MIT | Academy of Engineering
(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

DHABARDE GAURAV RAMESH

B.Tech. - Chemical Engineering
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KEY EXPERTISE

AutoCAD | Fusion 360 | ANSYS | DWSIM | Python | C | CO2 capture | MATLAB

EDUCATION

MIT Academy of Engineering, Pune 2021 - 2025
B.Tech. - Chemical Engineering | CGPA: **7.19** / **10.00**

Dinanathi High School And Junior Colleg, Nagpur 2021
12th | MSBSHSE | Percentage: **87.50** / **100.00**

School Of Scholars, Nagpur 2019
10th | CBSE | Percentage: **78.90** / **100.00**

PROJECTS

VLE studies of CO2 Absorption in Amines Absorbents. 31 Jul, 2023 - 30 Dec, 2024
Mentor: Dr. P. N. Sutar | **Team Size:** 3

Key Skills: Teamwork | Team Coordination | Communication Skills | Design of Experiments | use and limitation of equipmengt

In this research project, we aim to investigate the Vapor-Liquid Equilibrium (VLE) behavior of carbon dioxide (CO2) absorption using amine-based absorbents. Our primary objective is to discern the thermodynamic properties governing this process. We will carry out a series of experiments under varying conditions, including different temperatures, pressures, concentrations, and CO2 loadings, to comprehensively understand the interactions between CO2 and the amine absorbents. These experiments will provide essential data to analyze the absorption efficiency and behavior of the absorbents. Following the experimental phase, our research will involve the development of mathematical models to describe and predict the VLE of CO2 absorption, offering insights into optimizing this critical process for applications such as carbon capture and greenhouse gas mitigation. In this project, my role was to design and conduct experiments for the project

Determination of physicochemical properties of amines for CO2 capture and mathematical modelling of these properties. 05 Sep, 2022 - 30 Dec, 2023
Mentor: Dr. P. N. Sutar | **Team Size:** 3

Key Skills: Communication Skills | Teamwork | Team Coordination | Design of Experiments | use and limitation of equipment

In this research project, our objective is to investigate the physicochemical property of density for amine-based absorbents utilized in carbon dioxide (CO2) capture applications. Our study involves conducting experiments at various temperatures and concentrations. To determine the density of the amine-based absorbents, we employ specific gravity bottles and employ three different chemicals: Water, Diethylethanolamine (DEEA), and 2-amino 2-methyl 1-propanol (AMP), both individually and in various blends. The data obtained from these experiments will serve as the foundation for our mathematical modeling phase. By constructing mathematical models, we aim to establish relationships and equations that describe the density of these amine absorbents under different conditions. This research will contribute to enhancing our understanding of amine-based absorbents for more efficient CO2 capture processes.In this project, my role was to design and conduct experiments for the project.

SEMINARS / TRAININGS / WORKSHOPS

International Talk Series By Alumni **Institute Name:** MIT Academy of Engineering, Pune 04 Feb, 2023 - 04 Feb, 2023

Key Skills: Importance of chemical engieering accros other field

Renewable energy field and Chemical Engineering importance.

PERSONAL INTERESTS / HOBBIES

- Playing Sports, Music.

PERSONAL DETAILS

Gender: Male
Marital Status: Single
Current Address: Pragati Apartment,near gokul mess, Dehu Phata, Pune City, Maharashtra, India - 412105

Date of Birth: 24 Apr, 2003
Known Languages: English,Marathi,Hindi
Permanent Address: 102,Joginagar,Shatabdi Square, Rameshwari Road,Nagpur, Nagpur, Maharashtra, India - 440027
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