



## Department of Chemical Engineering

### Faculty Profile

#### Prof.(Dr) Suhas B Ghugare

PhD (Chemical Engineering)

Assistant Professor

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🌐 <https://scholar.google.com/citations?user=Zi3xtvIAAAAJ&hl=en&oi=sra>

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#### ResearchAreas/ Areas of Interest

Artificial Intelligence applied to Chemical Engineering Systems, Process Control

#### Personal Details

**Date of Birth :** 20 / 04 / 1973

**Domicile:** Maharashtra

**Gender :** Male

**Blood Group:** AB+ve

**Contact Details:** Dept. of Chem. Engg., AISSMSCOE, Pune-1

## Academic Background

S. NO.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Chemical Engineering	Pune	--	March 2018
2	M.E.	Chemical Engineering	Pune	I <sup>st</sup> with Distinction	Oct 2007
3	B.E.	Chemical Engineering	Pune	I <sup>st</sup>	Aug 1995
4	GATE2000	Chemical Engineering	IITK	89.45%	2000

## Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	24	00
2	Research	10	00
3	Industry	1	00
4.	Others	--	--
<b>Total</b>		<b>25</b>	<b>00</b>

## Subjects/Courses Taught

S. No.	Subject	UG/PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Process Dynamics & Control	UG	BE (Chemical)	06
2	Process Instrumentation & Control	UG	TE (Chemical)	03
3	Principles of Design	UG	SE (Chemical)	03

4	Computer Aided Chemical Engineering-I	UG	TE (Chemical)	03
5	Computer Aided Chemical Engineering-II	UG	BE (Chemical)	02
6	Advanced Process Control	PG	FYME (Chemical)	05
7	Advanced Thermodynamics	PG	SYME (Chemical)	04

### Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
<b>Journals</b>	01	07	00	07	07
<b>Conferences</b>	00	01	01	01	--

### Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ISSN	Publisher
1.	Prediction of higher heating value of solid biomass fuels using artificial intelligence formalisms	Ghugare, S. B., S. Tiwary, V. Elangovan, and S. S. Tambe.	2014	BioEnergy Research, 7(2), 681-692.	ISSN 1939-1234	Springer
2.	Genetic programming based high performing correlations for prediction of	Ghugare, S. B., & Tambe, S. S.	2017	Journal of the Energy Institute, 90(3), 476-484.	ISSN: 1743-9671	Elsevier

	higher heating value of coals of different ranks and from diverse geographies.					
3.	Computational intelligence based models for prediction of elemental composition of solid biomass fuels from proximate analysis.	Ghugare, S. B., Tiwary, S., & Tambe, S. S.	2017	International Journal of System Assurance Engineering and Management, 8(4), 2083-2096.	ISSN: 0976-4348	Springer
4.	Co-gasification of High Ash Coal–Biomass Blends in a Fluidized Bed Gasifier: Experimental Study and Computational Intelligence-Based Modeling.	Tiwary, S., Ghugare, S. B., Chavan, P. D., Saha, S., Datta, S., Sahu, G., & Tambe, S. S. (2020).	2020	Waste and Biomass Valorization, 11(1), 323-341.	ISSN: 1877-2641	Springer
5.	Optimization of fixed bed defluoridation	Attar, S. J., Dey, A. K., &	2007	Chemical engineering world, 42(9).	ISSN: 0009-2517	Jasubhai Media

	process using neural networks.	Ghugare, S. B.				
6.	Stability Studies on Breakage and Coalescence of Emulsion Liquid Membrane in Multiphase System	Akshay M Parate, S B Ghugare, N Sen	2021	International Journal of Research and Analytical Reviews, August 2021, Volume 8, Issue 3	ISSN 2349-5138	IJRAR
7.	Study of the Effects of Process Parameters on High Shear Wet Granulation	Vinod Kenekar, S B Ghugare	2022	International Journal of Science and Research	ISSN: 2319-7064	IJSR

### Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
1.	Development of genetic programming based softsensor model for styrene polymerization process and its application in model based control.	Ghugare, S. B., & Tambe, S. S.	2016	Indian Control Conference (ICC) (pp. 238-244). IEEE.	ISBN: 978-1-4673-7993-9	IIT Hyderabad, IEEE

**PhD / ME / BE Student Guided for Project**

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	-	02 (guiding)	50+

**Professional Memberships**

Professional Body	Level ( National/ International)	Type (Fellow/Life/Annual)	Membership No.

**Patents/IPR Filed/Granted**

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details

**Books Published**

S. No	Title	Name of the Publisher	ISBN/ISSN Number
1.	Chemical Engineering for GATE & other Competitions	Khanna Publishers, Delhi	ISBN: 81-7409-209-9

**Research Grants Received**

S. No	Program	Duration	Funding Agency	Grant Amount
1.	Research Proposal titled "Biomass Fermentation in a Stirring 5 L Bioreactor"	2012-14	BCUD, SPPU, Pune	INR 0.8 Lacs

**Details of Workshop/STTP/FDP/Seminar / Conferences Organized**

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
1.	Environment and Green Technology for Sustainable Development	Organizing Committee	January 18-19, 2019	National Seminar	Chem. & Civil Engg. Dept., AISSMSCOE
2.	Advances in Chemical Reactor Design	Organizing Committee	February 27-28, 2017	National Seminar	Dept. of Chemical Engg, AISSMSCOE, Pune
3.	Promising and Innovative Young Chemical Engineers (PICE-2017) Conference	Organizing Committee	March 26, 2017	National Conference	Dept. of Chemical Engg, AISSMSCOE, Pune
4.	Water Management in India	Organizing Committee	May 29, 2017	Indo-German International Conference	Dept. of Chemical and Civil Engg, AISSMSCOE, Pune
5.	Research, Innovation and IPR in Chemical Engineering	Organizer	Oct 12, 2021	National Webinar	IIC cell, AISSMSCOE, Pune

