100208-ELE-CDGPT-E-2004
Electrical Engineer

Holds B. Sc., M. Sc. and PhD in Electrical Power & Machines Engineering. Has over 12 years hands-on experience in training, testing, commissioning and operation of GE protection relays, working as an Assistant Professor.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	11/07/1982
Gender	:	Male
Marital Status	:	Married

EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Zagazig University, 2004
: M. Sc. in Electrical Power Engineering, Benha University, 2009
: PhD in Electrical Power Engineering, Benha University, 2012

LANGUAGES

Arabic	:	Native Language
English	:	Good
French	:	Fair

COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Access, Power Point), Internet
: AutoCAD 2007, Frontpage
: C, C++, BASIC, Visual Basic 6.0
: PSPICE, Electronic Work Bench for power electronics and circuits analysis
: Power World and ETAP for power system analysis
: Software for short circuit calculations and coordination and selectivity of protective devices which are SKM, Power Plot and Arc Flash
: MATLAB, MATLAB/SIMULINK
: MATLAB's PS Toolbox (Power Systems Analysis Toolbox)
: MATLAB's NEURAL NETWORK Toolbox
: MATLAB's Fuzzy and ANFIS Toolbox

TRAINING COURSES AND CERTIFICATIONS

: Quality Assurance for education training course by International British Corporation (PEARSON BTEC/Edexcel) (2014).

: Training at KINGSINE, Schenzhen, China about protection relay test set (K511, K68, K68i, K3063, and K3063i) (Mar. 2011). The training covers differential, distance, feeder protection schemes. Also, the training covers the power metering and control unit PMC200.

: Testing & commissioning for protection relays (G60, T60, F650, M-family) regarding the generator, transformer, Motor and feeder protection schemes training course, GE, Zamudio, Spain (May 2009).

: Testing & commissioning for protection relays (B90, D60) regarding the busbar and distance protection schemes training course, GE, Zamudio, Spain (May 2010).

: Electrical safety training course, IBEC, Cairo, Egypt (Jan. 2009).

: Industrial control training course using PLCs, SCADA systems and Touch Screens in Industrial Systems Co. (10^{th} of Ramadan City) (Jan. 2007).

: Certificate of completion Basics of PLCs from Siemens Energy & Automation Inc. (Aug. 14, 2006).

: TOEFL examination score 400.

: International Computer Driving License (ICDL EGY2008974) (Jan. 2008).

: Faculty of Education Enhancement Project courses in Benha University, Egypt (Jun. 2006).

: Communication skills and presentation techniques training course, Benha University.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Jul. 2014 till now
Employer : Ameeriah Integrated Cluster, Educational Development Fund-Cabinet of Ministries, Egypt
Job title : Vice Dean of Environmental Affairs and Social Services,
Head of Electrical & Electronic Department

Dates : From Feb. 2005 till now
Employer : University of Benha, Faculty of Engineering, Department of Electrical Engineering
Job title : Assistant Professor

Dates : 2014
Employer : Ameeria Technical Integrated Cluster
Job title : Assistant Professor

Dates : 2013
Employer : Higher Technological Institute
Job title : Assistant Professor

Dates : Jun. 2008
Employer : Training Center of Treble A Shabakat Company
Job title : Instructor (PLCs and SCADA systems)

Dates : From Sep. 2004 till Jan. 2005

Employer :
- Cairo Industrial Learning College, Electrical Dept.
- University of Benha, Faculty of Engineering, Department of Natural Science & Mathematics

Job title : Instructor

COURSES FOR TEACHING:

Included but NOT limited the following:
- Basics of power system protection.
- Advanced course in power system protection.
- Power system analysis.
- Advanced course in power system analysis.
- Numerical analysis in power systems.
- Power system modeling.
- Automatic control systems.
- Industrial control.
- Programmable logic controllers.
- Design of low/medium voltage distribution networks.
- Matlab programming.
- Projects management.

Sample of Industrial Projects:
- General Electric (GE), Zamudio – Spain:
  Technical Support for all GE relays including but NOT limited the following protection relays:
  - Busbar Protection: B90.
  - Distance Protection: D90 PLUS, D60.
  - Line Differential Protection: L90.
  - Generator protection: G60, SR489, G650, DGP.
  - Transformer Protection: T60, SR345, DTP.
  - Feeder Protection: F650, MIF, MIFII, SMOR, SR 750, SR 350.
  - Motor Protection: M60, SR 469, SR 369, SR 269.
  - Load Shedding: MIVII, SSF.
- Sokhna SS 500KV:
  - Testing & commissioning (FAT & SAT) of bus bar protection system (B90), distance protection, breaker failure protection, auto-reclosure, synchro-check, GIB differential protection and DFR. Including all required logic configurations.
- Suez Steel Co.:
  - Testing & commissioning of bus bar protection system (B90).
- Tourah Substation 220/66/11KV:
  - Testing & commissioning of 220/66/11KV protection panels for FAT/SAT including distance, transformer differential, line differential, and over current relays which including the following GE MULTILIN relays (D60, D90P, T60, L90, F650, MIFII, MIVII).
- North Cairo Electricity Co., Egypt:
  - Testing & training for F650, MIFII, DTP and SMOR-B GE protection relays for several sites.
  - Setting & logic configuration editing.
- South Cairo Electricity Co., Egypt:
  - Testing & training for F650, MIFII, DTP and SMOR-B GE protection

