



**Akshat Pandey**  
**Chemical Engineering**  
**Rajiv Gandhi Institute of Petroleum Technology, Jais**  
**Email – eche17006@rgipt.ac.in**  
**Email – akshatworkmail@gmail.com**

**EChE17-006**  
**Male**  
**B. Tech**  
**DOB - 08/12/1998**  
**Ph - +91 8005499881**

## OBJECTIVE

Looking for new opportunities to work at strong result-oriented work environments that offer me chances to take up challenging tasks and roles that not only help in mine but also my organization's growth.

EXAMINATION	University	Institute	Year	CPI/%
Graduation	RGIPT Jais	RGIPT Jais	2021	9.26
Intermediate/+2	ISCE	CMS Kanpur rd., Lucknow	2016	93.25
Matriculation	ICSE	CMS Kanpur rd., Lucknow	2014	94.80

## INTERNSHIP /ACADEMIC PROJECTS

### **Petroleum Refinery Engineering Intern | IChE | May 2020 – June 2020**

- Developed a sound understanding of all major refinery processes, units and operations.
- Made technological comparisons between technology offerings from different companies for the buyer. (Mock - Consultation)
- Developed a refinery configuration for a proposed refinery taking specific feedstocks and giving specific products based on market requirements. (Mock - Consultation)
- Wrote white papers on important technological offerings and units used in a refinery.

### **Research Assistant | IIT BHU | May 2019 – July 2019**

- Conducted literature review and developed innovative solution – Wet Oxidation Treatment for industrial wastewater treatment and pollution abatement.
- Conducted experimental studies to test and verify theoretical findings.
- Optimized the process to produce significant positive results.

### **Engineering Intern | Hitech chemicals | December 2018 – January 2019**

- Worked in Quality Control Department to keep a check on quality of manufactured product.
- Played with process parameters and variables to achieve required product specifications

### **Research Project – Synthesis of Novel Vitrimers | Mentor- Dr. Umapasana Ojha**

The study aimed to develop a novel polymeric gel system that can be used for self-healing applications at normal conditions of temperature and pressure. The study involved testing and search for model compounds that can be used as basis to derive potential polymeric system.

### **Research Project - Synthesis and Characterisation of Polymeric and Nanomaterial Gel systems for Water Shutoff and Profile Modification purposes in Oil Wells. | Mentor – Dr. A.K Choubey**

The study aimed at developing a low-cost novel gel system that can be used at production sites for Water Shutoff and Profile Modification Applications. In the study, a new crosslinked gel network was developed and was mixed with nanoparticles to form a nanocomposite gel material. The gel synthesized, displayed excellent profile modification and gelation characteristics which made it the perfect candidate for injection in oil wells for water shutoff and profile modification jobs. (Manuscript to be published soon).

### **Course Project – Thermodynamic and Kinetic study of Gas Exchange Processes in Naturally occurring Methane Gas Hydrates | Mentor- Dr. Umapasana Ojha**

Worked on formulating fundamental mechanism of CO<sub>2</sub> – CH<sub>4</sub> gas exchange process in Methane Gas Hydrates using Molecular Simulations, Numerical Computations and Laboratory Experiments over laboratory synthesized gas hydrates.

**Course Project – Computational Analysis of Boiling and Condensation Heat Transfer Coefficients for various flow schemes and arrangements and McCabe-Thiele & Ponchon- Savarit Calculations over Excel. | Mentor – Dr. Milan Kumar**

Developed Excel programs/sheets for :

1. Calculation of heat transfer coefficient for multiple fluids and flow schemes.
2. McCabe Thiele Tray Calculation and Ponchon- Savarit Enthalpy Calculations.

**Technical Project – Intelligent Fire Alarm System | Mentor – Dr. Susham Biswas**

Developed an Internet of Things based prototype smart alarm system with smart grid integration on Arduino Platform and using Amazon Web Services database.

**Technical Project - Wireless Gas Sensing and Terrain Mapping Probe | Mentor – Dr. Arshad Aijaz**

Developed an Internet of Things based prototype unmanned probe carrier for analysing toxic gas levels inside coal mines and mapping the pathway using a MATLAB Algorithm and ultrasonic sensors.

### AWARDS AND ACHIEVEMENTS

- Certificate of Academic Excellence for 1st semester at RGIPT.
- Recipient of RGIPT Merit-Based Scholarship for two consecutive years.
- 1st Prize in Poster presentation in Winter School 2019 at RGIPT
- 1st Prize in Project Exhibition in Winter School 2018 at RGIPT
- Student Delegate to IOCL Bulk Oil Terminal for Institute Academia Interface Program 2018.
- Qualified Engineering Entrance exam - JEE Advanced 2017 with an All- India Rank of 12835 among approximately 1.3 million candidates.

### TECHNICAL SKILLS

- **Computer Languages** – C/C++, Java and Python.
- **Tools** – MS Office, AutoCAD, SciKit Learn, Tensorflow, AWS, Tableau, Numpy, Pandas.
- **Scientific Computation Softwares** – Mathematica, AcuSolve for CFD, MATLAB, OriginPro, ANSYS.
- **Online Courses** – Business Intelligence Analyst Course (Udemy), Machine Learning A-Z Course (Udemy).

### POSITION OF RESPONSIBILITY

- **Tinkering Lab Convener**, Science & Technical Committee of RGIPT. (2018-2019)
- **Editorial Executive**, SPE RGIPT Student Chapter. (2018-2019)
- **Executive**, Designing and Creativity Team, Kaltarang (Cultural Fest). (2017- 2019)
- **Editor in Chief**, AICHE RGIPT Student Chapter. (2019- 2020)
- **Teaching Assistant**, Chemistry-101; Organic Chemistry and Pericyclic Reactions for B. Tech 1<sup>st</sup> year students, RGIPT.

### WORKSHOP AND CONFERENCES

- Participated in a Workshop on the Internet of Things by Skyfi Labs at RGIPT.
- Participated in a short term course on Embedded System Design in IoT by Oblu.io at IIT – Kanpur.
- Participated in a Workshop on Computational Fluid Dynamics by SkyFi Labs at RGIPT
- Participated in International Conference on Unconventional Energy Resources at RGIPT.
- Participated in Industrial Field Trip to Indian Oil Corporation's Panipat Oil Refinery.
- Participated in an Online Workshop on Ansys Thermal by SkyFi Labs.
- Participated in an Online Workshop on PLC and SCADA by SkyFi Labs.
- Participated in an Online Internship/ Training on Artificial Intelligence by Academy of Skill Development.