

Dr. PARMESH KUMAR CHAUDHARI



Professor, Chemical Engineering Department

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Academic Profile:

- 1 PhD (Chemical Engineering) , IIT Roorkee
- 2 M.E. (Chemical Engineering), University of Roorkee
- 3 B.E. (Chemical Engineering), Govt. Engg. College, Raipur, C.G

Courses Taught

Numerical method, Inorganic chemical technology, Organic chemical technology, Mechanical operation, Computer programming in C++, Fluid flow operation, Fuel technology, Chemical Engineering Thermodynamics, Mechanical aspect design, Heat transfer equipment design, Mass transfer equipment design, Diffusion and absorption, Environmental Engineering, Process instrumentation and control, Process modeling and simulation, Advance wastewater treatment, Computer aided design, Fluidization Engineering , Reaction Engineering, Transport phenomena.

Research Interests/Specialization

Chemical Process Design, Fluidization Engineering, Industrial Wastewater Treatment, Process Modeling and Simulation, Reaction Engineering

Patent

No	Name of Investigators	Topic	National/International	Status
1	Parmesh Kumar Chaudhari and	System and method for treating coking wastewater	Indian Patent No 326392	Awarded 29/11/2019

	Rajkishore Chaudhary			
2	Parmesh Kumar Chaudhari , Shreyash Dondudey and Amit Keshav	Hybrid process for treatment of sugar industry wastewater	Indian Patent (Application submitted)	March 2021

Projects

No	Topic	Funding agency	Amount (Lakhs)	Status
1	Treatment of biodigester effluent of rice grain based industry	Chhattisgarh Council of Science & Technology, Raipur	2.0	Completed , 2013 (PI)
2	Treatment of sugar industry wastewater and water management in sugar industry	SERB, DST, NewDelhi	27.86	Completed, 2019 (PI)
3	Scientific studies on impact of Idols on water quality'	Chhattisgarh Council of Science & Technology, Raipur	4.26	Completed, 2019 (PI)
4	Removal of Dye and Chemical Oxygen Demand of Dye bearing effluent	Chhattisgarh Council of Science & Technology, Raipur	4.0	Ongoing, 2019 (Co-PI)
5	Monitoring of fluoride in underground water of Jagdalpur District of Chhattisgarh and its removal	Chhattisgarh Council of Science & Technology, Raipur	3.29	Completed, 2019 (Co-PI)
6	Improvement of sparklers property for moisture adsorption (Consultancy)	Ms Classical Sparklers, Raipur	0.50	Completed on 24/1/2020

Editorial work

1. Guest Editor , International Journal of Chemical Reactor Engineering, **De Gruyter Publication, Germany**. Special issue of “International Conference on Reaction Engineering-2021, May-7-8, 2021”. Volume 20, Issue 5, 2022. **ISSN 1542-6580** (online)
2. Editor of Processing, “International Conference on Advances in Chemical Engineering-2013 ”, held at National Institute of Technology Raipur, March 8-9, 2013. **A & V Publication, Raipur, ISBN: 978-81-921373-4-6**
3. Editor of Proceeding , “National Symposium on Reaction Engineering-2010”, held at National Institute of Technology Raipur, January 21-22, 2010.

Thesis Supervisions				
No.	Name of student	Name of Supervisor	Topic	Date of Award
1	Mr Abhinesh Prajapati	Dr P. K. Chaudhari	Treatment of rice grain based distillery wastewater	July 28, 2014
2	Mr Bidyit Majumdar	Dr P. K. Chaudhari	Treatment of wastewater from maize based industry	September 08, 2014
3	Mr. Ompralash Sahu	Dr P. K. Chaudhari	Treatment of sugar industry wastewater	September 22, 2015
4	Mr. R. K. Chaudhary	Dr P. K. Chaudhari	Removal of contaminants of coking wastewater	November 11, 2017
5	Ms Kruti Jethwa	Dr. Samir Bajpai Dr P. K. Chaudhari	Study on utility of constructed wetland in enhancing Nitroden and Phosphorus contain of lateritic soil	June 24, 2019
6	Mr. Deepak Sharma	Dr P. K. Chaudhari Dr. Abhinesh Prajapati	Adsorption, electrocoagulation and membrane separation process to remove Cr and Pb from electroplating effluent	December 24, 2019
7	Ms Neela Acharya	Dr P. K. Chaudhari Chandrakant Thakur	Chemical and biological treatment of domestic sewage	February 18, 2020
8	Ms. Vibha Verma	Dr P. K. Chaudhari	Catalytic treatment of coke oven effluent	November 2, 2020
9	Mr. Shreyas Gondudey	Dr P. K. Chaudhari	Biological, Chemical and electrochemical treatment of sugar industry wastewater	November 18, 2020
10	Neeraj Chandrakar	Dr. Raghvendra Thakur Dr. P. K. Chaudhari	Removal of fluoride from fluoride contaminated water	March 23, 2023
11	Vijay Kumar	Dr P. K. Chaudhari Dr. Chandrakant Thakur	Bioremediation of dye bearing wastewater	April 18, 2023

