Fourteenth International Middle East Power Systems Conference (MEPCON'10)

Cairo University, Cairo, Egypt, December 19-21, 2010

Conference Detailed Program

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Cairo University, December 19-21, 2010, Cairo, Egypt

Conference Highlights

The 14th Fourteenth International Middle East Power Systems Conference (MEPCON'10) with cooperation with IEEE Egypt Section will be held in December 19-21, 2010, Cairo, Egypt. The objective of the conference is to present academic and technological progress in key areas of electric power engineering and related subjects. It will provide a forum for national and international university faculties, research institutes, industry and utility engineers to exchange new concepts and challenges for the future.

The conference will be held in Al Masah Hotel near El Nasr Main Road (Extension of Autostrade Way) in Nasr City, Cairo, Egypt. This five star hotel is located in central area of Cairo and is close to many tourist places and shopping centers.

The conference includes two invited papers, two panel discussions sessions and 162 contributed papers. The panel discussion I is directed to Egyptian Renewable Energy Policy, while Panel Discussion II will be addressing Electricity and Environment. In addition, the program includes a one day tutorial on Smart Grids: Principles and Applications.

The program is scheduled into four parallel running halls: A: Zomoroda Hall, B: Lo,loo Hall, C: Fayrouz Hall and D: Library Room. The 162 contributed papers are presented in 25 different sessions as described in the following brief and detailed conference program.

The papers were peer reviewed according to the standard used by IEEE and papers are prepared according to IEEE Xplore formats. The technical sessions cover the following topics:

I. Renewable Energy Systems:	This includes wind energy systems analysis and performance, wind energy systems operation and control, and photovoltaic energy
II. Power Systems:	This includes power quality, power system planning and operation, Facts, distribution systems, power system control, distributed generation and hybrid energy systems.
III. High Voltage Systems:	This covers the high voltage systems and power system protection.
IV. Control Systems:	This covers computational intelligence-based systems. fuzzy control systems, , measurements and control systems, and control systems applications.
V. Power Electronics and Drives:	This comprises power electronics and electric drives.

Conference Organization

Conference General Chairmen

Professor Roshdy Mohamed Radwan
(Cairo University)

Professor Zeinab Hanem Osman
(Cairo University)

Professor Magdy Mohamed El Marsafawy
Cairo University)

Conference Chairman and General Secretary

Professor Hassen Taher Dorrah
(Cairo University)

Conference General Coordinator

Professor Osama El Sayed Gouda
(Cairo University)

All correspondence will be directed to:

MEPCON'10 Chairman and General Secretary,
Department of Electric Power and Machines Engineering
Faculty of Engineering,
Cairo University,
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Fourteenth International Middle East Power Systems Conference
(MEPCON'10), Cairo University, Cairo, Egypt, December 19-21, 2010.

Brief Program with Sessions Chairmen

Date	Time	Zomoroda Hall A	Lo'loaa Hall B	Fayrouz Hall C	Library Room D
Sunday 19/12/2010	8:00 – 9:00	**Registration**			
	9:00-10:00	**Opening speeches by Conference Key Sponsors.** **Keynote speech on State of Art of Electric Power Systems by Ed Schweitzer (Selinc, USA).**			
	10:30-12:30	**A1: Wind Energy Systems: Analysis and Performance** **Session Chairmen:** **Adel A. Abou El-Ela** (Monefia University) **Nabil Hasan Abbasy** (Alexandria University)	**B1: Power Quality.** **Session Chairmen:** **Mohamed Mamdouh Abdel Aziz** (Cairo University) **Hossam Kamal Youssef** (Cairo University)	**C1: Computational Intelligence-based Systems** **Session Chairmen:** **Mohamed A. Zohdy** **(**Oakland University, USA) **Ahmed Bahgat Gamal Bahgat** (Cairo University)	**D1: Power Electronics (I).** **Session Chairmen:** **Sabry Abdel Latif Mahmoud** (Menoufia University) **Osama A. Mahgoub** (Cairo University)
	12:30-14:00	**Break**			
	14:00-16:00	**Panel Discussions I: Wind Energy Plan and Integration Issues in Egypt** **Session Chairmen:** **Kamel Yassin** (Electricity Holding Company) **Mohamed Abd El Alim El Hadidy** (Electricity Holding Company)	**B2: Power System Planning and Operation.** **Session Chairmen:** **Abdel Hay Sallam** (Port Said University) **Mahmoud Mohamed El Metwally** (Cairo University)	**C2: Fuzzy Control Systems.** **Session Chairmen:** **Mohamed Zaki Abdel Magiud** (Al Azhar University) **Mohamed Mohamed Fahim Sakr** (Cairo University)	**D2: Power Electronics (II).** **Session Chairmen:** **Ahmed Abdel Satar Abdel Fatah** (Ain Shams University) **Ahmed Alaa Elkousy** (Cairo University)

