ANGSHUMAN BURAGOHAIN

R&D Process Engineer

Am Münchfeld 51, 80999 Munich
Tel: +4917685208690
email: angshumanburagohain@gmail.com

Summary

- Process Engineer with 4+ years of professional experience.
- Specializes in designing core processes and developing technologies essential to the global energy transition, including H_2 purification and CO_2 capture.
- Leads and contributes to the design and development of adsorption processes and systems from concept generation to commercialization.
- Supports technical decision-making across multi-national project environments, with expertise spanning the full project spectrum — from complex bidding phases to steering process engineering during execution and delivering specialized technical solutions, including on-site support to clients worldwide.
- Brings varied hands-on experience across petrochemical operations, chemical industry sites, refinery environments, plastic recycling pilot plants, and research institutions.
- Backed by a strong academic foundation with an M.Sc. in Chemical and Energy Engineering.
- Committed to translating advanced engineering principles into practical, scalable technologies that accelerate carbon neutrality and enable a sustainable energy future.

EDUCATION

Otto-von-Guericke University — *April 2018 – Jan 2021*
M.Sc. Chemical and Energy Engineering
Grade: 1.8 | Master thesis: 1.3
Thesis summary: Master thesis on Power to X

Assam Engineering College — *Aug 2013 – Aug 2017*
B.E Chemical Engineering
Grade: 77.56% with Honours

EXPERIENCE

Linde Engineering, Linde GmbH, Pullach

R&D Process engineer — *Nov 2022 – present*
- Development of innovative concepts for the recovery and separation of gases by Pressure Swing Adsorption for research and commercial projects.
- Collaboration with technical sales to prepare proposals for client requests.
- Co-ordination with Project Management for technical discussions and execution.
- Field implementation, start-up support and confirmation of initial performance.
- On-site client's assistance for troubleshooting and performance improvement.

Process design engineer — *Nov 2021 – Nov 2022*
- Process studies, engineering, proposal preparation and project execution
- Process design, simulation and optimization of Natural gas and LNG plants
- Documentation, PFD development, calculation of equipment specifications
- Client negotiations and multi-disciplinary discussions during project execution

German Aerospace Centre (DLR), Stuttgart

Graduate research assistant — *April 2020 – Oct 2020*
- Process design and simulation of Power-to-LNG using ASPEN v.10
- Detailed engineering of process and sizing of equipment
- Design of kinetic reactors for simultaneous CO and CO_2 methanation
- Energy efficiency analysis and cost optimisation (according to AACE class 3)
- Achieved LNG production with >99% CO_2 conversion and ~98% mol CH_4 in product

Brahmaputra Cracker and Polymer Limited, Lepetkata

Graduate Engineer — *Sept 2017 – Feb 2018*
- On-site field process engineer in petrochemical production
- Monitoring and operation of processes through PLC
- Process inspection, supervising safety procedures during maintenance
- Methodological plant operation and man power management

Indian Oil Corporation Limited (Assam Oil Division), Digboi

Industrial Trainee — *Dec 2015 – Jan 2016*
- Industrial on-site training of unit processes in an oil refinery
- Plant operation, analysis of process flow and P&ID diagram
- Operation of distillation, quenching columns, heat exchangers, reactors

Central Institute of Plastics Engineering and Technology, Guwahati

Trainee — *June 2015*
- Hands on pilot plant experience in waste plastic management
- Plant operation for conversion of waste plastics to fuel oil
- Supervised training in parameter optimisation and analysis of process scale-up

Oil India Limited, Duliajan

Trainee — *June 2014 – July 2014*
- Laboratory training in the R&D of Oil exploration and extraction company.
- Laboratory analysis on characterisation of oil samples using FID Gas Chromatograph.

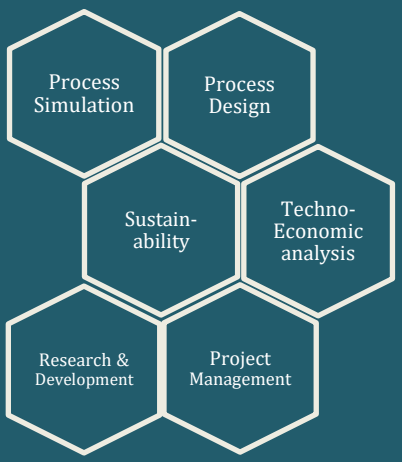
LANGUAGES

English	5 - Fluent
German	3 - Professional
Hindi	5 - Fluent
Assamese	5- Native

SOFTWARE

- ASPEN v.10
- ChemCAD
- Matlab
- Star CCM+
- Ansys
- MS Office
- SAP

THEMATIC INTERESTS



ACTIVITIES

Project management volunteer, Humane Warriors

Member, ekipa Alumni Club

Former volunteer, National Service Scheme, India

Former member, Cultural team, Magdeburg Indians e.V

Former student member, 12th International Symposium on Surface Engineering, Paints and Coating organized by SSPC India

ACADEMIC PROJECTS

Techno-economic analysis for renewable LNG production routes in the MENA region

German Aerospace Center (DLR), Stuttgart

• Process modelling and simulation using ASPEN plus • Detailed engineering of upstream, midstream and downstream processes, equipment design and sizing • Reactor design, implementation of kinetic model data • Cost analysis using standard process (AACE class 3) • Energy optimisation by heat integration • Process parameter determination and optimisation • Achieved >90% process efficiency • Optimised net production cost per kg LNG.

• **Link:** Master thesis on Power to X

"CO_2 from waste to value" - Challenge

Independent undertaking

• Challenge initiated by EnBW, organised by ekipa • Business ideation for CO_2 capture and utilisation • Plant material balances and capacity estimation • Process design and simulation using ASPEN • CO_2 capture and conversion to methanol integrated with biogas plant • Achieved technical feasibility and forecasted economic viability

• **Link**: https://github.com/AngshumanBuragohain/CO2-Waste-to-value

Simulation of Neopentyl glycol production using ASPEN plus

Otto-von-Guericke University

Process modelling and simulation of NPG production • Aldol condensation of formaldehyde and isobutyraldehyde • Custom molecule modelling of hydroxypivaldehyde • Distillation column design and stage analysis

• **Link**: https://github.com/AngshumanBuragohain/ASPEN-plus-NPG-Manufacture

Mathematical Simulations of Mechanical processes using MATLAB

Otto-von-Guericke University, Germany

• MATLAB programming and simulation of mechanical processes: *Crushing of Sand*, *Sieving Kinetics* and *Collision of particles* • Differential and integral equations modelling • FDM using Euler, RK4 • Statistics: Uniform and normal sampling • Monte Carlo methods • Residual monitoring and error reduction below 0.1%

• **Link**: https://github.com/AngshumanBuragohain/Process-Simulation

Modelling and Simulation of standard CFD nozzle using Star CCM+

Otto-von-Guericke University

• CAD modelling and meshing of nozzle geometry • Implementation of K-ε and K-Ω turbulence models for sudden expansion • Analysis and optimisation of results and convergence data to find the best model • Validation of the model by profile comparison with experimental data from three standard laboratory experiments

• **Link**: https://github.com/AngshumanBuragohain/Star-CCM-

Declaration

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Munich, 20.01.2026

Place, Date

Angshuman Buragohain

Signature

ACHIEVEMENTS

Recipient of DAAD scholarship

Recipient of NEC Merit Scholarship

Recipient of Amul Vidyashree Award

OTHER INTERESTS

WEBSITES

https://github.com/Angshuman Buragohain

https://linkedin.com/in/angshuman buragohain

https://angshumanburagohain.com/