105062-ELE-DL-E-1993
Freelancer (Transmission Lines Designer)

Holds a B. Sc. in Electrical Power & Machines Engineering and has 23 years experience working as a consultancy in transmission lines field for low, medium and high voltage transmission lines from 400 V up to 500KV for Transmission lines projects in Egypt, Saudi Arabia, Libya and Sudan.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	07/06/1970
Gender	:	Male
Marital Status	:	Married
Residence	:	Cairo

EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Helwan University, 1993

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: Sag10 Program & ASPEN Line Constant Program
: AutoCAD, Microstation, Google Earth, Map Source, 3D Route Builder & other Over Head Transmission Lines Application Programs

TRAINING COURSES AND CERTIFICATIONS

: I have successfully completed two training sessions for using Power Line Systems Transmission Line Design Software (PLS-CADD, PLS-POLE, TOWER and SAPS). The sessions was conducted by Mr. Elias Ghannoum in Cairo, Egypt (May 2005 and Jan./Feb. 2006).
: I have successfully completed training session for using JOVE Design Software Program, for overhead lines mechanical Computation. The Training was conducted by Mr. Marc Vantroy in Egypt.

CHRONOLOGICAL EXPERIENCE RECORD

Dates	:	From Oct. 2016 till now
Job title	:	Freelancer (Transmission Lines Designer)

Job Description :
- Design of OHTLs & Underground Cables Projects.
- Provide technical supports for construction works.

Dates : From Oct. 2014 till Oct. 2016
Employer : Al-Babtain Contracting Company (Riyadh - Saudi Arabia)
Job title : Transmission Lines Design Manager
Job Description :
- Management of TLs projects (OHTLs & UG Cables).
- Design of OHTLs by using PLS-CADD & SAG 10 programs.
- Design of Underground Cables Projects.
- Study the new Tenders; Estimate Quantities; coordinate with suppliers and Prepare Technical & Commercial offers.
- Provide technical supports for construction works.

Dates : From Dec. 2007 till Jun. 2014
Employer : Dar Engineering – Al-Fanar Company (Riyadh - Saudi Arabia)
Job title : Transmission Lines Section Manager
Job Description :
- Management of Transmission lines projects.
- Design of OHTLs by using PLS-CADD, Sag10 & ASPEN programs.
- Study the new Tenders and Estimate Quantities.

Dates : From Jun. 1996 till Nov. 2007
Employer : Electrical Power Systems Engineering Company (EPS), Cairo
Job title : Transmission Lines Design Section Head
Job Description :
- Lead Transmission lines design team.
- Design of OHTLs by using PLS-CADD; JOVE and Sag10 programs.
- Supervision Construction works at sites.

Dates : From Aug. 1994 till Mar. 1996
Employer : Workshops of the Egyptian National Army Forces (Egypt)
Job title : Maintenance Engineer
Job Description : Maintenance of LV Networks and Electrical M/C; Installation of LV Switchboards; MV & LVTL construction & maintenance.

Projects in KSA:
- 380KV OHTL Rabigh – Al-Adl, route length = 150 km (Contractor: Al-Fanar).
- 380 KV OHTL AL WAJH (WJH) BSP & UMLUJJ (UMN) BSP, route length = 164 km (Contractor: AETCON).
- 380KV OHTL PP-12 - Irqqa, route length = 100 km (Contractor: GS).
- 380KV OHTL PP-13 - Irqqa, route length = 105 km (Contractor: GS).
- 380KV Namerah - Bishah, route length = 100 km (Contractor: Ozdil & Al-Toukhi).
- 380KV OHTL Ma'aden - Manifa & Safamiyah, route length = 95 km (Contractor: L&T).
- 380KV OHTL Jeddah South PP – Bahrah (HHR1) BSP, route length = 35 km (Contractor: Kalpataro).
- 380KV OHTL Associated with PP-11 Integration, routes lengths = 54 km

(Contractor: L&T).

