Department of Chemical Engineering

Profile

Prof. (Dr) P N Dange
PhD (Chemical Engineering)
Associate Professor,
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Research Areas / Areas of Interest

Heterogeneous Catalysis, Process Modeling Simulation, Electrochemical Synthesis

Academic Background

S. N0.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Chemical Engineering	ICT Mumbai	--	2018
2	M.Tech.	Chemical Engineering	IIT Kharagpur	Ist (CGPA: 9.11/10)	2008
3	B.Tech	Chemical Engineering	LIT Nagpur	Ist (65.60 %)	1998

Work Experience

S. No.	Type of Experience	Years	Months

1	Teaching	23	10
2	Research (IGCAR Kalpakkam)	02	00
3	Industry 1. Ordnance Factory Bhandara 2. Suparna Chemicals Pvt. Ltd. Mumbai)	1 --	05 04
4.	Others	--	--
Total		**27**	**07**

Subjects / Courses Taught

S. No.	**Subject**	**UG/PG**	**Class (FE/SE/TE/BE/ME)**	**No of times Subject Taught**
1	Fluid Mechanics	UG	SE Chemical	04
2	Chemical Engineering Thermodynamics-I	UG	SE Chemical	02
3	Chemical Engineering Thermodynamics-II	UG	TE Chemical	03
4	Process Modeling and Simulation	UG	BE Chemical	02
5	Nanotechnology (Elective)	UG	BE Chemical	01
6	Advanced Separation Processes	UG	BE Chemical	01
7.	Heat Transfer	UG	SE Chemical	01
8	Computer Aided Chemical Engg.	UG	BE Chemical	04
9	Computational Fluid Dynamics	PG	ME Chemical	04
10	Advanced Process Control	PG	ME Chemical	02
11	Advanced Reaction	PG	ME Chemical	01

	Engineering			
12	Computer Aided Design	PG	ME Chemical	02
13	Advanced Mathematical Methods in Chemical Engineering	PG	ME Chemical	01

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
Journals	04	08	--	08	04
Conferences	--	03	--	--	--

Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1.	Studies on fluidised photo reactors,	P N Dange, Dhirendra	2000	159-161.		Chemical Weekly
2.	Bio-sorption of Chromium (Cr VI) from Aqueous Solutions using Coconut Husk	Prachee Karde, Vivekanand Rathod and P N Dange	2011	491-496.	2231-1963	IJAET, Vol. II (IV)
3.	Synthesis of Methyl Butyrate Using Heterogeneous Catalyst: Kinetic Studies	P. N. Dange, A. Sharma, V. K. Rathod,	2014	1537-1546	1572-879X	Catalysis Letters

4	Ultrasound assisted synthesis of methyl butyrate using heterogeneous catalyst	P. N. Dange, A.V. Kulkarni, V.K. Rathod,	2015	26, 257-264		Ultrasonics Sonochemistry
5	Equilibrium and thermodynamic parameters for heterogeneous esterification of butyric acid with methanol under microwave irradiation	P. N. Dange, V. K. Rathod	2017	64-70	2405-6529	Resource-Efficient Technologies
6	Kinetic and Mass Transfer Studies of Heterogeneous Synthesis of Ethyl Butyrate	P. N. Dange, V. K. Rathod	2019	**55-65**	2572-9896	Catalysis in Green Chemistry and Engineering
	Effect of Stabilizer Addition on Size and Shape of Silver Nanoparticles	Mayuri S. Pawar1, Dr. P. N. Dange, Dr.A. Srinivasa	2021	**1951-1957**	2455-6211	International rnational Journal of All Research Education and Scientific Methods

