

**Dr. K. N. Gupta**  
Associate Professor

**Education:** M.Tech., PhD

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**Areas of Interest:** Adsorptive Separation Processes, Modeling and Simulation, Foam fractionation

**Brief Profile:**

Dr. Kaushal Naresh Gupta obtained his B. Tech in Chemical Engineering from S. L. I. E. T, Longowal (P. T. U, Jalandhar) and M. Tech in Chemical Engineering from I. I. T. Roorkee. He has done his Ph. D. in Chemical Engineering from Jaypee University of Engineering & Technology, Guna in 2012. He joined JUET Guna in 2005 as a Senior Lecturer in Chemical Engineering Department. Before joining here he worked as a Lecturer and Senior Lecturer in the Department of Chemical Engineering at Dr. K. N. M. I. E. T. Modinagar for 5 years. Presently he is working here as an Assistant Professor in the Department of Chemical Engineering. He has published several papers in peer reviewed international journals.

**Thesis Supervision:**

**PhD: Completed - 02**

[1] Rahul Shrivastava, "Fault detection and Diagonosis in chemical and biochemical processes" 2018.

[2] Tarun Kumar Bharadwaj, " Studies on adsorptive bubble separation processes" 2022.

**M.Tech: Completed - 02**

[1] Noopur Srivastava, "Adsorption of volatile organic compounds on powdered activated carbon" 2012.

[2] Arvind Shrivastava, "Modeling and simulation of fixed bed adsorption column" 2014.

**Publication@JUET**

[Publication details google profile link](#)

[1] T. K. Bharadwaj and K.N. Gupta (2022), "Dye isolation in a foam fractionation column: Optimization of process parameters" , Materials Today: Proceedings, 57(4), 1442-1447.

[2] Amit.K. Thakur, Rahul Kumar, V.K. Vipin Kumar, Amit Kumar, Gajendra Kumar Gaurav and K.N. Gupta (2022), "A critical review on thermodynamic and hydrodynamic modeling and simulation of liquid antisolvent crystallization of pharmaceutical compounds" , Journal of Molecular Liquids, 362, 119663-119679.

- [3] T. K. Bharadwaj and K. N. Gupta (2021), "Foam drainage enhancement in foam fractionation for dye removal: process optimization by taguchi methodology and grey relational analysis" , International Journal of Chemical Reactor Engineering, DOI: 10.1515/ijcre-2020-0234.
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- [5] T. K. Bharadwaj and K. N. Gupta (2020), "Dye separation using a semi-batch foaming process: Process optimization using Taguchi methodology and Grey relational analysis" , Environmental Engineering Research, DOI: <https://doi.org/10.4491/eer.2020.242>.
- [6] K. N. Gupta and Rahul Kumar (2020), "Fixed bed utilization for the isolation of xylene vapor: Kinetics and optimization using response surface methodology and artificial neural network" , Environmental Engineering Research, DOI: <https://doi.org/10.4491/eer.2020.105>
- [7] K. N. Gupta and Rahul Kumar (2020), "Kinetic modeling and optimization of fraction of bed utilized for the gaseous phase removal of toluene in fixed bed adsorption column: Response surface methodology" , Separation Science and Technology, 55, 1062-1077.
- [8] K. N. Gupta (2019), "Modeling, simulation, and experimental validation for toluene removal from gas phase in a fixed bed adsorption column" , Indian Chemical Engineer, 62, 150-169.
- [9] K. N. Gupta and Arvind Shrivastava (2015), "Orthogonal collocation solution of non-linear coupled partial differential equations in fixed bed adsorption column" , South African Journal of Chemical Engineering, 20, 61-80.
- [10] K. N. Gupta, N. J. Rao and G. K. Agarwal (2015), "Gaseous phase adsorption of volatile organic compounds on granular activated carbon" , Chemical Engineering Communications, 202, 384-401.
- [11] K. N. Gupta, N. J. Rao and G. K. Agarwal (2013), "Vapor phase adsorption of xylene on granular activated carbon - Experimental and Theoretical breakthrough curves" , Indian Journal of Chemical Technology, 20, 26-32.
- [12] K. N. Gupta, N. J. Rao and G. K. Agarwal (2012), "Adsorption of Xylene on Granular Activated Carbon in a Packed Bed", International Journal of Scientific & Technology Research, 1, 90-93.
- [13] K. N. Gupta, N. J. Rao and G. K. Agarwal (2011), "Adsorption of Toluene on Granular Activated Carbon", International Journal of Chemical Engineering and Applications, 2, 310-313.
- [14] K. N. Gupta, N. J. Rao and G. K. Agarwal (2011), "Removal of Toluene from Nitrogen Gas by Adsorption in a Fixed Bed Column: Experimental and Theoretical Breakthrough Curves", International Journal of Chemical Engineering and Applications, 2, 359-365.