

Holds B. Sc., M. Sc. and PhD degree in Electrical Power & Machine Engineering and has about 10 years hands-on experience in different power plant electrical areas and systems.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : Jul. 1975  
Gender : Male  
Marital Status : Married  
Residence : Giza, Cairo

## EDUCATION

: B. Sc. in Electrical Power & Machine Engineering, Helwan University, 2000  
: M. Sc. in Electrical Power & Machine Engineering, Cairo University, 2005  
: Philosophic Doctor degree in Electrical Power & Machine Engineering, Cairo University, 2009

## LANGUAGES

Arabic : Native Language  
English : Very Good  
German : Fair  
French : Fair

## COMPUTER SKILLS

: Windows, MS Office, Internet  
: Matlab, AutoCAD  
: Visual Basic

## TRAINING COURSES AND CERTIFICATIONS

: Inspection test on the excitation system of 750MW combined cycle project, Belfort, France (6 days).  
: Unofficial training in Management.  
: Passed TOEFL (ITP).  
: Off-shore:

- Training course about GIS in Siemens AG Power Training Center in Berlin, Germany (12 days).
- Training course about Numerical Protection Devices in Siemens AG Power Training Center in Nurnberg, Germany (5 days).

- : On-shore:
  - Training in Helwan University on programming the Programmable logic controller PS3 (Moeller series), Jul. 1999.
  - Protection fundamentals in Cairo North Training Centre (5 days).
  - Training on transformers maintenance and testing in Cairo South Training Centre (3 weeks).
  - Training on instrument transformers and power measurements (P1) in Cairo South Training Centre (3 weeks).
  - Training course about Control circuits for substations (CCS) in Cairo South Training Centre (18 days).
  - Training course in English language in the American University, Cairo, Mar. 2005.

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From 2008 till now
- Project** : El-Kureimat Power Station (2x627MW Steam Power Plant, 500/220 substation + 2 Modules each 750MW Combined Cycle 2x2x1)
- Job title** : Assistant Manager of Protection & Maintenance Dept.
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- Dates** : From 2001 till 2007
- Project** : El-Kureimat Power Station (2x627MW Steam Power Plant, 500/220 substation + 2 Modules each 750MW Combined Cycle 2x2x1)
- Job Description** : As Senior Protection & Maintenance Engineer for Digital, Static and Electromagnetic Relays:
- Protection testing of Generator and step up Transformer 23/500KV.
  - Protection testing of Power transformer 500/220/11KV and start-up transformer 220/6.3KV.
  - Protection testing of Transmission Lines 500 and 220KV.
  - Protection testing of Bus Bars 500 and 220KV.
  - Protection testing of medium Voltage Switchgear 6.3 and 11KV.
  - Protection testing of Diesel Generator.
  - Protection testing of low Voltage Equipments (Power Centers).
  - Calibration and programming of (Voltage, Current, MW, MVAR, MWH, Power Factor, Frequency) Transducers.
  - Testing of Fault Recorders and Fault Locators.
  - Make Fault Analysis.
- As Maintenance Engineer in 500/220/11KV GIS Substation.
- As Maintenance Engineer to the power station electrical equipments:
- Synchronous Generators (23KV, 811 MVA) and excitation system (EX2000).
  - Transformers (500/220KV, 23/500KV, 23/6.3KV, 220/6.3KV).
  - 6.3KV switchgear.
  - Medium and low voltage motors.
  - Batteries and battery chargers.
  - UPS system.
  - Control panels, motor control centers (MCC) and load centers.
  - Sharing in assembly, installing and commissioning of 500 MVA auto Transformer 500/220/11KV in El-Kureimat Power Station.

- Installing of 6.6KV switchgear and all feeding power transformers for the construction site of new El-Kureimat combined cycle power plant project.

- Heat tracing system.

- Cathodic protection.

Construction & Testing:

- Constructions & Testing ABB Mitsubishi Transformers 777 MVA and 500 MVA.

- 811.2 MVA synchronous generators testing.

As Part-time Instructor:

ISCOSA Training Centre, Dammam, KSA.

Tender work:

- Studying the contracts and international companies offers for the New Kureimat Combined Cycle 3x250MW power plant project.

- Technical skills** :
- Neural network, wavelet, fuzzy logic, Fourier analysis, fault analysis, problem analysis, Setting Calculation, PLC Programming.
  - ATP, Cutler Hammer.

- Published Papers** :
- "Real Time Evaluation of DWT-Based High Impedance Fault Detection in EHV Transmission", Electric power system research, Elsevier, Vol. 80, Issue 8, pp. 907-914, Aug. 2010.
  - "Unsynchronized Fault Location Scheme for Non-Linear HIF in Transmission lines, IEEE Transactions Power Delivery, Vol. 25, No. 2, pp. 631-637, Apr. 2010.
  - "Neural Network-based Technique used for Recovery the CCVT Primary Signal", IEEE Power Engineering Society, General Meeting, Calgary, Alberta, Canada, July 26-30, 2009.
  - "High Impedance Fault Detection in EHV Series Compensated Lines using the Wavelet Transform", accepted for publishing in the IEEE Power Engineering Society, Power Systems Conference & Exposition, Seattle, Washington, USA, Mar. 15-18, 2009.
  - "High Impedance Fault Detection in Mutually Coupled Double-Ended Transmission Lines Using High Frequency Disturbances", the 12<sup>th</sup> international Middle-East Power System Conference (MEPCON'2008), Aswan, Egypt, Mar. 12-15, 2008.
  - "High Impedance Faults Detection in EHV Transmission Lines", the 12<sup>th</sup> international Middle-East Power System Conference (MEPCON'2008), Aswan, Egypt, March 12-15, 2008.
  - "High Impedance Faults Detection in EHV Transmission Lines Using the Wavelet Transforms", IEEE Power Engineering Society, General Meeting, Tampa, FL, USA, Jun. 24-28, 2007.
  - "Neural network-based technique for reducing CCVT errors under fault conditions", the 10<sup>th</sup> international Middle-East Power System Conference (MEPCON'2005), Suez Canal University, Egypt, Sep. 13-15, 2005.
  - "Non-Linear HIF Detection and Classification for Egyptian 500KV Transmission Line with Practical Example", the 14<sup>th</sup> international Middle-East Power System Conference (MEPCON'2010), Faculty of Engineering, Cairo, Egypt, under reviewing.
  - "Non-Linear HIEF Central Relay for Transmission Networks", IEEE transactions on power delivery, under reviewing.

- “Unsymmetrical Non-Linear HIF Location Algorithm Not Requiring Line Parameters”, IET Generation, Transmission & Distribution, under reviewing.
- “Series Compensated Transmission Lines Non-Linear HIF Location”, Electric power system research, Elsevier, under reviewing.