Dr. PARMESH KUMAR CHAUDHARI

Associate Professor and Head, Chemical Engineering Department
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Academic Profile:

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

Teaching Experience:

- Associate Professor, National Institute of Technology Raipur, Since August 2006
- Senior Lecturer, December 2000 to August 2006
- Lecturer, December 1995 to December 2000

Industrial Experience:

Process Trainee Engineer in Bharat Refractory Limited, Bhilai from March 1995 to November 1995

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.

Research Interests/Specialization:

Reaction Engineering, Industrial Wastewater Treatment, Process Design

Research Publication in International Journals **10**

1. **P K. Chaudhari**, Shri Chand, I. M. Mishra, " Kinetics of catalytic Thermal Treatment (Catalytic Thermolysis) of Bio-digester Effluent of an alcohol distillery plant, **Chemical Engineering Communication** (2012).

2. **P. K. Chaudhari,** Anand Singh, B. Prasad, I. M. Mishra and Shri Chaand, "Thermal oxidation kinetics of solid residues obtained from the catalytic thermolysis and coagulation of alcohol distillery, **Energy Sourses, Part A,** 34,336–346 (2012).
3. **Parmesh Kumar Chaudhari,** Rajkumar Singh, I. M. Mishra and Shri Chand, "Kinetics of Catalytic thermal pretreatment (Catalytic thermolysis) of distillewry wastewater and biodigester effluent of an alcohol production plant at atmospheric pressure**"**, **International Journal of Chemical Reactor Engineering** 8, A22 (2010).
4. **Parmesh Kumar Chaudhari** Bidyut Majumdar, Rumi Choudhary, Deepak Kumar Yadav and Shri Chand. **"**Treatment of paper and pulp mill effluent by coagulation", **Environmental Technology**, 31(4)357-363 (2010).
5. **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)
6. **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** 136, 14-24 (2008)
7. **Parmesh Kumar 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** 296, 238-247 (2007)
8. **Parmesh Kumar Chaudhari,** I. M. Mishra and Shri Chand. "Catalytic thermal treatment (catalytic thermolysis) of biodigester effluent of an alcohol distillery plant", **Industrial Engineering Chemistry Research** 44, 2518-2524 (2005)
9. Anurag Garg, VVVSS Narayana, **Parmesh Chaudhari** and Shri Chand. "Treatment of pulp and paper mill effluent", **Journal of Scientific and Industrial Research** 63, 667-671 (2004)
10. **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** 61, 810-818 (2002)

Paper Published in National Journals **01**

1. Rumi Chaudhari, **P. K. Chaudhari**, Amit Keshav and R. K. Singh. "Synthesis and characterization of some Cobalt Phthalocyanine Carboxylamide used in the Merox Pprocess" **Research Journal of Engineering and Technology** 1 (1), Jan-Mar. 2010, **ANV Publication, Raipur**.

Papers in Conferences **30**

Sixteen papers have been presented/accepted in International conference/seminar and **Fourteen** in National conference/seminar

Papers Reviewed

1. Chemical Engineering Communication, Taylor and Francis (2009)
2. Journal of Environmental Management, Elsevier (2009)
3. CLEAN Soil Air Water, Willey-vch (2009)
4.Chemical Engineering Journal, Elsevier (2010, 2011)
5. Environment Engineering and Management, Elsevier (2010)
6. Energy Sources A:, Taylor and Francis (2011)
7. Journal of Petrolium Technology and alternative Fuels, Academic, Australia (2011)
8. International Journal of Environmental and Waste Management (IJEWM), Inderscience (2011)
9. Indian Chemical Engineers, Indian Institute of Chemical Engineers (2011)

Conference/Workshop Organized

Organizing secretary of "National Symposium on Reaction Engineering-2010", Department of Chemical Engineering, National Institute of Technology Raipur, January 21-22, 2010.

Editor (Books, Proceeding of Conference/Workshop)

Editor of Proceeding of symposium "National Symposium on Reaction Engineering-2010", held at National Institute of Technology Raipur, January 21-22, 2010.

Lab Manual Prepared

Inorganic chemical technology, Organic chemical technology, Computer programming in C++, Fluid flow operation, Computer aided design

Honors/Award/Fellowship

- Fellowship of Rural Talent Search Examination 1985 for the year 1986 and 1987
- Represented Madhya Pradesh in National Talent Search Examination, 1987. Received fellowship for the same in 1987 and 1988.

Thesis Supervised

PhD Thesis

1. Mr Bidyit Majumdar, "Treatment of wastewater from maize industry" Ongoing
2. Mr. R. K. Chaudhary, "Treatment of wastewater of iron and steel industry" ongoing
3. Mr. Ompralash Sahu. "some studies on fuel cell" ongoing
4. Mr Abhinesh Prajapati, "Treatment of distillery wastewater" ongoing
5. Mr. Thete, "Treatment of wastewater of rice industry" ongoing

M. Tech Thesis

1. Miss Pooja Uddappa , “Software approach for development of heat exchanger using pinch analysis” October 2007.
2. Mr.. Abhinesh Prajapati ,“ Treatment of distillery wastewater”, 2010.
3. Mrs. Rumy Chaudhary ,“ Synthesis of catalyst and desulphurization of thio-compound”, 2010. Co-guide Dr. Rajkumar Singh, Scientist B, IIP Dehradun.
4. Miss Pankhuri Shrivastava, “ Saponification studies of ethyl acetate”, 2011
5. Mr. Deepak Sharma, “Treatment of dairy wastewater” , 2011

B. Tech Thesis

Fifteen 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 CO_2 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

Administrative Posts Held

1. NSS Program officer 2000
2. Hostel Warden, since November 2006
3. Assistant Superintendent of Examinations in 2007 and 2008
4. Head of Department since September 2011

Member of Professional Bodies

Life member of Indian Institute of Chemical Engineers, Kolkata, India