CURRICULUM VITAE

1. Name BASHESHWER PRASAD

2. Date of birth January 15, 1960

3. Present Employment Professor
Department of Chemical Engineering
Indian Institute of Technology Roorkee
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5. Academic qualifications

Examination Passed	Board/University	Year of passing	% of Marks/Grade
High School	U.P. Board, Allahabad	1974	74.0
Intermediate	U.P. Board, Allahabad	1976	66.2
B.E. (Chemical)	University of Roorkee	1980	3.15/4.00
M.E.	University of Roorkee	1982	78.5 (I rank & Gold medal)
Ph.D.	University of Roorkee	1991	

6. Employment details

Employer	Post held	Employment		Nature of duties
		from	To	
University of Roorkee	Scientist B, scale	11.09.1982	31.03.1989	R&D, teaching
University of Roorkee	Scientist B (Scientist C scale)	1.4.1989	14.04.1996	R&D, teaching
University of Roorkee	Assistant Professor	15.04.1996	16.03.2006	Teaching, R&D
IIT Roorkee	Associate Professor	17.03.2006	22.10.2012	Teaching, R&D
IIT Roorkee	Professor	23.10.2012	Till date	Teaching, R&D

7. Experience (Academic/ Research)

30 years: have taught a number of courses at the B. Tech. and M.Tech. levels. The subjects included Energy Resources and Conservation, Environmental Studies, Air Pollution Control Engineering, Water Pollution Control Engineering, Industrial Instrumentation, Chemical Technology, Heat Transfer, Renewable Energy Sources, Solid Waste Management. Ph.D./M.Tech. guidance is in the areas of biomass energy and industrial pollution abatement.

8. Awards received

1. University Gold Medal for Standing First in M.E. Course.
2. The Nawab Zain Jung Bahadur Memorial Medal of The Institution of Engineers (India) for best paper.
3. Best paper award for the paper entitled "A perspective of fast pyrolysis oil processing in refinery FCC unit" presented at 4th International Conference on Sustainable Development, SUSCON-2015 held at IIM Shillong, India during March 11-13, 2015.
4. National Merit Scholarship from 1974-1980.
5. Scholarships through out schooling

9. Training

1. Took practical training for the development of Small Hydro Hybrid Energy Systems at Boston University, Boston, U.S.A. during July-Aug., 1984.
2. Underwent training on AAS at M/s Aurora Instruments, Vancouver, Canada from June 25-29, 2007.

10. Visits abroad U.S.A. 1984; U.S.A. 2005; Canada 2007; Italy, France, Switzerland 2009

11. Research papers

(i)	In Peer Refereed Journals	
	Published	58
	Under review	01
	Communicated	02
(ii)	In Conferences/Seminars	
	Presented	53
	Communicated	01

12. Ph.D./M.E./M.Tech. guidance

(i)	Ph.D. theses (completed)	09
	Ph.D. theses (in progress)	03
(ii)	M.E./ M.Tech. dissertation (completed)	58
	M.E./ M.Tech. dissertation (in progress)	01

13. Short term specialty courses

i. Renewable energy source development technology
ii. Round table meet on cogeneration

14. Organization of workshop/conferences

National Workshop on Ambient Air Quality Standards at Roorkee in 2001.

15. Sponsored/consultancy projects

S. No.	Name of the funding agency	Project Title	Year	Duration in year(s)	Amount Sanctioned (Rs. in lakh)	Status Completed/ Ongoing
1.	M/s Bhushan Steels Ltd. Sahibabad, Ghaziabad	Opinion on usage compressed natural gas for M/s Bhushan Steels Ltd	2016	Six months	5.05	Completed
2.	Faculty Initiation Grant of IIT R from MHRD funds	Flash pyrolysis of biomass for the production of biooil	2007	Three years	8.40	Completed
3.	M/s Envirotech Centre for Research, Delhi	Development of adsorption tubes for the determination of VOCs	1999	1-1/2	0.65	Completed
4.	Ministry of Non-Conventional Energy Sources, New Delhi	Hydrogen Generation from Off-peak Electricity	1995	Two years	1.89	Completed
5.	Ministry of Non-Conventional Energy Sources, New Delhi	Biomass based gasification for electricity generation	1993	Two years	2.1	Completed
6.	Department of Science and Technology, New Delhi	Development of hydraulic air compressor system	1991	Three years	5.6	Completed.