relays for several sites.
  - Setting & logic configuration editing.
- West Delta Electricity Co., Egypt:
  - Testing & training for MIFII, GE protection relay.
  - Setting & logic configuration editing.
- Tourah Substation 220/66/11KV:
  - Testing & commissioning of 220/66KV bus bar protection system (B90) for FAT.
- 81 Military Factory Substation 66/11KV:
  - Testing & commissioning of 66/11KV protection panels for FAT including distance, transformer differential, line differential, and over current relays which including the following GE MULTILIN relays (D60, D90P, T60, L90, F650, MIFII, MIVII).
- 90 Military Factory Substation 66/11KV:
  - Testing & commissioning of 66/11kV protection panels for FAT including distance, transformer differential, line differential, and over current relays which including the following GE MULTILIN relays (D60, D90P, T60, L90, F650, MIFII, MIVII).
- Sokhna Substation (MV level):
  - Testing & commissioning of distributor protection panels for FAT including over current and motor protection relays which include the following GE MULTILIN relays (SR 750, SR 469).
- El-Fenoon Substation 66/11KV:
  - Testing & commissioning of 66/11kV protection panels for SAT including distance, transformer differential, and over current relays, which including the following GE MULTILIN relays (D60, T60, F650). Also, contributing in bus bar protection testing (B90).
- GTFT Tabenkort, Algeria:
  - Testing & commissioning for F650 and M60 GE protection relays.
  - Setting & logic configuration editing.
- North Delta Electricity Co., Egypt:
  - Testing & commissioning for F650 GE protection relays for several sites.
  - Setting & logic configuration editing.
- TEPCO, Egypt:
  - Testing, commissioning & training for DTP and F650 GE protection relays.
  - Logic configuration editing.
- Upper Egypt Electricity Co., Egypt:
  - Testing & training for F650 GE protection relay.
  - Relay & logic configuration editing.
- El-Nozha Substation, Egypt:
  PLC control for power factor correction capacitor banks, which including the following items:
  - Site survey.
  - The participation for online operation of all capacitor banks.
  - PLC programming.
  - Power factor regulator adjustment.
  - PLC program modifications to change the old control sequence.
  - Comprehensive report about the capacitor bank units and its PLC control sequence which including all inputs, outputs, timers and control sequence for both manual mode and automatic mode.

- Central Protection Sector, Egypt:
  - Comprehensive Technical report about Auto-transformers differential protection schemes.
  - Distance protection GE MULTILIN, D60 testing.
  - Distance protection GE MULTILIN, D90 PLUS testing.
  - Feeder protection: GE MULTILIN SR 350, MIFII.
  - Load shedding: MIVII.
- Procter and Gamble, Egypt (Cairo Plant):
  Power system studies for the whole network which comprise but NOT limited the following items:
  - Updating the single line diagram according to a given as built.
  - Building up the site single line diagram using SKM module version 6.0 including specifications of all system components and SKM library modifications if required.
  - Short circuit analysis according to IEEE 60909.
  - Protective devices coordination using time-over-current characteristics.
  - Arc flash hazards studies according to IEEE1584.
- Procter and Gamble, Egypt:
  Power system studies for JOA3 which comprise but NOT limited the following items:
  - Updating the single line diagram according to a given as built.
  - Building up the site single line diagram using SKM module version 6.0 including specifications of all system components and SKM library modifications if required.
  - Short circuit analysis according to IEEE 60909.
  - Protective devices coordination using time-over-current characteristics.
  - Arc flash hazards studies according to IEEE1584.
- Procter and Gamble, Nigeria Ltd., Ibadan HC-site:
  Power system studies comprising but NOT limited the following items:
  - Building up the site single line diagram using SKM module version 6.5 including specifications of all system components and SKM library modifications if required.
  - Short circuit analysis according to IEEE 60909.
  - Protective devices coordination using time-over-current characteristics.
  - Arc flash hazards studies according to IEEE1584.
- Modern Products Company, Jeddah – Saudi Arabia:
  Power system studies comprising but NOT limited the following items:
  - Building up the site single line diagram using SKM module version 6.5 including specifications of all system components and SKM library modifications if required.
  - Short circuit analysis according to IEEE 60909.
  - Protective devices coordination using time-over-current characteristics.
  - Arc flash hazards studies according to IEEE1584.
  - Direct contact with the staff of Modern Products Company.
- Procter and Gamble, Egypt:
  - Radial-Exhaust Fan Motor Re-rating Issue including a detailed technical report.
- Modern Products Company, Dammam – Saudi Arabia:
  Power system studies for MV & LV comprising but NOT limited the

