

Holds a B. Sc. in Communication Engineering and has about 21 years hands-on experience in testing and protection of several substations.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 22/06/1965  
Gender : Male  
Marital Status : Married

## EDUCATION

: B. Sc. in Communication Engineering, Alexandria University, 1990

## LANGUAGES

Arabic : Native Language  
English : Very Good

## COMPUTER SKILLS

: Windows, MS Office, Internet

## TRAINING COURSES AND CERTIFICATIONS

- : Trainings at Network Training Center:
- P1 Introduction to Protection (Nov. 1996).
  - P2 Protection Fundamentals (Jun. 1997).
  - P3 Measuring & Metering Instruments (Feb. 1998).
  - P4 Substation Protection (Sep. 1998).
  - P5 HVTL Protection (Oct. 1998).
  - P5 Distance Protection Relay RAZFEE (Mar. 1999).
  - P5 Distance Protection Relay LZ96 (Feb. 1999).
  - P5 Distance Protection Relay L8b (PSD), Apr. 1999.
  - P5 Reading Control Circuit Substation diagram (CCS), Jun. 2002.
  - P6A Digital Protection (Dec. 2003).
  - CAPACITORS BANK in France, Schneider (Aug. 2008).

## CHRONOLOGICAL EXPERIENCE RECORD

**Dates** : From 1995 till now  
**Employer** : E.E.T.C. (Egyptian Electricity Transmission Company)  
**Job title** : Protection, Commissioning & Testing Engineer

**Dates** : From 1992 till 1995  
**Employer** : Nesco Telephone Company – KSA  
**Job title** : Site Engineer

**Dates** : From 1991 till 1992  
**Employer** : North Africa Computer Company  
**Job title** : Hardware Engineer

- Field of experience:**
- Tests:
    - Power transformers tests:
      - Ratio test.
      - Winding DC resistance.
      - Tan  $\delta$ .
    - Current transformer tests:
      - Insulation test - continuity.
      - Polarity - winding resistance.
      - Burden - magnetizing curve.
      - Ratio.
    - Voltage transformer tests:
      - Insulation test - polarity.
      - Ratio - continuity.
    - Circuit breaker tests:
      - Contact resistance.
      - On – off timing.
      - Anti pump & anti slam test control circuit revision.
    - Isolator (disconnecting switch):
      - Contact resistance.
      - Control circuit revision.
    - Interlocking circuits and revision drawing.
    - Bus bar stability.
    - Synchronizing circuits.
  - Substations:
    - Steel Rolling Company Substation 220/33/11KV:
      - Testing and commissioning (Jul. 2002).
      - Distance - Rel 316 ABB main I, Rel 521 ABB main II.
      - O.C 220 - RXHL411 ABB.
      - R.E.F Restricted - RADHD.
      - D.E.F - RAPDK21.
      - Differential - RADSBB.
      - B.B. protection - INX 5.
      - Fault recorder - hath way.
    - 11KV:
      - O.C S.C & E.F - SPAJ 140C.

- Directional E.F - SPAS 120C.
- O, U voltage relay - SPAU 130C.
- LOAD shedding relay - SPAF 340C.
- Tahrir Badr Substation 220/66KV:
  - Testing and commissioning (one feeder + one transformer), Apr. 2000.
  - Distance Relay 220KV - micrmho Alstom main I, SEL21 MARLIN GERIN main II, Michom Alstom main I, L3WYAS B.B.C main II.
  - Distance Relay 66KV - LH1W B.B.C.
  - D. O.C. & E.F. relay - KCEG142 GEC – ALSTOM.
  - O.C 66KV - RSZ3F2.
  - O.C 11KV - 7SJ600 SIEMENS.
  - Differential - 7UT512 SIEMENS.
- Sadat City Substation 220/66/11KV:
  - Testing and commissioning (7 Transformer - extension).
  - Distance protection 220KV - RAZFE main I, LZ32 main II, micromho main I, SEL 321.
  - Distance 66KV - RAZWA.
  - BUSBAR Protection - RADS.
  - Diff - RADSB.
  - Under impedance relay - RAKZB.
  - O.C 66KV - MCGG63.
  - O.C 220KV - RSZ3F2.
  - FAULT RECORDER - REPLAY PLUS (HATHWAY).
- EL SADAT EL FARAIA 66/11KV:
  - Testing and commissioning (Two Transformer - extension).
  - Distance - RAZWA.
  - O.C - SEPAM 1000.
  - B.B - RADSS.
  - Diff. Protection - SEPAM 2000.
- EL-EKHMAS & WADI-NATRON Substation 66/11KV:
  - Testing and commissioning (Two Transformers in each substation).
  - Distance - OPTHMHO (LFZP11).
  - O.C 66KV - KCEG130.
  - O.C 11KV - 7SJ5005.
  - E.F 11KV - 7SJ600 SIEMENS.
  - B.B - MBCZ10.
  - Diff. Protection - KBCH120.
- EL-EZZ Substation 220/30KV:
  - Testing and commissioning (One Transformer).
  - Distance protection 220KV - micromho ABB main I, REL 100 ABB main II.
  - BUSBAR Protection - MBCZ10.
  - Diff (LINES) - LFCB102.
  - Diff 220 & 30KV - RADSSB.
  - O.L - RET316 ABB.
  - D.O.C 220KV - RAPDK214.
  - D.E.F 220KV - RAPDK214.
  - O.C COUPLER 220KV - RACID.
  - O.C 220 & 30KV - RET 316 ABB.
  - FAULT RECORDER - INDACTIC650 (HATHWAY).