16. Patents

The following two patents by the team consisting of S. Mahesh, B. Prasad, I.D. Mall and I.M. Mishra are in the process of filing.

i. Batch and continuous electrochemical treatment of wastewaters from agri-raw material based pulp and paper mills having no recovery units.

ii. Management of sludge obtained from electrochemical treatment of pulp and paper mill wastewater.

17. Details of theses/dissertations supervised

A. Ph.D. Theses

S. No.	Title	Name of Scholar	Year of award	Co-supervisor(s)
1.	Studies on the treatment of phenolic waste waters using adsorption and immobilized whole cells	M.M. Swamy	1998	Dr I.M. Mishra Dr I.D. Mall
2.	Biomass characterization and gasification in a fluidized bed	P.B. Gangavati	2002	Dr I.M. Mishra
3.	Treatment of textile mill wastewater	Pradeep Kumar	2007	Dr Shri Chand
4.	Electrochemical treatment of wastewater from agri-based pulp mill	Mahesh Kumar	2007	Dr I.D. Mall
5.	Removal of acrylonitrile and acrylic acid from aqueous solution using adsorption	Arvind Kumar	2008	
6.	Studies on treatment of petrochemical wastewater	Shilpi Verma	2013	
7.	Co-processing of biomass derived fast pyrolytic oil with vacuum gas oil in a FCC unit	Deswat Biswanath Naik	2016	Dr M.O. Garg (IIP Dehradun) Dr Vimal Kumar
8.	Studies on catalytic desulfurization of liquid fuels	T. Sandeep Kumar	2016	Dr V.C. Srivastava
9.	Studies on refinery wastewater treatment employing electrocoagulation	K.K. Garg	2016	
10.	Electrochemical treatment of petrochemical wastewater	Vishal Kumar Sandhawar	In progress	
11.	Removal of heavy metals from waste water using fly ash	Soumitra Maiti	In progress	Dr A.K.Minocha, (CBRI, Roorkee)
12.	Treatment of resin industry wastewater by advanced oxidation process	Arvind Kumar	In progress	

B. M.E./M.Tech. Dissertations

S. No.	Title	Name of student	Year of award	Co-supervisor
1.	Studies on biomass gasification	S.K. Sharma	1988	Dr I.M. Mishra
2.	Development of adsorption tubes for the determination of VOCs	M. Kaif	2001	
3.	Development of recovery and reuse system for ozone depleting chlorofluoro refrigerants	Deepak Gupta	2001	
4.	Kinetics of biomass gasification	M.J. Safi	2002	
5.	Modelling of environmental leachability of petroleum refinery oily sludge	S.K. Sharma	2002	R.B. Singh, EIL, NEW Delhi
6.	Modelling of L-glutamic acid fermentation	S. Prasad	2003	
7.	Dust emission due to vehicular traffic	Arvind Kumar	2003	
8.	Gasification in a fluidized bed reactor	Anand Singh	2004	
9.	Studies on biodiesel production	B.K Barnwal	2004	Dr M.P. Sharma, AHEC
10.	Studies on pyrolysis of biomass	Rahul S. Bhishikar	2005	
11.	Chromium removal from electroplating sludge	Praveen Bansal	2005	
12.	Oil field effluent treatment for safe disposal by electroflotation	Rupesh Bande	2006	
13.	Nickel hydroxide recovery from stainless steel pickling liquor by selective precipitation method	P. Dhanasekaran	2006	

