Pranjal Maheshwari
Final Year, RGIPT | Chemical Engineering Undergraduate
Male | 19/07/1999
(+91)-7728038920 | eche18061@rgipt.ac.in, pranjalmaheshwari265@gmail.com | Pranjal Maheshwari

A consistent, hard-working individual aiming to obviate barriers that can fuel the inclusive development of the nation.

EDUCATIONAL BACKGROUND

COURSE	INSTITUTE	CPI/CGPA/%	Year
B.Tech in **Chemical Engineering**	Rajiv Gandhi Institute of Petroleum Technology	9.68/10* ***Up to 5th Semester (Rank 1)**	2018-2022
XII, (CBSE)	Eden International School, Bhilwara, Rajasthan	95.00%	2017
X, (CBSE)	A'S Steward Morris School, Bhilwara, Rajasthan	10/10	2015

INTERNSHIPS

Propane Dehydrogenation | Vocational Trainee | GAIL India *July 2 – August 13, 2021*
Mentor**: Mr. KM Singh**

- Reviewed different fixed bed (CATOFIN) and moving bed (OLEFLEX) PDH technologies.
- Determined kinetics of Propane Dehydrogenation using Langmuir-Hinshelwood-Hougen-Watson Model for various mechanisms found in literature.

Process Engineering Intern | Anukoolan Solutions Pvt. Ltd. *July 21 – August 21,2021*
Mentor**: Hiren Shethna, PhD** *(CEO Anukoolan Solutions)*

- Developed customer based training videos of ASPEN PLUS block: **R-STOIC** [LINK] and **Degree of Freedom in Distillation Systems** [LINK] using ASPEN HYSYS.
- Studied fundamental aspects of Process Modelling and Simulation.

Knowledge Intern | Smart Factory, Indian Institute of Science (IISc), Bangalore *June 14 – July 31,2021*

- Analyzed the different parameters of Industry 4.0 obviating barriers in existing technologies in various sectors at Smart Factory, IISc.

Design of COVID 19 Waste Segregation Model and Study of Waste Disposal [LINK] *May 28- June 13,2021*
Society for Research & Initiatives for Sustainable Technologies & Institutions (SRISTI**) |** Summer School 2021
Mentor: **Prof. Anil K Gupta,** *Founder Honeybee Network, SRISTI*

- Studied complete cycle of COVID waste disposal and segregation through surveys in local areas
- Designed Prototype of dustbin in AUTO-CAD helping in segregation of different kinds of waste by inclusion of different segments in single dustbin.

PUBLICATION

Mohd. Belal Haider, **Pranjal Maheshwari**, Rakesh Kumar, CO_2 Capture from Flue Gas using Phosphonium based Deep Eutectic Solvents: Modelling and Simulation Approach, ***Journal of Environmental Chemical Engineering*** 2021,106727, ISSN 2213-3437, https://doi.org/10.1016/j.jece.2021.106727. *(Impact Factor ~ 5.9)*

INTERNATIONAL CONFERENCES

Experimental CO_2 Capture Using Deep Eutectic Solvents and Modelling of CO_2 Removal from Shale Gas
Undergraduate Research Presentation | AIChE Annual Meeting 2020[LINK] | **ISBN:** 978-0-8169-1114-1

Maheshwari Pranjal, Haider Mohd Belal and Kumar Rakesh, *Effect of Water Addition on CO_2 Solubility of Glycol-Based Deep Eutectic Solvents* (April 2, 2021). Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021, Available at SSRN: http://dx.doi.org/10.2139/ssrn.3818321

ACHIEVEMENTS & HONOURS

Awarded 500$ for winning **2021 Honeywell UOP Scale Up Sponsors Contest** by AIChE *2021*
Overall Rank 1 for (2018-22) in all Engineering Departments.
Secured Perfect **10 GPA** in II and V semesters.
Awarded by **2019-20 Donald F. Othmer Sophomore Academic Excellence Award** by AIChE International *2020*
Winner of Brain Teaser 2020 organized by **DEW Journal**. *2020*
Funded 320$ by **Institute for Sustainability (IfS)** for presenting research work at ICOSSE'20. *2020*
One among 30 students nationwide selected by **HPCL R&D** for New Generation Ideation Contest 2019. *2019*
Recipient of **RGIPT Meritorious Award** for consecutive 3 years**,** awarded to Top 5% students.
Received **Academic Excellence Award** for securing the highest SPI in Chemical Engineering Department. *2019*
Qualified **IIT JEE Advanced 2018** *2018*
Appreciation Letter for excellent performance in CBSE examination by the MHRD Minister, GoI. *2015*

PROJECTS

Thermodynamic Modelling of CO_2 Capture using Deep Eutectic Solvents [LINK] *April 2021-September 2021*

Mentor: **Dr. Rakesh Kumar** | Green Separations Lab, RGIPT

- Optimal value of Peng Robison binary interaction parameter was evaluated from experimental data.
- Critical Properties of DESs were calculated and CO_2 solubility in amine and glycol based DESs were evaluated.

CO_2 Capture from Gas Streams using Phosphonium-based Deep Eutectic Solvents [LINK] *August 2019- March 2020*

Mentor: **Dr. Rakesh Kumar** | Green Separations Lab, RGIPT

- Experimentally determined absorption capacity of thermally stable Deep Eutectic Solvents.
- Developed Process Flow sheet of CO_2 removal from real flue gas stream using ASPEN Plus.

Institute for Sustainability: Newsletter *April 2020- May 2020*

Mentor: **Ms. Lucy Alexander** | Institute for Sustainability (IfS), AIChE

- Studied business policies, industry and market trends, technological advances in industrial sectors, and other events relating to the state of sustainability and environmental protection globally for Newsletter 2020.

POSITION OF RESPONSIBLITIES

Student President | AIChE RGIPT Student Chapter *2021- Present*

Student Representative | Departmental Undergraduate Committee (DUGC), CEBE *2020-Present*

Student Mentor | Mentor-Mentee Network, RGIPT *2020-2021*

Vice-Captain | Table Tennis Team, RGIPT *2020- Present*

Research & Development Officer | AIChE RGIPT Student Chapter *2020-2021*

Event Executive | IIChE RGIPT Student Chapter *2019-2020*

Teaching Volunteer | Arpan Social Club, RGIPT *2018-2019*

SKILLS

- Auto-CAD | 3D Visualization | Sketch Up
- ASPEN PLUS | DWSIM
- MATLAB | C

MOOCs

- **Oil & Gas Industry Operations & Market** | Coursera
- **Exploratory Data Analysis with MATLAB |** MathWorks.
- **Petroleum Refining- Complete Guide to Products & Processes** | Udemy
- **An Introduction to Process Safety** | ELA 950 SAChE Certification by AIChE
- **Online Summer Internship 2020: Petroleum Refining |** IIChE