

Profile Page



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Research Interests :

New and Renewable Energy

Other Profile Links :

Google Scholar Link :

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Research Gate Profile [Click Here](#) Scopus profile [Click Here](#) Vidwan Profile [Click Here](#) Researcher ID [Click Here](#) Orcid Id [Click Here](#)

Journal Publications :

Year	Journal	Publication
2020	Biotechnology Reports	Jaspreet Kaur, Anil Kumar Sarma, Mithilesh Kumar Jha, Poonam Gera Valorisation of crude glycerol to value-added products: Perspectives of process technology, economics and environmental issues
2019	Renewable Energy	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha, Thallada Bhaskar Reaction Parameters Effect on Hydrothermal Liquefaction of Castor (Ricinus Communis) Residue for Energy and Valuable Hydrocarbons Recovery
2019	Science of the Total Environment, 686, 641-647	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha, Thallada Bhaskar Optimization of process parameters for hydrothermal conversion of castor residue
2018	Bioresource technology, 250, 422-428.	Kaur, R., Gera, P., Jha, M. K., & Bhaskar, T. Pyrolysis kinetics and thermodynamic parameters of castor (Ricinus communis) residue using thermogravimetric analysis.

2018	Biofuels	K.Pal, M.K. Jha, P. Gera, and S.K. Tyagi Energy and exergy analysis of a natural draft improved biomass cookstove with varying quantity of different biomass feedstocks.
2017	Journal of Material Cycles and Waste Management, 1-11.	Bhagat, S. P., Gera, P., & Bhavanam, A. Catalytic co-pyrolysis of Pterospermum acerifolium and plastic waste.
2016	Biofuels 7 (04) 313-335	K.Pal, M.K. Jha, P. Gera, and S.K. Tyagi Experimental study on the performance evaluation and emission reduction potential of different cookstove models using standard design parameters and testing protocols
2016	Journal of Biofuels and Bioenergy	Ravneet Kaur, Poonam Gera, and Mithilesh Kumar Jha Study on Effects of Different Operating Parameters on the Pyrolysis of Biomass
2015	International Journal of Advanced Technology in Engineering and Science	Rajesh Kumar Gupta and Poonam Gera Process for the Upgradation of Petroleum Residue: A Review
2015	Journal of Biofuels and Bioenergy	Rajesh K Gupta, Mohammad Aslam, K Manjusha, Poonam Gera, A.K.Sarma Upgradation of pyrolysis oil and vacuum residue obtained from the fractional distillation of bio-crude oil: A Review
2012	Journal of Scientific & Industrial Research 71(04) 290-294	Poonam Chadha, Ajay K Arora, Shanti Prakash, Mithilesh K Jha, Suresh K Puri, Ultrasonic assisted in situ transesterification of Jatropha seed to biodiesel Deepak K Tuli, Ravinder K Malhotra

Conference Publications :

Year	Conference	Publication
2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020) at Dr B R Ambedkar National Institute of Technology, Jalandhar from 13th February, 2020 – 14th February, 2020	Alisha Meshram, Sandeep Singh, Amit Dhruv Saran, Sangeeta Garg, Poonam Gera, Photo catalytic degradation of synthetic dye using Cadmium based core-shell semiconductor nanoparticles
2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020) at Dr B R Ambedkar National Institute of Technology, Jalandhar from 13th February, 2020 – 14th February, 2020	Amit Kumar, Dr N K Srivastava, Dr Poonam Gera . Treatment of textile effluent in order to remove colour using refinery sludge based biochar
2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020) at Dr B R Ambedkar National Institute of Technology, Jalandhar from 13th February, 2020 – 14th February, 2020	Subhrajeet Dash, Dr. Anjireddy Bhavanam, Dr. Poonam Gera, Kinetic study of catalytic pyrolysis of lignin
2019	2nd National Conference on Advances in Chemical and Environment Engineering, NIT Jalandhar	Maitri Gupta, Sharadha Bhalla, Subhrajeet Dash, Anjireddy Bhavanam, Poonam Gera, Review on the catalysts used for Thermochemical conversion processes
2019	2nd National Conference on Advances in Chemical and Environment Engineering, NIT Jalandhar	Amit Kumar, N. K. Srivastava, Poonam Gera Removal of colour from paper industry wastewater using biochar derived from paper mill sludge
2019	2nd International Conference on New frontiers in Chemical, Energy and Environmental Engineering held at NIT, Warangal	Shubham Deshmukh, Poonam Gera, Anjireddy Bhavanam, Production and Characterization of Activated Carbon from Pterospermum Acerifolium
2019	Fourth ISEES International Conference on Sustainable Energy and Environmental Challenges (IV-SEEC)	Alisha Meshram, Poonam Gera, Amit Saran, Review on Nanoparticles for Photocatalytic Degradation of Dyes,

