



**MuskanSonker**  
**Chemical Engineering**  
**Rajiv Gandhi Institute of Petroleum Technology, Jais**  
**eche17034@rgipt.ac.in**  
**eng.ms0001@gmail.com**

**Eche17-034**  
**Female**  
**B.Tech**  
**11 Dec' 1998**  
**+91-8887564318**

## OBJECTIVE

Seeking for learning opportunities in an incessant developing organization to further sharpen my knowledge and skills.

EXAMINATION	University	Institute	Year	CPI/%
Graduation	RGPT	RGPT	2017-21	8.62/10
Intermediate/+2	CBSE	GNES	2016	81.8%
Matriculation *(Till 6 <sup>th</sup> semester)	CBSE	GNES	2014	9.4/10

## INTERNSHIP & ACADEMIC PROJECTS

**Johnson Matthey Chemical India Pvt. Ltd.**  
Summer Trainee

**3<sup>rd</sup> June – 28<sup>th</sup> June 2019**

- The 4 weeks at Johnson Matthey Chemicals India was arduously dedicated to understanding the "Working principle and application of WD-XRF" in Lab department under Plant Head, Mr. Abhishek Kumar.
- The objective of the training was to understand the working principle and application of WD-XRF (Wavelength dispersive X-ray fluorescence Spectrometer) for:
  - 1) Understanding the repeatability of XRF and scope for improvement.
  - 2) Understanding the drift correction method as a correct troubleshooting tool for eradicating error and scope for improvement.

**TechnipFMC, India**  
Winter trainee

**December 2019**

- One month of training at TechnipFMC was fully devoted to learning "Thermal Design of Shell and Tube Heat Exchangers" where the goal was to:
  - 1) Learn about the TEMA shell and tube exchanger, their working, nomenclature, and industrial utility.
  - 2) Design a shell and tube heat exchanger by employing the Kern's method and HTRI.

**IOCL Refinery, Panipat**  
Field trip

- This was a 2-day trip to IOCL Refinery in Panipat wherein I visited various units of the refinery such as ADU, VDU, Thermal Cracking Unit, Delayed Coker Unit, etc. The purpose of the trip was to understand the working of a refinery and have practical experience of the same.

## **Projects**

- Waste Management of End-of-Life Vehicles and Catalytic Converters (Guide: Dr. M.S. Balathanigaimani)  
The project was aimed towards analyzing the methods in which End-of-Life vehicles are utilized and towards the regeneration of catalysts from the catalytic converter of the vehicle. The focus was also on the recovery of rare earth metals from the catalytic converter.
- Ammonia as an Alternative Fuel. (Guide: Dr. M.S. Balathanigaimani)  
The project was aimed at analyzing the scope of ammonia as an alternative fuel to other non-renewable sources of energy. In this, the focus was on the utilization, purification, and storage (with the help of Metal-Organic Frameworks and Metal Amine Complexes) of ammonia.
- Advancements in Carbon Capture storage technologies and developing fuel cells for enhancing utilization. (Guide: Dr. M.S. Balathanigaimani)  
The project was aimed towards analyzing the capturing of carbon followed by its storage, transportation, utilization using fuel cells and the impact of the carbon capture technologies on the world economy.

## **AWARDS AND ACHIEVEMENTS**

### **Academic:**

- In both the Chemical and Petroleum Engineering department, I am ranked in the top 10% of students.
- Recipient of the prestigious RGIPT merit Scholarship for academic excellence.
- Recipient of the prestigious Chevron Jeet Bindra merit-cum means Scholarship for academic excellence.
- One of the students to be shortlisted to attend a workshop at IOCL, Allahabad Terminal, on an academic basis.

### **Co-Curricular:**

- Abstract titled Mitigating Polymer Adsorption In Porous Silica Formations with Surfactants & Silica Nanofluids: A viscosity, Temperature, and Rheology Study Investigation accepted for presentation at the ICBE Asia 2020- 10<sup>th</sup> International Conference on Biomolecular Engineering in Singapore on Jan 7-9, 2020.
- Awarded Letter of Appreciation by Johnson Matthey for excellent work.

### **Extra-Curricular:**

- Was awarded a Letter of Appreciation for my work as a Coordinator at Science & Technical Council RGIPT
- One of the top 10 students selected to represent RGIPT in 8<sup>th</sup> Annual Convention of the Federation of Indian Petroleum Industry(FIPI) Chapter at Dehradun.
- One of the top 10 students selected to attend the Academia-Industry Interface Program at Indian Oil Corporation Limited, Allahabad terminal.

## **SKILLS**

Technical skills: Microsoft Office, C, Matlab, AutoCAD.

### **POSITION OF RESPONSIBILITY**

- Joint Secretary at Indian Institute of Chemical Engineers, RGIPT. 2020-21
- Publicity Head at Urjotsav, techfest RGIPT. 2019
- P R (Public Relation) Head at Indian Institute of Chemical Engineers, RGIPT. 2018-19
- Editorial Head of RGIPT's Techfest, Urjotsav. 2019
- Co-Ordinator at Urjotsav, techfest RGIPT. 2019

### **WORKSHOP AND CONFERENCES**

- Attended a workshop organised by POSHCA on Sexual Harassment of Women Act, 2013 at RGIPT. 2017 & 2018
- Attended 8<sup>th</sup> Annual Convention of Federation of Indian Petroleum Industry (FIPI) Chapter at Dehradun. 2018

### **EXTRA-CURRICULAR ACTIVITIES**

- The only student member of "Grievance Redressal Committee", RGIPT 2019-2020
- Won the Miss Fresher's Competition at RGIPT. 2017
- Won Rangoli competition at RGIPT at "Garba Night", 14 October. 2019
- Attended an awareness program on Sexual Harassment of Women Act, 82013 at RGIPT. 2017 & 2018
- Runner up in "Stage Play Competition" in Kaltarang, cultural fest, RGIPT. 2017