Dr. S. B. Ghugare
Assistant Professor
Department of Chemical Engineering
All India Shri Shivaji Memorial Society's
College of Engineering
Kennedy Road, Pune-411 001
Maharashtra, INDIA

Ph: (Off.) +91 20 26058587, 26057660 Ext. 2118
Ph: (Res.) +91 20 24224933
M: 9767620748
E-mail: sbghugare@aissmscoe.com

Educational Qualifications

1. Ph.D. Chemical Engineering, National Chemical Laboratory (NCL) as research centre, Savitribai Phule Pune University (SPPU)
2. M. E. Chemical Engineering, BVUCOE, Pune
3. B. E. Chemical Engineering, University of Pune (Now SPPU)
4. Diploma in Chemical Engineering, MSBTE, Maharashtra

Experience

Teaching: 21 Years

Industry: 01 Years

Research: 08 Years

Awards/Achievements

- Felicitated by AISSM Society Pune for above 90 % results of students of chemical engineering in taught subjects.
- GATE Chemical Engineering Qualified in 2000 (Per. Score- 89.4) organized by IIT Kharagpur.
- Invited as a Resource Person for National Workshop on "Applications of MATLAB in Chemical Engineering" organized by Department of Chemical Engineering, Sinhgad Institute of Technology (SIT), Pune on 21 April 2008.

- Invitee as a Resource Person for an expert talk in National Seminar on "Advanced Computational Techniques for Engineering Applications", a two days National Level Seminar organized by the Dept. of Chemical Engg, AISSMSCOE, Pune-1 from 31 Jan-1 Feb 2014.

- Invitee as a keynote speaker for the "National Workshop on Artificial Neural Network" at the Vishwakarma Institute of Technology (VIT), Pune, organized by the Dept. of Chemical Engg, VIT, Pune from 1 March-5 March 2017.

Research

- Successfully completed the research project titled, "Biomass fermentation in 5 Lit. stirring bioreactor" that was funded for Rs 80,000/- by BCUD, University of Pune (Now SPPU) for the period 2012-2014.

- Ph.D. Research: Design and Development of Computational intelligence based methodologies for Chemical Engineering and Technology Applications
  Period: 2010-2018
  Status: Completed Successfully

Publications

Journals

National:
- S.B. Ghugare, S. J. Attar, S.C. Dey, "Optimisation of fixed bed Defloridation using Neural Networks ", Chemical Engineering World (Sept.2007), Vol. 42.

International:

- S. B. Ghugare, S. Tiwary, V. Elangovan, S. S. Tambe, 'Prediction of Higher Heating Value of Solid Biomass Fuels Using Artificial Intelligence Formalisms', BioEnergy Research, Volume 7 Number 2 (2014) 7:681-692, ISSN: 1939-1234, DOI: 10.1007/s12155-013-9393-5

- S. B. Ghugare, S. S. Tambe, 'Genetic programming based high performing correlations for prediction of higher heating value of coals of different ranks and from diverse geographies'. Journal of the Energy Institute, 90(3), (2017) 476-484, ISSN: 1743-9671, DOI: 10.1016/j.joei.2016.03.002

- S. B. Ghugare, S. Tiwary, S. S. Tambe, 'Computational intelligence based models for prediction of elemental composition of solid biomass fuels from

proximate analysis', International Journal of System Assurance Engineering and Management, 8(4), (2017) 2083-2096, ISSN: 0975-6809 DOI 10.1007/s13198-014-0324-4

- S. Tiwary, S. B. Ghugare, P. D. Chavan, S. Saha, S. Datta, G. Sahu, S. S. Tambe, 'Co-gasification of High Ash Coal–Biomass Blends in a Fluidized Bed Gasifier: Experimental Study and Computational Intelligence-Based Modeling. Waste and Biomass Valorization', (2018) 1-19, ISSN: 1877-2641, DOI: 10.1007/s12649-018-0378-7

- S. B. Ghugare, S. S. Tambe, (2016, January). 'Development of genetic programming based softsensor model for styrene polymerization process and its application in model based control' In 2016 Indian Control Conference (ICC) (pp. 238-244). IEEE.

Conference

National:
- Paper presented on "Enhancement of cyclone separator performance for air pollution control" in Frontier Technologies in Waste Management, 15-17 Jan 2014 organized by the Dept. of Chemical Engg, AISSMSCOE, Pune-1.

International:
- "Development of Genetic Programming based Softsensor Model for Styrene Polymerization Process and its Application in Model based Control" in Indian Control Conference (ICC) 2016 organized by IIT Hyderabad from 4-6th January 2016.

Regional (University):

- Paper presented on "Biomass Fermentation in a 5 L Stirring Bioreactor" in Innovation-2014, 29th April 2014 BCUD, organized by the University of Pune (SPPU).

Books

- S. B. Ghugare, 'Chemical Engineering for GATE & other Competitions', 1st Ed., 2005, Khanna Publishers, Delhi, ISBN: 81-7409-209-9

Course/Seminar/Symposium/Workshop Organized

- Organized & participated in National Level Symposium on "Durability of Concrete" held at AISSMSCOE, Pune on 1st March 2006.

- Organized & Participated in National Level Students Symposium and Exposition "AISSMS Engineering Today" held at AISSMS COE, Pune in 2006-07

- Organized & Participated in National Level Symposium on "Bioprocess Engineering" held at AISSMSCOE, Pune on 17-18st Oct. 2007.