### Contribution as Resource Person

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

1.	Department of Computer Engg., in Association with Faculty Development Cell, AISSMSCOE, Pune	DWSIM: Chemical Process Simulation Software	Faculty Development Program on "Software Based Case Studies for Development of Multidisciplinary Projects"	Nov 22, 2021
2.	Organized by Dept. of Information Technology, M.I.T COE in association with Electronics Dept., IIITDM, Jabalpur	Genetic Algorithm and Programming	National Faculty Development Program on "Soft Computing Approaches and Implementation"	21 December 2018
3.	Vishwakarma Institute of Technology (VIT), Pune, organized by the Dept. of Chemical Engg., VIT, Pune.	National Workshop on Artificial Neural Network	National Workshop	1-5 March 2017
4.	AISSMSCOE, Pune-1, Department of Chemical Engineering	Advanced Computational Techniques for Engineering Applications	National Seminar	1 Feb. 2014
5.	Sinhgad College of Engineering, Pune	Application of MATLAB in Chemical Engineering	National Workshop	21 to 23 April 2008

### Details of Workshop/STTP/FDP/Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1.	Development and Impact	FDP	21/06/2020	MGM COE&T,	MGM



	of Recent Technologies & Innovations in Chemical Engineering		to 25/06/2020.	Mumbai-410209	COE&T, Mumbai-410209
2.	Advanced Teaching Tools, Techniques and Methodology for Outcome Based Education	FDP	01/06/2020 to 05/06/2020.	AISSMSCOE, Pune-1 from	AISSMSCOE, Pune-1 from
3.	Promoting Quality Culture in Technical Institutions	FDP	25/05/2020 to 29/05/2020.	AISSMSCOE, Pune-1 from	AISSMSCOE, Pune-1 from
4.	Organic Solar Cells - Theory and Practice, course completed with 98.8% grade marks	Online Course	28/05/2020.	Coursera	Coursera
5.	Anomaly Detection in Time Series Data with Keras, course completed with 100% grade marks	Online Course	20/05/2020.	Coursera	Coursera
6.	Structuring Machine Learning Projects, course completed with 90.8% grade marks	Online Course	12/05/2020.	Coursera	Coursera
7.	Process Simulation using DWSIM	FDP (Training Workshop)	27/04/2020 to 01/05/2020	Dept. of Chem. Engg., AISSMSCOE in association with IITB	AISSMSCOE in association with IITB
8.	Project Based and Student Centric Learning Activities	FDP	23 Feb. 2018	AISSMSCOE, Pune-1	AISSMSCOE, Pune-1
9.	Water Management & Energy Conservation	FDP	14 July 2018	AISSMSCOE, Pune-1	AISSMSCOE, Pune-1
10.	Data Science for Engineers (84% Exam Score)	FDP (AICTE approved FDP NPTEL Course)	Jul-Sep 2019 (8 weeks)	IIT Madras and MHRD Govt. of India	MHRD Govt. of India
11.	Vision-Mission-PEO-PSO-PO-CO: Framing, Mapping, Assessment and Attainment	FDP	10-15 June 2019	AISSMS College of Engg, Pune	ISTE
12.	Nanostuctured Materials in Catalysis	Workshop	25-29 March 2019	SCEO, Pune-41	SCEO, Pune-41
13.	Moodle Learning Management System	Workshop	15 March 2019	Teaching Learning	Teaching Learning

				Centre, IIT Bombay	Centre, IIT Bombay
14.	Optimization in Chemical Engineering (89% Exam Score)	FDP (AICTE approved FDP NPTEL Course)	Jul-Oct 2018 (12 weeks)	IIT Kharagpur and MHRD Govt. of India	MHRD Govt. of India
15.	Chemical Process Instrumentation (All India Topper with 87% Exam Score)	NPTEL Course	Jan-Apr 2018 (12 weeks)	IIT Kharagpur and MHRD Govt. of India	MHRD Govt. of India
16.	Indo-German Conference on "Water Management in India"	National Conference	May 29, 2017	Dept. of Chemical and Civil Engg, AISSMSCOE, Pune	Dept. of Chemical and Civil Engg, AISSMSCOE, Pune
17.	Promising and Innovative Young Chemical Engineers (PICE-2017) Conference	National Conference	March 26, 2017	Dept. of Chemical Engg, AISSMSCOE, Pune	Dept. of Chemical Engg, AISSMSCOE, Pune
18.	Advances in Chemical Reactor Design	National Seminar	February 27-28, 2017	Dept. of Chemical Engg, AISSMSCOE, Pune	Dept. of Chemical Engg, AISSMSCOE, Pune

### Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1.	PG Coordinator of Chemical Engineering Department
2.	NAAC Criteria IV
3.	NBA Criteria VI
4.	Website Coordinator
5.	Moodle Coordinator
6.	Software Lab Incharge

7.	GFM BE Chemical
8.	Department Research Coordinator

### Awards Received

<b>S. No.</b>	<b>Awards</b>
1.	All India Topper in the NPTEL Online Course on "Chemical Process Instrumentation" conducted during the period Jan-April 2018 organized by IIT Kharagpur and funded by MHRD Govt. of India.
2.	Received award of excellence from the All India Shri Shivaji Society on Shahujayanti-2019 on 26/6/2019 for the award of PhD. in Chemical Engineering from SPPU.