SHIWANG VATS
Final Year, RGIPT | Chemical Engineering Undergraduate
Gender| 19/02/2001
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OBJECTIVE

Young and dynamic final-year undergraduate Chemical Engineer seeking a career in the core where I can use my technical knowledge for the growth of the organization as well as to enhance my knowledge and skill.

EDUCATIONAL BACKGROUND

COURSE	INSTITUTE	CPI/CGPA/%	YEAR
B.Tech in **Chemical Engineering**	Rajiv Gandhi Institute of Petroleum Technology	8.67*	2019-2023
XII, (CBSE)	Paramount Academy, Muzaffarpur, Bihar	84%	2018
X, (CBSE)	Resonance International School, Muzaffarpur, Bihar	9.6	2016

* till 6th Semester

INTERNSHIP

IOCL Refinery, Barauni
Mentor: **Ms.Krishna Kumari** *July 1- July 29, 2022*

Overview of production department

- Observe and learn about different production units of refinery like AVU, CRU, RFCC, DHDT, etc.
- Study the basic principle, objective, and products of separation, conversion, and finishing units.

PROJECTS

The modeling performance curve of a vanadium redox flow battery. *February – June 2022*
Mentor: **Dr. Milan Kumar**| Heat Transfer Lab, RGIPT

- We developed a mathematical model using the first principle for polarization curves of the battery employing split serpentine (SS) and split-merged serpentine (SMS) channels and compared them with experimental results.
- The model examined for two cases: (i) solution in the pores has constant concentration, and (ii) ratio of concentrations at surface and bulk is related to limiting current density.
- For the SS channel, the model fits exceptionally well for flow rates of 30, 50, and 80 ml/min with corresponding coefficients of determination 97.2, 98.6, and 98.9. For the SMS channel, the respective values are 97.4, 98, and 98.4.

Development of electrolytic setup for hydrogen production. *September 1 – September 26, 2022*
Mentor: **Dr. Milan Kumar**| | Heat Transfer Lab, RGIPT

- The assembly of the alkaline electrolysis cell using alkaline 30% KOH solution, using Nickel foam electrodes with the size of (2.24*2.24) cm2, Zifron separator, gaskets having a width of 2mm for better compressibility, and copper plate current collector on either side.
- Measured the efficiency of the electrolyzer and study the effect of the material property on process performance.

ACHIEVEMENTS AND HONOURS

- Recipient of **RGIPT Merit Cum Scholarship** for 4th consecutive academic sessions 2019-23 for consistent academic record.
- Abstract of the **modeling performance curve of a vanadium redox flow battery** project got approved for oral presentation at CHEMCON 2022.
- Qualified **JEE ADVANCE- 2019** and **GATE 2022**(3rd year).
- Part of Runner up team of **Kho-Kho in ENERGIA-2020**, RGIPT Sports Fest.
- Captain of Runner-up team in **Intra cricket- 2022**.

TECHNICAL SKILLS

- Programming Languages – C, Python.
- Software- ASPEN, MS Office, Origin.

EXTRA-CURRICULAR ACTIVITIES/PORs

- Co-Ordinator and teaching volunteer of UBA |Social club
  2019
- Member of content writing team | SEG RGIPT Student Chapter
  2019-21
- Event Management team's member | ENERGIA-2020, RGIPT Sports fest
  2020
- Event Management team's member | Urjotsav-2019, RGIPT Technical fest
  2019
- Captain |RGIPT Cricket team
  2021-present
- Operation Head |IEEE RGIPT Student Chapter
  2022-present