7	Multicomponent Distillation Column Profile based on iterative convergence method	Rutuparna Thatte, and Dange P. N.	2023	851-861	2349-5162	Journal of Emerging Technologies and Innovative Research
8	An overview of a glyoxal: Production, Applications and Adverse effects	Kedar Chaudhari, Parmanand Dange, Makarand Naniwadekar	2023	3850-3857	1001-4055	Tuijin Jishu/Journal of Propulsion Technology
9	Degradation of Rhodamine dye using a modified flow photocatalytic reactor in the presence of external oxidants	Manisha Bagal, Vijay Mane, Harshal Ambulkar, Bhumika Gawande, Makarand Y. Naniwadekar, Kanchan N. Bawankar, Parmanand N. Dange, Ashish V. Mohod, Parag R. Gogate	2024	3058 to 3070	1939-019X	The Canadian Journal of Chemical Engineering.
10	Redox-tuned core-shell Au nanoparticles encapsulated in benzene sulphonic acid-doped polypyrrole for multiplexed toxic gas detection	Sacchidanand S. Scindia . Parmanand N. Dange	2026	1-24	1388-0764	Journal of Nanoparticle Research

11	Efficient recovery of pyruvic acid via reactive extraction using Tri-n-octylamine in diverse diluents	Amruta T. Mokashi , Parmanand N. Dange , Shashank G. Gaikwad, Kailas L. Wasewar	2026	1-9	1873-3204	Chemical Engineering and Processing - Process Intensification
12	A selective electrochemical strategy for the direct conversion of nitroarenes to anilines- Accepted	Chetan Shende, Parmanand Dange	2026	--	0973-7103	Journal of Chemical Sciences

Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
1.	CFD studies for Absorber Plate of Solar Air Heater, International Conference on Climate Change	C.A. Shende, P. N. Dange,	2019.	International Conference on Energy and Environment January 4-5		VIT Pune
2.	Synthesis of Silver Nanoparticles for Electronics Applications, International Conference on Nanotechnology	A. Dixit, R. Hawaldar, P. Dange, R. Raut,	2018	BVDU NANOCON 2018		Bharati Vidhyapeeth
3.	Radioactive waste disposal : Indian	A. Kulkarni, P. Pawar, P.	2014	National Conference on		AISSMS COE Pune

	scenario, frontier technologies in waste management	N. Dange		frontier technologies in waste management, January 15-17, 2014		
4	Design aspects of photochemical reactor	P. N. Dange, A. Jagtap,	2014	National Conference on frontier technologies in waste management, January 15-17, 2014		AISSMS COE Pune
5	Process Intensification of methyl butyrate synthesis'	P. N Dange, A Ekbote	2015	Sus ChemE -2015 Conference , (Oct 8-9, 2015)		ICT Mumbai
6	Kinetic Modeling of synthesis of butyric acid and methanol: Use of Non-conventional Technologies	P. N Dange, A Ekbote	2016	Chemference, , Dec 03, 2016		IIT Gandhinagar
7	Synthesis of silver nano-particles and its characterization	Amla Dixit, P. N. Dange	2017	33rd national convention of Chemical Engineers on Nanotechnology and its applications for		IEI Regional Centre, Pune

				sustainable development in Chemical Industries September 09-10, 2017.		

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	**03 (Ongoing)**	11	60

Professional Memberships

Professional Body	Level (National/ International)	Type (Fellow/Life/Annual)	Membership No.
IIChE	National	Life Member	**LM-51007**
AIChE	International	Annual	1004032319
International Association of Engineers (IAENG)	International	LM	**Member No: 227353**
ISTE	National	LM	Member ISTE (134137)

Patents / IPR Filed / Granted

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details
1	1. Dr P N Dange 2. Prof Dr Gargi Das 3. Dr P K Das	An online device for in-situ measurement of low gas flow rates: Filed	2008	Filed	(Ref: 990/KOL/2013)

2.	Chetan A Shende P. N. Dange	Electrochemical process for the synthesis of paraaminophenol	2025	Filed	N202521065820

Research Grants Received

S. No	Program	Duration	Funding Agency	Grant Amount
1.	Research Proposal: Effect of Amino acids on metal complexes on nonlinear optical single crystals (Co-investigator)	2014-16	BCUD, SPPU, Pune	INR 2.1 Lacs