12	Gopal Nayak	Dr A. K. Poonia Dr P. K. Chaudhari	Anaerobic digestion of rice straw	January 16, 2023
13	Akanksha Agrawal	Dr P. K. Chaudhari Dr Prabir Ghosh	Anaerobic digestion of vegetable and fruit waste for biofuel production	Awarded June 11, 2024
14	Laxmikant Pandey	Dr. Mahendra Gaikwad Dr P K chaudhari	Development of porous electrodes from waste biomass materials for capacitive deionization	Registered on August 2022
15	Supriyo Acharya	Dr P. K. Chaudhari Dr. Mahendra Gaikwad	Effect of food additives in aquatic animals	Registered on March 2024

Conferences

No	Post	Topic	Place and date
1	Chairman	International Conference on Chemical and Environmental Engineering-2021, December 16-17, 2021, NIT Raipur	National Institute of Technology Raipur, December 16-17, 2021
2	Organizing secretary	International Conference on Reaction Engineering-2021	National Institute of Technology Raipur, May 7-8, 2021
3	Organizing secretary	International Conference in Advances on Chemical Engineering-2013	National Institute of Technology Raipur, March 8-9, 2013.
4	Organizing secretary	National Symposium on Reaction Engineering-2010	National Institute of Technology Raipur, January 21-22, 2010

Short Term Courses

No	Post	Topic	Place and date	Sponsored by
1	Coordinator	Waste Treatment and Cleaner Technology	National Institute of Technology Raipur, May 28-June 1, 2012	NIT Raipur (partially)
2	Coordinator	Environmental Challenges and Remedies	National Institute of Technology Raipur, May 25-29, 2015	Self Sponsor
3	Coordinator	Chemical Process Modeling and Simulation	National Institute of Technology Raipur, June 23- 27, 2014	Self Sponsor
4	Coordinator	Research Trends in Separation & Purification	National Institute of Technology Raipur, December 13- 17, 2021	ATAL, AICTE

		Techniques		
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Book Chapters				
No	Name of Author(s)	Topic	Book Name/ Publisher	Details
1	Titikshya Mohapatra, Parmesh Kumar Chaudhari, Prabir Ghosh	Photo-Assisted Fenton Decomposition of Organic Contaminants Under Visible-Light Illumination	Removal of Refractory Pollutants from Wastewater Treatment Plants, CRC	2021 10.1201/9781003204442-21 ISBN 9781003204442
2	Kruti Jethwa, Samir Bajpai, P K Chaudhari	Application of a low-cost technology to treat domestic sewage and to improve fertility of a barren lateritic soil	Environmental Process and Management , pp 201-223 Springer	18 February, 2020 DOI: 10.1007/978-3-030-38152-3_11 ISBN 978-3-030-38154-7
3	Deepak Sharma, Abhinesh Prajapati, Raghwendra Singh Thakur, Ghoshna Jyoti, Parmesh Kumar Chaudhari	Removal of Cr(VI) and Pb from Electroplating Effluent Using Ceramic Membrane	Membrane and Membrane-Based Processes for Wastewater Treatment – CRC . Edited by Maulin P Sbhadra	eBook ISBN 9781003165019 https://doi.org/10.1201/9781003165019 March 14, 2023
4	Nitin Pawar, Sandeep Dharmadhikari, Vijay Kumar, Vijendra Kumar, Parmesh Kumar Chaudhari	A combined coagulation and membrane filtration approach for fluoride removal	Membrane and Membrane-Based Processes for Wastewater Treatment - CRC	eBook ISBN 9781003165019 https://doi.org/10.1201/9781003165019 March 14, 2023
5	Santosh Bahadur Singh, Praveen Kumar Tandon , Parmesh Kumar Chaudhari , Dakeshwar Kumar Verma	Handbook of Biomolecules: Fundamentals, Properties and	Chapter 6 - Enzymes, coenzymes, and pigment Elsevier	ISBN: 9780323916844 https://doi.org/10.1016/B978-0-323-91684-4.00016-; 123-149, 2023

Research Publication in Journals**80****SCI 61, SCOPUS 9 , International conference proceeding 4 , National Journal 6**

