

Holds a B. Sc. in Chemical Engineering and has over 14 years experience working as Chemical / Process Engineer in Oil & Gas, Refinery, Chemicals/Petrochemicals and Fertilizers industries.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 15/04/1985
Gender : Male
Marital Status : Married
Residence : Currently KSA

EDUCATION

: B. Sc. in Chemical Engineering, Suez Canal University, 2007

LANGUAGES

Arabic : Native Language
English : Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: Steady state and dynamics simulation software: Aspen HYSYS - HYSYS Dynamics - PRO II - UniSim - PetroSim - ProSimPlus STANDARD, HNO3 - VMGsim
: Asset performance management: Aspen Mtell
: Self-Services Analytical tool for Process Engineers: Seeq
: Advanced Process Control: Honeywell APC - Profit Controller
: Technip Pyrotec SPYRO Simulation software for steam cracking furnaces
: The Dynamic Multiphase Flow Simulator (OLGA)

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Oct. 2020 till now
Employer : SABIC, KSA
Project : SABIC KSA Olefins plants
Job title : Process Engineer - Manufacturing Process Plant Performance - Corporate Digitalization Program (CDP)
Job Description :

- Responsible for implementing Plant Efficiency (PE) initiative in all SABIC manufacturing Olefins plants.

- Main contribution/achievements:
 - Leading SABIC digital transformation technical team to implement Data Analysis/Machine Learning Pilot Projects; Plant Efficiency (PE) & Asset HealthCare (AHC) for OLF III Plants:
 - ❖ Completed with Yokogawa/KBC a PetroSIM digital twin for all OLF III four plants (PE).
 - ❖ Built with Aspentech team Failure/Anomaly agents for all OLF III critical rotating equipment (AHC).
 - Currently implementing a new PE project for Petrokemya OLF I & OLF II plants that aim to develop Digital Solutions for:
 - ❖ Furnace run-length prediction - Quench/CGC fouling monitoring - Acetylene reactor gain maximization and run-length extension.
 - Applying dynamic profit optimizer through APC to all SABIC olefins plants for yield optimization.

Dates : From Feb. 2015 till Oct. 2020

Employer : PETROKEMYA - SABIC AFFILIATE, KSA

Project : OLF 3 (Steam Cracking Olefins) Plant

Job title : Engineer, Process - Olefins Hydrocarbons - Process Engineering Department

Job Description :

- Technical Process Engineering support engineer to OLF III plants which includes:
 - (C2/C3 Stream Cracker) Ethylene plant (Stone & Webester Technology) Hot & Cold Sections (Ethylene - Propylene - C4 mix - C5+ Products).
 - GHT II (Pyrolysis Gasoline Hydrotreater - Axens IFP License).
 - Benzene Unit II (PYROTOL Hydrodealkylation - Lummus License).
 - Butene -1 Unit No.3 (SHP-CD - UOP License).
- Main contribution/achievements:
 - Completed Quench Improvement Project (QIP) to solve chronic Oil/Water separation fouling problems in Quench Loop Heat Exchangers and CGC Compressor, resulted in the best summer performance of the system in the whole plant history.
 - Completed a trial for operating the plant without the de-methanizer stripper, which avoided a complete plant unplanned shutdown.
 - Commissioned APC in all plant sections, including overall yield optimization controller.
 - Completed Acetylene reactor monitoring sheet to achieve maximum ethylene gain with prolonged run-length.
 - Completed Debottlenecking project for GHTII/BZII, Performance Test Guarantee Completed successfully.
 - Complete a revamp scoping study for Butene-1 No.3 plant.

Dates : From Feb. 2013 till Feb. 2015

Employer : Egypt Hydrocarbon Corporation (EHC), Egypt

Project : Nitric Acid, Ammonium Nitrate and Utilities Plants

Job title : Engineer, Process - Process Engineering - Technical Services Department

Job Description :

- Technical Services during construction/pre-commissioning and commissioning/start-up phases of the plant process (Nitric Acid & Ammonium Nitrate) and utilities.

- Main contribution/achievements:
 - Achieved a successful commissioning and start-up of the Process and Utilities Plants.
 - Completed technical evaluation of the chemical water treatment program tenders for the plant water utilities (Pretreatment/RO Units - Cooling Towers - Boilers).
 - Completed performance monitoring sheets for both Process/Utility plants considering plants main KPIs.
 - Completed a steady-state simulation model for HNO₃ plant using ProSimPlus HNO₃.

Dates : From Sep. 2011 till Feb. 2013

Employer : OnSpec Tawakol Engineering and Contracting, Egypt

Job title : Process Engineer - Process Modeling and Simulation Department

Job Description :

- Professional steady state and dynamics process simulator using Aspen HYSYS and HYSYS Dynamics.
- Main contribution/achievements:
 - Completed building the steady state, dynamics simulation models - testing & reporting transient scenarios results for the following projects:
 - ADMA (FLUOR) - UMM LULU FULL FIELD DEVELOPMENT PROJECT (ULFFDP) - Gas Plant.
 - MAERSK OIL QATAR - EA Separation Train - Off-shore surface facilities plant.
 - CRYOSTAR - DAELIM - KNPC LPG Train-4 Project at MAA Refinery - NGLs Recovery plant.
 - ENPPI - PhPC - WH Process Facilities - WH Expansion Project - Gas compression and treatment.

Dates : From Oct. 2007 till Sep. 2011

Employer : Soukhna Refinery and Petrochemicals Co. (SRPC), Egypt

Job title : Process Engineer - Projects Department

Job Description :

- Technical services during the project conceptual design and Basic/FEED engineering phases.
- Main contribution/achievements:
 - Completed the plant block flow diagram configuration (LP configurations activities), choosing the best bottom of barrel conversion technologies.
 - Completed reviewing process engineering deliverables from licensor (Shell) and contractor (Technip) for Hydro-treatment units (DHT-KHT) and Hydrocracking unit (HCU) through the project conceptual, Basic Process Design Package (PDP) and FEED phases.
 - Technical review of all process engineering deliverables (PFDs & HMB, P&IDs, data sheets and operating manuals...etc.).
 - EPC contracts ready for implementation,