

# Mohamed Abuella

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## Summary

I am interested in modernizing the electric grid and optimizing its integration of renewables by applying descriptive, predictive and prescriptive analytics. Looking for opportunities to transfer and improve my knowledge and skills. The technical skills are presented as Acquired Expertise 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.

○ Acquired Expertise: *Energy Analytics, Energy Markets, Renewable Energy & Supply Chain, Machine Learning*

### 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*

### 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*

### Electrical Technician

*Residential Electrical Wiring and Water & Wastewater Company*

**Libya**

2001–2008

Wiring and maintain electrical control equipment. Repair and rewind AC motors at the pumping stations.

○ Acquired Expertise: *Electrical Wiring & Installations, Maintenance & Operation*

## 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](#).