- Organized & Participated in National Level Students Symposium and Exposition "AISSMS Engineering Today" held at AISSMS COE, Pune in 2007-08

- Organized & Participated in National Level Students Symposium and Exposition "AISSMS Engineering Today" held at AISSMS COE, Pune in 2008-09

- Organized & Participated in National Level Students Symposium and Exposition "AISSMS Engineering Today" held at AISSMS COE, Pune in 2009-10

- Organized & Participated in online Webinar on "Green Energy Simulations" on 25 Feb 2010, 3:30 pm IST at AISSMS COE, Pune

- Organized & Participated in National Level Students Symposium and Exposition "AISSMS Engineering Today" held at AISSMS COE, Pune in 2010-11

- Organized & Participated in online Webinar on "Introduction to MATLAB" on 13 April 2011, 3 pm IST at AISSMS COE, Pune

- Organized an on-line Webinar on "Introduction to MATLAB" on 13th April 2011, 3:00 PM to 4:00 PM for faculty members and students of Chemical Engineering Department in the Department.

- Co-ordinated a video conference spoken tutorial on "Scilab: A mathematical simulation software" for 35 students of chemical engineering jointly with the Spoken Tutorial Team, IIT Bombay on 17 January 2012.

- Co-ordinated the "Troubleshooting" event in annual event: Engineering Today 2012 for the students of chemical engineering.

- Co-ordinated the "Poster Presentation" event in annual event: Engineering Today 2013 for the students of chemical engineering.

- Co-ordinated the "Poster Presentation" event in annual event: Engineering Today 2014 for the students of chemical engineering.

- Co-ordinated the "Quiz" event in annual event: Engineering Today 2015 for the students of chemical engineering.

- Co-ordinated the two days national level workshop on 'Advanced Computational Techniques for Engineering Applications', as a team member in the organizing

committee of the Department of Chemical Engineering, AISSMSCOE, Pune-1 on 31 Jan-1 Feb 2014.

- Co-ordinated the two days national level seminar on 'Sustainable technologies for speciality and fine chemicals', as a team member in the organizing committee of the Department of Chemical Engineering, AISSMSCOE, Pune-1 from 18-19 March 2016.

- Co-ordinated the two days national level seminar on 'Advances in Chemical Reactor Design', as a team member in the organizing committee of the Department of Chemical Engineering, AISSMSCOE, Pune-1 from 27-28 Febraury 2017.

- Co-ordinated the one day national level conference on 'Water Management in India', as a team member in the organizing committee of the Department of Chemical Engineering, AISSMSCOE, Pune-1 in association with VESBE, Hennef, Germany on 29 May 2017.

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Course/Seminar/Symposium/Workshop Attended

- Participated in Linux workshop organized by Computer Engineering Department AISSMS COE, Pune on 11-13 July 2006.

- Participated in one day workshop on Advances in Mathematical Modeling & Simulation in Engineering in 2008-09 at AISSMSCOE, Pune

- Attended an one-day workshop on "Next Two Decades of Chemical Sciences and Technology" in National Chemical Laboratory, Pune on 23rd September 2011, organized jointly by Maharashtra Academy of Sciences and National Chemical Laboratory.

- Attended a two-day seminar on "Future Manufacturing Concepts in the Chemical and Pharmaceutical Industry" organized by UGC Networking Resource Centre, Department of Chemical Engineering, ICT Mumbai on 3rd and 4th February 2012.

- Advanced Computational Techniques for Engineering Applications, a two days national level workshop organized by the Department of Chemical Engineering, AISSMSCOE, Pune-1 on 31 Jan-1 Feb 2014.

Awards/Achievements

- Received award of excellence from the "All India Shri Shivaji Society" on the occasion of Shahujayanti-2019 (26 June 2019) for the award of PhD. in Chemical Engineering from SPPU (Pune University).

- All India Topper in the NPTEL Online Course on "Chemical Process Instrumentation" organized by IIT Kharagpur and funded by MHRD Govt. of India.

Invitation as Resourse Person

- Invitee as a resource person for the national seminar on MATLAB in Chemical Engineering, organized by the Department of Chemical Engineering, Sinhgad College of Engineering (SIT's SCOE), Vadgaon, Pune-41 on 21 -23 April 2008.

- Invitee as a resource person for the national workshop on 'Advanced Computational Techniques for Engineering Applications', organized by the Department of Chemical Engineering, AISSMSCOE, Pune-1 on 31 Jan-1 Feb 2014.

- Invitee as a keynote speaker for the national workshop on "Artificial Neural Network", organized by the Department of Chemical Engineering, Vishwakarma Institute of Technology (VIT), Bibwewadi, Pune-37 on 1-5 March 2017.

- Invitee as a resource person for the national level faculty development program (FDP) on "Soft Computing Approaches and Implementation", organized by the Department of Information Technology, Maharashtra Institute of Technology (MIT), Kothrud, Pune in association with Electronics and ICT academy, PDPM IIITDM, Jabalpur. The session titled "Genetic Algorithm and Programming" was presented in the FDP, which took place from 17- 21 December 2018 in MIT.

Faculty Development Programs (FDP)

- Successfully completed the NPTEL, 8 week (equivalent to 1 week AICTE approved FDP) Online Course on "Optimization in Chemical Engineering" organized by IIT Kharagpur and funded by MHRD Govt. of India with an Elite status (89% marks).

- Participated in the 'Faculty Development Program (FDP)' on "Project Based and Student Centric Learning Activities" organized by the AISSMSCOE, Pune-1 on 23 February 2018.