

Shah Rukh Jamil

Engr., Ph.D., Energy & Process Engineering Professional

Legally Authorized to Work in the Netherlands

Contact

Email: [REDACTED]

Mobile: [REDACTED]

Address: Gravestein 843, 1103 BH Amsterdam,
North Holland, Netherlands

Education

- **PhD Energy and Process Engineering**
Xi'an Jiaotong University, China
(2018-2021)
- **MSc Mechanical Engineering (Thermal Systems)**
University of Engineering & Technology, Pakistan
(2015-2018)
- **BSc Mechanical Engineering**
University of Wah, Pakistan
(2010-2014)

Expertise

- Process Design, Modeling and Simulation
- Techno-Economic Feasibility Studies
- Lab/Pilot Scale R&D, Process Scale-Ups
- Process & Energy Engineering
- Thermal Systems Engineering
- Carbon Capture (CCU/CCUS)
- Heat Pumps (HVACR)

Technical Skills

- Aspen Plus/HYSYS
- Epsilon
- AutoCAD
- Pro-E

Memberships

- **Registered Mechanical Engineer**
Pakistan Engineering Council (PEC)
No: MECH/27754
- **Certified Thermal Engineer**
Anhui Professional and Technical-
Qualification Certificate, China
No: 9 [REDACTED]

Languages

- Dutch (Learning)
- English (Fluent)
- Urdu (Fluent)
- Chinese (Intermediate)

Scientific Outputs

- 09 scientific research publications
- 01 invention patent (in Chinese)

Interpersonal Skills

- Analytical thinker with problem solving mind set
- Multi tasker with quick learning abilities
- Naturally organized team player

Career Summary

- Professional Engineer with over 09 years of hands-on experience
- Process and energy systems development and integration specialist
- An all-rounder with theoretical and practical endeavors in engineering
- An agog to take on new responsibilities, tasks and skills

Professional Experience

Process R&D Engineer

MetaEnergy Technologies Limited, China
[REDACTED]

- Applies engineering principles to develop processes and solutions for the energy and process sector
- Contributes to the evaluation of new technologies and processes, ensuring reliability, repeatability, cost-effectiveness, and successful process scale-up
- Manages and develops technologies from innovative concept to bench/lab scale to pilot scale and further qualify toward commercial scale
- **Project:** 300kg/h CO₂ Capture, Pressure Boosting and Utilization Project (Pilot Plant installed and operated at Tianjin Soda Ash Factory (China) to test the process of capturing and delivering high pressure CO₂ in One-Step to eliminate the energy intensive compression process. As a team member, I:
 - Worked on the design and development of One-Step CCU Pilot Plant
 - Developed and tested novel absorbents at pilot scale for several months
 - Performed simulations to validate and compare the pilot test results
 - Conducted techno-economic feasibility for technology scale-up

Research Associate

Xi'an Jiaotong University, China
[REDACTED]

- Engaged in scientific research activities of various governmental and industrial R&D projects
- Interpreted and evaluated research findings to derive meaningful conclusions for the dissemination of results through publications, reports, conferences and meetings
- Topics researched: Rotary Regenerative Heat Exchangers with Thermal Energy Storage (Gas-to-Gas HE's), Waste Heat Driven High-Temperature Compression Heat Pumps, Geothermal Organic Rankine Cycles (ORC's), Natural Gas Liquefaction Systems, Solar and Biomass Driven Power Plants, Open Absorption Heat Pumps for Desalination and Compressed Air Drying Applications, Post-Combustion Carbon Capture (CCU), and Techno-Economic studies

Mechanical Engineer (Projects)

Fauz Engineering Limited, Pakistan
[REDACTED]

- **Project:** Attock Refinery Limited (ARL) Up-Gradation Project, Pakistan
Contractor: Hyundai Engineering Limited, Korea
- Planned, organized and executed the fabrication and erection of process, steam and fire water piping activates
- Carried out Mechanical Clearances, Conducted Hydro and Pneumatic tests, fulfilled commissioning and Pre-Commissioning requirements of the project
- Coordination with Engineering and Construction teams and liaised with Clients on detailed engineering design/requirements
- Monitored the erection, commissioning and startup activities in:
Isomerization Unit (ISOM), Light Naphtha Hydro Treating Unit (LNHT), Sulfur Block (SRU, AMU & SWU), Steam Generation Unit, Compressed Air Unit and Power Plant Unit (03 Gen sets, each of capacity 7 MW, by MAN D&T)