No	Name of Author(s)	Topic	Journal's Name	Details
1	L.K. Pandey, M.S. Gaikwad; P.K. Chaudhari,	Biowaste materials derived activated carbon (BMDAC) electrodes for removal of pollutant ions using capacitive deionization: a mini review	Materials Letters, 2023, 134165	
2	Akanksha agrawal Parmesh Kumar Chaudhari, Prabir Ghosh	Hydrolysis and Acidogenesis Study of Fruit and Vegetable Waste Using Activated Sludge.	Biomass Conversion and Biorefinery <i>2190-6823</i>	DOI: https://doi.org/10.1007/s13399-023-03937-z Feb 15, 2023
3	Akanksha agrawal Parmesh Kumar Chaudhari, Prabir Ghosh	Effect of mixing ratio on biomethane potential of anaerobic co-digestion of Fruit and vegetable waste and Food waste	Biomass Conversion and Biorefinery	DOI: https://doi.org/10.1007/s13399-023-03737-5 14 January 2023
4	Akanksha agrawal Parmesh Kumar Chaudhari, Prabir Ghosh	Anaerobic digestion of fruit and vegetable waste: A critical review of associated challenges.	Environmental science and pollution Research	DOI: https://doi.org/10.1007/s11356-022-21643-7 4 July 2022
5	Akanksha agrawal Parmesh Kumar Chaudhari, Prabir Ghosh	Effect of microwave treatment on maximizing biogas yield for anaerobic co-digestion of fruit and vegetable waste and anaerobic sludge	Biomass Conversion and Biorefinery	http://dx.doi.org/10.1007/s13399-023-04114-y 27 March, 2023
6	Laxmikant Pandey Mahendra S Gaikwad Parmesh Kumar Chaudhari	Biowaste materials derived activated carbon (BMDAC) electrodes for removal of pollutant ions using capacitive deionization : A mini review	Materials Letters <i>0167-577X</i>	DOI : https://doi.org/10.1016/j.matlet.2023.134165 1 June, 2023
7	Vijay Kumar, Akhilesh Khapre, Chandrakant Thakur, and Parmesh Kumar Chaudhari	Anerobic biological treatment of dye bearing water in anaerobic sequencing batch reactor: performance and kinetic studies	Journal of Indian Chemical Society (Elsevier)	https://doi.org/10.1016/j.jics.2022.100673
8	Gopal Prasad Naik, Anil Kumar Poonia, Parmesh Kumar Chaudhari	Role of extractives in biomethane production:characterisation and comparision of different varieties of rice straw	Clean Technology and Env. Pollution	DOI: 10.1007/s10098-022-02375-1 Publication Date: August, 2022
9	Gopal Prasad Naik,	Maximization of biogas by minimal	Biomass Conversion	Publication Date: Nov, 2022

	Anil Kumar Poonia, Parmesh Kumar Chaudhari	microwave and alkaline pretreatment of rice straw	and Biorefinery	
10	Neeraj Chandraker, Parmesh Kumar Chaudhari, Ghoshna Jyoti, and Raghwendra Singh Thakur	Defluoridation of water by electrocoagulation using aluminium electrode	Indian Journal of Chemical Technology	DOI: 10.56042/ijct.v29i5.62186 Publication date :Sept 2022; 0975-0991
11	Vibha Verma, Nishant Joshi, Akhilesh Khapre, Santosh Bahadur Singh , Prabir Ghosh, Parmesh Kumar Chaudhari	Catalytic thermolysis at atmospheric pressure followed by adsorption in treatment of coking wastewater	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0084 Publication Date: April 28, 2022
12	Shreyas Gondudey, Vandana Gupta, Prabir Ghosh and Pramesh Kumar Chaudhari	Activated Sludge Bio-Aeration Process to Treat Sugar Industry Effluent	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0086 Publication Date: Feb 22, 2022
13	Vibha Verma, Prabir Ghosh, Santosh Bahadur Singh , Vandana Gupta , Parmesh Kumar Chaudhari	Kinetics of catalytic treatment of coking wastewater (COD, phenol and cyanide) using wet air oxidation	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0164 Publication Date: Nov 5, 2021
14	Vijay Kumar, Akhilesh Khapre, Chandrakant Thakur, Prabir Ghosh, Parmesh Kumar	Biodegradation of acid red 3BN dye in sequential batch reactor: parameters and kinetics studies	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0175 Publication Date: October12, 2021
15	Neela Acharya , Vijay Kumar, Vandana Gupta, Chandrakant Thakur, and Parmesh Kumar Chaudhari	Aerobic sequential batch reactor for domestic sewage treatment: parametric optimization and kinetics studies	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0094 Accepted Date 30/10/2021
16	Neeraj Chandraker, Parmesh Kumar Chaudhari, Raghwendra Singh Thakur	Removal of Fluoride Using Bagasse Activated Carbon	Desalination and Water Treatment	DOI: 10.5004/dwt.2021.27822 241(2021) 112-123
17	Vijay Kumar, Akhilesh Khapre, Chandrakant Thakur, and Parmesh Kumar Chaudhari	Acclimatization studies for degradation of Acid Red 3BN dye and its treatment in moving bed biofilm reactor	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0096 Publication Date September 7, 2021
18	Savita Dubey, Amita Joshi, Rashmi Trivedi , Parmesh Kumar Chaudhari, Dharm Pal, Abhinesh Kumar Prajapati	Hydrogen peroxide assisted electrocoagulation treatment of rice gain based biodigester effluent: mechanism, performance and cost analysis	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2021-0089 Publication Date: August 23, 2021

