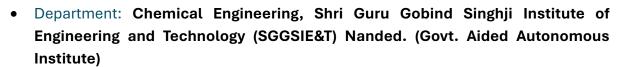
1. Personal Information

Name: Dr. Anand Panditrao Chavan

• Position: Assistant Professor



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2. Educational Background

- Degrees:
- 1. Ph.D. (Tech.) Chemical Engineering, Institute of Chemical Technology, (Formerly UDCT) Mumbai. (2016-2020)
- 2. Master of Chemical Engineering (M. Chem. Engg.), Institute of Chemical Technology, (Formerly UDCT) Mumbai. (2011-2013)
- 3. Bachelor of Technology (B. Tech.) Chemical Engineering, College of Engineering and Technology, Akola (SGB Amravati University, Amravati) (2007-2011)
- Postdoctoral Experience:
- Institute of Chemical Technology-Indian Oil Odisha Campus, Bhubaneswar (2021–2022)

3. Research Interests

- Areas of Expertise:
- 1. Computational Fluid Dynamics
- 2. Process Engineering
- 3. Reactor Design
- 4. High Temperature High Pressure Batch and Pilot Plants
- Ongoing Projects:
- Distillation column and Heat exchanger design for 30 and 10 KLD for piperazinewater mixture
- 2. Study and Efficient use of existing solid waste management system in campus and augmentation in future demand



- 3. Design and Development of a Scalable Curcumin Extraction Plant
- 4. CFD Modeling and Experimental Verification of Pressure drop in Pipe Flow: A Study of the Hagen Poiseuille Equation

4. Teaching Experience

- Courses Taught:
- 1. Transport Phenomena
- 2. Mass Transfer
- 3. Heat Transfer
- 4. Process Equipment Design and Drawing
- 5. Chemical Process Industries
- Course Development:
- 1. Computational Fluid Dynamics
- 2. Process Engineering

5. Publications and Presentations

- Journal Articles:
- A. P. Chavan, P. R. Gogate, Ultrasound assisted synthesis of epoxidized sunflower oil and application as plasticizer, Journal of Industrial and Engineering Chemistry, Volume 21, 2015, Pages 842-850, https://doi.org/10.1016/j.jiec.2014.04.021
- 2. A. P. Chavan, V. Vitankar, A. Mujumdar, B. Thorat, Natural convection and direct type (NCDT) solar dryers: A Review, Drying Technology, Volume 39 (13), 2021, Pages 1969-1990, https://doi.org/10.1080/07373937.2020.1753065.
- A. P. Chavan, B. Thorat, Mathematical analysis of solar conduction dryer using reaction engineering approach, International Journal of Chemical Reactor Engineering, Volume 18 (5-6), 2020, Pages -, https://doi.org/10.1515/ijcre-2019-0220.
- 4. A. P. Chavan, V. Vitankar, B. Thorat, CFD modeling and experimental study of solar conduction dryer, Drying Technology, Volume 39 (8), 2021, Pages 1087-1100, https://doi.org/10.1080/07373937.2020.1846051
- A. P. Chavan, V. Vitankar, N. Shinde, B. Thorat, CFD simulation of solar grain dryer, Drying Technology, Volume 39 (8), 2021, Pages 1101-1113, https://doi.org/10.1080/07373937.2020.1863422
- 6. A. P. Chavan, B. Thorat, Techno-economic comparison of selected solar dryersa case study. Drying Technology, Volume -, 2021, Pages -,

https://doi.org/10.1080/07373937.2021.1919141

- D. P. Ghumra, O. Rathi, T. A. Mule, V. S. Khadye, A. P. Chavan, F. C. Barba, S. Main, A. Odaneth, B. Thorat, Technologies for Valorisation of Municipal Solid Wastes. Biofuels, Bioproducts and Biorefining, Volume -, 2022, Pages -, https://doi.org/10.1002/bbb.2340
- 8. A. P. Chavan, A. Sikarwar, V. Tidke, B. Thorat, Augmenting natural convection and conduction based solar dryer. IDS 2018, 21st International Drying Symposium Proceedings, Pages 1357-1364, https://doi.org/10.4995/IDS2018.2018.7813
- Conference Papers:
- A. P. Chavan, V. Vitankar, B. Thorat, "CFD modeling and experimental study of solar conduction dryer," presented at 9th Asia-Pacific Drying Conference (ADC), September 24 - 26, 2017, Wuxi (China)
- 2. A. P. Chavan, A. Sikarwar, V. Tidke, B. Thorat, "Augmenting natural convection and conduction based solar dryer," presented at 21st International Drying Symposium (IDS), September 11 14, 2018, Valencia (Spain)
- 3. A. P. Chavan, B. Thorat, "Mathematical analysis of solar conduction dryer using reaction engineering approach," presented at 3rd Nordic Baltic Drying Conference (NBDC), June 12 14, 2019, Saint-Petersburg (Russia)
- 4. K. Pai, A. P. Chavan, B. Thorat, "New theories discerning drying kinetics," presented at 3rd Nordic Baltic Drying Conference (NBDC), June 12 14, 2019, Saint-Petersburg (Russia)

6. Awards and Honors

Grants:

Research Grant of 2.95 Lakhs under RGSTC-MSME Scheme.

- Fellowships:
- Lodz University of Technology, Poland (International Scholarship Exchange Program)
- 2. Department of Chemistry, Tezpur University, Assam, India (Winter Internship).

7. Professional Experience

- Administrative Roles:
- 1. Departmental coordinator of Training and Placement at SGGSIE&T, Nanded
- 2. Event Coordinator of Institute Innovation Council at SGGSIE&T, Nanded
- 3. Member of First Year B. Tech., M. Tech and DSY admission committee at SGGSIE&T, Nanded

- 4. Departmental coordinator of Virtual lab at SGGSIE&T, Nanded
- Industry:
- Research Associate, Hindustan Petroleum Green R&D Centre (HPGRDC), Bengaluru
- 2. Asst. Manager, Adya Enterprise, Govandi (E), Mumbai.
- Consulting Work:
- 1. CHEMEPT Solutions, Mumbai.
- 2. Renaissance Ferto Chem Pvt. Ltd., Mumbai
- 3. Shivkhandi Farmer Producer Company, Nanded

8. Miscellaneous

Languages:

English, Hindi, Marathi, Sanskrit.

- Skills:
- 1. Pre-processing/mesh generation Tools: SpaceClaim, Design Modeler, ANSYS Meshing, Fluent Meshing.
- 2. Solver Tool: ANSYS Fluent.
- 3. Post-processing Tool: ANSYS CFD-Post.
- 4. Process Simulation Tool: Aspen Plus.
- 5. LT and HT-SIMDIST (Low Temperature and High Temperature Simulated Distillation), DHA (Detailed Hydrocarbon Analyzer), RGA (Refinery Gas Analyzer)