- Re-routing of 380KV OHTL in SANG area, route length 9.7 km (Contractor: Al-Fanar).
- Construction of new Muhayil West 380/132KV BSP & 380KV OHTL; 380KV OHTL Muhayil West / Shuqiq with route length 9 km and 380KV OHTL Muhayil West – Namerah with roué length = 8 km (Contractor: Al-Toukhi).
- Loop IN/OUT existing 380 kV OHTL Wasit / Ras Al-Khair to feed RIC-2 S/S; (Contractor: Al-Babtain Contracting Co.).
- 380KV OHTL at Qatif BSP; Loop IN/OUT Jubail / Dhahiyah 380KV OHTL to Qatif BSP 2 OHTLs with route lengths 1.5 km (Contractor: Sojetz).
- 380KV OHTL associated with RAS AL-KHAIR SWCC Interconnection (Loop IN/OUT existing 4 OHTLs (Contractor: Arrab Power).
- Construction of New KHASHM AL-A'NN 380/132/13.8KV S/S 9017; Loop IN/OUT Existing 380KV OHTLs (Contractor: NCC).
- Construction of New 380/132KV QASSIM-3 BSP # 9029; Loop IN/OUT Existing 380KV OHTLs (Contractor: AL-Toukhi).
- Construction of New 380/132 /13.8KV S/S # 9016; Loop IN/OUT Existing 380KV OHTLs (Contractor: Al-Babtain Contracting Co.).
- Looping IN-OUT of one circuit from the existing 380KV Overhead Transmission Line between S/S # 9009 and S/S # 9011 to feed the new 380KV Switching station # 9019 (PP9), (Contractor: Siemens).
- Construction of New 380/132/13.8KV Industrial Area # 9027 BSP; Loop IN/Out Existing 380KV OHTLs to New S/S 9027 (Contractor: Al-Osais Inabensa).
- 380KV Underground Cables between JAH - HHR2 (CKT 1&2) with route length = 7.26 km and JAH-JNE (CKT 1&2) with route length = 4.42 km.
- Power Supply to Saudi Aramco Northeren Area Oil Field in Safaniyah (230KV OHTLs), (Contractor: L&T).
- 132KV OHTL Al-Jouf / Abu Ajram, route length = 78 km (Contractor: L&T).
- 132KV OHTL (Waad Al-Shammal – Phosphate - Residential), OHTL route length 42 km + Underground Cables 11 km (Contractor: Al-Babtain Contracting Co.).
- 132KV OHTL between S/S # 9030 and S/S # 8906 in Hail area, OHTL route length 21 km (Contractor: Capital Light Co.).
- 132KV OHTL between S/S # 9031 and S/S # 8906 in Hail area, OHTL route length 5 km (Contractor: Capital Light Co.).
- 132KV OHTL from S/S # 8905 up to existing TWs 34 & 35 of OHTL 9030-8903 in Hail area, OHTL route length 4 km (Contractor: Capital Light Co.).
- 132KV OHTL between S/S # 9031up to existing TW 65 of OHTL 8903-9030 in Hail area, OHTL route length 7.5 km (Contractor: Capital Light Co.).
- 132KV OHTL between S/S # 8063 and S/S 9023 (PP-10) in Hair area, OHTL route length 16 km + 700m Underground Cables (Contractor: Al-Babtain Contracting Co.).
- 132KV OHTL between S/S # 8839 and existing line 9011/8812 in Zulfi, route length 3.5 km (Contractor: Al-Fanar.).
- 132KV OHTL from Jazan Economic City 380/132KV BSP to the

proposed Cristal Plant 132KV S/S with route length 8 km (Contractor: Al-Fanar).