19	Gopal Prasad Naik, Anil Kumar Poonia, Parmesh Kumar Chaudhari	Alkaline electro-hydrolysis pretreatment of rice straw for enhanced biogas production under ambient temperature	International Journal of Chemical Reactor Engineering, DE GRUYTER, Germany	DOI: https://doi.org/10.1515/ijcre-2021-0099 Publication Date: Sept 9, 2021
20	Gopal Prasad Naik, Anil Kumar Poonia, Parmesh Kumar Chaudhari	Pretreatment of lignocellulosic agricultural waste for delignification, rapid hydrolysis, and enhanced biogas production: A review	Journal of Indian Chemical Society (Elsevier)	98(2021)100147 DOI: https://doi.org/10.1016/j.jics.2021.100147 Publication Date: October 2021
21	Neeraj Chandraker, Parmesh Kumar Chaudhari, Ghoshna Jyoti, Abhinesh Prajapati, Raghwendra Singh Thakur	Removal of fluoride from water by electrocoagulation using Mild Steel electrode	Journal of Indian Chemical Society (Elsevier)	DOI: 10.1016/J.JICS.2021.100026 <i>Publication Date: Feb-21</i>
22	Vibha Verma, Parmesh Kumar Chaudhari and Bidy Mazumdar	Optimization of multiple parameters of coking wastewater (CWW): catalytic thermolysis (CT) at high pressure reactor (HPR)	International Journal of Chemical Reactor Engineering	DOI: https://doi.org/10.1515/ijcre-2019-0221 Publication Date: April 22, 2020 <i>18 (4) (2020). 1-14</i>
23	Vibha Verma, Raghvendra Singh Thakur, Akansha Agrawal, Parmesh Kumar Chaudhari	Wet oxidation of coking wastewater: Optimisation of degradation parameters through RSM.	Journal of Indian Chemical Society (Elsevier)	87 (2020) 29-33 Publication Date:
24	Vibha Verma and Parmesh Kumar Chaudhari	Optimization of multiple parameters for treatment of coking wastewater using Fenton oxidation	Arabian Journal of Chemistry	<i>13 (2020) 5084- 5095</i> Publication Date:
25	Neela Acharya, Ghosna Jyoti, Chandrakant Thakur, Parmesh Kumar Chaudhari	Treatment of domestic sewage using electrocoagulation followed by ion exchange – Parametric and kinetic studies	Desalination and Water Treatment	178(2020)65-73 DOI: https://doi.org/10.5004/dwt.2020.24951 Publication Date:
26	Shreyas Gondudey , Parmesh Kumar Chaudhari, Sandeep Dharmadhikari and Raghvendra Sing Thakur	Treatment of sugar industry effluent using electrocoagulation process: Process optimization using response surface methodology	Journal of Serbian chemical Society	85 (2020) 1357–1369. Publication Date:
27	Shreyas Gondudey and Pramesh Kumar Chaudhari	Influence of various electrode materials in electrocoagulation efficiency: Application in treatment of sugar industry effluent	Sugar Tech (Springer)	22 (2020) 15–27. doi.org/10.1007/s12355-019-00753-6 Publication Date:
28	Shreyas Gondudey and Pramesh Kumar Chaudhari	Treatment of Sugar Industry Effluent Through SBR Followed by Electrocoagulation	Sugar Tech (Springer)	22 (2020)303–310, https://doi.org/10.1007/s12355-019-00777-y
29	Deepak Sharma, Parmesh Kumar Chaudhari , Nitin Pawar, Abhinesh Kumar Prajapati	Preparation and characterization of ceramic microfiltration membranes for removal of Cr (VI) and Pb from electroplating effluent	Indian Journal of Chemical Technology NISCAIR	27(2020) 294-302 Publication Date: July 2020
30	Deepak Sharma, Parmesh Kumar Chaudhari, Abhinesh Kumar	Removal of Cr(IV) and Pb from electroplating plating effluent using electrocoagulation.	Separation Science and Technology (Taylor and Francis)	55 (2020) 321-331 doi: 10.1080/01496395.2018.156315

	Prajapati			7 Publication Date
31	Deepak Sharma, Parmesh Kumar Chaudhari, Savita Dubey Abhinesh Kumar Prajapati	Electrocoagulation treatment of electroplating wastewater: A review	Journal of environmental engineering (ASC E Publication)	146 (2020)1-15 DOI: 10.1061/(ASCE)EE.1943-7870.0001790.
32	Shyam P Tekade, Prashant Gugale, Mitesh Gohil, Sandip H.Gharat; Trilok Patil, Parmesh Kumar Chaudhari, Dipesh S. Patle. Ashish N. Sawarkar	Pyrolysis of waste polyethylene plastic wastes under vacuum zinc oxide	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor and Francis)	Published online: 14 Dec 2020 doi: 10.1080/15567036.2020.1856976 Publication Date: Nov ., 20
33	Deepak Sharma, Parmesh Kumar Chaudhari, Abhinesh Kumar Prajapati	Kinetic, equilibrium isotherm and thermodynamic for adsorption of Cr(VI) and Pb using powdered groundnut shell as a low cost adsorbent	Desalination and water Treatment	162(2019) 239–251, doi: 10.5004/dwt.2019.24337
34	Omprakash Sahu, Bidyut Mazumdar, Parmesh Kumar Chaudhari	Electrochemical treatment of sugar industry wastewater: process optimization by response surface methodology	International Journal of Environmental Science and Technology (Springer) ISSN: 1735-2630	DOI 10.1007/s13762-018-1765-0 28 May , 2018
35	Rajkishore Chuudhary, Parmesh Kumar Chaudhari	Removal of pollutants of coking wastewater by adsorption	Desalination and Water Treatment (Taylor and Francis)	75 (2017)45-57.
36	Rajkishore Chuudhary, Ghosna Jyoti, Prabir Ghosh, Ashish N. Sawarkar P. K. Chaudhari	Electrochemical process to remove contaminant of coking wastewater using aluminium electrode	Desalination and Water Treatment (Taylor and Francis)	86 (2017) 68-79
37	Niraj Thakre, Dipaloy Datta, Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari, Dharm Pal	Reactive extraction of citric acid using different extractants: equilibrium, kinetics and modeling	Chemical and Biochemical Engineering Quarterly, CABEQ	31 (2017) 437-446
38	Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari, Bidyut Mazumdar, Rumi Choudhary	Treatment of rice grain based Biodigester distillery biodidester effluent (BDE) using inorganic coagulants	Indian Journal of Chemical Technology (NISCAIR)	23 (2016) 491-496
39	Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari, Dharampal, Anil Chandrakar, Rumi Choudhary	Electrochemical treatment of rice grain based distillery effluent using copper electrode	Journal of Water Process Engineering (Elsevier)	11(2016)1-7
40	Abhinesh Kumar Prajapati, Parmesh	Physicochemical treatment of distillery wastewater- A Review	Chemical Engineering Communications	202 (2015) 1098-1117

