
SAHIL KUMAR

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PROFESSIONAL SUMMARY

Detail-driven Process Engineer with more than 6 years of experience in Fortune 500 oil, gas and technology company. HTRI, Aspen and PIPENET trained professional with a track record driving Scale-up projects. Innovative problem solver and skilled communicator focused on effective project management.

AREAS OF EXPERTISE

Process Design Package Development/ FEED	Aspen Plus/ HYSYS
Hydraulics and Line Sizing	HTRI
Techno-Economic Analysis	AutoCad
Project Management	Commissioning and Pre-commissioning activities
Basic Engineering	Operations Management

PROFESSIONAL EXPERIENCE

Reliance Industries Ltd., Navi Mumbai: Dec 2016 to Present

Project: Algae to Oil - P1

Position: Senior Process Engineer

Developed Flow Control scheme for Sea water Cross Country pipeline from RIL Tank Farms to R&D site.
Designed High Temperature Exchanger as part of Biomass to Oil Unit De-bottlenecking.

Reliance Industries Ltd., Navi Mumbai: Dec 2016 to Present

Project: Technology Development for Extraction of High Value Chemicals from non-terrestrial Biomass

Position: Senior Process Engineer

Literature Survey, Lab Scale experimentation, design data generation, Development of Simulation, Pilot Scale Process Conceptualization including Equipment Design, Techno Economic analysis for commercial scale feasibility.

Reliance Industries Ltd., Navi Mumbai: Jun 2015 to Dec 2016

Project: A2O P1 commissioning

Position: Process Engineer

Prepared Process Documents including SOPs, SOCs and Operating Manuals for Hydrothermal Liquefaction and Catalytic Hydrogenation process, the final stage of Algae to Oil Phase 1 that converts biomass to oil.
Provided Commissioning support to site Operations Team for timely start up for the Unit
Generated Trial data for design validation and scale-up and De-bottlenecking studies.
Developed PIPENET Model for the whole Water network to review the design and adequacy check.

Reliance Industries Ltd., Navi Mumbai: Oct 2015 to Jul 2016

Project: Process Design Package development PP/PE catalyst facility

Position: Process Engineer

Preliminary Capex estimation of pilot scale catalyst preparation unit facility.
Preparation of PFDs, P&IDs, Equipment List, Control Philosophy and Equipment Layout.

Reliance Industries Ltd., Navi Mumbai: Dec 2013 to Jun 2015

Project: Algae Tec. Photo Bio reactor System **Position:** Process Engineer

Techno Economical Analysis to evaluate the Model on commercial scale.

Redeveloped Basic Engineering Package including Process Flow Diagrams, Piping and instrumentation diagram, process datasheet, equipment layout, Equipment List, Cause and Effect Diagram submitted by Licensor
Reviewed Detail Engineering Contractor's documents . Conducted HAZOP .

Reliance Industries Ltd., Navi Mumbai: Jul 2011 to Dec 2013

Project: Operations Management **Position:** Field Engineer

Handled Effluent Water Treatment Plant, Desalination Water Unit, Reverse Osmosis Unit, Nitrogen (Air separation) Unit, Air Compressors, among other Utility Plants.

Performed a variety of other critical functions, such as Unit shut down & start-up, chemical inventory management, operating all process equipment within desired window, adhering to standard operating procedures and best practices, ensuring compliance to the work permit system.

Part of ETP De-bottle necking project commissioning team, where role consisted

-Initial HAZOP study, review Vendor Documents and PHA study.

-Coordinating Vendor demands with RIL management and vice versa, while making sure mechanical completion is done and the unit gets commissioned within time frame and safety standards including site commissioning activities.

-Training to O&M staff, Compiling SOPs, SOCs, and Plant specific Checklists

EDUCATIONAL QUALIFICATION

Degree/Certificate	Institute/School	Year	Percentage
B.E. Chemical (with Hons)	University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh	2011	71.89%
Class XII CBSE	GMSSS, Sec 16, Chandigarh	2007	87.20%
Class X CBSE	DAV Sr. Sec. Public School, Sec-8, Panchkula	2005	87.20%

PROJECTS AND TRAINING

Basic Process Design for Urea Manufacturing Unit, Bachelor Thesis Project (Jul/2010 to Mar/2011)

- Technology selection, Material and energy balance, basic process control, plant layout and cost estimation for a 750 TPD Urea plant. Equipment design for reactor and heat exchanger.

Detailed Study of Atmospheric and Vacuum Unit, IOCL, Panipat (May/2010 to Jun/2010)

AWARDS AND INTERESTS

1. Awarded with "R&D: On the Spot" award for demonstrating Ownership Mindset and Excellence in AT-PBR Project.
2. Appreciated by RIL R&D Business Head for the ingenious method developed for estimating cost for pilot scale set-ups.
3. Part of the Working Committee of the annual departmental fest CYANIDE-2010 & 2011.
4. Hobbies include Cooking, Collecting Pens and collecting trivia on movies.