

Siddhanth Chatterjee

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As a motivated and detail-oriented chemical engineering graduate, I am passionate about driving sustainability within the chemical industry through innovative and environmentally conscious practices. With a strong foundation in chemical process engineering and hands-on experience in sustainable technologies such as hydrogen production and biomass valorization, I am eager to contribute to the development of cleaner, safer, and more resource-efficient chemical processes.

Education

- **Rajiv Gandhi Institute of Petroleum Technology** (December 2021- May 2025)
(An Institute of National Importance along the lines of IITs)
Bachelor of Technology in Chemical Engineering and Biochemical Engineering CGPA :- 6.30 (*Till 7th semester)
- **St Joseph Higher Secondary School Bhubaneswar** (March 2019- June 2021)
(ISC board, MATHEMATICS) Cumulative Percentage :- 75.8%
- **St Joseph Higher Secondary School Bhubaneswar** (March 2019- June 2021)
(ICSE board, MATHEMATICS) Cumulative Percentage :- 78.17%

Experience

- **Intern at KPF Green Hydrogen Private Limited.** (May- September 2024)
 - **Involved in Hydrogen Plant Planning:** Gained exposure to the development of a renewable hydrogen plant using solar and wind energy. Learned about integrating clean energy sources into chemical systems.
 - **Understanding of Vendor Evaluation:** Observed the process of comparing proposals for electrolyzers and compressors. Learned how energy efficiency and sustainability influence supplier selection.
 - **Explored Hydrogen Storage and Transport:** Worked on case studies related to hydrogen storage, transportation, and refueling stations. Gained insights into design considerations for safety and sustainability.
 - **Introduction to Business Planning:** Participated in team discussions on creating a strategic plan for plant deployment. Learned how long-term sustainability and self-sufficient power are incorporated.
- **Intern at Jocil Ltd.** (May- July 2023)
 - **Learned the Basics of Hydrogen Production Processes:** During the internship, I gained exposure to hydrogen production using electrolyzers and heat exchangers. I observed how these systems function in a real industrial setup and understood their role in promoting more sustainable chemical processes.
 - **Introduced to Electrolyzer Technologies:** I had the opportunity to study different types of electrolyzers used for hydrogen production in India. This helped me understand how chemical reactions are optimized in practical systems, and how these technologies support cleaner energy pathways in the chemical sector.
 - **Explored Concepts Around Efficiency and Green Design:** I explored how electrolyzer efficiency impacts sustainable production. I also read about current technologies and upcoming trends, which helped me understand how electrochemical systems can be used in environmentally friendly chemical applications.
- **Intern at Vrinda Technology** (July 2022)
 - **Internship on Precision Time Protocol (PTP) & Network Time Protocol (NTP):** Executed a hands-on internship focused on time synchronization protocols, leading a project to develop a centralized server for synchronizing clock times across multiple computers within a network.
 - **Implementation of PTP for Time Synchronization:** Conceptualized and deployed Precision Time Protocol (PTP) for precise time coordination, successfully ensuring accurate and seamless synchronization across networked systems through a centralized

Project

● Hydrothermal Carbonization of Biomass to Produce Biochar: Property Evaluation

- **Hydrothermal Carbonization of Biomass to Produce Biochar:** Initiated a project using hydrothermal carbonization, a renewable energy-driven process involving high temperature and pressure in the absence of oxygen to convert biomass (mustard seed and water hyacinth) into biochar—a stable, carbon-rich material that can be utilized for sustainable energy and soil enhancement.
- **Sustainable Biomass Conversion for Renewable Energy:** Led this project with the aim of contributing to renewable energy solutions and sustainable agriculture. By transforming biomass into biochar, the goal was to create an eco-friendly material that not only enhances soil fertility but also helps sequester carbon, supporting both clean energy production and sustainable farming practices.

Leadership / Volunteering

● Gyanarpan, Project Amethi: Teaching Volunteer & Organizing Head of Gyanarpan (08/2022 - Present)

(A Project that aims at teaching underprivileged students of Amethi district of UP)

- **Team Leadership and Coordination:** Led a team of over 250 members, overseeing educational initiatives for underprivileged students in Amethi. Simultaneously managed multiple responsibilities, demonstrating effective multitasking and leadership.
- **Direct Teaching Engagement:** Contributed over 30 hours as a teaching volunteer, actively participating in the educational process to support underprivileged students in the region.
- **Organizing Head Responsibilities and Community Outreach:** Held the position of Center Head, overseeing operations for an entire center involving multiple schools. Initiated impactful community outreach programs, extending educational support beyond the classroom to enhance the overall learning experience.

● Training and Placement, RGIPT: Training and Placement Coordinator of Dept. of CBE (08/2022 -Present)

- Made sure students and company HR teams could talk easily. Helped students understand job opportunities and made sure companies knew about the students.
- Acted as a bridge between students and the college's job help team. Made sure everyone had the information they needed for job placements.

● Alumni Committee, RGIPT: Alumni Coordinator of Dept. of CBE (08/2022 - Present)

- Took charge as the Alumni Coordinator for the Department of Chemical Engineering and Biotechnology (CBE), focusing on connecting current students with graduates. Worked to foster a supportive network where students could gain insights from alumni experiences.
- Organized events and activities to engage alumni with the current student community. Created opportunities for meaningful interactions, mentorship, and shared learning experiences to enhance the professional and academic journey of students in the department.

● American Institute of Chemical Engineering RGIPT: President (04/2024 - Present)

- The AIChE student chapter at RGIPT, a college-affiliated organization, promotes career readiness in chemical engineering. It connects students with industry through events like workshops, seminars, and competitions, building skills and professional networks for future careers.
- As the president I have led a team of over 80 members in organizing professional development events, fostering industry connections, and promoting skill-building opportunities for chemical engineering students. Managed workshops, seminars, and competitions to enhance members' academic and career readiness.

● Indian Institute of Chemical Engineering (IChE) RGIPT: Vice President (04/2024 - Present)

- The IChE student chapter at RGIPT, a student-led body under the college, supports academic and professional growth. Through workshops, industrial visits, and guest lectures, it equips students with practical skills and industry connections for career success.
- Take the lead in planning, organizing, and executing events such as seminars, workshops, and conferences related to chemical engineering. Coordinate with speakers, sponsors, and volunteers to ensure the success of these events.

Certifications

- **Technologies for Clean and Renewable Energy Production**
NPTEL – IIT Roorkee Cumulative Percentage: - 80 %
- **Hydrogen Energy: Production, Storage, Transportation and Safety**
NPTEL - IIT Bombay Cumulative Percentage: - 62 %

Skills

- Hydrogen Energy
- Renewable Energy / Alternative Fuel
- MS Office
- AutoCAD
- Aspen plus
- MATLAB
- Python
- C Programming