	Kumar Chaudhari		(Taylor and Francis)	
41	Omprakash Sahu, Vandana Gupta, Parmesh Kumar Chaudhari, Vimal Chand Srivastava,	Electrochemical treatment of actual sugar industry wastewater using aluminum electrode	International Journal of Environmental Science and Technology (Springer)	12 (2015)3519-3530
42	Omprakash Sahu, Parmesh Kumar. Chaudhari	Electrochemical treatment of sugar industry wastewater: COD and color removal	Journal of Electroanalytical Chemistry (Elsevier) ISSN: 1572-6657	739 (2015)122-129
43	Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari, Bidyut Mazumdar, Rumi Choudhary	Catalytic thermal treatment (catalytic thermolysis) of a rice grain based biodigester effluent of an alcohol distillery plant	Environmental Technology (Taylor and Francis) 1479-487X	36 (2015) 1-26 DOI:10.1080/09593330.2015.1036787
44	Bidyut Mazumdar , Parmesh Kumar Chaudhari	Electrochemical treatment of biodigester effluent of maize-based starch industry: COD and color removal	Desalination and Water Treatment (Taylor and Francis) 1944-3986	55 (7) (2015)1972-1980
45	Abhinesh Kumar Prajapati, Rumi Choudhary, Kumar Verma, Parmesh Kumar Chaudhari , Amit Dubey	Decolorization and removal of chemical oxygen demand (COD) of rice grain-based biodigester distillery effluent (BDE) using inorganic coagulants	Desalination and Water Treatment (Taylor and Francis)	53(2015)2204-2215
46	Bidyut Mazumdar , Parmesh Kumar Chaudhari	Electrochemical treatment of biodigester effluent of maize-based starch industry”	Indian Journal of Chemical Technology (NISCAIR)	22 (2015) 201-209
47	Omprakash Sahu and Parmesh Kumar Chaudhari	The Characteristics, Effects, and Treatment of wastewater in Sugarcane Industry	Water Quality, Exposure and Health (Springer) 1876-1666	7(2015) 435–444 doi:10.1007/s12403-015-0158-6
48	Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari	Electrochemical treatment of rice grain-based distillery effluent: chemical oxygen demand and colour removal	Environmental Technology (Taylor and Francis)	35, (2014) 242-249
49	Omprakash Sahu, Bidyut Mazumdar, Parmesh Kumar Chaudhari	Treatment of wastewater by electrocoagulation: A review	Environmental Science and Pollution Research (Springer)	21(2014) 2397-2413
50	Om Prakash Sahu, Parmesh Kumar Chaudhari	Removal of color and chemical oxygen demand from sugar industry wastewater using thermolysis processes	Desalination and Water Treatment (Taylor and Francis)	56 (2015)1756-1767 DOI: 10.1080/19443994.2014.956797
51	Abhinesh Kumar Prajapati and Parmesh Kumar Chaudhari	Electrochemical treatment of rice grain based distillery biodigester effluent	Chemical Engineering and Technology (Wiley) ISSN 1521-4125	37 (2014) 1-9
52	Parmesh Kumar Chaudhari, Shri Chand, Indra Mani	Kinetics of catalytic Thermal Treatment (Catalytic Thermolysis) of Bio-digester Effluent of an	Chemical Engineering Communication (Taylor and Francis)	199 (2012) 874–888