- 132KV OHTL between S/S # 8506 and S/S # 9011 in SUDAIR Industrial City, route length 36 km (Contractor: TDP Co.).
- 132KV OHTL from QURAYYAT P/P 132KV S/S to QURAYYAT 132/13.8KV S/S, route length 23.2 km (Contractor: Al-Osais Inbensa).
- Connection of Juba BSP S/S #9701 with 132KV Network in Wadi Al-Dawasir New OHTL with route length 12 km + 13 km OHTL retrofitting + Loop IN / Out 2 OHTLs and Underground Cables for 6 circuits (Contractor: Al-Babtain Contracting Co.).
- 132KV OHTL Between New COLLEGES COMPLEXS/S # 8839 & EXISTING OHL 9011-8812 IN ZULFI with route length 4 km (Contractor: Al-Fanar).
- 132KV Transmission Network for NEW MAWTEN INDUSTRIAL GATE 132/13.8KV S/S # 8189; Loop IN/OUT Existing OHTLs (Contractor: Al-Fanar).
- Construction of 132KV OHTL for ROYAL GUARD TRAINING CENTER IN THOMAMA RIYADH with app. route length = 6 km (Contractor: Al-Fanar).
- Loop IN/OUT existing 132KV OHTL 8077-9063 to feed New Quaiyah S/S 8514 in Riyadh area (Contractor: Al-Babtain Contracting Co.).
- Modification of 132KV OHTL 8012 / 8105 (Contractor: Al-Babtain Contracting Co.).
- Connection of Al-Shifa S/S # 8207 with 132 KV Underground Network in Riyadh (Contractor: Al-Babtain Contracting Co.).
- Reinforcement of 132KV Network in central area (Retrofitting Conductors and OPGW) with app. routes lengths = 135 km (Contractor: Al-Haider Co.).
- Reinforcement of 132KV Network Associated with S/S 9029, Re-Conductoring Existing OHTLs at QASSIM Area; App. 100 km (Contractor: CME).
- 115KV OHTL & UG Cables TLs between Qatif 380/115KV BSP & Qatif 115/33KV S/S-2 with app. route lengths = 8.5 km OHTLs and 4.5 km UG Cables (Contractor: Elsewedy Co.).
- 115KV OHTL from Al-DHAHIYAH 380/115KV BSP to SAUDI ARAMCO New Corporate Data Center and North Park Office Complex S/Ss, with length 22.6 km (Contractor: Asamco).
- 115KV OHTL from existing South Hofuf and Khaladiyah S/Ss to new King Faisal University (KFU) 13.8/115KV S/S, route length 7.5 km (Contractor: Al-Fanar).
- 110KV Yanbu-3 – Al-Mujjaz, OHTL route length 12.5 km & UG Cables 600 m (Contractor: Al-Babtain Contracting).
- Looping IN-OUT of the existing 132KV OHTL Circuits 8508 – 8068 to S/S # 8165 DURRAT AR RIYADH S/S, PTS #DRA (Contractor: SSEM Co.).
- Re-Routing of 115KV Overhead Transmission Lines at five (5) Southern Areas, (Contractor: Raissy HGPT Co.).
- 115KV TL Fdhili Power Plant - Fadhili Residential S/S OHTL 7.5 km & 2.90 km Underground Cables (Contractor: Al-Babtain Contracting Co.).
- 380/110/13.8KV MAKKAH NORTH BSP; 110KV OHTL relocation (Contractor: Al-Toukhi).

- Re-Routing of 380KV OHTL from 9004 to 9002/9008 S/Ss and 132KV OHTLs between 8072-8064 and 8061-8111 S/Ss (Contractor: Al-Fanar; Client Tabayu Co.)
- Construction OF New 132/13.8KV S/S #8831 IN BURAYDAH; Loop IN/OUT Existing 132KV OHTL (Contractor: L&T).
- Expansion OF HAIL (#9030) 380/132KV BSP; Loop IN/OUT Existing 132KV OHTL (Contractor: Al-Fanar).
- New 132KV Network Connection for HITTEN S/S # 9005 – Re-Conductoring the OHTL 8001-9005existing connection of s/s 8045 (Contractor: Al-Ojaimi).
- Loop IN/OUT circuit (B) of existing 132 KV OHTL 8501/9011 to feed S/S # 8523 Construction of new 132/13.8KV S/S # 8523 Al-Majmah (Contractor: AL-KADI).
- Transmission Network for connecting border guard's facilities in northern area with KSA National Grid – 13.8KV & 34.5KV medium voltages OHTLs & Underground Cables with route length 2600 km (Client: Ministry of Interior – Border Guards).
- Participation in Technical support; Design; Tender Estimations for many other projects.

Projects in Egypt:

- ABU QIR / BASUS / KAFR EL ZAYAT 500KV OHTL (600 km).
- CAIRO 500 / NUBARIA / SIDI KRIR 500KV OHTL (200 km).
- NEW SUEZ / TABA 500KV OHTL (285 km).
- HIGH DAM / CAIRO SOUTH 500KV OHTL (Replacement of insulators 1700 km).
- ASWAN / TUSHKA 220KV OHTL (260 km).
- EL NAQAB/NEUABAA/SHARM EL-SHEIKH (220 + 66KV) OHTL (260 km).
- SIDI KRIR Interconnection lines 220KV OHTL (200 km).
- SOUTH OF QENA / SAFAGA 220KV OHTL (180 km).
- ATTAKA / SAKR KOURISH 220KV OHTL (120 km).
- ASSIUT / EL-MINYA / MALAWY 132KV OHTL (150 km).
- Rehabilitation of 66KV Transmission lines in Delta Zone (1000 km).
- Upgrading of existing transmission lines (350 km).
- Many OHTLs Projects from 11 KV up to 500 KV including design and construction supervision.

