

BRIEF RESUME

Supritam Dutta

Associate Professor (since 2009),
Chemical Engineering Department,
L. D. College of Engineering, Ahmedabad.

Qualification:

B.Tech. from NIT, Rourkela.
M.Tech. from IIT, Bombay.
PhD from GTU, Ahmedabad.

Experience:

Industrial experience: 2 years at Themis Chemicals Ltd, Vapi.
Academic experience: Total : 27 years
2 years at Nirma Institute of Technology, Ahmedabad.
9 years at VGEC, Chandkheda, Ahmedabad
6 years at Government Engineering College, Bhuj
10 years at L. D. College of Engineering, Ahmedabad.
Joined GEC, Valsad on May, 2025

Research Area:

Membrane technology, Forward osmosis, Nanofiltration, wastewater treatment

Publications:

- 14 research papers in Scopus indexed journal.
- 2 book chapter in international publication
- 12 papers in national and international conferences.

Selected List of Publication:

1. S. Dutta, D. Gandhi, and K. Nath. "Osmotic Dilution: A Sustainable Option for Dewatering of Wastewater and Application in Irrigation." Indian Chemical Engineer (2025) 1–11. Taylor & Francis publication, doi: 10.1080/00194506.2025.2459118.
2. S. Banka and S. Dutta. "Thermo-Economic Analysis Of Separation of Benzene-Toluene-Xylene System Using Modified Design of Divided Wall Column." Futuristic Trends in Renewable & Sustainable Energy, Volume 3 Book 4, May, 2024, IIP Series, 233-252, e-ISBN: 978-93-6252-602-1, doi: 10.58532/V3BARS4P6CH1.
3. S. Dutta, P. Dave, K. Nath, Progress and Perspective for Carbon Quantum Dots and Analogous Carbon-Based Nanomaterials in Augmenting Forward Osmosis Performance, Sep. \& Purif. Rev. 0 (2023) 1–22, Springer Publication, <https://doi.org/10.1080/15422119.2023.2207084>.
4. K. Nath, S. Dutta, A. Patel, A.A. Mungray, Chapter 7 - Fundamentals of membranes for

wastewater treatment: Challenges and opportunities for resource recovery, in: A. Mungray, A. Mungray, S. Sonawane, S. Sonawane (Eds.), Nov. Approaches Toward Wastewater Treat. Resour. Recover. Technol., Elsevier Publication, 2022: pp. 133–152. <https://doi.org/https://doi.org/10.1016/B978-0-323-90627-2.00011-3>.

5. S. Dutta, P. Dave, K. Nath, Choline chloride-Glycerol (1 : 2 mol) as draw solution in forward osmosis for dewatering purpose, *Membr. Water Treat.* 13 (2022) 63–72, Techno-Press International. <https://doi.org/10.12989/mwt.2022.13.2.063>.
6. S. Dutta, P. Dave, K. Nath, Performance of low pressure nanofiltration membrane in forward osmosis using magnesium chloride as draw solute, *J. Water Process Eng.* 33 (2020) 101092, Elsevier Publication, <https://doi.org/10.1016/j.jwpe.2019.101092>.
7. S. Dutta, K. Nath, Dewatering of Brackish Water and Wastewater by an Integrated Forward Osmosis and Nanofiltration System for Direct Fertigation, *Arab. J. Sci. Eng.* 44 (2019) 9977–9986, Springer Publication. <https://doi.org/10.1007/s13369-019-04102-3>.
8. S. Dutta, K. Nath, Feasibility of forward osmosis using ultra low pressure RO membrane and Glauber salt as draw solute for wastewater treatment, *J. Environ. Chem. Eng.* 6 (2018) 5635–5644, Elsevier Publication, <https://doi.org/10.1016/j.jece.2018.08.037>.
9. S. Dutta, K. Nath, Prospect of ionic liquids and deep eutectic solvents as new generation draw solution in forward osmosis process, *J. Water Process Eng.* 21 (2018) 163–176, Elsevier Publication. <https://doi.org/10.1016/j.jwpe.2017.12.012>.
10. S.R. Banka, S.M. Dutta, Interactive Matlab Program for Design of Multicomponent Distillation Column using FUG Method, *Int. J. Adv. Eng. Technol. Sci.* 2 (2016) 21–25.
11. P. Nemade, S. Dutta, H.S. Shankar, Tracer Dispersion in Constructed Soil Filter for Wastewater Treatment, *J. Nat. Sci. Sustain. Technol.* 7 (2015) 129–138.
12. P.D. Nemade, S.M. Dutta, H.S. Shankar, Residence time distribution and oxygen transfer in a novel constructed soil filter, *J. Chem. Technol. Biotechnol.* 85 (2010), Wiley Publication. <https://doi.org/10.1002/jctb.2269>.
13. A. Kadam, G. Oza, P. Nemade, S. Dutta, H. Shankar, Municipal wastewater treatment using novel constructed soil filter system, *Chemosphere.* 71 (2008), Elsevier Publication. <https://doi.org/10.1016/j.chemosphere.2007.11.048>.
14. P.D. Nemade, A.M. Kadam, G.H. Oza, S.M. Dutta, U.S. Shankar, Effects of anions on arsenic adsorption with iron hydroxide - A review, *Indian J. Environ. Prot.* 27 (2007).
15. P.D. Nemade, A.M. Kadam, G.H. Oza, S.M. Dutta, H.S. Shankar, Adsorption of arsenite and arsenate from water by hydrous ferric oxide, *Indian J. Environ. Prot.* 27 (2007).
16. S.M. Dutta, A.M. Kadam, P.D. Nemade, G.H. Oza, H.S. Shankar, Residence time distribution modeling of constructed soil filter, *Indian J. Environ. Prot.* 27 (2007).