

Holds a B. Sc. in Electrical Power Engineering and a Diploma in New & Renewable Energies. Has about 31 years experience working mainly in Wind Energy field.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 06/12/1961  
Gender : Male  
Marital Status : Married  
Residence : Nasr City, Cairo

## EDUCATION

: B. Sc. in Electrical Power Engineering, Cairo University, 1986  
: Diploma (2 years study) in the field of New & Renewable Energies, Cairo University, 1990

## LANGUAGES

Arabic : Native Language  
English : Very Good

## COMPUTER SKILLS

: Windows, MS Office, Internet  
: WAsP 7, 8, 9, 10 (Wind Atlas)  
: WindPRO 2.9  
: OpenWind  
: WindFarmer 5.1

## TRAINING COURSES AND CERTIFICATIONS

: WAsP11 course, RISO/Gamesa, Spain/Pamplona (Apr. 2015).  
: WindPRO 2.9 course, EMD, Cairo (Mar. 2014).  
: WindPRO 2.8 course, EMD, Cairo (Nov. 2012).  
: Public hearing at Hurghada for SPANISH 120MW wind farm at Gulf Zayt (Oct. 2011).  
: The NREA - KfW Workshop held for bird migration mitigation at Gulf Suez (Jun. 2011).  
: Renewables fundamentals – Energy assessment – generation & utilization – optimizing penetration by prediction & improving capacity credit & etc. (Jan. & Apr. 2011).

- : Training in Wind Turbine Maintenance at Gamesa – SPAIN (Nov. 2010).
- : Public hearing at Hurghada for Italgen Company 120MW wind farm at Gabal Zayt (Mar. 2010).
- : Training in Wind Turbine Maintenance at Gamesa – SPAIN (Jul. 2006).
- : Wind Atlas (WAsP 8) course, RISO LAB. in Roskiled – DENMARK (Dec. 2004).
- : Participated in the 2004 Europe Wind Energy Conference (EWEC), United Kingdom (Nov. 2004).
- : Course "How to be a trainer" at Ministry of Electricity Leader Ship Training Centre (Dec. 2003).
- : Training in Wind Turbine Maintenance at VESTAS in Herning – DENMARK (Sep. 2003).
- : Computer Maintenance at National Planning Institute (Nov. 2001).
- : On-site training KFW project, CMS Engineering Course at Hurghada (Jan./Feb. 2001).
- : Wind Atlas (WAsP) course at RISO LAB. in Roskiled – DENMARK (Nov./Dec. 2000).
- : Training in Wind Turbine Maintenance at Nordex in Give – DENMARK (Jul./Aug. 1999).
- : Bird Migration workshop, held in Cairo at Sheppard Hotel, organized by International Bird watches (1999).
- : National workshop on the use of DECADES tools for comparative assessment of strategies and options for electricity generation in Egypt, held in Cairo, organized by International Atomic Energy Agency (Feb./Mar. 1998).
- : Wind Energy Tech. Cent. at Hurghada, Wind resources assessment workshop by RISO Lab. (Apr./May 1997).
- : Training in Master Plan Project at RISO LAB. in Roskiled – DENMARK (Aug. 1996).
- : Award & Honors Certificate for participating in test and evaluation of local manufacturing small wind turbine from Academy of Scientific Research & Technology.

## CHRONOLOGICAL EXPERIENCE RECORD

- Employer** : New and Renewable Energy Authority (NREA), Cairo
- Job titles** : Manager of Wind Energy Applications (Wind Energy Department) / Chief Engineer of Hi-Tech Wind application, Wind Energy Expert
- Job Description** :
- Participate in tendering and evaluation process including contract negotiations for several Wind Farms at Zafarana, up to its total capacity of 545MW by end of 2010.
  - Installation & maintenance of meteorological stations and data analysis.
  - Share in preparing the feasibility studies for wind farm projects.
  - Share in preparing the conceptual design for wind farm projects.
  - Share in preparing the tender documents for wind farm projects.
  - Share in evaluations of the tenderers' offer for wind farm projects.
  - Share in contract negotiations and preparing the contract documents for wind farm projects.
  - Share in the wind resources activities & assessment.

- Share in training's activities for wind technologies in cooperation with NREA training management.

- Field of experience** :
- WASP's user for assessment of wind climate, wind resource and power production.
  - Member of Wind Atlas Team in Egypt (site selection of met. station, installation of wind measuring equipments, data collecting and processing).
  - Preparation of the prequalified documents for selecting short listed contractors.
  - Evaluation of prequalified documents submitted by contractors.
  - Elaboration of conceptual design.
  - Preparation of technical part of tender documents, evaluation of bids and contract award.
  - General supervision of project implementation.
  - Supervision of final taking over and acceptance tests.
  - Studying any claims and provisions of assistance to executive chairman of my employer (NREA) in connection with any disputes or claims arising between NREA and the contractor.
  - Member of Technical Evaluation Committee for the following projects at Zafarana:
    - 30MW wind farm financed by Danida1 (Denmark).
    - 33MW wind farm financed by KfW1 (Germany).
    - 30MW wind farm financed by Danida2 (Denmark).
    - 47MW wind farm financed by KfW2&3 (Germany).
    - 85MW wind farm financed by Spain.
    - 120MW wind farm financed by JBIC (Japan).
    - 80MW wind farm financed by KfW4 (Germany).
    - 120MW wind farm financed by Danida4 (Denmark).
  - Participate in the "FEASIBILITY STUDY FOR WIND ENERGY PRODUCTION AT SAUDI ARABIA" as a work team member mainly for electrical issue and wind resource assessment assistance rest of work time.
  - Preparation of the prequalification documents for selecting short listed contractors for 220MW (JBIC) at Gulf Zayt area.
  - Participate in the tendering process for 120MW (Spain 2) wind farm at Gulf Zayt as the Project Coordinator.
  - Participate in the site allocation for the 22/220KV substation borders at Gabal El-Zayt (Lot 4 by EETC).
  - Participate in the site allocation for the 500KV substation borders at Ras Garib.
  - Participate in the evaluation process (Lot 1) for the 200MW KfW5 project at Gulf Zayt site.
  - Participate in the IPP short list for 250MW wind farm at Suez Gulf area by EETC.
  - Participate in 220MW (JICA) at Gulf Zayt tendering preparation.
  - Participate in contractor selection for 200MW wind farm Gulf Suez (MASDAR).