	Mishra	alcohol distillery plant		
53	Parmesh Kumar Chaudhari, Anand Singh, Basheswar Prasad, Indra Mani Mishra and Shri Chand	Thermal oxidation kinetics of solid residues obtained from the catalytic thermolysis and coagulation of alcohol distillery	Energy Sources, Part A (Taylor and Francis)	34(2012)336–346
54	Parmesh Kumar Chaudhari, Rajkumar Singh, Indra Mani Mishra and Shri Chand	Kinetics of Catalytic thermal pretreatment (Catalytic thermolysis) of distillery wastewater and biodigester effluent of an alcohol production plant at atmospheric pressure	International Journal of Chemical Reactor Engineering	8(2010) 1-22
55	Parmesh Kumar Chaudhari Bidyut Majumdar, Rumi Choudhary, Deepak Kumar Yadav and Shri Chand.	Treatment of paper and pulp mill effluent by coagulation	Environmental Technology (Taylor and Francis)	31 (2010) 357-363
56	Parmesh Kumar Chaudhari, Indra Mani Mishra and Shri Chand	Effluent treatment for alcohol distillery: Catalytic thermal pretreatment (catalytic thermolysis) with energy recovery	Chemical Engineering Journal (Elsevier)	136 (2008) 14-24
57	Parmesh Kumar Chaudhari, Indra Mani Mishra and Shri Chand	Decolourization and removal of chemical oxygen demand (COD) with energy recovery: Treatment of biodigester effluent of a molasses-based alcohol distillery using inorganic coagulants	Journal of Colloids and surfaces A : Physicochemical. Engineering Aspects (Elsevier)	296(2007) 238-247
58	Parmesh Kumar Chaudhari, Indra Mani Mishra and Shri Chand.	Catalytic thermal treatment (catalytic thermolysis) of biodigester effluent of an alcohol distillery plant	Industrial and Engineering Chemistry Research (ACS)	44(2005) 2518-2524
59	Bidyut Mazumdar , Parmesh Kumar Chaudhari	Treatment of biodigester effluent of maize-based starch industry by coagulation	Research Journal of Chemistry and Environment	17(5) 2014
60	Anurag Garg, VVSS Narayana, Parmesh Chaudhari and Shri Chand.	Treatment of pulp and paper mill effluent	Journal of Scientific and Industrial Research (NISCAIR)	63(2004) 667-671
61	Parmesh Kumar Chaudhari , Pradeep Sainee and Shri Chand.	Comparative performance of Ion-exchanged ZSM-5 and Y-Zeolite catalysts for Toluene Disproportionation Reaction	Journal of Scientific & Industrial Research (NISCAIR)	61(2002) 810-818

Research Publication in International SOPUS and Referred Journals

09

No	Name of Authour(s)	Topic	Journal's Name	Details
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1	Abhinesh Kumar Prajapati, Swati Mehra , Tulika Dewangan , Deepak Sharma , Shamal Sena, Savita Dubey , Rajesh Kumar Kaushala, Parmesh Kumar Chaudhari , Dharm Pal	Treatment of rice grain based distillery biodigester effluent using iron metal and salt: Chemical oxidation and electro-oxidation combined study in batch mode	EISBN: 2215-1532	https://doi.org/10.1016/j.enmm.2021.100585 30 Sept, 2021 Elsevier, Amsterdam, Neetherland
2	Neela Acharya, Chandrakant Thakur, Parmesh Kumar Chaudhari	Sequential batch reactor (SBR) for bio degradation of organic wastewater: A review	International Journal of ChemTech Research (SCOPUS)	13 - 11-24, 2020.
3	Neela Acharya , Chandrakant Thakur, Parmesh Kumar Chaudhari.	Electrocoagulation followed by settling and filtration process in treatment of domestic sewage	International Journal of ChemTech Research (SCOPUS)	12 - 283-290, 2019.
4	Neela Acharya, Chandrakant Thakur, Parmesh Kumar Chaudhari	Data set on statistical reduction of COD by electrocoagulation using RSM	Data in Brief (SCOPUS.)	28, 104944, 2020
5	Neela Acharya , Chandrakant Thakur , Parmesh Kumar Chaudhari	Coagulation followed by ion exchange to treat domestic sewage..	International Journal of Recent Technology and Engineering 8, (SCOPUS)	03- 6808-6814, 2019
6	Omprakash Sahu, Debashri Paul and Parmesh Kumar Chaudhari	A Comparatively Study on Thermal and Advance Oxidation Wastewater Treatment Process: Review	Journal of Chemical Engineering and Chemistry Research (SCOPUS)	1, 353-364, 2014
7	Om Prakash Sahu, Parmesh Kumar Chaudhari	Physicochemical Treatment of Sugar Industry Wastewater: Coagulation Processes	Environmental Quality Management (Wiley) (SCOPUS)	23, 49-69, (2014)
8	Parmesh Kumar Chaudhari, Bidyut Majumdar, Rajkumar Singh and Shri Chand	Treatment of biodigester effluent: Catalytic thermal treatment (catalytic thermolysis) with energy recovery followed by wet oxidation	Journal of Environmental Research and Development	4(2) 506-505 (2009), ISSN 0367- 827X

9	Om Prakash Sahu, Parmesh Kumar Chaudhari	Review on chemical treatment of industrial wastewater	Journal Applied Science and Environmental Management	17(2) June 2013 ISSN 2659-1502
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Research Publication in International Journals Conference Proceedings

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No	Name of Authour(s)	Topic	Journal's Name	Details
1	Abhinesh Kumar Prajapati and Parmesh Kumar Chaudhari and Bidyut Mazumdar.	Electrochemical treatment of rice grain based distillery effluent using iron electrode, International conference on global scenario in environmental and energy, March 14-16, 2013	International Journal of Chemical Technology and Research (Sphinx Knowledge House)	5(2) 694-698, 2013
2	Bidyut Mazumdar , Abhinesh Kumar Prajapati and Parmesh Kumar Chaudhari.	Electrochemical process for removal of color from effluent of maize based starch processing unit, International conference on global scenario in environmental and energy International, March 14-16, 2013	Journal of Chemical Technology and Research (Sphinx Knowledge House)	5(2) 707-711, 2013
3	Parmesh Kumar Chaudhari	Removal of mercaptant from diesel, International conference on future environment and energy, February 26- 28, 2012	International Proceedings of Chemical Biological and Environmental Engineering, ISSN 2010-4618	90-94(2012)
4	Deepak Sharma, Parmesh Kumar Chaudhari, Abhinesh Kumar Prajapati,	Expulsion of Zn from the downstream of metal plating effluent onto modified agricultural adsorbent prepared from peanut shell.	SSRN Elsevier	2019, doi: 10.2139/ssrn.3368077.