14.	Studies on removal of chlorobenzene by adsorption	Ravi Rajoria	2006	
15.	Studies on fludized bed gasification of biomass	Abhishek Ranjan	2007	
16.	Heavy metal removal from wastewater by tea factory waste	Mohammad Atif	2007	Dr K. L. Wasewar
17.	Removal of tin from synthetic waste water	Shiv Kumar	2007	
18.	Studies on particle characteristics and pressure drop in granular media filtration	Indu Gupta	2007	
19.	Flash pyrolysis of biomass for bio oil	Vineet Kumar	2008	
20	Removal of VOC using activated carbon	Kamlesh Singh	2008	
21.	Densification of biomass	Varun Panwar	2008	
22.	Studies on removal of selenium from water by adsorption	C.S. Gulipalli	2008	
23.	Mathematical Simulation of Fluidized Bed Reactor for Dimethyl ether Synthesis from Syngas	Narendra Kumar	2008	
24.	Studies on densification of biomass for usage in brick kilns	Rahul Chadha	2009	
25.	Modeling and simulation of saline extractive distillation column for production of absolute ethanol	Dheeraj Lalchandani	2009	
26.	Removal of phenol by electro-coagulation and adsorption	Pachimatla Rajesh	2009	
27.	Cold phase studies of biomass and sand in a rotating cone reactor	Naresh. Gaddapati	2009	
28.	Modelling of ethanol steam reforming in a packed bed tubular reactor	Anshul Kumar	2010	
29.	Process hazard analysis of ethyl acetate plant using HAZOP	Parkhe B. Rangnath	2010	
30.	Quantitative risk assessment of a delayed coker unit	Muneshwar Anand	2010	
31.	Phosphate removal by electrocoagulation	Jaymant Jha	2010	
32.	Assessment of ambient air quality at Greater Noida	Mohit Yadav	2011	
33.	Quantitative risk assessment of FCC unit of in petrochemical complex	Manish Shrivastava	2011	
34.	Studies on removal of Boron by electrocoagulation	K. K. Garg	2011	
35.	Mixing characteristics of sand and biomass in a rotating cone reactor	Ankit Raj	2011	
36.	Modelling and simulation of fluidized bed biomass gasifier	Amit Sharma	2011	
37.	Risk assessment of Catalytic reforming unit	Manish Chaudhary	2012	
38.	Removal of colour from waste water of pulp and paper industry	Alok Rai	2012	
39.	HAZOP study of Hydrogen production unit of a petroleum refinery.	Bhupendra Suryavanshi	2012	
40.	Fast pyrolysis of corn stalks	Nikhil Sinha	2012	
41.	Measurement of risk and reliability of cement industry.	Harish Mahawar	2012	
42.	Removal of heavy metals from electroplating wastewater using electrochemical methods	Vidya Sagar Jagati	2013	
43.	Pyrolysis of scrap tyres	Arjeet Maheshwari	2013	
44.	Adsorptive removal of hexavalent chromium and COD from electroplating waste water by corncobs based activated carbon	Prashant Rawat	2013	
45.	Removal of Bromate from water by granuular ferric hydroxide	Suneel Yadav	2014	

46.	Chemical reduction of nitrate bearing waste water by zero valent iron	Ashish Kumar	2014	
47.	Adsorptive removal of hexavalent chromium from tannery waste water by corncobs based activated carbon	Sandeep Singh	2014	
48.	Treatment of Petroleum refinery wastewater using electrocoagulation	Pallam Uday Bhanu	2014	
49.	Mathematical modelling and simulation of FCC riser rector	Shikha Dhankar	2014	
50.	Simulation and intgerration analysis of gas to liquid fuels	Sohaj Singh Brar	2014	
51.	Adsorptive removal of heavy metals from electroplating waste water using coconut shell activated carbon	Amit Singh	2015	
52.	Adsorption of fluoride ions from waste water using flyash	Pushpendra Singh	2015	
53.	Modelling and simulation of biodiesel production employing membrane reactor coupled with a pre - reactor	Kapil Chandra Suyal	2015	
54.	Methanol production from sysngas by tri-reforming process: simulation and optimization	Varun Rajeevkumar Lohia	2015	
55.	Simulation of CO_2 removal from coal fired power plant	Rishabh Johri	2016	
56.	Electrochemical treatment of phosphate fertilizer industry waste water	Jitendra Kumar	2016	
57.	Absorptive removal of cadmium from metal plating industry wastewater	Rajendra Kumar Senapati	2016	
58.	Modelling and simulation of bubbling fluidized bed pyrolyser for pyro oil production	Devesh Kumar Shrivastava	2016	
59.	Studies on the treatment of pharmaceutical wastewater by coagulation and Fenton methods	Pushpraj Choudhary	2017	