Date	Time	Zomoroda Hall A	Lo'loaa Hall B	Fayrouz Hall C	Library Room D
Monday 20/12/2010	9:00- 10:15	**Tributes to Late Professor Adly Girgis (Clemson University) and Late Professor El-Sayed Azzoz (Helwan University).** **Invited Papers by Professor Elham Makram (Clemson University), and Dr. Abdel-Aty Edris (Quanta Technology, USA)** **Session Chairmen:** **Farouk Ismail** (Cairo University) **Adel Sharaf** (Trinidad and Tobago University)			
	10:30- 12:30	**A2: Facts.** **Session Chairmen:** **Elham Makram** (Clemson University, USA) **Ahmed Rizk** (Ain Shams University	**B3: Wind Energy Systems: Operation and Control.** **Session Chairmen:** **Dr. Abdel-Aty Edris** (Quanta Technology, USA) **Mohamed Abd El Rehim Badr** (Ain Shams University)	**Tutorial on Smart Grids: Principles and Applications (Selinc, USA).**	**D3: Measurement and Control Systems.** **Session Chairmen:** **Said Abdel Monem Wahsh** (Electronic Research Institute) **Abd El Monem A.Sief** (Cairo University)
	12:30- 14:00	**Break**			**Meeting of MEPCON Steering Committee**
	14:00- 16:00	**Panel Discussions II: Electricity and Environment.** **Session Chairman:** **Ibrahim Megahed** (Alexandria University) **Speakrs:** **Roshdy Radwan** (Cairo University) **Mazen Abdel Salam** (Assiut University) **Hussein Anis** (Cairo University)	**B4. Distribution Systems.** **Session Chairmen:** **Hamdy S. El-Gohary** (Ain Shams University) **Abd El Rehim Ahmed Mohamed Meki** (Assiut University)	**Tutorial Continued.**	**D4: Control Systems Applications.** **Session Chairmen:** **Mohamed Kamal ElSherbeany** (Assiut University) **Abdel Latif El Shafei** (Cairo University)

Date	Time	Zomoroda Hall A	Lo'loaa Hall B	Fayrouz Hall C	Library Room D
Tuesday 21/12/2010	9:00- 10:45	**A3: High Voltage (I).** **Session Chairmen:** **Ahmed Abd Allah Hossam ElDin** (Alexandria University) **Ossama E. Gouda** (Cairo University)	**B5: Power System Control.** **Session Chairmen:** **Mohamed Ahmed Hassan El-Sayed** (Kuwait University) **Hussien Magdy Zin El Din** (Cairo University)	**C3: Distributed Generation.** **Session Chairmen:** **Abdel Moneem Tantawy** (Mansoura University) **Mohamed Salah Mohamed El Sobki** (Cairo University)	**D5: Electric Drives (I).** **Session Chairmen:** **Adel Lotfi Mohamadean** (Alexandria University) **Amr Amin Mohamed Adli** (Cairo University)
	11:00- 13:00	**A4: High Voltage (II).** **Session Chairmen:** **Abdel Razak Ibrahim Nossier** (Ain Shams Uiversity) **Ahdab Mohamed Kamel El Morshdy** (Cairo University)	**B6: Power System Protection (I).** **Session Chairmen:** **Metwally El Sharkawy** (Ain Shams University) **Esam El din Mohamed Abol Zahab** (Cairo University)	**C4: Photovoltaic Energy Systems.** **Session Chairmen:** **Hassan Hussean El Tamaly** (Minya University) **Adel Diaa El Din Shaltout** (Cairo University)	**D6: Electric Drives (II).** **Session Chairmen:** **Mohamed Shaker ElMarkaby** (Shaker Group) **Mahmoud Mohamed Abd El Hakim** (Cairo University)
	13:00- 14:00	**Break**			
	14:00- 16:00	**A5: Power System Protection (II)** **Session Chairmen:** **Mohamed Mostafa Sallam** (Helwan University) **Mohamed M. Mansour** (Ain Shams University)	**B7: Hybrid Energy Systems.** **Session Chairmen:** **Mohamed A. El-Sharkawy** (University of Washington, USA) **Omar Hanafy Abdalla** (Helwan University, on leave to Sultanate of Oman Electricity Transmission Company)		
	16:00- 16:30	**Closing and Recommendations** **Conference Chairmen:** **Dr. Roshdy Radwan** **Dr. Zeinab Hanem Osman** **Dr. Magdy El Marsafawy** (Cairo University)			

Fourteenth International Middle East Power Systems Conference (MEPCON'10), Cairo, Egypt, December 19-21, 2010

Program of Sunday 19/12/2010

Time: **9:00-10:00** Location: **Zomoroda Hall**

Opening speeches by Conference Key Sponsors

Keynote speech: "Synchronized Control, Protection, and Operation of Electric Power Systems" by Ed Schweitzer (Selinc, USA).

