MOHAMED IBRAHIM AWAAD

Benha – Qalubiya - Egypt
+2 0100 75 790 39
awadbhit@yahoo.com
mohamed.awad@bhit.bu.edu.eg

PERSONAL INFORMATION

Nationality: Egyptian
Birth date: 27-Jan.-1982
Gender: Male
Marital Status: Married

EDUCATION

Degree Title | Ph.D. of Electrical Engineering
MAY 2016
Department of: Electrical Power System
Thesis Title: **(Type 2 Fuzzy Modeling and Control of Modern Wind Turbines Systems)**
النمذجة والتحكم في تربينات الرياح الحديثة باستخدام الجيل الثاني من المتحكمات المنطقية الضبابية

Degree Title | Master of Electrical engineering and Technology
JULY 2010
Department of: Measurement & Automatic Control Engineering
Thesis Title: **(Optimum Design and Simulation of a Standalone Photovoltaic Power System)**
التصميم الامثل لنظام خلايا الطاقة الشمسية القائم

Degree Title | Bachelor of Science (B.Sc.)
JUNE. 2006
Department of: (Measurement & Automatic Control Engineering)
Grade: Very Good

CAREER

- **2023 - Now** Asso. Prof. in the Engineering Dept. – Benha Faculty of Engineering – Benha University
- **2016 - 2023** Lecturer in the Engineering Dept. – Benha Faculty of Engineering – Benha University
- **2021 - Now** Coordinator of the new regulation for the Department of Electrical Power and

Machines Engineering, according to the credit hour system

- **2019 - Now** Member of the advisory office at the Benha Faculty of Engineering
- **2016 - Now** Quality Coordinator for Educational Programs and Academic Standards
- **2010 -2016** Assistant Teacher in the Engineering Dept. – Benha Faculty of Engineering – Benha University
- **2009-- 2010** Teaching assistant in the Engineering Dept. – Benha Faculty of Engineering – Benha University

EXPERIENCE

Academic experiences:

- **Main activities: Teaching Subjects in Undergraduate Level**
  - PLC System
  - Electrical Applications
  - Digital Control Systems.
  - Electronic Measurements.
  - Operating and Drive Systems.
  - Internet of Things (IoT)
  - Microelectronics
  - SCADA System
  - Electric Circuits
  - Electrical Machine
  - Modeling of Electrical Machines
  - Power electronics.
  - Intelligent Control
  - Sensors and Instrumentations
  - Power System Dynamics
  - Power System Analysis
  - Power System Protection
  - Industrial Control Systems.
  - Automatic Control Systems.
  - Low Current Distribution

- **Main activities: Teaching Subjects in Postgraduate Level**
  - Electrical Energy Utilization
  - Selected Topics in Smart/ Micro Grids
  - Renewable Energy
  - Advanced Electric Machines
  - Power System Analysis and Planning
  - Advanced Topics in Electric Power Systems
  - Motion Control Based on Industrial PLC’s

- Selected Topics in Renewable Energy
- Advanced Topics in Industrial Control

➢ **Main activities: Supervising Graduation Projects**

- Design and Implementation of a solar tracking system (Based on LG PLC)
- Design and Implementation of A stand - alone Photovoltaic Solar System
- IoT Based Humidity and Temperature Monitoring Using Arduino Uno
- Automatic Capping System (Based on Siemens S7-200 PLC)
- Design and Implementation Mill Line
- Design and Implementation DC Micro Grid Based on PV and Wind System
- IoT Based Smart Parking System Using RFID
- Design and Implementation of three phase inverter
- Sea Water Treatment (Based on Siemens S7-300 PLC)
- Power System Stability Improvement Based on STATCOM and PSS
- Automatic Filling System (Based on ML 1000 PLC and RSView 32 SCADA System)

Activities&Volunteer Experience and Leadership

- Quality Coordinator for Educational Programs and Academic Standards (2016- Now)
- Developer of the new regulation for the Department of Electrical Power and Machines Engineering, according to the credit hour system - 2022
- Participation in student activities at the university.
- Supervising the Science and Technology Club – Benha Faculty of Engineering - Benha University (2019-2020).
- Academic pioneer (A Family for Egypt) - Students' Union of the Benha Faculty of Engineering - Benha University (2020).
- Scientific advisor to the Students' Union of the Benha Faculty of Engineering) 2020-2021).
- Participation in the Knowledge Summit - Mohammed Bin Rashid Al Maktoum Foundation (2019).
- Training of Trainers Skills (TOT) - Ministry of Youth and Sports and Track International Training Academy(2018).
- Follow-up to the Egyptian presidential elections - the National Election Authority (2018).
- Skills of future leaders - Sadat Academy for Administrative Sciences (2017).

Practical experiences: Engineering Consultancy

- Supervising the process of implementation and installation of 13 elevators in the faculties of the university
- Develop technical specifications for several power factor improvement panels for university faculties transformers

- Implement the electrical Power distribution of the surgery building at Benha University Hospital
- Implement the Low Current distribution of the Faculty of Education, Benha University
- Consultant for Control panels installed in Food and Beverage Factories
- Support oil and Gas Companies for upgrade Power Genration Systems to New systems
- Develop plans for improvement and development of national projects in the country

PERSONAL SKILLS

- Interpersonal skills
- Teamwork skills
- Initiative
- Willingness to learn
- Ability to handle pressure and meet deadlines
- Leadership skills
- Attention to detail
- Enthusiasm and personal drive
- Management and organisational skills
- Flexibility

PUBLICATIONS

Gouda, O. E., Amer, G., **Awaad, M.**, Ahmed, M. (2021). A study of multi-break HVDC gaseous circuit breaker performance by using black box arc model. Electrical Engineering, 103(1), 9-22.