Details of Research Publications

A. In Peer-Reviewed Journals

1. V.K. Sandhwar, B. Prasad, Comparative study of electrocoagulation and electrochemical Fenton treatment of aqueous solution of benzoic acid (BA): Optimization of process and sludge analysis, Korean J. Chem. Eng., 34 (2017)1062-1072.
2. V.K. Sandhwar, B. Prasad, A comparative study of electrochemical treatment of para-Toluic Acid (p-TA) from aqueous solution, Water Conserv. Sci. Eng. 1, (2017) 257–270.
3. V.K. Sandhwar, B. Prasad, Terephthalic acid removal from aqueous solution by electrocoagulation and electro-Fenton methods: process optimization through response surface methodology, Process Saf. Environ. Prot. 107 (2 017) 269–280.
4. V.K. Sandhwar, B. Prasad, A comparative study of electrochemical degradation of benzoic acid and terephthalic acid from aqueous solution of purified terephthalic acid (PTA) wastewater, Journal of water process engineering. doi: 10.1016/j.jwpe.2017.03.006.
5. V.K. Sandhwar, B. Prasad, Comparative study of electrochemical oxidation and electrochemical Fenton processes for simultaneous degradation of phthalic and para-toluic acids from aqueous medium, J. Mol. Liq. 243 (2017) 519–532.
6. V.K. Sandhwar, B. Prasad, Comparison of phthalic acid removal from aqueous solution by electrochemical methods: Optimization, kinetic and sludge study, J. Environ. Manage. 203 (2017) 476-488.
7. K.K. Garg, B. Prasad , Treatment of toxic pollutants of purified terephthalic acid waste water: A review. Enviro. Tech. & Inno.. 8 (2017) 191-217.
8. D.V.Naik, V. Karthik, V. Kumar, B. Prasad, Garg, M.O., 2017. Kinetic modeling for catalytic Cracking of pyrolysis oils with VGO in a FCC unit. Chem. Eng. Sci.170, 2017,790-796.
9. K. K. Garg, B. Prasad, Treatment of multicomponent aqueous solution of purified terephthalic acid wastewater by electrocoagulation process: optimization of process and analysis of sludge, J. Taiwan Inst. of Chem. Eng., 60, 2016, 383-393.
10. K. K. Garg, B. Prasad, Development of Box Behnken design for treatment of terephthalic acid wastewater by electrocoagulation process: optimization of process and analysis of sludge, J. Environ. Chem. Eng., 04, 2016, 178-190.
11. S. Mahesh, K.K. Garg, V.C. Srivastava, B. Prasad, I.D. Mall, I.M. Mishra, Continuous electrocoagulation treatment of pulp and paper mill wastewater: operating cost and sludge study, RSC Adv., 06, 2016, 16223-16233.
12. K. K. Garg, B. Prasad, Removal of para-toulic acid (p-TA) from purified terephthalic acid (PTA) wastewater by electrocoagulation process, J. Environ. Chem. Eng., 03, 2015, 1731-1739.
13. K.K. Garg , B. Prasad , Electrochemical treatment of benzoic acid (BA) from aqueous solution and optimization of parameters by response surface methodology (RSM). Journal of the Taiwan Institute of Chemical Engineers. 56, 2015, 122-130.
14. K. K. Garg, B. Prasad, Removal of Br- and NO3- ions from petroleum refinery wastewater by electrocoagulation process, Int. J. Chem. & Bio. Sci., 04, 2015, 35-48.
15. K. K. Garg, P. Rawat, B. Prasad, Removal of Cr (VI) and COD from electroplating wastewater by corncob based activated carbon, Int. J. Water and Waste Water Treatment, 1(1), 2015, 1-9.
16. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Poddar, M.K.; Bal, R.; Khatri, O.P.; Adhikari, D.K.; Garg, M.O., Catalytic cracking of jatropha-derived fast pyrolysis oil with VGO and their NMR characterization, RSC Adv. 5, 398-409, 2015.
17. K. K. Garg, B. Prasad and V.C. Srivastava, Comparative study of industrial and laboratory prepared purified terephthalic acid (PTA) wastewater with electro-coagulation process, Sep. and Puri. Tech., 128, 2014, 80-88.
18. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Atheya, N.; Singh, K.K.; Adhikari, D. K.; Garg, M. O., Catalytic cracking of pyrolysis oil oxygenates (aliphatic and aromatic) with vacuum gas oil and their characterization, Chem. Eng. Res. Des., 92, 1579-1590, 2014a.

19. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Atheya, N.; Adhikari, D. K.; Nigam, K.D.P.; Garg, M. O., Catalytic cracking of C2-C3 carbonyls with vacuum gas oil, Ind. Eng. Chem. Res., 53, 49, 18816-18823, 2014b.
20. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Singh, K.K.; Bangwal, D.P.; Atheya, N.; Garg, M. O., Catalytic Cracking of Glycerol to Fine Chemicals over Equilibrium Fluid Catalytic Cracking Catalyst, Energy Procedia, 54, 593-598, 2014c.
21. N. S. Khan, R.P. Singh and B. Prasad, Modeling the Diffusional Mass Transfer of Glucose in Microbial Production of L-glutamic Acid, Inter. Rev. Appl. Eng. Res., 3(1), 2013, 45-54.
22. N. S. Khan, R.P. Singh and B. Prasad, Modeling the Fermentative Production of L-Glutamic Acid by Corynebacterium Glutamicum in a Batch Bioreactor, Inter.J. Eng. Sci. and Techn., 5(1), 2013, 192-199.
23. K. K. Garg, B. Prasad, S. Verma, Removal of boron from waste water by electro-coagulation process, In. J. Applied Eng. Res. 1(1), 2013, 61-72.
24. S. Verma, B. Prasad, I.M. Mishra, Thermochemical Treatment (Thermolysis) of Petrochemical Wastewater: COD Removal Mechanism and Floc Formation. Ind. Eng. Chem. Res., 50 (9), 2011,5352–5359.
25. S. Verma, B. Prasad and I.M Mishra, Pretreatment of Petrochemical Wastewater by Coagulation and Flocculation and the Sludge Characteristics, J. Hazard. Mater., 178, 2010, 1055-1064.
26. Arvind Kumar, B. Prasad and I. M. Mishra, Isotherm and Kinetics Study for Acrylic Acid Removal Using Powdered Activated Carbon, J. Hazard. Mater., 176 (1-3), 2010, 774-783.
27. Arvind Kumar, B. Prasad and I. M. Mishra, Optimization of Acrylonitrile Removal by Activated Carbon-Granular Using Response Surface Methodology, Can. J. Chem. Eng., 84 (4), 2009, 637-643.
28. B. Prasad and I.M. Mishra, Mass Transfer Effects and Kinetics of Gaden Type I Fermentations Using Immobilized Whole Cells in a CSTB, Chemical Engineering Transactions, 17, 2009, 135-140.
29. K. L. Wasewar, B. Prasad and Sekhararao Gulipalli, Removal of Selenium by Adsorption on to Granular Activated Carbon (GAC) and Powdered Activated Carbon (PAC), CLEAN: Soil, Water, Air, 37(11), 2009, 827-883.
30. K. L. Wasewar, Sekhararao Gulipalli and B. Prasad, Adsorption of Selenium Using Bagasse Fly Ash (BFA), CLEAN: Soil, Water, Air, 37(7), 2009, 534-543.
31. K. L. Wasewar, S. Kumar and B. Prasad, Adsorption of Tin Using Granular Activated Carbon, J. Env. Prot. Sci.,3, 2009, 41-52.
32. Kailas L. Wasewar, Mohammad Atif, B. Prasad and I. M. Mishra, Batch Adsorption of Zn Using Tea Factory Waste as an Adsorbent, Desalination, 244, 2009, 66-71.
33. Kailas L. Wasewar, Mohammad Atif, B. Prasad and I. M. Mishra, Adsorption of Zn Using Factory Teawaste: Kinetics, Equilibrium and Thermodynamics, CLEAN: Soil, Water, Air, 36(3), 2008, 320-329.
34. R. M. Bande, B. Prasad, I. M. Mishra and Kailas L. Wasewar, Oil Field Effluent Water Treatment for Safe Disposal by Electroflotation, Chem. Eng. J., 137, 2008, 503-509.
35. Arvind Kumar, B. Prasad and I.M. Mishra, Adsorptive Removal of Acrylonitrile using Powdered Activated Carbon, J. Env. Prot. Sci., 2, 2008, 54-62.
36. Kailas L. Wasewar, Shiv Kumar, B. Prasad and Mohammad Atif, Characterization of Tea Factory Waste as an Adsorbent, J. Fut. Eng. & Technol., 3(3), 2008, 49-55.
37. Arvind Kumar, B. Prasad and I.M. Mishra, Adsorptive Removal of Acrylonitrile using Powdered Activated Carbon, J. Env. Prot. Sci., 2, 2008, 54-62.
38. V.C. Srivastava, B. Prasad, I.M. Mishra, I.D. Mall and M.M. Swami, Prediction of Breakthrough Curves for Sorptive Removal of Phenol by Bagasse Fly Ash Packed Column, Ind. Eng. Chem. Res., 47(5), 2008, 1603-1613.
39. Pradeep Kumar, B. Prasad, I.M. Mishra and Shri Chand, Decolorization and COD Reduction of Dyeing Wastewater from a Cotton Textile Mill using Thermolysis and Coagulation, J. Hazard. Mater., 153, 2008, 635-645.
40. Arvind Kumar, B. Prasad and I.M. Mishra, Adsorptive Removal of Acrylonitrile by Commercial Grade Activated Carbon: Kinetics, Equilibrium and Thermodynamics, J. Hazard. Mater., 152, 2008, 589-600.
41. Pradeep Kumar, B. Prasad, I.M. Mishra and Shri Chand, Treatment of Composite Wastewater of a Cotton Textile Mill by Thermolysis and Coagulation, J. Hazard. Mater., 151, 2008, 770-779.

