopra, Sangeeta Garg, A K Jana, Kuber N. Kushwah, Aviral Singh; Study of mechanical properties of PVA/starch blend modified with epichlorohydrine and MWCNT
2012	International Conference on "Sustainable Technologies for energy and Environment in Process Industries" (CHEMCON-12)	Deepak Kohli, Sangeeta Garg, & A K. Jana; Magnetic nano-adsorbents for waste water treatment: A Review
2012	International Conference on "Sustainable Technologies for energy and Environment in Process Industries" (CHEMCON-2012)	Mukesh Agarwal, Ruby Yadav, Sangeeta Garg & A K Jana; Different novel methods for the removal of dyes from waste water: A review
2010	2nd International Conference on Production and Industrial Engineering (CPIE), December 3-5, 2010	Sangeeta Garg,& A K Jana; Studies on the properties of butylated starch - LDPE blend films
2009	International Conference on Emerging Technologies in Environmental Science and Engineering, October 26-28, 2009	Sangeeta Garg,& A K Jana; Studies on the Properties and Characteristics of Starch-LDPE Blend Films using Acetylated Starches with Different DS
2007	2nd International Conference on Advances in Petrochemicals and Polymers, June 25-28, 2007 Bangkok, Thailand	Sangeeta Garg,& A K Jana; Starch Modification Effects on the Properties and Characteristics of Ldpe-Starch Blend Films

Book/Chapter Publications :

Type	**Title**	**Publisher**	**Authors**	**ISBN/ISSN No.**	**Year**
Book Chapter	Numerical Studies on Development of Fires Inside the Large Size Enclosure	Macmillan Publishers India Pvt. Ltd.	Deepak Sahua, Jaspreet Chawlaa and Sangeeta Garga	ISBN: 978-93-5455-282-3	2022
Book chapter	Synthesis, properties and photo catalytic application of cadmium based quantum dots: A review	Springer	Sandeep Singh. Sangeeta Garg. Amit D. Saran		2022
Book Chapter	Application of response surface methodology to optimize the reaction parameters for grafting of cellulosic fiber	Sustainable Engineering, Springer	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai	978-981-13-6717-5	2019
Book Chapter	Synthesis and characterization of the graft copolymers of starch for the application in packaging films	Sustainable Engineering, Springer	Sangeeta Garg, Aanchal Mittal & Anshuman Premi	978-981-13-6717-5	2019
Book Chapter	Al–Fe and Al–Ti Pillared Saponite Clay Catalysts: Preparation and Characterization	Sustainable Engineering, Springer	Sudha Minz, Renu Gupta & Sangeeta Garg	978-981-13-6717-5	2019
Book Chapter	Degradation of 4-Chlorophenol Using Homogeneous Fenton’s Oxidation Process: Kinetic Study	Sustainable Engineering, Springer	Sudha Minz, Renu Gupta & Sangeeta Garg	978-981-13-6717-5	2019
BOOK	Bioplastics and Biocomposites: Packaging Applications”	LAP LAMBERT Academic Publishing, Germany	Aanchal Mittal, Sangeeta Garg & Shailendra Bajpai	978-613-9-93074-6	2018

BOOK	Application of Iron oxide nanoparticles for removal of heavy metals	LAP LAMBERT Academic Publishing, Germany	Rajkamal Kushwaha & Sangeeta Garg	978-613-9-91638-2	2018
BOOK	Starch-Plastic Partially Biodegradable Blend Films: A Review	LAP LAMBERT Academic Publishing, Germany,	Sangeeta Garg & A K Jana	ISBN-978-3-659-44968	2013
BOOK CHAPTER	Degradation of starch/cross linked modified starch-LDPE blend films by enzyme from Bacillus licheniforms (Advances in Polymer Science)	Stadium Press (India) Pvt. Limited, New Delhi,	Sangeeta Garg, Mithu Maiti & A K Jana	ISBN No. 978-93-80012-28-5,323-33 4	2011

