

Mohamed Abuella

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Summary

An electrical engineer by training, who is intensively trained on Computational Analysis, Modeling and Optimization; and recently has research interests in Descriptive, Predictive and Prescriptive Analytics. Looking for opportunities to transfer, improve, and acquire knowledge and skills. Lists of **Acquired Expertise** are shown below in the Experience section.

Education

University of North Carolina at Charlotte (UNCC)

Ph.D in Electrical Engineering, GPA 4.0

USA

2014–2018

Southern Illinois University at Carbondale (SIUC)

M.Sc in Electrical and Computer Engineering, GPA 4.0

USA

2010–2012

Higher Polytechnic Institute & College of Industrial Technology at Misurata

DipHE in Instrumentation and B.Tech Electromechanical Engineering, 86% equiv.to GPA 4.0

Libya

2001–2008

Experience

Research Assistant

Energy Production and Infrastructure Center (EPIC) at UNC Charlotte

USA

2014–

Statistical and Predictive Analytics to Modernize the Grid and Optimize its Integration of Renewables, Focusing on Solar Energy Resources. Supervised by Prof. Badrul Chowdhury. This research is an intersection between Energy, Operations Research and Business Intelligence domains. Taking several courses including Energy Markets, Energy Analytics, and Engineering Systems Optimization. In fact, since this research I have been diving deeply in the Quantitative Analysis.

- **Acquired Expertise:** Energy Analytics, Energy Markets, Renewable Energy Integration, Asset & Supply Chain Management, Time Series Analysis & Modeling, Risk & Uncertainty Quantification, Machine Learning, Big-Data Processing, Research Publishing & Peer Reviewing, Software Tools including SAS, R, and Python

M.Sc Research

Department of Electrical and Computer Engineering at SIUC

USA

2010–2012

Optimization for Electric Power Systems Including Wind Power. Supervised by Prof. Constantine Hatziaodoniu.

- **Acquired Expertise:** Power Systems Analysis, Operation and Planning, Systems Optimization, Smart Grid, Research Conducting, MATPOWER, PowerWorld, PSAT, LaTeX

Teaching Assistant and Lab Instructor

College of Industrial Technology at Misurata

Libya

2008–2009

Taught Mathematics, Power Systems Analysis, and Programmable Logic Controller (PLC).

- **Acquired Expertise:** Teaching, Tutorials, Lab Modeling & Simulations, MS Office, MATLAB, NEPLAN, PLC's Ladder Logic

Recognitions

Outstanding Reviewer: IEEE Transactions on Sustainable Energy

2017

Third Prize for Student Papers: The 47th North American Power Symposium

2015

The 12th Place: Global Energy Forecasting Competition

2014

The 1st Place: Department of Electromechanical at College of Industrial Technology

2008

Publications

Wrote dozen of published papers, including:

1. M. Abuella and B. Chowdhury, "Improving Combined Solar Power Forecasts Using Estimated Ramp Rates: Data-driven Post-processing Approach," IET Renewable Power Generation Journal, 12(10), 1127-1135, 2018.
2. M. Abuella and B. Chowdhury, "Forecasting of solar power ramp events: A post-processing approach," Renewable Energy, 133, 1380-1392, 2019.

For the complete list of publications, please see my profile at Google Scholar, which is named as: [Mohamed Abuella](#).