2019	Fourth ISEES International Conference on Sustainable Energy and Environmental Challenges (IV-SEEC)	Alisha Meshram, Dr. Poonam Gera, Biodiesel Production using Non-edible Cassia tora seed oil
2018	71st Annual session of Indian Institute of Chemical Engineers CHEMCON-2018 “Seamless Chemical Engineering in service of Humanity, Innovations, Opportunities and Challenges held at Dr B R Ambedkar NIT Jalandhar	Subhrajeet Dash, Anjireddy Bhavanam, Poonam Gera, Catalytic copyrolysis – A potential process for converting of solid waste biomass into gasoline range bio-fuel
2018	71st Annual session of Indian Institute of Chemical Engineers CHEMCON-2018 “Seamless Chemical Engineering in service of Humanity, Innovations, Opportunities and Challenges held at Dr B R Ambedkar NIT Jalandhar	Amit Kumar, Poonam Gera, N. K. Srivastava, Removal of Dyes from Textile wastewater using paper mill sludge based biochar
2018	71st Annual session of Indian Institute of Chemical Engineers CHEMCON-2018 “Seamless Chemical Engineering in service of Humanity, Innovations, Opportunities and Challenges held at Dr B R Ambedkar NIT Jalandhar	Jaspreet Kaur, Mithilesh Kumar Jha, Poonam Gera, Anil Kumar Sarma Conversion of Crude Glycerol via Different Pathways: A Review
2018	71st Annual session of Indian Institute of Chemical Engineers CHEMCON-2018 “Seamless Chemical Engineering in service of Humanity, Innovations, Opportunities and Challenges held at Dr B R Ambedkar NIT Jalandhar	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha, Thallada Bhaskar A review on the effects of process parameters in the hydrothermal liquefaction of biomass
2018	Third International Conference on Sustainable Energy and Environmental Challenges (3rd SEEC) at IIT Roorkee, India	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha, Thallada Bhaskar, Catalytic Hydrothermal Liquefaction of Castor Residue: Effect on Product Yield And Distribution of Liquid Product
2018	71st Annual session of Indian Institute of Chemical Engineers CHEMCON-2018 “Seamless Chemical Engineering in service of Humanity, Innovations, Opportunities and Challenges held at Dr B R Ambedkar NIT Jalandhar	Shubham Deshmukh, Poonam Gera, Anjireddy Bhavanam, Review on removal of pollutants from air and water by activated carbon derived from various solid waste biomasses
2018	Advances in Chemical Science & Technology ACST-18 held at Dr B R Ambedkar NIT Jalandhar	Anuj Kumar, Poonam Gera, Renu Gupta, Comparative study of the effect of biomass ashes as pozzolanic materials for the cementing system: A Review
2017	6th International Conference on Advances in Energy Research	Jaspreet Kaur, Poonam Gera, M K Jha, Anil Kumar Sarma., A study on the conversion of Glycerol into solketal using Rice husk derived catalyst
2016	International Conference on ICRA BR-2016	K.Pal, S.K.Sansaniwal, P. Gera, M.K. Jha, and S.K. Tyagi An Assessment to Biomass-Based Combustion Systems
2016	International Conference on BIOPROCESSING INDIA	R. Kaur, B. Biswas, J. Kumar, P. Gera, M.K. Jha, T. Bhaskar Hydrothermal Liquefaction of Castor Plant Waste for Bioenergy Applications
2016	Advances in Chemical and Environmental Engineering	Amit Kumar, Dr. Poonam Gera Green synthesis of metallic nanoparticles using plant extracts their characterization and application: A review
2016	Advances in Chemical and Environmental Engineering	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha Pyrolysis kinetics of waste wood using Thermogravimetric analysis
2016	Advances in Chemical and Environmental Engineering	Satish P Bhagat, Poonam Gera Synthesis of Petroleum Fuel from Waste Plastic-A review