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Principal Investigator	Sponsored	R&D project work on "Degradation study of Leather Dye by Fenton Like oxidation Process using Iron Oxide nano particles."	TEQIP II	29.12.2015	29.12.2016	50,000	Completed	Dr S Bajpai
Principal Investigator	Sponsored	R&D project work on "Studies on properties of cellulosic nanofibrils, starch nanocrystals and blend films for pakaging applications"	TEQIP II	27.1.2017	27.1.2018	50,000	Completed	Dr S Bajpai
Principal Investigator	Sponsored	Industry oriented R&D project on " Removal of color and COD from Tannery Effluent by using Hybrid Process	TEQIP II	04.12.2015	04.12.2016	50,000	Completed	Dr MK Jha

Principal Investigator	Sponsored	Green synthesis of iron oxide nanoparticle and characterization using various techniques	TEQIP III	05.03.2018	05.05.2018	20,060	Completed	
	Sponsored	Studies on wet on wet coating for railway coaches to reduce cycle time of processes	G. S. Industries, Focal Point Extension, Jalandhar	2018	2020	10.5 lacs	Completed	Dr. Jatinder Kumar Ratan
	Sponsored	Testing of portable water sample	Guru Nanak National Collegiate Sr Secondary School , Nakodar Jalandhar			Rs 4720/-	Completed	Dr S Bajpai
	Sponsored	Upgradation of Fluid Mechanics Lab and Post Graduate Research Lab	TEQIP - II			31 Lacs	In Progress	
	Sponsored	FIST- DST project for Department. of Chemical Engineering	DST- Govt. of India			144 Lacs	Completed	
	Sponsored	Synthesis and characterization of catalyst for decomposition of 4-NP	TEQIP - II			0.48 Lacs	Completed	
	Sponsored	Study on Arsenic removal from aqueous solution using spiral wound membrane module	TEQIP - II			0.45 Lacs	Completed	

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Conference	National	Advances in Chemical Science & Technology (ACST-2018) organized in collaboration with Department of Chemistry, Government Women Engineering College, Ajmer, Rajasthan, India	Department of Chemical Engineering Dr B R Ambedkar National Institute of Technology, Jalandhar	27-Apr-2018	28-Apr-2018	ORGANIZER
Inter National Winter Term GIAN Course	International	Natural Smart Materials For Bio Medical Applications (NSMBA-2016)	Dr B R Ambedkar National Institute of Technology, Jalandhar	07-Nov-2016	11-Nov-2016	CO-ORGANIZER
International Summer Term GIAN Course	International	Industrial Catalytic Technology (ICT-2016)	Department of Chemical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar	11-Jul-2016	15-Jul-2016	ORGANIZER
International Summer Term GIAN Course	International	Nanotechnology: Synthesis, Characterization, Fabrication and Applications	Dr B R Ambedkar National Institute of Technology, Jalandhar	06-Jun-2016	11-Jun-2016	CO-ORGANIZER
Summer Term Course	National	Water Quality and Management	Department of Chemical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar	20-Jun-2016	24-Jun-2016	ORGANIZER
Summer Term Course	National	Recent Advances in Energy Technology	Dr B R Ambedkar National Institute of Technology, Jalandhar	02-Jun-2014	06-Jun-2014	ORGANIZER
STC	National	Occupational Safety and Environmental Management in Process Industries	Department of Chemical Engineering, NIT Jalandhar	03-06-2019	07-06-2019	Organizer
GIAN COURSE	International	Natural Smart Materials For Bio Medical Applications (NSMBA-2016)"		07-11-2016	11-11-2016	Organizer
STC	National	Catalysis	Department of Chemical Engineering, NIT Jalandhar	10-08-2019	14-08-2019	Organizer