Paper Published in National Journals

06

No	Name of Authour(s)	Topic	Journal's Name	Details
1	Rumi Chaudhari, P. K. Chaudhari, Amit Keshav and R. K. Singh	Synthesis and characterization of some Cobalt Phthalocyanine Carboxylamide used in the Merox process	Research Journal of Engineering and Technology (ANV) , ISSN: 0976- 2973	1 (1), Jan-Mar. 2010
2	Parmesh Kumar Chaudhari, Vijay SinghSikarwar,	Effect of various parameters on cell temperature for production of aluminum.	IUP Journal of Chemical Engineering (IUP), ISSN: 0975-6337	2012

	Sandeepan Ray, Vijay Agrawal			
3	Deepak Sharma and Parmesh Kumar Chaudhari	Treatment of dairy wastewater by coagulation and filtration	Journal of Environmental Science and Engineering	55(1) Jan, 2013
4	Debashri Paul, Parmesh Kumar Chaudhari, Raghavendra Singh Thakur	Simulation of FCC riser reactor based on ten lump model.	International Journal of Engineering Research and Applications, ISSN: 2248-9622	July 2015
5	Debashri Paul, Parmesh Kumar Chaudhari, Raghavendra Singh Thakur	Simulation using Six Lump Model of FCC Riser Reactor.	IJSRD - International Journal for Scientific Research and Development, ISSN (online): 2321-0613	2015
6	Debashri Paul and Parmesh Kumar Chaudhari	Simulation of FCC Unit Using Four Lump Model.	Academic Journal of Science, ISSN: 2165-6282	2015

Papers in Conferences

30+

	Title of Paper	Detail of Conference	Volume, Page Number & Year
i	Synthesis and characterization of some cobalt pthalocynine carboxylamide used in merox process	National Symposium in Reaction Engineering, 22-23 January, 2010, NIT Raipur	<u>124-130, 2010</u>
ii	Catalytic thermal treatment of Biodigester effluent of an alcohol distillery	National Symposium in Reaction Engineering, 22-23 January, 2010, NIT Raipur	<u>221-228, 2010</u>
iii	Treatment of molasses based distillery wastewater: A case study	National conference on case studies in Env. Management: March 5 and 6, 2011, VNIT Nagpur	<u>27-32, 2011</u>
iv	Wastewater treatment of an iron and steel industry: A case study	---,-----	<u>33-35, 2011</u>
v	Air pollution monitoring of a city: A case study	---,-----	<u>169-173, 2011</u>
vi	Treatment of Biodigester effluent by thermolysis using CuSO ₄ catalyst	Interenational conference on Recent Advantages in Chemical and Technology 10-12 March, 2011, Kochi, Kerla	<u>1-7, 2011</u>

vii	Toluene disprotprtionation reaction over zeolite catalysts	Interenational conference on Recent Advantages in Chemical and Technology 10-12 March, 2011, Kochi, Kerla	<u>1-12, 2011</u>
viii	Energy recovery from organic wastewater during its treatment by thermolysis and electro-coagulation	First India International Energy Summit 28-31 January, 2011, VNIT, India	<u>71-83, 2011</u>
ix	Study of semi fluidization in annular space (Paper 157)	CHEMCON-2011, Banglore, December 27-29, 2011	<u>66-67, 2011</u>
x	Saponification studies of ethyl acetate(Paper 158)	CHEMCON 2011, Banglore, December 27-29, 2011	<u>68-69, 2011</u>
xi	Treatment of dairy wastewater by coagulation (Paper 159)	CHEMCON 2011, Banglore, December 27-29, 2011	<u>69-70, 2011</u>
xii	Removal of mercaptance from diesel using iron phthalocinides (Paper 156)	CHEMCON-2011, Banglore, December 27-29, 2011	<u>323-325, 2011</u>
xiii	Removal of poly cyclic aromatic hydrocarbon present in pyrolytic oil using low-cost adsorbent of natural origin (Paper 570)	CHEMCON 2011, Banglore, December 27-29, 2011	<u>263-265, 2011</u>
xiv	Electrochemical treatment of rice grain based distillery effluent using iron electrode	International conference on global scenario in Environment and energy	<u>5, 694-698, 2013</u>
xv	Electrochemical process for removal of color from effluent of maize based starch processing unit	International conference on global scenario in Environment and energy	<u>5, 707-711, 2013</u>
xvi	Catalytic treatment of dye wastewater	International conference on Energy, Environment, Material and Safety, Cochin University of Sciene and Technology, December 10-12, 2014	<u>401-407, 2014,</u>
xv	Wastewater nutrient removal through phyto remediation: A review	49 th Annual Convention of IWWA on "Smart Water Management" January 19-21, 2017	<u>1-9, 2017</u>
xvi	Phosphorus Retention in Lateritic Soil Constructed Wetland Treatment of Domestic Sewage	Urbanization Challenges in Emerging Economies, ASCE	<u>238-246</u> <u>March 2019</u>