42. Arvind Kumar, B. Prasad and I.M. Mishra, Optimization of Process Parameters for Acrylonitrile Removal by a Low-cost Adsorbent using Box–Behnken Design, J. Hazard. Mater., 150(1), 2008, 174-182.
43. Pradeep Kumar, B. Prasad, I.M. Mishra and Shri Chand, Catalytic Thermal Treatment of Desizing Wastewaters, J. Hazard. Mater., 149(1), 2007, 26-34.
44. Arvind Kumar, B. Prasad and I.M. Mishra, Process Parametric Study for Ethene Carboxylic Acid Removal onto Powder Activated Carbon using Box-Behnken Design, Chem. Eng. Technol., 30(7) 2007, 932-937.
45. Ravi Kumar Rajoria, B. Prasad, I.M. Mishra and Kailash L. Wasewar, Adsorption of Benzaldehyde on Granular Activated Carbon: Kinetics, Equilibrium and Thermodynamics, Chem. Biochem. Eng., 22(3) 2007, 219-226.
46. Mahesh S., B. Prasad, I.D. Mall and I.M. Mishra, Electrochemical Degradation of Pulp and Paper Mill Waste Water: Part 2- Characterization and Analysis of Sludge, Ind. Eng. Chem. Res., 45(16), 2006, 5766-5774.
47. Mahesh S., B. Prasad, I.D. Mall and I.M. Mishra, Electrochemical Degradation of Pulp and Paper Mill Waste Water: Part I-COD and Color Removal, Ind. Eng. Chem. Res., 45(8), 2006, 2830-2839.
48. V.C. Srivastava, M.M. Swami, I.D. Mall, B. Prasad and I.M. Mishra, Adsorptive Removal of Phenol by Bagasse Fly Ash and Activated Carbon: Equilibrium, Kinetics and Thermodynamics, Colloids and Surfaces A: Physicochem. Eng. Aspects, 272, 2006, 89-104.
49. N.S. Khan, I.M. Mishra, R.P. Singh and B. Prasad, Modelling the Growth of Corynebacterium glutamicum Under Product Inhibition in L-Glutamic Acid Fermentation, Biochem Engg. J., 25, 2005,173-178.
50. P.B. Gangavati, M.J. Safi, A. Singh, B. Prasad and I.M. Mishra, Pyrolysis and Thermal Oxidation Kinetics of Sugar Mill Press Mud, Thermochim. Acta, 428, 2005, 63-70.
51. M.J. Safi, B. Prasad and I.M. Mishra, Global Degradation Kinetics of Pine Needles in Air, Thermochim. Acta, 412, 2004, 155-162.
52. I.D. Mall, D. Singh, A.K. Singh, B. Prasad and I.M. Mishra, Detoxification Using Low Cost Adsorbents: Removal of Tetrachlorocatecol, IPPTA, 14(4), 2002,43-47.
53. I.D. Mall, P.M. Pandey, B. Prasad and Arvind K Singh, Removal of 2,4 D Bearing Wastewaters using Bagasse Fly Ash and Activated Carbon, Chemical Engg. World, 36 (12), 2001, 156-159.
54. M.M. Swamy, I.D. Mall, B. Prasad and I.M. Mishra, Sorption Characteristics of O-cresol on Bagasse Fly ash and Activated Carbon, Ind. Jl. Env. Health, 40(1), 1998, 67-78.
55. M.M. Swamy, I.D. Mall, B. Prasad and I.M. Mishra, Resorcinol Removal from Aqueous Solution by Bagasse Fly Ash and Activated Carbon: Batch and Column Studies, IE (I) J. En. 77(2), 1997, 49-55.
56. M.M. Swamy, I.D. Mall, B. Prasad and I.M. Mishra, Removal of Phenol by Adsorption on coal Fly Ash and Activated Carbon, Pollution Research, 16(3), 1997, 170-178.
57. B. Prasad and I.M. Mishra, On the Kinetics and Effectiveness of Immobilized Whole Cell Batch Cultures, Bioreso. Technol., 53, 1995, 269-275.
58. M.P. Sharma and B. Prasad, Bio-Energy Based Conservation of Conventional Fuel Resources, J. Natural Conservation, 1(2), 1989, 107-114.
59. M.P. Sharma and B. Prasad, Development of a Downdraft Biomass Gasifier for Thermal and Power Generation Applications, Energy Management, 11(4), 1986, 297-304.

