

THATIKA RATAN RAJ

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OBJECTIVE

Aspiring for a position as a Chemical Engineer that will enhance my skills, providing me ample scope to contribute to the organization's goal by effectively using the conceptual skills and knowledge gained through my education.

EDUCATION

Andhra University College of Engineering	Visakhapatnam, AP
Master of Chemical Engineering 8.71 CGPA	2021-2023
Andhra University College of Engineering	Visakhapatnam, AP
Bachelor of Chemical Engineering 7.49 CGPA	2017-2021

SKILLS

Technical Skills MS Office, MATLAB, C Programming, SAP, DCS (FOXBORO).

EXPERIENCE

Apprenticeship Nov 2023 – Nov 2024

PROPYLENE DERIVATIVE PETROCHEMICAL PLANT

Kochi Refinery, Bharat Petroleum Corporation Ltd

- Witnessing the refinery process, from crude oil to finished products and petrochemicals, was an insightful experience.
- Preparation and analyzing of PFDs and PIDs to grasp plant operations.
- Ensuring safety and efficiency through adherence to SOPs.
- Gained experience with Distributed Control System (DCS) operations for process control.
- Balancing the flowrates in order to maintain process variables under control for the distillation columns, reactor, heat exchangers and reboiler.
- Participated and guided in the turn over operations.
- Conducted regular site visits to gain hands-on experience with industrial processes and equipment.
- Participated in various safety drills, including fire and safety, basic first-aid, and mandatory PPE procedures.
- Familiar with Process Safety Management principles, work permit procedures, and KPIs for process optimization.

PROJECTS AND COURSES

Masters Project Sept 2023

Studies on the "REMOVAL OF PHENOL RED DYE using SYZYGIUM CUMINI LEAF POWDER"

- Investigated the removal of Phenol Red dye from aqueous solutions using *Syzygium Cumini* leaf powder as a novel biosorbent.
- Evaluated the influence of key process parameters on dye sorption, including agitation time, sorbent particle size, pH, initial dye concentration, sorbent dosage, and temperature.
- Conducted comprehensive isotherm, kinetic, and thermodynamic studies to elucidate the sorption mechanism.
- Characterized the biosorbent using FTIR and XRD to determine its structural properties and identify active functional groups.
- Optimized the dye removal process using Response Surface Methodology (RSM) and ANOVA, identifying significant factors and their optimal levels for maximizing removal efficiency.

Certificate Course in Industrial Safety 2022 - 2023

Affiliated to STATE BOARD OF TECHNICAL EDUCATION and TRAINING (SBTET), Mangalagiri, A.P

- Developed expertise in occupational health and safety, including hazard identification, risk assessment, accident

investigation, emergency response, and relevant safety regulations.

B.Tech Project

July 2021

- Manufacturing of Detergent

INTERNSHIP

Summer Intern || Rashtriya Ispat Nigam Limited, Visakhapatnam Steel Plant
Visakhapatnam, AP

June 2019

- Observed on-site operations of **Coke Ovens and Coal chemicals Plant** equipment and processes.
- Exposure to the operational intricacies of **RM** handling plant, **Sinter plant**, **Blast furnace**, and **Casting**.

Winter Intern || Coromandel
Visakhapatnam, AP

Jan 2020

- An overview encompassing **Sulfuric acid** production.
- Learned about different fertilizers and their manufacturing process

CERTIFICATES AND WORKSHOP

- Certificate of Appreciation for participating in "Global Tech Summit 2023."
- Participated in a 1-day International Workshop on "Waste Management: Trends and Challenges."
- Participated in the 1-day National workshop on "Recent Advances in Chemical Engineering."
- Participated in the 2-day National workshop on "Innovative approaches to combat environmental pollution."

EXTRA-CURRICULAR ACTIVITIES

- Member of an organizing committee for RIPPLES and ANUSANDHAN.
- Organized and actively participated in the Department Fest held at Andhra University.