Papers Reviewed

1. Indian Chemical Engineers, Indian Institute of Chemical Engineers
 2. CLEAN Soil Air Water, Willey-vch
 3. International Journal of Environmental and Waste Management (IJEWM), Inderscience
 4. Journal of Petroleum Technology and alternative Fuels, Academic, Australia
 5. Energy Sources A:, Taylor and Francis
 6. Chemical Engineering Journal, Elsevier
 7. Environment Engineering and Management, Elsevier
 8. Chemical Engineering Communication, Taylor and Francis
 9. Journal of Environmental Management, Elsevier
 10. Journal of Chemical and Environmental Engineering , Elsevier
 11. Environmental Technology, Taylor and Francis
 12. Desalination and Water Treatment, Taylor and Francis
 13. Environmental Technology, Taylor and Francis
 14. AIChE
 15. Catalysis Today, Elsevier
-

Lab Manuals Prepared

Inorganic chemical technology, Organic chemical technology, Computer programming in C++, Fluid flow operation, Computer aided design, Numerical methods, Modeling and simulation.

Honors/Award/Fellowship

- Fellowship of Rural Talent Search Examination
 - Represented Madhya Pradesh in National Talent Search Examination and received fellowship for the same.
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M Tech Thesis

1. Leepika Bose, "Bio gas production using two satage anaerobic digestion of fruit and vegetable waste" Date of Award June 20, 2024
2. Parish Pal, "Reduction of sulphur from acid mine drainage using anaerobic process" Date of Award June 20, 2024 (Co- supervisor: Dr Anand Kumar)

3. MS Nayna Agrawal, “An experimental study of extraction of oil from waste grease and its characterization for utilization” Date of Award: 12/08/2020.
4. Mr Vijay Kumar, Roll No 16245005, “Treatment of municipal wastewater by coagulation and bioaeration process” Date of Award : 05/06/2018.
5. Mr. Nitin Pawar, “Synthesis and characterization of low cost ceramic membrane and its application” 2016.
6. Miss Debashri Paul, Roll No. 13245007. “Simulation of riser catalyst cracking reactor” 2015
7. Miss Vandana Gupta, Roll No. 12245015, “Reduction in COD and color of sugar industry effluent”, Date of Award: 11/06/2014
8. Miss Neela Acharya, Roll No. 12245008, “Catalytic treatment of dye wastewater”, Date of Award: 11/06/2014
9. Miss Pankhuri Shrivastava, Roll No. 09245007 “ Saponification studies of ethyl acetate”, Date of Award: 03/02/2012
10. Shikha Daharwal, Roll No. 10245007, “ Removal of fluoride from wastewater” Date of Award: 05/08/2012.
11. Mr. Deepak Sharma, Roll No. 09245002, “Treatment of dairy wastewater” , Date of Award: 03/02/2012
12. Mr.. Abhinesh Prajapati , “ Treatment of distillery wastewater”, Date of Award: 15/04/2010.
13. Mrs. Romy Chaudhary ,“ Synthesis of catalyst and desulphurization of thio-compound”, 2010. Co-guide Dr. Rajkumar Singh, Scientist B, IIP Dehradun, Date of Award: 15/04/2010.
14. Miss Pooja Uddappa , “Software approach for development of heat exchanger using pinch analysis” October 2007.

B. Tech Thesis

Twenty Five B. Tech thesis supervised on different topics.

1. Distillation studies of benzene –toluene in sieve plate column
2. Concentration of NaCl in triple effect evaporator
3. Modeling and simulation of triple effect evaporator
4. Adsorption studies of CO₂ in packed column using NaOH
5. Treatment of distillery wastewater by catalytic thermolysis
6. Design of equipment for thermolysis

7. Process design of production of glycol
 8. Treatment of wastewater of maize industry by coagulation
 9. Modeling and simulation of multi component fractional distillation column
 10. Removing of sulfur from petroleum
 11. Catalytic wet oxidation of Phenolic effluent
 12. Synthetic of nano particle and its application
 13. Biodiesel from used coking oil
 14. Extraction of base oil from waste grease
 15. Environmental studies
-

Practicals included in B. Tech/M.tech Labs

- (i) Catalytic thermal treatment of organic effluents
 - (ii) Electrochemical treatment of organic wastewater
 - (iii) Simulation of double effect evaporator
 - (iv) Simulation of sieve plate distillation column for binary system
-

Administrative Posts Hold

- Head of Department since September 2011- September 2013
 - Chairman DRC, 2011-12
 - Chairman board of studies, 2011-12
 - Assistant Superintendent of Examinations in 2007 and 2008
 - Hostel Warden, since November 2006
 - NSS Program officer 2000
-

Member of Professional Bodies

Life Member of Indian Institute of Chemical Engineers (IChE), Kolkata, India (LM -14249)

Life Member of Institution of Engineers (IE), Kolkata, India

Life Member of Indian Society of Technical Education (ISTE), Newdelhi, India (LM-81774)

Life Member of Indian Association for Environmental Management, Nagpur (LM-1725)
