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Dr. / Mohamed Anwar Abou El Ata

Personal Information

- Marital Status: Married
- Nationality: Egyptian
- Date of Birth: April , 14th, 1979
- Current Position: Assistant Professor , Electrical Power and Machine Department, Shoubra Faculty of Engineering, Benha University
- Driving License: Valid till 2017

Languages: Fluent in English (spoken and written), Arabic (native language)

Education

2005 – 2008 *Shoubra Faculty of Engineering* *Cairo*
Benha University

PhD. Degree (Thesis)

- Major: Electrical Power and Machines (High Voltage Engineering)
- Thesis Title : "***A new approach for reactive power compensation in distribution systems using interval mathematics***"

2002 – 2005 *Shoubra Faculty of Engineering* *Cairo*
Zagazig University, Benha Branch

MSc. Degree (Thesis)

- Major: Electrical Power and Machines (High Voltage Engineering)
- Thesis Title : *"**Discharge Inception Voltage on Coated Electrodes***"

1996 – 2001 *Shoubra Faculty of Engineering* *Cairo*
Zagazig University, Benha Branch

B.Sc. of Electrical Engineering

- Major: Electrical Power and Machinery
- Five Years Grade: Very Good with Honor (80.1%)

Publications

1-"Assessment of Pollution on Outdoor High Voltage Insulators In Egypt"

- Accepted to be published in 18th International Symposium of High Voltage Engineering ISH 20013, Korea, 28-30 Aug., 2013

2-"Optimal electric field performance of EHV transmission lines using ground shield conductors "

- Accepted to be published in 18th International Symposium of High Voltage Engineering ISH 20013, Korea, 28-30 Aug., 2013

3-" Environmental Pollution Effects on Insulators of Northern Egypt HV Transmission Lines "

- Accepted to be published in IEEE Conference On Electrical Insulation And Dielectric Phenomena, China, 2013 .

4-"A GA-Optimized Charge Simulation Method for Electric Field Modeling of Plate-Type Electrostatic Separators"

- Published in IET Science, Measurement & Technology Journal, Vol. 7, Iss. 1, pp. 16–22 2013.

5-"Enhancing Selectivity of Plate-Type Electrostatic Separators Using Non- Dominated Sorting Genetic Algorithms (NSGA-II)"

- Published in the International Journal of Innovative Computing and Applications, Vol. 5, No. 2, 2013.

6-" Electric Field Modeling of Plate-Type Electrostatic Separators Using Optimum Charge Simulation Method "

- Published in the Middle-East Power Systems Conf. (MEPCON'2012), Alexandria University, Egypt, Dec. 23-25, 2012.

7- " Assessment of uncertainties in substation grounding system using interval mathematics"

- Published in Ain Shams Engineering Journal (ASEJ), Vol. 3, 2012.

8-" Designing Substation Earthing Grid System Using Interval Mathematics"

- Published in the 21st International Conference on Electricity Distribution CIRED 2011, Frankfurt, 6-9 June 2011

9-"Optimal electric field performance of EHV transmission lines using ground shield conductors "

- Published in the 7th International Conference on Electrical Engineering ICEENG 2010, 25-27 May, 2010.

10- "Modeling load uncertainties in reactive power compensation of distribution feeders using interval arithmetic "

- Published in the 6th International Conference on Electrical Engineering ICEENG 2008, 27-29 May, 2008.

11-"Capacitor allocation and sizing in distribution feeders using interval mathematics"

- Published in Middle-East Power Systems Conf. (MEPCON'2006), ElMinia University, Egypt, Dec. 19-21, 2006.

12-"Assessment of uncertainty in reactive power compensation analysis of distribution systems"

- Published in 2006 Large Engineering Systems Conference on Power Engineering,, Halifax, Nova Scotia, Canada, July 2006

13-"Onset Voltage Of Positive Corona On Dielectric-Coated Electrodes"

- Published in 2005 Annual Report Conf. on Electrical Insulation and Dielectric Phenomena, pp. 34-38, 2005.

14-"Onset Voltage Of Negative Corona On Dielectric-Coated Electrodes In Air"

- Published in Journal of physics D: Applied Physics, vol. 38 ,2005,pp. 3403–3411

♦ **Using EPRI " Field Effects" Software Package in the Teaching of the Course ''Computer Applications in High Voltage Engineering ": A Quick Tutorial With Examples**

- Benha University, 2006, Book

♦ **Lecture notes on "Circuit Breakers" and " GIS" of the Course "Power System Protection" (3rd power) : A Quick Tutorial With Examples**

- Benha University, 2007, Book

♦ **Lecture notes of the Course High Voltage Engineering" -Grounding Systems (3rd power) : A Quick Tutorial With Examples**

- Benha University, 2007, Book

♦ **Lecture notes of the Course High Voltage Engineering" (4th power)**

- Benha University, 2008, Book

♦ **Lecture notes of the Course Utilization of Electrical Energy" (4th power)**

- Benha University, 2009, Book

♦ **Lecture notes of the Course "Electrical Measurements"- High Voltages-High Currents-Instrument Transformers (2nd power)**

