Munier Ahmed Ahmouda Elsherif, PhD

Kuala Lumpur, Malaysia
+601137670474
m.elsherif@optimizeeng.com

Executive Summary

Passionate and results-driven professional with a passion for solving problems through collaboration and data-driven decision making. Ph.D. in Chemical Engineering with an emphasis on Process Engineering as well as experience in Oil Refinery Plant Operations including Process models for refining units. Refining APC enthusiast with abilities to talk knowledgeably about an optimizing APC technology such as DMCplus/DMC3, experience in Online and Offline Data Reconciliation, Estimation and Validation of slowly changing parameters for Process Control schemes. Process Simulation, Optimization, and Data Management in Oil Refinery using Aspen Report Writer, User Calcs, and Customized functionality for APC and API via VB/VBA code.

Possesses a strong mindset with a demonstrable track record of managing crucial and fast-moving operations in the Petrochemical and Scientific industries.

Innovative, adaptable, resourceful with a strong work ethic, and remarkably successful in leading teams and supporting various types of operations in the Oil and Gas Industry.

Core Competencies

- Strong Technical Knowledge
- Teamwork
- Interdisciplinary Learning
- Effective interpersonal and communication skills
- Value Assessment
- Report writing
- Business Acumen
- Strategic and tactical planning
- Process control and automation
- Excellent Presentation skills
- Cooperative Learning
- Strategic Planning
- Good listener
- Research and Development
- Commercial proposal
- Facilitating workshops

Career Achievements

Successfully developed an Integrated Process Engineering and Management System (IPEMS) to address the requirement from the industry for future engineering information systems where the engineer takes the benefit of accurate engineering models. The system incorporates two different user-defined process models. The first is modelled and simulated using Aspen HYSYS, whereas the second is executed using GAMS. This way, it is possible to build a GAMS optimization model compatible with HYSYS, as well as complete access to the HYSYS flowsheet stream data and properties. Two case studies were conducted using IPEMS; the first is an optimization of Refinery Hydrogen Network achieving 5.23, 23% reduction of hydrogen wastage to fuel gas. The second case study is the optimization of Tri-Ethylene Glycol (TEG) Water Network achieving 5% water saving and 5.3% wastewater reduction.

Employment History

- **Engineering Software Trainer and Consultant** **07/2015 to present**
- **Optimize Engineering**

- Workshops for engineers who want to learn about process simulation.
- Delivering Public and On-site Process Simulation Technical Training Courses, including

  - Aspen HYSYS Process Modeling
  - Aspen HYSYS Advanced Process Modeling Topics

- Aspen HYSYS Dynamics
- Aspen Flare Network Design & Rating
- Aspen Simulation Workbook
- Pressure Relief Analysis Using Aspen HYSYS and Aspen Plus

- Deliver on-site and public training for oil production and engineering companies as well as academia

  - Taknia Libya Engineering Company │ Libya
  - Akakus Oil Operation │Libya
  - UTM – PROSPECT (Process System Engineering Center) │Malaysia

➢ **Postdoctoral Fellow (Teaching and Learning) Scheme** **11/2019 to present**
➢ **Universiti Teknologi Malaysia**

- Teaching Applications particularly focused on establishing emerging Process Control Optimization technologies.
- Teaching various methods to develop a better understanding of the least-squares based techniques for model identification and estimation.
- Using Aspen HYSYS to theoretically teach the built-in DMC+ as a tool to provide a basis for applying APC technology in an industrial context.

➢ **Generalist Field Officer** **02/2019 to 07/2019**
➢ **International Community of Red Cross**

- Networking: Develop and maintain a network of interlocutors with Military Authorities, Local, Police, Public Health, Religion Leaders, and non-State Armed groups amongst other important interlocutors relevant to the activities and mandate of the ICRC.
- Stakeholders Mapping: Participate in the stakeholders mapping exercise and contribute to its regular update.
- Facilitating Operational Plans: Participate in the field trips in support of other departments and facilitate the access and general activities in the overall AoR.
- Team Building: Create a conducive environment for the smooth sharing of information within the field (generalist) department.

➢ **Business Consultant** **4/2017 to 02/2019**
➢ **Onspec Tawakol Engineering & Contracting**

- Supported the Sales team to develop sales opportunities and pipelines following sales and proposal processes in the Libyan Oil&Gas Market.
- Provided technical support as the first point of contact for clients, escalating issues where necessary to internal teams to devise solutions best available to satisfy costumers' needs.
- Consulted with other Support Team Leads to coordinate the provision of support services.
- Delivered awareness sessions that demonstrate the feasibility of using dynamic modelling to set up and tune an APC like DMCplus.

➢ **Senior Refinery Operator** **01/2001-11/2007**
➢ **Sirte Oil Company for production of oil and gas\ Brega Refinery**

- Productively supervised and effectively assisted operators with all operations
- Successfully performed operator duties on all operating units within the area of responsibility
- Implemented Start up and shut down units in a safe manner and following procedures
- Provide and receive an effective shift handover

- Proficiently Coaching/mentoring of other operators
- Efficiently observe instruments, gauges, and meters to verify conformance to specified quality and quantity of product
- Competently compile and record operating data, instrument readings, documents, and results of laboratory analyses
- Effectively Repair, lubricate, and maintain equipment or reports malfunctioning equipment to supervisor to schedule needed repairs
- Expertly Read and analyze specifications, schedules, logs, and test results to determine changes to equipment controls required to produce a specified product

Education

2015: Ph.D. (Chemical Engineering), **Certificate of Excellence Award** Universiti Teknologi Malaysia (UTM), Johor Malaysia
2009: M.Sc. (Chemical Engineering), Universiti Teknologi Malaysia (UTM), Johor Malaysia.
2004: B.Sc. (Chemical Engineering) Ettahady University, Faculty of Petroleum Technology, Brega Libya.
1999: Diploma (Refinery Operation), **First Class Student Award**, Specific Training Center – Alzawya refinery, Alzawya Libya

Training History and Certificate of Attendance

2010: Maximizing energy and utility saving and minimizing emissions using Pinch Analysis
2010: Optimization techniques and tools on Green Energy Technology
2012: EHY101. Aspen HYSYS: Process Modeling
2012: EHY202 Aspen HYSYS: Advanced Process Modeling Topics
2012: EHY222 Aspen HYSYS Dynamics: Dynamic Modeling for Oil & Gas
2012: EHY2102 Aspen HYSYS Petroleum Refining: Process Modeling and Optimization for Refinery Unit Operations
2016: APC121 Introduction to Aspen DMCplus - Modeling and Building Controllers for Industrial Processes
2016: PSV - Improve the Pressure Relief Analysis Workflow by using Integrated Process Safety Tools in Aspen HYSYS

Technical Skills

Proficient with Microsoft office and other modelling and programming languages; Aspen HYSYS, Aspen Plus, DMC+, General Algebraic Modeling System (GAMS), Microsoft visual basic for application (VBA), Simulation, Process Simulation, Process Engineering, and Process Control

Language Skills

- Arabic: native language.
- English: full professional proficiency.
- French: basic speaking skills
- Spanish: basic speaking skills

Publications

“State-of-the-art of Hydrogen Management in Refinery and Industrial Process Plants”
Munier Elsherif*, Zainuddin Abdul Manan, Mohd Zaki Kamsah
Faculty of Chemical Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

http://www.sciencedirect.com/science/article/pii/S1875510015001468