Details of Worshop / STTP / FDP / Seminar / Conferences Organized

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
01	Co-ordinated and Organised Department Advisory Meeting-2016	Advisory Meeting	Sept. 24, 2016.	Regional	AISSMS COE Pune
02	A seminar on 'Study Abroad Opportunities and Scholarship' for UG/PG students and faculty on. Dr Hiroshi Yokohama, (Director & Ohio Research Scholar, Liquid Crystal Institute (LCI), and Acting Director & Professor of Chemical Physics	Seminar	October 07, 2015	Regional	AISSMS COE Pune

	Interdisciplinary Program, Kent State University (KSU), Ohio, and USA) was invited for the talks				
03	Advisory Meeting (DAC)-2015.	Advosry Meeting	Oct. 01, 2015.	Regional	AISSMS COE Pune
04	Advisory Meeting (DAC)-2016.	Advosry Meeting	Sept. 24, 2016.	Regional	AISSMS COE Pune
05	Organized and co-ordinated Faculty Development Program on ‘ Pedagogy Practices’ on	FDP	January 16-17, 2018	National	AISSMS COE Pune
06	Organized and co-ordinated Faculty Development Program on ‘Waste Management and Energy Conservation’	FDP	July 14, 2018	Regional	AISSMS COE, Pune
07	ISTE & IE (I) sponsored one Week Orientation Program on ‘Modern Pedagogy and Recent Technological Development’ held at AISSMS COE, Pune during	Orientation Program	Dec. 10-14, 2018	National	AISSMS COE Pune, IEI and ISTE

Contribution as Resource Person

S. No.	Place/ Organization	Topic	Level(National/Int/ State/Regiona	Date

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1	AISSMS COE Pune	Invited to speak in one day workshop on 'CFD governing equations and solution techniques'	Regional	March 22, 2013.
2	MAE Alandi Pune	Invited as judge for Paper Presentation Event organized in' Prakalpa-2014' at MAE Alandi on 5th and	National	6th September, 2014 .
3	AISSMS COE Pune	Invited to speak on 'Nuclear Waste Management' in the national seminar on 'FRONTIER TECHNOLOGIES IN WASTE MANAGEMENT	National	January 15-17, 2014.
4	MAE Alandi Pune	Judging the event for '12th National Chemical Engineering Students Conference "PRAKALP-2016'	National	Aug. 27, 2016.
5	Department of Chemical Engineering, AISSMS COE, Pune	'Process Simulation by UNISIM	Regional	September 07-08, 2016.
6	AISSMS College of Engineering.	Invited as speaker for the national level Seminar 'Advances in Chemical Reactor Design''Ther modynamics and kinetics aspects in heterogeneous reactors'.	National	February 27-28, 2017
7	Vishwakarma Institute of	Invited as judge in the Project competition for BE Chemical	Regional	on May 02, 2017

	Technology, Pune	Students		
8	DYPIEMR Akurdi Pune-411044	Was invited as a Judge for the Technical Event organized by Department of Chemical Engineering,	National	January 12, 2016
9	Institute of Chemical Technology Mumbai on	Was invited as expert for judging the technical event in 'PAPYRUS 2016'	National	October 23, 2016.
10	MAE Alandi, Pune on	Invited for judging the technical competition in 'Prakalp'	National	September 8-9, 2017.
11	Department of Chemical Engineering, AISSMS COE, Pune	Resource person for workshop on 'Process Simulation by UNISIM'	Regional	September 07, and 11, 2017.
12	Institute of Chemical Technology Mumbai	Was invited as expert for judging the technical event in 'PAPYRUS 2017'	National	October 14, 2017.

