AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

Department of Chemical Engineering

Faculty Profile



Prof.(Dr) Suhas B Ghugare
PhD (Chemical Engineering)
Assistant Professor
✉ sbghugare@aissmscoe.com
☎ (020) 26058587; Extn: 1210
https://scholar.google.com/citations?user=Zi3xtvIAAAAJ&hl=en&oi=sra
https://www.linkedin.com/in/suhas-ghugare-ai
https://orcid.org/0000-0001-5211-3240

ResearchAreas/ Areas of Interest

Artificial Intelligence applied to Chemical Engineering Systems, Process Modeling, Simulation and Control, Atomic and Molecular Modeling

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. N0.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Chemical Engineering	Pune	--	March 2018
2	M.E.	Chemical Engineering	Pune	Ist with Distinction	Oct 2007
3	B.E.	Chemical Engineering	Pune	Ist	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	--	--
Total		**25**	**00**

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
Journals	01	07	00	07	07
Conferences	00	01	01	01	--

Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1.	Multi-objective optimization of high-shear wet granulation process for better granule properties and fluidized bed drying characteristics	Kenekar, V. V., Ghugare, S. B., & Patil-Shinde, V.	2023	Powder Technology	ISSN: 0032-5910	Elsevier
2.	Industrial Waste Water	Sushil More,	2023	International Journal of All	ISSN: 2455-6211	IJARESM

	Treatment Using Adsorption by Activated Carbon	Suhas Ghugare, Himanshu Lanke, Kiran Gandhi		Research Education and Scientific Methods		
3.	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
4.	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
5.	Co-gasification of High Ash Coal–Biomass Blends in a Fluidized Bed Gasifier: Experimental Study and Computational	Tiwary, S., Ghugare, S. B., Chavan, P. D., Saha, S., Datta, S., Sahu, G., & Tambe, S.	2020	Waste and Biomass Valorization, 11(1), 323-341.	ISSN: 1877-2641	Springer

	Intelligence-Based Modeling.	S. (2020).				
6.	Genetic programming based high performing correlations for prediction of higher heating value of coals of different ranks and from diverse geographies.	Ghugare, S. B., & Tambe, S. S.	2017	Journal of the Energy Institute, 90(3), 476-484.	ISSN: 1743-9671	Elsevier
7.	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
8.	Prediction of higher heating value of solid biomass fuels using artificial intelligence	Ghugare, S. B., S. Tiwary, V. Elangovan, and S. S. Tambe.	2014	BioEnergy Research, 7(2), 681-692.	ISSN 1939-1234	Springer

	formalisms					
9.	Optimization of fixed bed defluoridation process using neural networks.	Attar, S. J., Dey, A. K., & Ghugare, S. B.	2007	Chemical engineering world, 42(9).	ISSN: 0009-2517	Jasubhai Media

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 Hydrabad, 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 Worshop/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	Organizing	February 27-28, 2017	National Seminar	Dept. of

	Reactor Design	Committee			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.	International Journal "Scientific Reports" of the "Nature" publication house	Invited Peer Reviewer of Research Papers for the International Journal "Scientific Reports" of the "Nature" publication house	International	2025-26
2.	International Journal "Energy Conversion and Management: X", an Elsevier Journal	Invited Peer Reviewer of Research Papers for the "Energy Conversion and Management: X",	International	2025-26

		an Elsevier Journal		
3.	Internatinal journal “Multiscale and Multidisciplinary Modeling, Experiments and Design” of Springer publication house	Invited Peer Reviewer of Research Papers for the International Journal “Multiscale and Multidisciplinary Modeling, Experiments and Design” of Springer publication house	International	2023-24
4.	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
5.	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
6.	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
7.	AISSMSCOE, Pune-1, Department of Chemical Engineering	Advanced Computational Techniques for Engineering Applications	National Seminar	1 Feb. 2014
8.	Sinhgad College of Engineering, Pune	Application of MATLAB in Chemical Engineering	National Workshop	21 to 23 April 2008

