

Dr. PARMESH KUMAR CHAUDHARI

Associate 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

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 Rajkishore Chaudhary | System and method for treating coking wastewater | Indian Patent No 326392 | Awarded 29/11/2019 |
| 2 | Parmesh Kumar Chaudhari , Shreyash Dondudey and Amit Krshav | 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 | To improvement property of sparklers by reducing 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
 2. Editor of Processing, "International Conference on Advances in Chemical Engineering-2013 ", held at National Institute of Technology Raipur, March 8-9, 2013.
 3. Editor of Proceeding , "National Symposium on Reaction Engineering-2010", held at National Institute of Technology Raipur, January 21-22, 2010.
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| 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 | Treatment of fluoride bearing wastewater | ongoing |
| 11 | Vijay Kumar | Dr P. K. Chaudhari Dr. Chandrakant Thakur | Bioremediation of Dye wastewater | ongoing |
| 12 | Gopal Nayak | Dr A. K. Poonia Dr P. K. Chaudhari | Anaerobic digestion of rice straw | ongoing |
| 13 | Akanksha Agrawal | Dr P. K. Chaudhari Dr Prabir Ghosh | Anaerobic digestion of vegetable and fruit waste | ongoing |

| Conferences | | | |
|--------------------|----------------------|---|---|
| No | Post | Topic | Place and date |
| 1 | Chairman | International Conference on Chemical and Environmental Engineering-2021 | 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 Techniques | National Institute of Technology Raipur, December 13- 17, 2021 | ATAL, AICTE |

| Book Chapters | | | | |
|----------------------|---------------------------------------|-----------------------|---------------------------------------|----------------------------------|
| No | Name of Author(s) | Topic | Book Name/ Publisher | Details |
| 1 | Titikshya Mohapatra, Parmesh Kumar | Photo-Assisted Fenton | Removal of Refractory Pollutants from | 2021 10.1201/9781003204442-21 |

| | | | | |
|---|--|---|---|--|
| | Chaudhari, Prabir Ghosh | Decomposition of Organic Contaminants Under Visible-Light Illumination | Wastewater Treatment Plants, CRC | ISBN9781003204442 |
| 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 ISBN978-3-030-38154-7 |
| 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 | Accepted |
| 4 | Nitin Pawar, Sandeep Dharmadhikari, Vijay Kumar, Vijyendra Kumar, Parmesh Kumar Chaudhari | A combined coagulation and membrane filtration approach for fluoride removal | Membrane and Membrane-Based Processes for Wastewater Treatment - CRC | Accepted |

Research Publication in Journals

69

SCI 51, SCOPUS 9 , International conference proceeding 4 , National Journal 5

| No | Name of Author(s) | Topic | Journal's Name | Details |
|----|--|--|---|--|
| 1 | 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 |
| 2 | 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 |
| 3 | Vibha Verma, Prabir Ghosh, Santosh Bahadur Singh , | Kinetics of catalytic treatment of coking wastewater (COD, phenol and cyanide) using wet air | International Journal of Chemical Reactor Engineering | DOI: https://doi.org/10.1515/ijcre-2021-0164 |

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|----|--|---|---|---|
| | Vandana Gupta , Parmesh Kumar Chaudhari | oxidation | | Accepted Date 25/10/2021 |
| 4 | 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 |
| 5 | 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 |
| 6 | 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 |
| 7 | 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 |
| 8 | 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 |
| 9 | 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 |
| 10 | 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 |
| 11 | 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 Publication Date: Feb-21 |
| 12 | 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> |

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|----|--|--|---|---|
| 13 | 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: |
| 14 | Vibha Verma and Parmesh Kumar Chaudhari | Optimization of multiple parameters for treatment of coking wastewater using Fenton oxidation | Arabian Journal of Chemistry | 13 (2020) 5084- 5095 Publication Date: |
| 15 | 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: |
| 16 | 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: |
| 17 | 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: |
| 18 | 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 |
| 19 | 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 |
| 20 | Deepak Sharma, Parmesh Kumar Chaudhari, Abhinesh Kumar Prajapati | Removal of Cr(IV) and Pb from electroplating plating effluent using electrocoagulation. | Separation Science and Technology (Taylor and Francis) | 55 (2020) 321-331 doi: 10.1080/01496395.2018.1563157 Publication Date |
| 21 | Deepak Sharma, Parmesh Kumar Chaudhari, Savita Dubey Abhinesh Kumar Prajapati | Electrocoagulation treatment of electroplating wastewater: A review | Journal of environmental engineering (ASCE Publication) | 146 (2020)1-15 DOI: 10.1061/(ASCE)EE.1943-7870.0001790. |
| 22 | 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 |
| 23 | Deepak Sharma, Parmesh Kumar Chaudhari, | Kinetic, equilibrium isotherm and thermodynamic for adsorption of Cr(VI) and Pb using powdered | Desalination and water Treatment | 162(2019) 239–251, doi: 10.5004/dwt.2019.24337 |