CONFERENCE	International	Seamless Chemical Engineering in Service of Humanity: Innovations, Opportunities & Challenges	Department of Chemical Engineering, NIT Jalandhar	27-12-2018	30-12-2018	Organizer
GIAN COURSE	International	Industrial Catalytic Technology (ICT-2016)		11-07-2016	15-07-2016	Organizer
GIAN COURSE	International	Nanotechnology: Synthesis, Characterization, Fabrication and Applications		06-06-2016	11-06-2016	Organizer
STC	National	Current Industrial Practices in Chemical Engineering	NIT Jalandhar	07-10-2020	11-10-2020	Organizer
STC	National	Computational Methods and Analysis for Engineers		18-11-2020	20-11-2020	Organizer
STC	National	Mathematical Modeling of Complex fluids		24-09-2020	28-09-2020	Organizer
STC	National	Computational Methods in Engineering Science" organized with Department of Mathematics, Govt. Women Engineering College, Ajmer		24-10-2020	28-10-2020	Organizer
STC	National	Valorization of lignocellulosic biomass towards sustainable fuels, chemicals and materials		18-09-2020	22-09-2020	Organizer
STC	National	Modern Practices in Hydrocarbon Engineering		27-11-2020	01-12-2020	Organizer
WEBINER	National	Bioenergy: Transition and Technologies			03-07-2020	Organizer
WEBINER	National	Patent to Product: Easy Tips			09-07-2020	Organizer
WEBINER	National	Heavy Crude Oil Production Technologies- Practical Approach" by Mr. Hemant Kumar Sonkar , Chief Engineer (Production), Asia Pacific BU, ONGC Videsh Ltd., New Delhi.			08-08-2020	Organizer

WEBINER	National	Why a Manuscript is Rejected" by Prof. SakamonDevahastin, Editor Drying Technology - An International Journal			27-08-2020	Organizer
WEBINER	National	IT not only Enabler, But Critical Element of Engineering and Business Operation" by Mr. Praveen Verma, Global Program Director, Energy and Utilities, Birlasoft India Ltd.			05-09-2020	Organizer
WEBINER	National	Process Scale Up - Aspects and Importance" by Mr. Rahul Chaudhari , Senior Manager (Process), AartiIndustries Ltd, Gujarat, India.			12-09-2020	Organizer
WEBINER	National	Hydro Processing Technologies in Petroleum Refinery" by Mr. Ravi Kumar, Ex. Manager, IOCL, Faridabad, India.			19-09-2020	Organizer
WEBINER	National	Industry Perspective on Process Control and Career Opportunities in this field''			03-11-2020	Organizer

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Sandeep Singh	Synthesis of CdS/CdSe Quantum dots and Quantum Rods for photo catalytic degradation and packaging applications	Ongoing	2019	Dr. Amit Dhruv Saran
Naina Gautam	Biodegradable and edible films coating for food packaging applications	Ongoing	2018	Dr. Shashikant Yadav
Pratibha Attri	Removal of drug from waste water using Advance Oxidation Processes	Ongoing	2016	Dr. J K Ratan
Aanchal Mittal	Synthesis, characterisation and studies on properties of crosslinked PVA/starch composite reinforced with grafted barley husk	Thesis Submitted	2015	Dr. S Bajpai
Robin Marlar	Study on Arsenic removal by Nano filtration spiral wound Membrane	PhD awarded	2015	Dr. S Bajpai
Rajkamal Kushwaha	Comparative study of ozonation and ozonation related processes for the degradation of dye from aqueous solution	PhD awarded	2014	Dr. S Bajpai

Sudha Minz	Study on degradation of phenolic compounds using homogenous and heterogenous Fenton oxidation process	PhD awarded	2013	Dr. Renu Gupta
Deepak Kohli	Studies on properties of nano fibril based completely biodegradable materials	PhD awarded	2012	Dr. A K Jana