following items:
  - Building up the site single line diagram using SKM module version 6.5 including specifications of all system components and SKM library.
  - Modifications if required.
  - Short circuit analysis according to IEEE 60909.
  - Protective devices coordination using time-over-current characteristics.
  - Arc flash hazards studies according to IEEE1584.
- CSI-Egypt:
  - Electrical predictive maintenance based-Infrared (IR) scanning for all electrical distribution and sub-distribution boards.
- Continental for Touristic Investments and Hotels, Reef Oasis, Sharm El-Sheikh, Egypt:
  - Complete design and specifications including full engineering drawings (NOT Shop or Working Drawings), equipment selection, Bill of Quantities (BOQ), complete tender package, tender technical evaluation, response to vendor inquiries and approval of samples (where applicable).

Field of experience :

- Testing and commissioning for all GE protection relays.
- Power systems protection using various protective schemes.
- Design & installation of conventional control schemes for power distribution equipment.
- Design & installation of PLCs control schemes for power equipment & industrial processes.
- SCADA systems design and software programming.
- Design & installation of low voltage distribution systems.
- Design of medium voltage distribution systems.
- Power system design and analysis.
- Design, upgrade, reconfiguration of electrical power distribution systems.
- Power factor improvement, energy management & energy efficiency solutions.
- Power quality and harmonic studies.
- Training programs for electrical engineers, technicians and engineering students.
- Short circuit, coordination and selectivity studies.
- Earthing systems design.
- IR scanning in predictive electrical maintenance.
- Failure diagnosis and troubleshooting of electrical systems and equipment.
- Electrical reliability studies.
- Electrical load studies.
- Electrical Shop drawing.
- Design of electrical utilities for buildings, including lighting design.
- Development of technical specifications for electrical equipment & systems.
- Feasibility study for engineering projects.
- Engineering economy.
- Summary:
  - Consultant at Cabinet of Ministries, Egypt – Educational

Development Fund.
- General Manager of CCG EGYPT – Consolidated Consultancy Group Co.
- Member of Commerical Champers (Kaliobya), Membership No.: 33528.
- Assistant Professor, Electrical Power Dept., Faculty of Engineering (Shoubra), Benha University.
- Consultant for Several National and International Companies.
- Supervisor of M. Sc. & PhD for postgraduate students.
- Over 21 scientific international published papers.
- Technical Support for GE protection relays and Field Services.
- Electrical Safety Studies for large and medium power system networks.

Publications:

- Mohamed A. Ali, Fahmy M. Bendary "Design Of Prototype Non Directional Overcurrent Relay Micro-Controller-Bases", CIRED 2013, IEEE Xplore.
- Mohamed A. Ali, Wagdy M. Mansour "Real Time Transient Stability Analysis/Assessment Based Proposed Parallel Algorithms", International Journal of Electric and Power Engineering 6(4), 2012, pp 124-131.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "Novel Real-Time Stability Assessment Algorithm Based On Synchro-Phasors Measurement And Parallel Algoriths For Mulit-machine Networks", volume 13, issue 3, 2012, article 7.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "Phasor Measurements-Based Online auto Detection Out-of-Stability Algorithm", Initial acceptance of American Journal Of Applied Science, 2011.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "ANFIS Based Synchro-Phasors Measurements For Real-Time Estimation of Critical Clearing Time", Fourteenth International Middle East Power Systems Conference (MEPCON'10), Cairo, Egypt, pp 422:427.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "ANFIS Based Synchro-Phasors Measurements For Real-Time Estimation of Critical Clearing Time", Journal of Materials Science and Engineering, 2011, USA.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "Novel Real-Time Stability Assessment Algorithm Based On Synchro-Phasors Measurement And Parallel Algorithms For Multi-machine Networks", accepted from International Journal of Computer Science and Network Security (IJCSNS) 2011.
- Mohamed A. Ali, Wael R. Anis, Wagdy M. Mansour, Fahmy M. Bendary "Novel Real-Time Stability Assessment Algorithm Based On Synchro-Phasors Measurement And Parallel Algorithms For Multi-machine Networks", Proceedings of the 8th ICEENG Conference, paper No. EE119, 29-31 May, 2012.
- Mohamed A. Ali, Wagdy M. Mansour, "Real-Time Transient Stability Analysis/Assessment Based Proposed Parallel Algorithms", accepted from International Journal of Computer Science and Network Security

(IJCSNS) 2012.

- M. A. Ali and W. M. Mansour: "Proposed Approach for Online Transient stability of multimachine Power Systems Using Parallel Microprocessors", ICEENG 2008 Proceedings, EE149, pp: 901-910.
- Ebtisam M. Saied, Sabah Ibrahim, M. A. Mandor, & Mohamed Abd El-Wahab Ali: "Transient Stability Improvement Using Static VAR Compensators (SVCs)": El-Azhar University Proceedings of 2009.