CURRICLUM VITA

## PERSONAL DATA

Name: Mohamed Ibrahim Abdelhamid

Present Position: Teaching/ Research Assistant

Affiliation: Chemical Engineering Department, Faculty of Engineering, Cairo University

Field of Specialization: Process Engineering

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Date of Birth: 29/10/1985

Nationality: Egyptian

## ACADEMIC QUALIFICATIONS

1. B. Sc. in. Chemical Engineering
2. M.Sc. in Chemical Engineering- In progress

Thesis Title: Comparative Study of Turbine-Based Natural Gas Liquefaction

#### PROFESSIONAL EXPERIENCE

Name of Employer Duration Position Held

##### CB&I Lummus 14 months Process Design Engineer

Cairo University, Feb.2010-Present Teaching/ Research Assistant

Chemical Engineering

Department

##### M.Sc and PH.D SUPERVISED N/A

##### TEACHING EXPERIENCE

1. Undergraduate Courses

o Fundamentals of Chemical Engineering (Main Process Equipment, Degrees of Freedom, Material & Energy Balance & Introduction to Separation Techniques)

o Mass Transfer Operation (Multi-component Distillation, Design of Packed & Tray Distillation Columns, Liquid-Liquid Extraction & Adsorption)

o Heat Transfer Operations (Modes of Heat Transfer Including Conduction, Convection & Radiation, Design of Double Pipe & Shell and Tube Heat Exchangers)

o Advanced Separation Techniques (Ion Exchange & Chromatograph)

o Applications of MATLAB in Chemical Engineering

o Process Control for senior undergraduate petrochemical engineering students

1. Postgraduate Courses

o Steady state simulation using Hysys in graduate studies of Diploma of Natural Gas Processing & Engineering, Mining Studies & Research Center (MSRC), Faculty of Engineering, Cairo University

o Technology of Liquefaction of Natural Gas in graduate studies of Diploma of Natural Gas Processing & Engineering, Mining Studies & Research Center (MSRC), Faculty of Engineering, Cairo University

1. B.Sc. PROJECTS SUPERVISED

Design of reverse osmosis water desalination system-4th year students-2012

**Patents and Publications**

Abdelhamid, M. I. (2014, December). Comparative study of turbine based small scale natural gas liquefaction. The Transactions of the Egyptian Society of Chemical Engineers, 41(1).ISSN 1012-6007

###### PROFESSIONAL ACTIVITIES

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o Performing technical study for various projects (H2S removal from sour crude, N2 removal from natural gas stream & LNG small scale plants)

o Performing Hazard Identification Studies (HAZID)

o Participating in Hazard Operability Study (HAZOP)

o Performing process steady state simulation using Hysys for Early production Facilities for Oil and Gas wells

o Performing basic Process design calculations (line sizing, pump calculations, safety valve calculations & control valve sizing…etc)

o Performing Flare Design for the Early Production Facilities

o Performed process steady state simulation using Pro II software for Hydrogen Production unit

o Successfully performed & led process dynamic simulation project for Hydrogen Production Unit & Naphtha Isomerization Unit using DYNSIM software

o Wrote Process description for various processes such as Steam Production unit for Electric Power Plant

o Participated in writing technical proposal & RFQ for Pressure Swing Adsorption Unit

o Created P&IDs for Fire Fighting System

o Performed basic Process design calculations (line sizing, pump calculations, safety valve calculations & control valve sizing…etc)

o Created Data Sheets for Heat Exchangers, Air Blowers, Distillation Columns, Storage Tanks & pumps

o Modified, updated and created P&IDs using Smart Plant P&ID for various projects such as Atmospheric/Vacuum Distillation, Fluidized Catalytic Cracker, Ethylene Cracker, Delayed Coker & LPG Tank Farm

o Checked Mechanical Design Diagrams for Fluidized Catalytic Cracker & LPG Tank Farm

o Worked as a focal point between Den Haag office, NL & Cairo office in an Atmospheric/Vacuum Distillation project for an Indian client

o Spent a 6-month assignment in Den Haag for training and to participate in various projects

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**AWARDS**

N/A

**Area of Research:**

Process Optimization-Liquefaction-Heat Exchanger Network Synthesis- Cryogenics-Pinch Analysis