- SHARK-ELTAREK & GANOB ELWADI Substation 66/22KV:
  - Testing and commissioning (Two Transformers in each substation).
  - Distance - REL316 ABB.
  - D.O.C & D.E.F 22KV - SPAS348C.
  - O.C 66KV - SPAJ140C.
  - B.B - INX5.
  - Diff. Protection - SPAD346C.
  - R.E.F - SPAE010.
- ABO EL MATAMEER SUBSATATION 220/66/11KV:
  - Testing and commissioning (two transformers 125MVA 220/66KV).
  - Distance protection 220KV - REL316x4 ABB main I, REL 511 ABB main II.
  - BUSBAR Protection - REB500 ABB.
  - Diff (TRANS) 220 & 66KV - RET 316\* ABB.
  - D.O.C 220KV - REX521 ABB.
  - O.C 66KV MICOM P122 AREVA.
  - DISTANCE 66KV MICOM P442 AREVA.
  - FAULT RECORDER - REPLAYPLUS (HATHWAY).
- EL-NATRON ELSENAEIA Substation 66/22KV:
  - Testing and commissioning (Two Transformers).
  - Distance - 7SA511.
  - O.C 22KV - KCEG142.
  - O.C 66KV - 7SJ600 SIEMENS.
  - B.B. Protection - 7SS10.
  - Diff. Protection - 7UT512.
  - R.E.F - MFAC14.
- EL-SADAT EL SENAIEA Substation 66/11KV:
  - Testing and commissioning (Three Transformers).
  - Distance - 7SA511.
  - O.C & D.E.F LINES 66KV - KCEG150.
  - E.F 11KV - MCGG22.
  - O.C 11KV - KCEG130.
  - O.C 66KV - MCGG63.
  - B.B - MBCZ10.
  - Diff. Protection - 7UT512.
  - R.E.F - MFAC14.
- ARCO-STELL Substation 220/30KV:
  - Testing and commissioning (Two Transformers).
  - DiFF LINES 220KV - REL316 ABB.
  - BUSBAR Protection - MBCZ10.
  - Diff LINES 220KV - LFCB102 MAIN PROTECTION.
  - Diff 220 & 30KV - KBCH120.
  - D.E.F 220KV - KCEG110.
  - O.C 30KV - KCGG140.
  - O.C 220KV - KCGG130.
  - R.E.F 30KV - MCAG140.
  - B.F 220KV - MCTI139.
- SHARK-ELBSTAN Substation 66/11KV:
  - Testing and commissioning (Two Transformers).
  - Distance protection - SEL321.
  - BUSBAR Protection - SEPAM 2000.

- Diff - SEPAM2000.
- O.C - SEPAM1000.
- D.O.C & D.E.F - SEPAM 2000.
- R.E.F - SEPAM 2000.
- SIDI KRIR SUBSTATION (S.T.G. UNIT) GENERATION SUBSTATION:
  - 350 MVA TRANSFORMER.
  - DIFF TRANS PROT 7UT613.
  - DIFF CABLE PROT 7UT623.
  - DIFF OVER ALL PROT 7UT635.
- INTER STAT SUBSTATION (ONE TRANSFORMER, ONE LINE, BUSBAR):
  - REL 670 PCM - LINE DISTANCE.
  - RED 670 PCM - LINE DIFF.
  - RET670 PCM - TRANSFORMER DIFFERENTIAL.
  - REB 670 PCM - B.B PROTECTION RELAY.
- GCC INTERCONNECTION AUTHORITY:
  - FAULT RECORDER TYPE IDM HATHAWAY Installation and commissioning (GHUNAN / SALWA / FADLI / RASQRIA SUBSTATION in KSA).
- Testers:
  - 3 Phase Voltage & 3 Phase Current & Angle for Distance & D.O.C. & D.E.F.
  - BJY100 + CM 3050 Calibration Meter.
  - Tm1/1600/M A61 (Programa) Breaker Analyzer System for closing delay – trip delay & close – open – close, measuring.
  - Primary injection tester.
  - Program Transformer for Testing Magnetizing Curve.
  - TAN $\delta$  Testers and calculation cab between (H-E, L-E).
  - FRANCALOG tester.
  - TYPE T/Z2 for distance relay.
  - ISA (3 Phase Voltage & 3 Phase Current).
  - MEGGER (MPRT) – ISA secondary injection tester.
- Good knowledge in protection schematics & interlocking (closing – tripping), circuits & tele-protection & SCADA system.
- Testing and commissioning.