



Name : Dr. Shambala N Shinde-
Qualification : Ph D Chemical Engineering
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Experience (Years)

Teaching : 23
Industry : --
Research : 20

Portfolio at college level:

1. Coordinator, Research Publication Institute
2. Member, Alumni Association
3. Member, Board of Studies, Department of Chemical Engineering
4. Academic Audit Coordinator, Department of Chemical Engineering

Conferences: National/ International (Participation and publication):

1. Sunita Patil, **S Gadekar-Shinde**, Vapor liquid equilibria of acetic acid-water-ethyl acetate system experimental and modelling, INSDAM 2025, an international Conference on Sustainable Development in Advanced Materials, Manufacturing and Industry 4.0, at KARE, Telangana, 27-28 March 2025.
2. Nishit Shah, Priyanka Walhekar, Niraj Topare, **S. Gadekar-Shinde**, Adsorptive removal of phenol from wastewater using activated carbon, an international conference on novel materials and technologies for energy and Environment applications, at Department of Chemical Engineering Birla Institute of Technology & Science, Pilani - Hyderabad Campus 17th and 18th February 2024.

3. **S. Gadekar-Shinde**, Ravi Bhaskar, Shashank Gaikwad, Reactive extraction of Caproic acid using TOA and 2 Octanol system, an international conference on novel materials and technologies for energy and Environment applications, at Department of Chemical Engineering Birla Institute of Technology & Science, Pilani - Hyderabad Campus 18th and 19th February 2022.
4. **S. Gadekar-Shinde**, D. R. Saini, S. M. Mahajani, Synthesis of Methoxy Propyl Acetate, ISCRE - 23: an international Conference on Chemical reaction Engineering, Kaulalumpur, Bangkok, 7-10 September 2014.
5. **S. Gadekar-Shinde**, S. M. Chavan, D.R. Saini, Isobaric vapor liquid equilibrium for acetic acid and anisole system, an international conference **CHEMCON**, Punjab University Chandigarh, 26-30 December 2014.
6. **S Gadekar**, K S Kulkarni, Residue Curve Map for non-ideal Systems. All india Seminar on catalyzing Vision 2020, NIT, Rourkela 14-15 September 2006.
7. **S Gadekar**, K S Kulkarni, V V Patil, S J Raut. Application of Residue Curve Map for Non ideal systems. Indo –Italian Brainstorming workshop at BVDUCOE-Pune 43, 5, 6 December 2005.

Publications: National/ International Journal

1. Ganesh Bhoj, Sunita Patil, Sharada Gadale, Reactive extraction of acetic acid from aqueous sodium acetate waste, *Nature environment and Pollution Technology*, 24,4 (2025).
2. Rodrigues, Derick, Sunita Patil, Sharda Gadale, and Shambala Gadekar. Energy efficient reactive distillation synthesis of n-hexyl acetate: simulation study, *Rasayan Journal of Chemistry*, 18, 3(2025).
3. Patil, Sunita S., Shambala Gadekar-Shinde, and Nayana Menon, Kinetic modelling of ultrasound-assisted extraction of phenolic compounds from neem, *Rasayan Journal of Chemistry*, 18, 2 (2025).
4. Sunita S. Patil, Umesh B. Deshannavar, **Shambala Gadekar-Shinde**, Optimization studies on batch extraction of phenolic compounds from Azadirachta indica using genetic algorithm and machine learning techniques, *Heliyon*, 9,11 (2023), 1-18
5. **S Gadekar-Shinde**, Priyanka Walekar, Veena Patil-Shinde, Separation of C1-C6 alcohol/ester/water system in continuous reactive distillation unit a thermodynamic analysis, *Material Science for Energy Technologies*, 6 (2023), 48–64.
6. **S Gadekar-Shinde**, Ravi Bhashkar, Shashank Gaikwad, Reactive Extraction of Caproic acid using TOA + 2 Octanol system, *Materials Today Proceedings*, (2023), 260–267.