Details of Worshop / STTP / FDP / Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1	High Impact Teaching Skills a workshop organized by Mission-10X	Work shop	October 21-25, 2008.	Modern College of Engineering, Pune	Wipro Technology
2	Innovation 2008 - a Research Teacher Conference	Confe rence	November 17 – 18, 2008.	SCOE, Pune	University of Pune

3	Indo-German workshop on 'Micro-Reaction Technology'	Work shop	March 4-5, 2009.	National Chemical Laboratory (NCL), Pune	National Chemical Laboratory (NCL), Pune
4	Workshop on 'Advanced Concepts in Chemical Engineering'	Work shop	February 20–22, 2009.	Institute of Chemical Technology, Mumbai	Institute of Chemical Technology, Mumbai
5	Workshop cum Training Course on 'Chemical Engineering Laboratory' organized by ICT Mumbai under UGC Networking Resource Centre from	Work shop	May 29- 31, 2009.	ICT Mumbai	UGC
6	Attended workshop on 'Process Intensification of Chemical Processing Applications' organized by ICT Mumbai, under UGC Networking Resource Centre	Work shop	January 28-30, 2011.	ICT Mumbai	UGC
7	Workshop on 'Alternative Sustainable Processes' organized by ICT Mumbai under UGC Networking Resource Centre during	Work shop	March 14-18, 2012.	ICT Mumbai	UGC
8	Complimentary seminar on 'MATLAB and Simulink for Engineering Education' organized by Mathworks India Private Limited at Mumbai	Semin ar	September 07, 2012.	Mathworks India Private Limited at Mumbai	Mathworks India Private Limited at Mumbai
9	Attended Training Program on 'Environmental Management & Waste Water Treatment' at RCF, Chembur,Mumbai	Traini ng	September 25-26, 2012.	RCF, Chembur, Mumbai	RCF, Chembur, Mumbai
10	Participated in workshop on 'Process Intensification' held at	Work shop	Jan.9-10, 2015.	AISSMS COE Pune	AISSMS COE Pune
11	National level seminar on' Sustainable Technologies for Specialty and Fine Chemicals'	Semin ar	March 18-19, 2016.	AISSMS COE Pune	AISSMS COE Pune
12	One day workshop on 'Virtual Labs'	Work shop	August 04, 2017.	AISSMS COE Pune	AISSMS COE Pune

Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1	Head of the Department of Chemical Engineering from July, 2010 to June, 2014 at Department of Chemical Engineering, AISSMS COE, Pune
2	Subject Chairman at SPPU in the following subject : a. Advanced Reaction Engineering (ME Chemical, 2012 Course) b. Computational Fluid Dynamics (ME Chemical, 2008 Course) c. Petroleum Refining (BE Chemical, 2012 Course) d. Computer Aided Process Control (BE Chemical, 2008 Course) e. Chemical Engineering Thermodynamics (TE Chemical, 2019 Course) f. Computational Fluid Dynamics (BE Chemical, 2019 Course) g. Chemical Process Safety (BE Chemical, 2015 Course)
3	Served as Sr Supervisor for SPPU university examination (PG) (April/May 2016)
4	Worked as a Co-ordinator for SE Online Examination (Phase I and Phase II) at Institute (Term-II, AY 2015-16)
5	Served as Sr Supervisor for SPPU University Examination (UG) (Nov. /Dec. 2016)
6	Served as Sr Supervisor for SPPU University Examination (UG) (Nov. /Dec. 2016)
7	Co-ordinator for Continuing Education and Staff Development from September 2017 onwards
8	Member, Board of Studies (BOS), SPPU, Pune
9	Head of the Department of Chemical Engineering from June, 2019 onwards at Department of Chemical Engineering, AISSMS COE, Pune

Awards Received

S. No.	Awards
1.	UGC Scholarship of Rs 8000 per month from July 2006 to May 2008 at IIT Kharagpur for PG Program in Chemical Engineering.

Declaration: I hereby declare that all the statement made above are correct to the best of my knowledge and belief.

Dr P N Dange