2016	International Conference on ICRA BR-2016	Satish P Bhagat, Poonam Gera Studies on the manufacture of Aluminium Phosphide with Controlled Generation of Phosphine
2016	International Conference on ICRA BR-2016	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha Study on Effects of Different Operating Parameters on the Pyrolysis of Biomass: A Review
2015	International Conference on CHEMCON 2015	Ravneet Kaur, Poonam Gera, Mithilesh Kumar Jha Biofuels Production from Biomass: a Review on Conversion Technologies
2015	International Conference on ICSTM-2015	Rajesh K. Gupta, Poonam Gera Process for the Upgradation of Petroleum Residue: Review
2015	International Conference on ICRA BR -2015	Rajesh K. Gupta, Mohammad Aslam, K. Manjusha, Poonam Gera, A.K.Sarma Upgradation of Pyrolysis Oil and Vacuum Residue Obtained from the Fractional Distillation of Bio-Crude Oil
2012	International Conference on CHEMCON 2012	Aseem Kulshreshtha, Poonam Gera Comp. Study of Chem. & Enzymatic Catalysis using Transesterification Process for Bio diesel Synthesis
2012	International Conference on CHEMCON 2012	Rahul Kumar, Poonam Gera Production of biodiesel from microalgae
2012	International Conference on CHEMCON 2012	Kunwar Pal, Poonam Gera Biodiesel production from jatropha curcas oil: A review
2012	International Conference on CHEMCON 2012	Jagdeep Parihar, Poonam Gera, T.V Rao Oxidative Desulfurization of gas oil using H ₂ O ₂
2008	International Conference on ESCC 2008	Poonam Chadha Gera, Mithilesh Kumar Jha Feasibility Study of Jatropha Curcas Oil as a Diesel Substitute in a Single Cylinder Compression Ignition Engine
2008	International Conference on CHEMCON 2008	Poonam Gera, Mithilesh Kumar .Jha Briquetting And Pyrolysis of Biomass

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
	A Study on Conversion of Glycerol into Solketal Using Rice Husk-Derived Catalyst	Springer	Jaspreet Kaur, Poonam Gera, M. K. Jha, Anil Kumar Sarma	978-981-15-2661-9	2020
Chapter	Thermochemical Route for Biohydrogen Production	Elsevier	Kaur, Ravneet, Poonam Gera, Mithilesh Kumar Jha, and Thallada Bhaskar	978-0-444-64203-5	2019
Book	Studies on Rice straw and Bagasse ash as Pozzolanic Materials	Lambert Academic Publishing	Renu Gupta, Poonam Gera, Anuj Kumar	ISBN:978-613-9-91541-S	2018
	Comparative study of different biomass cook stove model :An experimental study	Electronic version published by SSS-NIRE	K.Pal, A K Pandey, P. Gera, and S.K. Tyagi	978-81-927097-2-7	2014

	New Frontiers in Bio fuels	SCITECH PUBLICATION S (INDIA) PVT. LTD.	Poonam Gera, S.K.Puri,M.K.Jha	978 81 8371 308 5	2009
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Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Dr. Poonam Gera	Research Project	Conversion of waste biomass to biofuels, biochemicals by Hydrolysis technique	TEQIP - II	6 months		50,000	Completed	-
Principal Investigator	R&D	Preparation of Cement composites using waste biomass ash	TEQIP-III	15-01-18	31-03-18	22328	Completed	Dr Renu Gupta
Principal Investigator	R&D	Preparation of activated carbon from biomass and its absorption studies for water and air pollutants removal	TEQIP-III	01-01-19		44000	Ongoing	Dr. Anji Reddy Bhavanam

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Workshop	National	Academic Environment in Higher Technical Education: Future Perspectives	Nit Jalandhar	30-09-16	01-10-16	Member, Organising Committee
Summer Term Course -2016 (GIAN)	International	Industrial Catalytic Technology	NIT Jalandhar	11-07-16	15-07-16	Coordinator
Seminar	National	Water Quality and Conservation	NIT Jalandhar	03-09-07	03-09-07	Organiser
Conference	International	Indian Chemical Engineering Congress CHEMCON-2012	NIT Jalandhar	27-12-12	30-12-12	Member, Organising Committee
Short Term Training Programme	National	Recent Advances in Energy Technology	NIT Jalandhar	02-06-14	06-06-14	Coordinator

