

SANDEEP REDDY T

CONTACTS

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[LinkedIn](#)

EXPERTISE

- Process Design & Optimization
- Mass & Energy Balance Calculations
- Chemical Reaction Engineering
- Heat & Mass Transfer Analysis
- Process Safety & Risk Management
- Simulation & Modeling (MATLAB, Aspen Plus, ChemCAD)
- Environmental & Waste Management
- Customer Relationship Management
- Project Management
- Administrative Proficiency
- Data Analysis & Statistical Modeling (Python, Excel, R)
- Technical Report Writing
- MS Office Suite

SOFT SKILLS

- Effective Communication
- Problem Solving
- Teamwork

CERTIFICATIONS & ACHIEVEMENTS

- **Certificate of Appreciation:** Recognized for leadership in organizing a Technical Fest; led the Reception Committee & Technical Quiz.
- **Photography Head, Sports Club:** Led event photography & media documentation in the 3rd & 4th years of engineering.
- **Organizing Committee, AURA-2023:** Managed logistics & execution of a national-level sports fest.

LANGUAGES

- English
- Hindi
- Telugu

PROFILE SUMMARY

Results-driven **Chemical Engineering graduate** with expertise in **process design, optimization, and safety management**. Skilled in **MATLAB, Aspen Plus, ChemCAD**, and **data analysis using Python and Excel**. Strong foundation in **chemical reaction engineering, heat & mass transfer, and waste management**. Experience in **pharmaceutical process engineering, quality assurance (GMP, ISO), and industrial automation**. Recognized for **technical leadership, research innovation, and event management** in academic and professional settings.

EDUCATION

B.Tech in Chemical Engineering

Chaitanya Bharathi Institute of Technology, Hyderabad (2020 – 2024) | **CGPA: 6.0**

Diploma in Plastics Technology

Central Institute of Plastics Engineering and Technology, Vijayawada (2017 – 2020) | **CGPA: 6.6 SSC (10th Standard)**

Bala Vikas English Medium High School, Rentachinthala (2016 – 2017) | **CGPA: 8.0**

INTERNSHIPS

Intern – Chemical Analysis (Pesticide Residue Detection)

Chemtex Labs India Private Limited

September 2024 - March 2025

- Collected grape samples and carried out sample preparation procedures including homogenization, extraction, and cleanup for pesticide residue analysis.
- Assisted in the setup, calibration, and operation of Liquid Chromatography–Mass Spectrometry/Mass Spectrometry (LC-MS/MS) equipment under supervision.
- Followed standardized operating procedures (SOPs) for sample processing and method protocols to ensure consistency and accuracy in analytical testing.
- Analyzed chromatographic results to detect and quantify pesticide residues and compiled data for further evaluation and reporting.
- Ensured compliance with laboratory safety norms, hygiene protocols, and quality assurance practices throughout the internship period.

Major Project: Upcycling Watermelon Rinds for Sustainable Nanomaterials

Chaitanya Bharathi Institute of Technology

Dec 2023 – May 2024

- **Developed an innovative approach** to convert **watermelon rinds into carbon-based nanomaterials**, promoting **waste-to-value conversion**.
- **Synthesized carbon dots** using **green chemistry techniques** and evaluated their **fluorescent properties** via **UV-Vis spectroscopy**.
- **Optimized process parameters** to enhance **reaction efficiency**, ensuring **high-yield production** with minimal waste.
- **Collaborated with a research team** to explore **industrial applications**, including **biomedical imaging, sensors, and energy storage**.
- **Implemented sustainability principles** to **reduce environmental impact**, making the project an **eco-friendly alternative** in material sciences.

Intern | Hetero Drugs Limited (Unit-1)

June 2023 – July 2023

- Evaluated pharmaceutical waste disposal processes and proposed improvements for hazardous material handling.
- Optimized disposal methods to comply with GMP, EHS, and pollution control standards.
- Created SOPs for chemical waste management to improve safety and efficiency.
- Applied Lean Six Sigma techniques to reduce waste and enhance resource use.
- Conducted employee training on chemical hazards, spill response, and emergency protocols.

Intern | Dr. Reddy's Laboratories Ltd

August 2022

- Performed Process Hazard Analysis (PHA) to identify and reduce risks in chemical operations.
- Designed and implemented Process Safety Management (PSM) programs focusing on equipment integrity and worker safety.
- Coordinated with the EHS team to comply with OSHA, HAZOP, and industry safety standards.
- Optimized reaction conditions to prevent thermal runaway and enhance process safety.
- Prepared SOPs and compliance reports to support ongoing safety audits and reviews.