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|----|---|---|---|---|
| | Abhinesh Kumar Prajapati | groundnut shell as a low cost adsorbent | | |
| 24 | 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 |
| 25 | Rajkishore Chuudhary, Parmesh Kumar Chaudhari | Removal of pollutants of coking wastewater by adsorption | Desalination and Water Treatment (Taylor and Francis) | 75 (2017)45-57. |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | 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 |
| 30 | Abhinesh Kumar Prajapati, Parmesh Kumar Chaudhari | Physicochemical treatment of distillery wastewater- A Review | Chemical Engineering Communications (Taylor and Francis) | 202 (2015) 1098-1117 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | Bidyut Mazumdar , Parmesh Kumar Chaudhari | Electrochemical treatment of biodigester effluent of maize-based starch industry: COD and color | Desalination and Water Treatment (Taylor and Francis) | 55 (7) (2015)1972-1980 |

| | | | | |
|----|---|---|--|--|
| | | removal | 1944-3986 | |
| 35 | 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 |
| 36 | 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 |
| 37 | 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 |
| 38 | 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 |
| 39 | Omprakash Sahu, Bidyut Mazumdar, Parmesh Kumar Chaudhari | Treatment of wastewater by electrocoagulation: A review | Environmental Science and Pollution Research (Springer) | 21(2014) 2397-2413 |
| 40 | 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 |
| 41 | Abhinesh Kumar Prajapati and Parmesh Kumar Chaudhari | Electrochemical treatment of rice grain based distillery biodigester effluent | Chemical Engineering and Technology (Willey) ISSN 1521-4125 | 37 (2014) 1-9 |
| 42 | Parmesh Kumar Chaudhari, Shri Chand, Indra Mani Mishra | Kinetics of catalytic Thermal Treatment (Catalytic Thermolysis) of Bio-digester Effluent of an alcohol distillery plant | Chemical Engineering Communication (Taylor and Francis) | 199 (2012) 874–888 |
| 43 | 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 |
| 44 | 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 |
| 45 | 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 |
| 46 | Parmesh Kumar Chaudhari, Indra | Effluent treatment for alcohol distillery: Catalytic thermal | Chemical Engineering Journal | 136 (2008) 14-24 |

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|----|--|---|--|--------------------|
| | Mani Mishra and Shri Chand | pretreatment (catalytic thermolysis) with energy recovery | (Elsevier) | |
| 47 | 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 |
| 48 | 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 |
| 49 | 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 |
| 50 | Anurag Garg, VVVSS Narayana, Parmesh Chaudhari and Shri Chand. | Treatment of pulp and paper mill effluent | Journal of Scientific and Industrial Research (NISCAIR) | 63(2004) 667-671 |
| 51 | 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 |
|----|--|--|---|--|
| 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 | Environmental Nanotechnology, Monitoring & Management | 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. |

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| 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 (Willey) (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 |

Research Publication in International Journals Conference Proceedings

04

| 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 | International Journal of Chemical Technology and Research (Sphinx Knowledge | 5(2) 694-698, 2013 |

| | | | | |
|---|---|--|---|----------------------------------|
| | | 14-16, 2013 | House) | |
| 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 | | | | 05 |
|--------------------------------------|--|---|---|----------------------|
| No | Name of Author(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, Sandeepan Ray, Vijay Agrawal | Effect of various parameters on cell temperature for production of aluminum. | IUP Journal of Chemical Engineering (IUP), ISSN: 0975- 6337 | 2012 |
| 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 |
| 3 | 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 |

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|---|--|--|---|------|
| 4 | 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 |
| 5 | 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 | CHEMCON-2011, Banglore, | <u>66-67, 2011</u> |

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|------|---|--|-------------------------------------|
| | annular space (Paper 157) | December 27-29, 2011 | |
| 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 phytoremediation: 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.

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. MS Nayna Agrawal, “An experimental study of extraction of oil from waste grease and its characterization for utilization” Date of Award: 12/08/2020.
2. Mr Vijay Kumar, Roll No 16245005, “Treatment of municipal wastewater by coagulation and bioaeration process” Date of Award : 05/06/2018.
3. Mr. Nitin Pawar, “Synthesis and characterization of low cost ceramic membrane and its application” 2016.
4. Miss Debashri Paul, Roll No. 13245007. “Simulation of riser catalyst cracking reactor” 2015

5. Miss Vandana Gupta, Roll No. 12245015, “Reduction in COD and color of sugar industry effluent”, Date of Award: 11/06/2014
6. Miss Neela Acharya, Roll No. 12245008, “Catalytic treatment of dye wastewater”, Date of Award: 11/06/2014
7. Miss Pankhuri Shrivastava, Roll No. 09245007 “ Saponification studies of ethyl acetate”, Date of Award: 03/02/2012
8. Shikha Daharwal, Roll No. 10245007, “ Removal of fluoride from wastewater” Date of Award: 05/08/2012.
9. Mr. Deepak Sharma, Roll No. 09245002, “Treatment of dairy wastewater” , Date of Award: 03/02/2012
10. Mr.. Abhinesh Prajapati , “ Treatment of distillery wastewater”, Date of Award: 15/04/2010.
11. Mrs. Rummy 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.
12. 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
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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)

Dr. P. K. Chaudhari

May 15, 2022