- Benha University, 2008, Book

Fields of Experience

Electrical Power

- Reactive power compensation in distribution systems
- Computer assisted in power engineering education
- Electrical testing, instrumentation and measurements of the electrical system installation (LV and MV cables, Transformers, Switchgears, Panel boards and Grounding)
- Electrical design of low voltage network (industrial and residential) including selection of cables, panel boards, transformers and calculation of voltage drop and short circuit
- Principles of fire alarm system
- As-built of low voltage and medium voltage projects
- Testing commissioning and start up of low and medium voltage networks

High Voltage

- Study of electric and magnetic fields under transmission lines and at right of way
- Electrostatic field effects of EHV lines on objects
- Partial Discharge Measurements
- Grounding and Lightning protection system design

Work Experience

January 2008 – Pending

IEC team member

- Member of the International Electrotechnical Commission team (IEC).
- Preparing the International Standards for all electrical, electronic and related technologies — collectively known as electrotechnology

April 2004 – August 2006 Higher Education Enhancement Project Fund (HEEPF) Cairo

EHVPSD team member

- Member of the implementation team of the project "Enhancing High Voltage Engineering & Power systems Education Using Software Packages in a LAN -EHVPSD' funded by Ministry of Higher Education-World Bank.
- Preparation of the requested proposal "management, activities and financial".
- Evaluation of the project "management, activities and financial".

June 2002 – Pending *Cairo*

Assistant in the following projects

- "Use of grounded conductors to mitigate the electric and magnetic fields under EHV & UHV transmission line". This entails :

- Application of numerical studies to assist environmental impact of power transmission lines.
- Study of the effects of transmission line parameters on human beings in the surroundings.
- Study of the effects of radio interference, TV interference, and ozone production on the power line environment.

- "Study of Egyptian power transmission lines fields along the right of way". This entails:

- Study of electric and magnetic field at the line right of way.

- Human body models and biological effects threshold for current and shocks.

- "Environmental effects of ionized field of DC transmission lines". This entails:

- Study of electric field, ion current density, and charge density on the surrounding of the lines.
- Human body models and biological effects threshold for current and shocks.
- Study of the effects of radio and TV interference, and ozone production on the power line environment.

June 2002 – Pending *Shoubra Faculty of Engineering* *Cairo*
Benha University

Assistant Professor

- Major: Electrical Power and Machinery
- Area of Specialization: High Voltage Engineering and Distribution systems
- Teaching and assisting in teaching electrical engineering courses, preparing laboratory experiments and participating in the exam works.
- Teaching and assisting in teaching the following courses
  - Electric and electronic Circuits (1,2)
  - Fundamentals of Electrical Engineering
  - Properties of Materials
  - Computer Programming (1,2)
  - Measuring Instruments
  - Electrical Power Engineering
  - Computer Applications in Power and Electrical Machines
  - Optimal Economic Operation of Power Systems
  - Electromagnetic Fields
  - High Voltage Engineering (1,2)
  - Transmission and Distribution of Electrical Power
  - Economic of Electrical Energy Utilization
  - Automatic Control (1,2)
  - Power System Protection
  - Laboratory (High Voltage, and Basic Electronics)
  - MATLAB
  - Computer Applications in High-Voltage Engineering
  - Utilization of Electric Energy
  - Energy conversion
  - Environmental effects of electrical energy
- Supervising the following graduation projects
  - Use of grounded conductors to mitigate the electric field under EHV & UHV transmission line.
  - Computer assisted in power engineering education.
  - Design of low voltage distribution system of different buildings including (banks, malls and educational buildings).
  - DC Corona Characteristics on Bundle Conductors
- Assisting in the maintenance and operation of the faculty multimedia laboratory, internet lab, and electronic education unit which include
  - Maintenance of an audio/video distribution network and the faculty computers.
  - Installation, administration and maintenance of the faculty LAN.

September 2001 – June 2002 *Ministry of Water Resources* *Cairo*

Electrical Engineering

- Working as an electrical engineer at the mechanical and electrical research (MERI) institute in Kanater.
- Installation of electrical protection schemes for electrical equipments (motors, generators, etc…).
- Testing and inspecting of the control system of electrical installation.

September 2001 – June 2002 *Shoubra Faculty of Engineering* *Cairo*
Zagazig University (Benha Branch)

Assistant Lecturer

- Major: Mathematical and Physics Department
- Assisting in teaching courses on Differential and Integral Equations, Numerical Analysis, Algebra and Analytical Geometry.

Computer Skills

Programming Languages

- MATLAB , C++, FORTRAN, QBASIC

Computer Applications

- MS Office (Word, Excel, and Power Point,…etc)
- AutoCAD, Dialux
- Internet

Hardware

- Basic hardware maintenance skills
- Basic network installation and administration skills