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Pankaj Kumar Shrimal	Evaluation of mechanical And physico-chemical Properties of polyvinyl Alcohol (PVA)/ amla leaf Fibre (ALF) composite film	completed	2021	Dr. Ardhendu Sekhar Giri
Jaspreet Chawla	Numerical Studies of Fire Behaviour inside the Enclosure	Completed	2019	Dr. Deepak Sahu
Abhishek	Green synthesis of iron oxide nanoparticles using Murraya Koenigii leaves extract and their application as a Fenton like catalyst for the degradation of Victoria Blue B dye	Completed	2018	
Anshuman Premi	Evolution of the properties of PVA/Starch films reinforced with starch nanocrystals	Completed	2017	
Pratibha	A comparative study on oxidation of reactive model dyes mixture by advanced oxidation processes: Reaction kinetics and biodegradability assay	Completed	2016	
Nidhi Aggarwal	Study on the removal of Nile blue sulphate dye using Iron polyphenol nanoparticles	Completed	2016	
Aanchal Mittal	Studies on the Properties and Biodegradability of PVA/Starch Composite Films Reinforced with Barley Husk Fiber	Completed	2015	Dr. Mithu Maiti
Smriti Taneja	Removal of Chromium (6th) from synthetic waste water using Aluminum and Copper electrodes by electrocoagulation: Optimization of reaction parameters using Taguchi Analysis	Completed	2015	
Ruby Yadav	Optimization of parameters that affects removal of Rhodamine B from wastewater using Fenton's Oxidation Process	Completed	2014	
Tejinder Singh	Removal of methylene blue from waste water using unactivated and activated rice husk: Optimization of reaction parameters using Taguchi Analysis	Completed	2014	
Punya Chopra	Effect of dual modification by sodium hexametaphosphate and SiO2 nanoparticles on the performance of Starch/PVA blend films	Completed	2013	Dr. A.K. Jana
Deepak kohli	Synthesis of starch based polymers for the sorption of organic pollutants: Batch and column studies	Completed	2012	Dr. A.K. Jana
Saurabh Saxena	Preparation of Starch and cellulose Based Polymers for Sorptionof Azo Dyes from Aqueous Solution	Completed	2011	
Vinod Kumar	Effect of succinylation on properties of starch/PVA blend films	Completed	2011	Dr. A.K. Jana

Patents :

Name	Reg./Ref. No.	Date of Award/Filling	Organization	Status
Biodegradable Packaging Films from Modified Barley Husk and Method of Synthesis Thereof	202011007500	21.02.2020		Published (27.08.2021)

Admin. Responsiblities :

Position Held	Organization	From	To
Head	Department of Chemical Engineering	2019	2021
Coordinator	Faculty development and Continuing Education Cell (CEP)	31-01-2015	20-02-2017
Local Coordinator	GIAN Cell	17-08-2015	20-02-2017
Warden Mega Girls Hostel (MGH)	Mega Girls Hostel (MGH)	12-09-2014	14-03-2017
Warden	Girls Hostel (GH-I)	14-03-2017	13-02-2018
Member	House allotment committee (NIT Jalandhar)	05.01.2015	2016
Coordinator	Fine Arts Society	2012	2013
Faculty Coordinator	Movie Club		2015
Faculty In charge	Chess	2012	2013
Executive Member	Faculty Club	2003	2004
Executive Member	Faculty Club	2010	2011
Executive Member	Faculty Club	2010	2011
Executive Member	Faculty Club	2012	2013
Academic counselor	1st year students	2004	
Assistance Proctor	College Proctorial Cell	2005	2007

Award and Honours :

Title	Activity	Given by	Year
Best Paper Award	International conference on Recent Developments on Materials, Reliability, Safety and Environmental issues – 2021 June 25-27, 2021 paper titled Development of Sustainable packaging using PVA/starch and grafted barley husk with improved properties	Aanchal Mittal, Sangeeta Garg and Shailendra Bajpai	2021
Best Paper Award	International conference on Recent Developments on Materials, Reliability, Safety and Environmental issues – 2021 June 25-27, 2021 paper titled Influence of co-ion on arsenic (III) removal using negatively charged HFN300 polyethersulfone Nanofiltration membrane at pilot scale	Robin Marlar Rajendran, Sangeeta Garg, & Shailendra Bajpai	2021