7. **S Gadekar-Shinde**, Vishakha Lakhshete, Veena Patil-Shinde, Bio-diesel synthesis from waste sunflower oil: Experimental and multilayer perceptron neural network modeling, *Materials Today Proceedings* (2023)
8. Memon, Shehzad S., Niraj S. Topare, Shantini A. Bokil, **Shambala Gadekar-Shinde**, "A Review on Effects of Operating Parameters in Batch and Column Mode for Adsorption of Methyl Violet Dye." *International Journal of Membrane Science and Technology* 10, 3(2023), 488-501.
9. **S N Shinde**, V A Shinde Ayushi Sharma, Simran Rahi, Ann Mary Dcruz, Downstream separation of fusel oil, *Chemical Engineering World*, 55(2020), 67-74.
10. **S N Shinde**, Amol Lomte, Influence of advanced settling zone on COD removal efficiency of UASB reactor treating dairy wastewater, *International Research Journal of Engineering and Technology*, 05(2018,) 2716-271.
11. **S. Gadekar-Shinde**, B. Reddy, M. Khan, S. Chavan, D. Saini, S. Mahajani, Reactive distillation for the production of methoxy propyl acetate: Experiments and simulation, *Ind. Eng. Chem. Res.*, 56 (2017), 832-843.
12. S. Motegaonkar, R. Kulkarni, **S. N. Shinde**, Isobaric vapor liquid equilibrium of tertiary mixture of hexane-cyclohexane-MTBE and Residue Curve mapping, *Int. J. of Science and Research*, 05 (2016), 1384-1386.
13. P. Kherde, **S. N. Shinde**, M. Kulkarni, Synthesis, characterization and conductivity studies of polypyrrole-expanded graphite composites, *Int Research Journal of Engineering and technology*, 03 (2016), 2530-2534.
14. P.R. Vishwakarma, S. N. Shinde, Kinetic study of acylation reaction using ion exchange resin , *Int J. Advanced Technology in Engineering and Science*. 03 (2015), 251–256.
15. R. B. Kumar, S. G. Gaikwad, **S. N. Shinde**, Reactive extraction of napthenic acid by using sodium hydroxide as an extractant, *Int J. Advanced Engineering Technology*. 05 (2014) 103-106.
16. M. Khosravi, **S.N. Shinde**, Kinetic study of esterification of adipic acid with methanol over amberlyst 15, *Int J. of chem. Tech Research*. 05 (2014), 4872-4877.
17. M. Khosravi, **S.N. Shinde** , Synthesis of dibasic esters A review, *Paripex*, 03 (2013), 79
18. M. Sarma, **S. N. Shinde**, Modeling of sonophotocatalytic degradation of formic acid in pharmaceutical waste water, *Int J. Innovative Tech. Exploring Engg*. 01 (2012), 42 – 47.
19. H.Salih, **S. N. Shinde**, Influence of temperature and estimation of enthalpy and entropy for reactive extraction of lactic acid, 10 (2012) 1309 -1316. *International journal of chemical sciences*, 10 (2012), 1309 -1316.

20. M. B. Mane, **S. N. Shinde**, Vapor liquid equilibrium: A Review, *Scientific reviews and chemical communications*, 2 (2012), 158-171.
21. **S V Gadekar**, R V Naik, S N Kaul, Entrainer for Batch Distillation of Acetic acid- water System. *CSIR, Journal of Scientific and Industrial Research*, 68(2009), 871-875.
22. **S V Gadekar**, R V Naik, Batch distillation parameters for heterogeneous azeotropic system. *Chemical Engineering World*, 42(2007), 44-50.

Patents/ Copyright:

1. Photocatalytic degradation of Congo red by using nanocrystalline yttrium oxide doped molybdenum. Patent application number: 202221067813, Patent number: 484517, **Filed on:** 25/11/2022, **Published on:** 09/12/2022 **Date of Grant:** 18/12/2023.
2. Nishit Shah, Priyanka Walekar, Shambala Gadekar-Shinde, Niraj., Topare, Jyoti Verma, Anish Khan, Commercial Activated Charcoal for Adsorption-Based Phenol Removal from Wastewater. In: Singh, S.A., Dutta, A., Murthy, Z. (eds) *Novel Materials and Technologies for Energy and Environment Applications*, Springer Proceedings in Materials, vol 77 (2025). 269-288.
3. Patil, Sunita, Rohidas Bhoi, Jotiram Gujar, Parimala Shivaprasad, Alisa Wikaputri, **Shambala Gadekar-Shinde**, Antioxidant Coatings Applied in the Food Industry, in *Functional Coatings for Biomedical, Energy, and Environmental Applications* (2024): 571-599.
4. H. Salih, **S.N. Shinde**, Reactive extraction of lactic acid with TBP, first ed., Lambert Publishing house, 2012. (ISBN 978-3-8383-4494-2)
5. **S N Shinde**, K S Kulkarni, Process Plant operation, Chintan Publication 2008 (ISBN 81-89194-15-1)

Projects/ Achievements:

1. **Best Oral Presentation award** in catalytic session at international conference “Novel Materials and Technologies for Energy and Environment Applications” organized by the Department of Chemical Engineering, Birla Institute of Technology & Science, Pilani – Hyderabad Campus, during 18th -19th February 2022
2. Research paper was selected as a **cover page for Industrial and Engineering Chemistry Research** for February issue, volume 56, 5, 2017.
3. **Recognised Ph D and Post graduate student guide** of Bharati Vidyapeeth University, College of Engineering for Chemical Engineering programme
4. **Keynote Speaker** ‘Tectonic Extravaganza’ National Event at Sinhgad College of Engineering Pune. February 2020.
5. **Criteria III Institute Coordinator**, till December 2024, Fourth Cycle of NAAC Accreditation.

6. **Former IQAC -NAAC member** till December 2024.