Projects in Sudan:

- Participate in design of 0.400KV; 11KV & 33KV Poles for ELSEWEDY & National Electricity Corporation (NEC) Project in SUDAN.

Projects in Libya:

- SIRT / AGDABYA / RAS LANUF / BNI GHAZI 400KV OHTL with approximate route lengths = 600 km.
- AL-ZAWIA / TRIPOLI WEST 400KV OHTL.

Field of experience :

- 23 years experience working as a consultancy in transmission lines field for low, medium and high voltage transmission lines from 400 V up to 500KV for Transmission lines projects in Egypt, Saudi Arabia, Libya and

Sudan.

- I am working within a discipline team to design efficient and reliable electrical transmission lines, coordinating all design activities to maintain project schedules and ensure successful project completion in accordance with project technical specification, applicable codes & standards and ensuring strict adherence of approved standards and take appropriate corrective actions whenever variations are identified.
- I am participating in transmission lines design activities as specification preparation, selecting the transmission lines routes, preparing transmission lines submittals as plan & profile drawings, Sag & Tension calculations, Stringing charts, reviewing material specification / drawings, design layout of structures, preparing loading trees, design of structures grounding system, preparing a study of upgrading transmission lines, rehabilitation of insulators & conductors...etc.
- I have good understanding of the projects schedule, submittal schedule and have good communication skills and able to motivate & lead the design team to meet the customer's/ clients satisfactions and ensuring that client interests are fully protected and optimized.
- I have the ability and experience to supervise the construction works and to provide the technical supports for site work at all project stages.
- I have ability and experience to provide services at tendering stage for preparation of Technical and Commercial offers and evaluate the suppliers offers.
- I follow strictly Company Quality Control System to reach to client satisfaction, and able to take appropriate corrective action for the non-conformance raised during all project design stages.
- OHTLs & UG Cables design activities includes the followings activities:
  I have the ability to prepare the followings Studies / Calculations and Drawings for OHTL & UG Cables Projects in addition to site supervision and review the project materials.
  - Transmission lines route map.
  - Transmission lines route with spotted structures.
  - Plan & profile drawings with spotted structures.
  - Sag & tension calculations for conductors & ground wires.
  - Stringing sag & tension charts for conductors & ground wires.
  - Mechanical loads calculations for structures (Loads trees).
  - Electrical clearances calculations for structures.
  - Mid span clearances calculations.
  - Swing angle / load angle calculations.
  - Short circuit Forces calculations.
  - Line Parameters calculations.
  - Sag template curves.
  - Structure height templates.
  - Structure identification and warning signs.
  - Obstructions markers and conductor lights.
  - OPGW joint box installation on structures.
  - Splicing details for fiber optic cables.
  - Joint boxes location Maps.
  - Grounding details for joint boxes.
  - Anti-climbing devices.
  - Grounding system design for structures.
  - Design electrical layout of structures.
  - Project specification preparation.

- Upgrading of existing OHTLs by Re-Conductoring by using new conductor having a big cross section area, by replacing single conductor by bundle of two conductors, by Re-tension existing conductors, by raising the voltage, and by using new heat resistance thermal conductors.
- Rehabilitation of insulators & conductors.
- Projects progress reports.
- Underground cables pulling tension and sidewall pressure calculations.
- Grounding Conductor Sizing Calculations.
- Calculation of Selection SVL Rating.
- Plot plan - Power Cable Routing Plan.
- Power Cables Routing Plan & Profile details.
- Cable Termination arrangement Plan, Sections & Details.
- Cable Metallic Sheath Grounding arrangement & Details.
- Details of Trenches and Duct banks.
- Link Box Location, Connections & Details.
- One Line /Schematic Diagram.
- Metallic sheath and Link Box grounding arrangement.
- Fiber Optic Cables Routing Plan & Details.
- Key Plan of Fiber Optic cables.
- Fiber Optic Cables Interconnection diagram.
- Communication Handhole plan & details.
- Communication Handhole fold outs and details.
- Warning and Marker Posts details.
- List of materials.
- Cable arrangement details of snaking/ sagging at cable joint bays.