B. Papers Presented in Seminars/Conferences

1. Sandhwar V.K., Prasad B., Treatment of Phthalic Acid from Aqueous Medium by Electrocoagulation using Aluminum Electrodes: Optimization by Response Surface Methodology. 6th World Conference on Applied Sciences, Engineering & Technology, 26-27 August 2017, UMPO, Indonesia, ISBN 13: 978-81-930222-3-8, pp 026-031.
2. Kumar Arvind, Prasad, B, "Treatment of Styrene from Aqueous Solution by Coagulation Flocculation Methods" 6th World Conference on Applied Sciences, Engineering & Technology, 26-27 August 2017, UMPO, Indonesia, ISBN 13: 978-81-930222-3-8, pp 017-021.
3. Naik, D.V; Kumar, V.; Prasad, B.; Kumar, R., A perspective of fast pyrolysis oil processing in refinery. 4th International Conference on Sustainable Development, SUSCON-2015, IIM Shillong, India, March 11-13, 2015.
4. Naik, D.V; Kumar, V.; Prasad, B.; Poddar, M.K.; Atheya, N.; Singh, K.K.; Adhikari, D.K.; Garg, M.O., Processing of fast pyrolysis oil-derived tar fraction in fluid catalytic cracking unit. 21st World Petroleum Congress, Moscow, Russia, 15-19 June, 2014.
5. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Singh, K.K.; Bangwal, D.P.; Atheya, N.; Gupta, P.; Adhikari, D. K.; Garg, M. O., Catalytic cracking of biomass-derived glycerol to fine chemicals in a refinery FCC unit. 4th International conference on advances in energy research (ICAER-2013), 10-12 December, 2013b.
6. Naik, D.V; Kumar, V.; Prasad, B.; Behera, B.; Bal, R.; Poddar, M.K.; Atheya, N.; Singh, K.K.; Adhikari, D.K.; Garg, M.O., Co-processing of upgraded fast pyrolysis oil in fluid catalytic cracking unit. 18th Refinery Technology Meet (RTM-2013), 11-13 November, 2013a.
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SHORT TERM SPECILITY COURSES CONDUCTED