STC	National	Industry Institute Interaction Programme	NIT Jalandhar	05-03-16	06-03-16	Member, Organising Committee
Conference	National	Advances in Chemical and Environmental Engineering	NIT Jalandhar	22-04-16	23-04-16	Organiser
Short term course	National	Water Quality Management	NIT Jalandhar	20-06-16	24-06-16	Member, Organising Committee
Workshop	National	Water Quality and Management	NIT Jalandhar	19-09-07	19-09-07	Organiser

Professional Affiliations :

Designation	Organization
Life Member	Indian Institute of Chemical Engineers
Associate Member	International Congress of Environmental Research
Fellow	Institution of Engineers

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Ravneet Kaur	Thermochemical conversion of Castor (<i>Ricinus communis</i>) to Bio-oil and value added products	Awarded	2020	Dr. M. K. Jha and Dr. Thallada Bhaskar
Kunwar Pal	Design, modification and performance enhancement of biomass cookstoves using exergy approach	Awarded	2019	Dr. M. K. Jha and Dr. S. K. Tyagi
Subhrajeet Dash	Experimental and Kinetic Studies on Hydrous Pyrolysis of Lignin for the Production of Bio-based Chemicals And Biofuels	Ongoing		Dr AnjiReddy Bhavanam
Amit Kumar	Wastewater Treatment	Ongoing		Dr N.K. Srivastava
Jaspreet Kaur	Study on Conversion of Glycerol into Value-Added Products	Ongoing		Dr. M.K. Jha and Dr. A. K. Sarma

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Shubham Deshmukh	Preparation of activated carbon from <i>Pterospermum acerifolium</i> and its adsorption studies for removal water pollutants	Awarded	2019	Dr AnjiReddy Bhavanam
Anuj Kumar	A Comparative study of Biomass Ash as Pozzolanic Material for cementing system	Awarded	2018	Dr Renu Gupta
Bhagat Satish Pruthviraj	Kinetic Studies on Catalytic Co-pyrolysis of Biomass and waste Plastic using Distributed Activation Energy Model	Awarded	2017	
Satya Ranjan Das	Effect of Different Pretreatment Methods on Production of Biogas from Pampas (<i>Cortaderia selloana</i>) Grass.	Awarded	2016	
Amit Kumar	Green Synthesis of Copper nanoparticles using Plant Extracts, Their Characterization and Antibacterial Activity Study.	Awarded	2016	

Rajesh Kumar Gupta	Kinetic study of vacuum residues of biocrude oils and Upgradation of JCO residue via coprocessing with Petroleum Diesel	Awarded	2015	
Rajanjit Kaur	Photo catalytic degradation of yellow 12 Dye by Undoped and Doped Silver Nanoparticles	Awarded	2015	
Nisha Singh	Utilisation Of Collagen Hydrolysate Obtained From Leather Solid Waste For Microencapsulation And Controlled Release Of Clove Oil	Awarded	2015	
Rahul Kumar	Adsorption of Malachite Green dye using Pistachio Hull waste by Batch and Column method	Awarded	2014	
Aseem Kulshreshtha	Immobilization of lipase on egg shell membrane and its application for biodiesel synthesis	Awarded	2014	
Kunwar Pal	Design, Development and performance evaluation of improved Biomass Cookstove	Awarded	2013	
Navaid Ul Islam	Preparation and application of Co-Mn based solid heterogeneous catalyst for transesterification of vegetable oil to Biodiesel	Awarded	2012	
Rahul Ramteke	Evaluation of mixed metal catalyst for Biodiesel synthesis	Awarded	2011	
Bharvee Srivastava	Development of solid catalyst and application for Biodiesel production	Awarded	2010	
Alisha Rajkumar Meshram	Synthesis of Cadmium based quantum dots by Microemulsion method and use in a Photocatalytic degradation of dye	Ongoing		Dr Amit D Saran

Award and Honours :

Title	Activity	Given by	Year
Best oral paper presentation award	Third International Conference on Sustainable Energy and Environment Challenges (SEEC-2018) at Indian Institute of Technology, Roorkee from December 18-21,2018	ISEES	2018