



# Rakshitha C

Kanasu building 2nd floor Opposite dream City PG

MSR road, Mathikere extension 560054

7348839958 | rakshitha.kantha98@gmail.com

[in https://www.linkedin.com/in/rakshitha-c-931b0b213](https://www.linkedin.com/in/rakshitha-c-931b0b213)

## Objective

Enthusiastic chemical engineer eager to work in environment which encourages me to succeed and grow professionally where I can utilize my skills and knowledge appropriately and drive the organization towards sustainable future.

## Experience

### • Poornaprajna Institute of Scientific Research

- June 2022 – September 2023
- Research engineer
- Worked on **Sulzer GTC sponsored project**.
- **Methanol** being a side product of many petroleum industries is used to produce more valuable product along with Dibromo methane. We work on catalysts that helps in producing good yield and develop suitable model to carry out the reaction in the industrial level. We have also carried out the kinetic study by conducting reaction at different temperatures.
- Working on this project has sharpened my basic research skills. I have also learned different analysis and characterization techniques **like XRD, BET, TPD and FTIR**.
- The reactions were carried out in a **fixed bed reactors** and it was a continuous reaction. We also used different unit operation such as condensation, extraction and separation which helped me to stay connected to my basics.

### • Indian Institute of Science (CGPL)

- September 2023-Present
- Project Assistant
- **Hydrogen Purity Analysis:** Utilize various gas analysers (GC TCD, GC MS, SCD) to ensure hydrogen is free from contaminants and verify its composition.
- **PEM Fuel Cell Testing:** Conduct operational tests on PEM fuel cells using the produced hydrogen at different flow rates and ratios to ensure optimal performance.
- **Methanol Synthesis:** Synthesize methanol by employing catalysts and utilizing syngas produced in-house.
- **Data Collection and Reporting:** Collect and analyse data from various tests, ensuring accuracy and reliability, and prepare detailed reports on findings.
- **Equipment Maintenance:** Maintain and calibrate gas analysers and other testing equipment to ensure accurate and consistent results.

## Education

- **Ramaiah Institute of Technology**
  - BE/Chemical Engineering
  - 7.52%
  - 2020
- **BGS PU College**
  - PCMB
  - 90%
  - 2016

- **BGS World School**
  - ICSE 10<sup>th</sup> Board
  - 70%
  - 2014

## Skills

- Chemical Process Optimization
- Product analysis using Gas chromatography and different characterization techniques.
- Basic understanding of ASPEN HYSYS and ASPEN PLUS
- Analyzing and troubleshooting
- Laboratory Operation
- Good with Microsoft office tools
- Excellent communication and Teamwork

## Projects

- **Catalytic Conversion of Levulinic acid to Ethyl levulinate-a biofuel additive**

In today's world scenario reducing the use of nonrenewable source is a major concern. To tackle the above we came up with a solution for blending the biofuels with ethyl levulinate which can be derived from levulinic acid using a catalyst. We chose and developed a nano catalyst (composite of titanium oxide and tungsten oxide) over other due to its high surface area and less reaction time. We varied reaction parameters such as speed of agitation, temperature, catalyst composition and catalyst loading to optimize and get better yield.

## Interests

- To follow daily current affairs
- Reading books
- Travel & explore
- Always eager to learn new things

## Languages

- English
- Kannada
- Telugu
- Hindi

## Personal Strengths

- Smart, Hard Working and Quick Learner
- Strong design and technical knowledge

## Declaration

I hereby affirm that the information furnished by me is correct and I accept full responsibility for the authenticity.