1. Renewable Energy Source Development Technology, 1996

2. Round Table Meet on Cogeneration in Sugar Industry, 2001

REVIEW/RESEARCH/DESIGN/FEASIBILITY REPORTS

S. No.	Title	Name of Sponsoring Agency	Co-author	No. of pages
1.	Detailed project report for 25 MW solar thermal power station at Etah, U.P.	Council of Science and Technology, U.P., Lucknow	Dr. M.P. Jain and N.K. Saxena	153
2.	Detailed project report (DPR) of eight small hydro power projects in the U.P. Hills	Non-Conventional Energy Development Agency, U.P. Lucknow	Mukesh Singhal	Approximately 50 each
3.	Environmental and energy audit of Jagraon sugar factory	Federation of Punjab Sugar Mills, Chandigarh	Dr. P.S. Panesar	122
4.	Rapid EIA of Doiwala sugar mills	U.P. State Sugar Corporation Ltd., Lucknow	Dr. P.S. Panesar Dr. I.M. Mishra	253
5.	Design of heat recovery system for Cupola	M/s Sterling Machine Tools, Agra	Dr. P.S. Panesar	17
6.	Development of micro & low head hybrid electric project	Ministry of Non-Conventional Energy Sources, Delhi	Prof. O.D. Thapar	33
7.	Detailed offer for Environmental Impace Assessment of Obra and Harduaganj Thermal Power Stations	M/s Premier Energy Technologies Ltd., New Delhi	Dr. R.P. Saini	8
8.	Preliminary Report on Pollution Control Measures	M/s Kirti Paper Manufacturing Company, Muzaffarnagar	-	12
9.	Preliminary report on Pollution Control Measures	M/s Hindana Milk Projects (P) Ltd., Muzaffarnagar	-	17
10.	Disaster and Safety Management Plan	M/s Khusal Polymers India (P) Ltd., Muzaffarnagar	-	6

11.	Preliminary report on Pollution control Measures for 3 MW cogeneration plant	M/s Bindals Duplex Ltd., Bhopa Road, Muzaffarnagar	-	19
12.	Pollution Control measure for Pesticide Unit	M/s Harit Pesticides, Near Rana Steel, Dehradun Road, Saharanpur	-	9

NATURAL GAS BASED CUPOLA

A natural gas based rotary furnace having provision for heat recovery through a set of heat exchangers was designed, got fabricated, installed and operated at M/s Sterling Machine Tools, Agra. The complete system is running satisfactorily.

The developed design has proved to be successful in replacing the existing hard coke cupolas used for cast iron melting. The high temperature required for melting and super heating of cast iron were achieved by preheating the combustion air. The developed system meets the requirements of pollution control boards with respect to SPM, NOx and SO_2 and is also cost effective in comparison with conventional coal fired cupolas.

Membership of Professional Societies

1. The Indian Institute of Chemical Engineers, Calcutta
2. Biomass Energy Society of India, New Delhi
3. Indian Association of Air Pollution Control, New Delhi.