**Training experiences:**

- :
- Wind Farm Design Bases, NREA (Nov. 2010):

- Wind Farm Environmental Impact.
- Introduction to WAsP program.
- Wind Farm Design Bases, NREA (Apr. 2010):
  - Wind Farm Environmental Impact.
  - Electrical Cable Selection Guideline.
- Wind Farm Design Bases and its technical & financial assessment, NREA (Dec. 2009):
  - Wind Farm Environmental Impact.
  - Cables selection for Wind Farm Project.
- Wind Farm Design Bases and its technical & financial assessment, NREA (May 2009):
  - Wind Farm Environmental Impact.
  - Cables selection for Wind Farm Project.
- Wind Technology and its applications, NREA (Apr. 2005):
  - Wind Farm Environmental Impact.
  - Wind Farm Site Selection.
- Wind Technology and its applications, NREA (Dec. 2004):
  - Wind Farm Environmental Impact.
  - Wind Farm Site Selection.
- Wind Technologies and Evaluation for its use, NREA (Feb./Mar. 2004):
  - Wind farm Environmental Impact.
  - Wind Farm Site Selection.
- Wind Technology and its applications, NREA (Jan. 2003):
  - Wind Farm Environmental Impact.
  - Wind Farm Site Selection.
- Wind Farm Environmental Impact, NREA (Jun./Jul. 2002).
- Wind Farm Environmental Impact, NREA (Sep. 2001).

#### **Publications & Seminars:**

- "Wind Atlas for Gulf of Suez" by Niels G. Mortensen, Usama Said, Helmut P. Frank, Laila Georgy, Charlotte B. Hasager, Mohamed Akmal Mahmoud. New & Renewable Energy Authority and Riso Laboratory, Roskild. ISBN 87-550-3195-1. 196 pp.
- "MESO and Micro Scale flow Modeling in the Gulf of Suez" by Niels G. Mortensen, Usama Said, Helmut P. Frank, Laila Georgy, Charlotte B. Hasager, Mohamed Akmal Mahmoud. New & Renewable Energy Authority and Riso Laboratory, Roskild.
- "Egypt Wind Atlas" by: Niels G. Mortensen, Usama Said Said, Ashour Moussa, Mohammad Akmal Mahmoud (2005), Wind Atlas for the Egypt 1991-2005, ISBN 87-550-3493-4.
- Participate in the Renewable Energy Conference, held at Egyptian Engineers Association in Cairo, 8 Mar. 2010 by a paper about "Wind Energy in Egypt".
- Participate in ESCOA Conference & Workshop held at UN head quarter in Beirut – LEBANON, 28-29 Apr. 2010, about "Local Manufacture and Wind Energy Future in Egypt", Published.
- Participate in the Renewable Energy Week Conference Held at Berlin, Germany, 11-17 Aug. 2011.
- Prof. Hossam Kamal Mohammad Yousuf Cairo Uni. Eng. Faculty, Mohamed Akmal Mahmoud & others (April 2011) "Egypt's Smart Grid Roadmap 2040". Academy of Scientific Research & Technology, Energy and Mineral Resources Research Council.

- Prof. Moh. Sharkawi, Faculty of Science, Cairo Uni. Geology Dep, Chairman of Energy and Mineral Wealth Counsel, Prof. Samir Riad Prof. Emeritus of Geophysics Geology Dept. Assiut Uni., Moh. Akmal Mahmoud, others (Jan. 2013). "A roadmap for the axes of development in the Sinai Peninsula", Academy of Scientific Research & Technology, Energy and Mineral Resources Research Council.
- Prof. Ibrahim Dakhly, Atomic Energy Authority, Prof. Ahmed Hamza H. Ali, Eng. Moh. Akmal Mahmoud, others (31 Aug. 2016). "The future vision of energy needs in Egypt 2030", Academy of Scientific Research & Technology, Energy and Mineral Resources Research Council.
- Participated in the workshop "Future of Concentrated Solar Power with the Possibility of Desalination and Energy Storage", Prof. Ahmed Hosam El-Deen Shaheen, Prof. Amr Ahmed Amin, Prof. Kamal Abed, Eng. Moh. Akmal Mahmoud & others (12 Nov. 2016).
- Participated in the conference at Al-Quseer City on Red Sea about "OIL SHALE & UNCONVENTIONAL ENERGY RESOURCES" by a paper about: "Wind Farms for the ABU-ZENIMA Industrial Center", Eng. Moh. Akmal Mahmoud by utilizing wind energy for mineral industries at S. Sainai (5-9 Mar. 2017).

**Awards and Honouring Certificates / Membership:**

- Academy of Scientific Research & Technology: Award & Honors Certificate for participating in test and evaluation of "local manufacturing small wind turbine", 12 Dec. 2002.
- Egyptian Engineers Syndicate membership since 1986.
- Member of Energy and Mineral Resources Research Council, Academy of Scientific Research & Technology up to 16 Nov. 2015.
- Member of Electricity and Energy Resources Research Council, Academy of Scientific Research & Technology since 20 Jan. 2016.