

EDUCATION (Name: Amit Singh, Enrol. No: 22908003, From Rohtak, Haryana)

Guru Gobind Singh Indraprastha University	Dual degree of Technology in Chemical Engineering	2015– 2022 GATE SCORE 324 (2022) Chemical engg.	63.3% B. Tech and 82.1% MTech
Old Dominion University, USA	PhD	2025	ML, Aquatic Chemistry, Developed GIAN course “Renewable Carbon and Fuels from Organic waste”
IIT Roorkee	Research Experience	2022-2024	https://doi.org/10.1016/j.scca.2024.100046

INTERNSHIPS

Position served (Intern)| organisation served.

- Laboratory (Internship, June, July 2018-42 days): It was under (Assistant Professor, USCT) **Dr. Deepak Garg**, Formation of activated charcoal with peanut shell and production of alginate bead. Checking the efficiency of alginate bead during adsorption. An activated carbon containing alginate bead adsorbent was developed and successfully used to simultaneously remove heavy metals ions and toxic organics. Alginate component has a major role in the removal of heavy metals.

Work Experience

- Intern at IMARC Pvt Ltd. as Market Researcher for writing a Pricing Report of Chemicals, Feb 2022 to July 2022. Internship 6 months at IMARC PVT. LTD, Market research. My task was to write a Pricing Report for chemicals for four quarters based on different regions around the world.
- Subject Matter Expert Chemical Engineering at Trivium Education Service on Bartleby platform.
- Acadecraft Pvt. Ltd. as Subject Matter Expert Chemical Engineering for 2 months, March 2020 to April 2020.
- Part-time online SME for chemical Engineer at Bartleby and Chegg online solution developing platform.

PROJECTS

Feasibility report on GMS

Dr. Sanigdha Acharya

Duration 2019-2020(Nov)

- Industrial optimization, plant description, economics, and real data case study of production of **Glycerol Monostearate (GMS)**.
- M.Tech Project (2020-2022): Electrocoagulation of BASIC GREEN 4 DYE from Textile wastewater using Design Expert Software for optimization.
- Research experience in the domain Post post-processing of pyrolysis oil, Stabilization, upgradation, and value-added products derived from sugarcane bagasse.
- FBR Reactor handling, SCADA Interface, HPLC, GCMS, LCMS, FTIR, Rheometer, CHNS, GPC, NMR, Bomb Calorimeter, Laboratory management skills, Origin, paper writing skills, Report writing, IELTS score 6.5, SOPs, Poster, and oral presentation skills.

SKILLS

- Technical Skills:** Design Expert software 11, Microsoft (Excel, PowerPoint, Word), Origin.
- Handling of **Fixed bed Reactor** with SCADA interface for Pyrolysis of Biomass/plastics etc.,
- GCMS, FTIR, Rheometer**, LCMS, BET, GPC, NMR, Bomb Calorimeter, characterization techniques.
- Lab scale Management equipment's like weighing machine, oven, sample handling, etc and lab related purchasing and billing for equipment's and chemicals and data analysis, MATLAB.

Submitted Publication:

- “Recent Efforts in Bio-oil utilization and upgradation: A review” Submitted
- “**Comprehensive analysis of pyrolysis reactors and condenser systems for Biomass Valorization**” Published: Sustainable chemistry for climate action, IIT Roorkee, Project.
- “**Integrated Experimental and Computational Analysis of Combustion and Pyrolysis Behavior in Rice Straw and High-Ash Indian Coal Blends.**” In Journal of Thermal Analysis and Calorimetry

Conferences:

- Presented an oral presentation titled: “**Determining Bio-oil Aging through viscosity and carbonyl compound**” in ChEmference 2023 Bits Goa.

Teaching Experience:

Teaching Assistant (2022-2024)

- Chemical reaction engineering laboratory, Tubular reactor (specifically)
- Process Integration (quizzes, PPT)
- Process Design Economics

References:

1. Dr. Arif Ali Khan, Assistant Professor USBAS, GGSIPU, Dwarka Sector 16c, Delhi-110078. khanaarif@hotmail.com
2. Dr. Dinesh Kumar, Associate Professor USCT, GGSIPU, Dwarka Sector 16c, Delhi-110078, dinesh.usctfac@ipu.ac.in
3. Dr. Monisha Mridha Mandal, Associate Professor, GGSIPU, Dwarka Sector 16c, Delhi-110078, monishamridha1@ipu.ac.in
4. Dr. Deepak Garg, Associate Professor, GGSIPU, Dwarka Sector 16c, Delhi-110078, deepak@ipu.ac.in