Homepage: https://doi.org/10.1007/s00202-020-01048-w

Awaad, M. I., Afifi, Z. E. (2021). Design, Simulation and Implementation of a DC Microgrid based on Quadrupler DC Converter. Computers & Electrical Engineering, 89, 106948.

Homepage: https://doi.org/10.1016/j.compeleceng.2020.106948

Gouda, O. E., Amer, G., **Awaad, M.**, Ahmed, M. (2021). Cascaded HVDC gaseous circuit breaker performance using black box arc model. Electrical Engineering, 103, 1199-1215.

Homepage: https://doi.org/10.1007/s00202-020-01157-6

Gouda, O. E., **Awaad, M. I.**, Afifi, Z. E. (2021). Impact of Superconducting Current Limiter on the Gaseous HVDC Circuit Breakers Characteristics. Electric Power Systems Research, 199, 107442.

Homepage: https://doi.org/10.1016/j.epsr.2021.107442

Awaad, M. I., Afifi, Z. E. (2021, December). Over-Current Protection in Transmission Systems using Analog and Digital Relays-Case Study and Comparison. In 2021 22nd International Middle East Power Systems Conference (MEPCON) (pp. 156-163). IEEE.

Homepage: https://ieeexplore.ieee.org/abstract/document/9686273

Hasan, M. E., Eltayesh, A., **Awaad, M. I.**, El-Batsh, H. M. (2023). Experimental Examination for the Electric Power Generation of a Commercial Small-scale Wind Turbine with Modified Aerodynamic Design. Alexandria Engineering Journal, 64, 25-39.

Homepage: https://doi.org/10.1016/j.aej.2022.08.040

Gouda, O. E., Afifi, Z. E., **Awaad, M. I.** (2023). A Novel Air Core Current Limiter Reactor for Medium and Low Voltage Systems. Electric Power Systems Research, 217, 109114.

Homepage: https://doi.org/10.1016/j.epsr.2023.109114

Awaad, M. I., Tahoon, A. N., & El-Bahy, M. M. (2023). Calculation of onset voltage of corona over a solid dielectric surface encasing rod-rod gap. Ain Shams Engineering Journal, 102209.

Homepage: https://doi.org/10.1016/j.asej.2023.102209

Mohamed I Awaad, Omar M Salim, Ossama E Gouda ,"Type-2 Fuzzy Logic Application of a Grid Side Converter Control for DFIG Driven Wind Turbines" Middle East Power System Conference (MEPCON'2016)

Mohamed I Awaad, Omar M Salim, Ossama E Gouda," Wind Speed Forecasting based on Hybrid Kalman Neuro-Fuzzy Estimator" Recent Trends in Energy Systems Conference (RTES), 2015

MI Awaad, OM Salim, OE Gouda, EM Saied,"Improved Kalman Filtered Neuro-Fuzzy Wind Speed Predictor For Real Data Set Collected At Egyptian North-Western Coast" International Journal Of Modern Engineering Research 4 (9), ISSN: 2249–6645, 2014

O Gouda, G Amer, T Elkhodary, **M Awaad**, " Optimum Design and Implementation of Tracking PhotoVoltaic Power System based on Plc and Micro Controller" 14 th international middle east power system conference 128 ,2010

Sample of Important Projects :

- Delta Water – Saudi Arabia – Toshiba Robot , Omron PLC and HMI – Cup Water Line Robot Commissioning and Startup
- Maaden Bauxite- Saudi Arabia - Rockwell Automation Embedded Engineer ,

- Bader Eldeen Petroleum Company– Egypt , Rockwell Automation " John Zink Burner "
- Egyptian Ethylene & Derivatives Petroleum Company ENPPI/Toyo Joint Venture Ethylene Project "Rockwell Automation"
- Suco – Petrolum Company – 4 Turbines Load Sharing Project by L72 PLC Logix Controller
- Sino Tharwa Drilling Company – SLC 500 and HMI Migration to Compact-logix and PVP6
- Chevron Egypt for Oils – Siemens PLC migration to Compact-logix Controller
- Mondelz Egypt – Opening and Closing Trident Line - Omron PLC and HMI Control Panel : Drawing , Building , Programming ,Commissioning and Startup

Sample of Training experiences as Instructor

- Onsite training HMI of "PanelView Pluse training course" to khalda Petroleum Company
- Onsite training PLC of "Controllogix Fundamental and Troubleshooting training course" to Procter and Gamble (P&G)
- Onsite training PLC of "Controllogix Fundamental and Troubleshooting training course" to GASCO
- Onsite training PLC of "Controllogix Fundamental and Troubleshooting training course" to EBGDCO
- Onsite training of "PLC5 Fundamental training course" to AMOC Petroleum Company.
- Training SCADA of "Review32 " to GASCO Petroleum Company
- Onsite training of "Allen Bradley FactoryTalk View SE" to SUCO Petroleum Company.
- Onsite training of "Controllogix Fundamental and Troubleshooting training course" to JUPCO Petroleum Company
- Onsite training of " PLC5 Fundamental training course " to JUPCO Petroleum Company

References

	Name	Position	Email
1	Prof. Ossama Gouda	Prof. of High Voltage in Electrical Engineering Dept.	prof_ossama11@yahoo.com
2	Prof. Omar Salim	Prof. of Electrical Power and Control in Electrical Engineering Dept.	omar.salim@bhit.bu.edu.eg
3	Prof. Walaa Gabr	Head of Electrical Engineering Dept.	Walaa.gabr@bhit.bu.edu.eg

Prof. Ossama: +20 122 398 4843

Prof. Omar: 002 01066690866

Prof. Walaa.: 002 01099998762