Details of Worshop/STTP/FDP/Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1.	Sustainable Waste and Water Management for a Cleaner Environment	FDP	16/03/2026 to 21/03/ 2026	Dept. of Chem. Engg., AISSMSCOE, Pune-1	AISSMSCOE, Pune-1
2.	Engineering Excellence Integrating Thermal, Design, and Material Innovations	FDP	10/04/2025 to 14/04/ 2025	Dept. of Mech. Engg., Dr. D.Y. Patil Institute of Technology Pimpri, Pune-18	Dr. D.Y. Patil Institute of Technology Pimpri, Pune-18
3.	Chemical Process Safety	FDP	16/12/2024 to 20/12/ 2024	Dept. of Chem. Engg., Sinhgad College of Engineering, Vadgaon, Pune-41	Sinhgad College of Engineering, Vadgaon, Pune-41
4.	Novel Technology for Environment and Energy Sustainability	FDP	20/02/2023 to 25/02/2023	Dept. of Chem. Engg., Pad. Dr. V. V. Patil Polytechnic, Loni	Pad. Dr. V. V. Patil Polytechnic, Loni
5.	Energy Trends and Virtual Challenges in Current Scenario	FDP	01/02/2023 to 07/02/2023	Dept. of Petroleum Engg., JCT College of Engineering, Pichanur, Coimbatore	JCT College of Engineering, Pichanur, Coimbatore
6.	Recent Advances in Chemical Engineering-2022	FDP	08/11/2022 to 12/11/2022	Dept. of Chem. Engg., Rajalakshmi Engg. College, Thandalam, Chennai	Rajalakshmi Engg. College, Thandalam, Chennai
7.	Outcome Based Teaching-Learning	FDP	21/03/2022 to 25/03/2022	Dept. of Chem. Engg., Pravara Rural Engg. College, Loni	Pravara Rural Engg. College, Loni
8.	Project Based Learning	STTP/Refresher Program	21/02/2022 to 26/02/2022	Dept. of E&TC, AISSMSCOE, Pune	ISTE & AISSMSCOE, Pune

9.	Sustainability Engineering	FDP ATAL	18/01/2022 to 22/01/2022	Savitribai Phule Pune University (SPPU)	ATAL, AICTE
10.	Challenges and Opportunities in Recent Emerging Technologies	FDP	06/07/2020 to 10/07/2020	Dept. of Chem. Engg., SGGSIE&T, Nanded	TEQIP-III
11.	NAAC Accreditation Process	Worksho p	15/04/2021 to 22/04/2021	PES, Modern College of Arts, Sceince and Commerce	Parmarsh Scheme of UGC
12.	Environment, Energy, Health and Safety: Trends and Industrial Aspects	FDP ATAL	17/05/2021 to 21/05/2021	Karmaveer Kakasaheb Wagh Polytechnic, Nashik	ATAL, AICTE
13.	Development and Impact of Recent Technologies & Innovations in Chemical Engineering	FDP	21/06/2020 to 25/06/2020.	MGM COE&T, Mumbai-410209	MGM COE&T, Mumbai-410209
14.	Advanced Teaching Tools, Techniques and Methodology for Outcome Based Education	FDP	01/06/2020 to 05/06/2020.	AISSMSCOE, Pune-1 from	AISSMSCO E, Pune-1 from
15.	Promoting Quality Culture in Technical Institutions	FDP	25/05/2020 to 29/05/2020.	AISSMSCOE, Pune-1 from	AISSMSCO E, Pune-1 from
16.	Organic Solar Cells - Theory and Practice, course completed with 98.8% grade marks	Online Course	28/05/2020.	Coursera	Coursera
17.	Anomaly Detection in Time Series Data with Keras, course completed with 100% grade marks	Online Course	20/05/2020.	Coursera	Coursera
18.	Structuring Machine Learning Projects, course completed with 90.8% grade marks	Online Course	12/05/2020.	Coursera	Coursera
19.	Process Simulation using DWSIM	FDP (Training Worksho p)	27/04/2020 to 01/05/2020	Dept. of Chem. Engg., AISSMSCOE in association with IITB	AISSMSCO E in association with IITB
20.	Project Based and	FDP	23 Feb.	AISSMSCOE,	AISSMSCO

	Student Centric Learning Activities		2018	Pune-1	E, Pune-1
21.	Water Management & Energy Conservation	FDP	14 July 2018	AISSMSCOE, Pune-1	AISSMSCOE, Pune-1
22.	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
23.	Vision-Mission-PEO-PSO-PO-CO: Framing, Mapping, Assessment and Attainment	FDP	10-15 June 2019	AISSMS College of Engg, Pune	ISTE
24.	Nanostuctured Materials in Catalysis	Workshop	25-29 March 2019	SCEO, Pune-41	SCEO, Pune-41
25.	Moodle Learning Management System	Workshop	15 March 2019	Teaching Learning Centre, IIT Bombay	Teaching Learning Centre, IIT Bombay
26.	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
27.	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
28.	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
29.	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
30.	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

S. No.	Awards
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.