Time: **10:30-12:30** Location: **Zomoroda Hall**

Session A1: **Wind Energy Systems: Analysis and Performance**

Effect of Large Scale Wind Power Integration And The Need For Rt Wampac. (Paper No. 305)

Fathallah Shalaby — Egyptian Electricity Transmission Company (Eetc), Egypt.
Mohamed El-Hadidy — Egyptian Electricity Transmission Company (Eetc), Egypt.
Soufie Basta — Egyptian Electricity Holding Company (Eehc), Egypt.
Fatma Nada — Egyptian Electricity Transmission Company (Eetc), Egypt.
Dalal H. Helmi — Egyptian Electricity Transmission Company (Eetc), Egypt.

Assessment Of Operating Wind Energy Generation System To Supply Isolated Loads With Applications In Egypt. (Paper No. 204)

S.M.Allam — Faculty of Engineering, Monefia University, Shebin El- Kom, Egypt.
A.A.EL-Zeftawy — Faculty of Engineering, Monefia University, Shebin El- Kom, Egypt.
A.S.Doso — Faculty of Engineering, Monefia University, Shebin El- Kom, Egypt.

A Grid-Connected Matrix Converter Based Wind Conversion System: Model and Characteristics. (Paper No. 165)

Hassan Nikkhajoei — UAE

Simulation of a Proposed Maximum Power Extraction Scheme for Small Wind Turbine Systems. (Paper No. 299)

Ahmed. E. Kalas — Electrical Engineering Dept., Faculty of Engineering, Port-Said University.
Medhat. H. Elfar — Electrical Engineering Dept., Faculty of Engineering, Port-Said University.
Soliman. M. Sharaf — Electrical Engineering Dept., Faculty of Engineering, Helwan University.

Steady-State and Transient Analyses of Wind Farm Connected to an Electric Grid with Varying Stiffness. (Paper No. 151)

Mazen Abdel Salam — Electric Engineering Department, Assiut University, Assiut, Egypt.
Adel Ahmed — Electric Engineering Department, Assiut University, Assiut, Egypt.
Mahmoud Mahrous — Electric Engineering Department, Assiut University, Assiut, Egypt.

Planning of A Wind Power Delivery System. (Paper No. 150)

Ahmed R. Abul Wafa — Electric Power and Machines Department, Ain Shams University.

Maximum Power Point Tracking Based on Sensorless Wind Speed Using Support Vector Regression. (Paper No. 264)

Ahmed G. Abo Khalil — Dept. of Electrical Engineering, Assiut University, Assiut Egypt.

Performance Enhancement of Grid Connected Wind Energy Conversion Systems. (Paper No. 116)

Jayashri Ravishankar — School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, NSW 2052, Australia.
M. F. Rahman — School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, NSW 2052, Australia.

Time: **10:30-12:30** Location: **Lo'loaa Hall**

Session B1: **Power Quality**

Power Quality Improvement For Electrical System Feeding Metro In Egypt. (Paper No. 216)

O. A. Monem Faculty of Engineering, Cairo University
A. A. Mahfouz Faculty of Engineering, Cairo University

A Study of Single Phase Static Energy Meter Behavior during Voltage Dips. (Paper No. 149)

Alshaimaa Mohamed Nasr Egyptian National Institute for Standard, Egypt.
Doaa khalil Ibrahim Faculty of Engineering, Cairo University.
Soheir Fakhry Egyptian National Institute for Standard, Egypt.
Mohamed Mamdouh Abdel Aziz Faculty of Engineering, Cairo University.

Investigation of Inter-Line Dynamic Voltage Restorer in Multi Feeder Distribution System for Voltage Sag Mitigation. (Paper No. 163)

Ahmed Hossam-Eldin Electrical Engineering Department, Alexandria university, Egypt.
Ahmed Elserougi Electrical Engineering Department, Alexandria university, Egypt.
Ahmed Massoud Electrical and computer Engineering Dept., Qatar university, Qatar.
Shehab Ahmed Electrical and computer Engineering Dept., Texas A&M University at Qatar, Qatar.

Wavelet, Kalman Filter and Fuzzy-Expert Combined System for Classifying Power System Disturbances. (Paper No. 189)

A. A. Abdelsalam Dept. of Electrical Engineering, Faculty of Engineering, University of Suez Canal, Port-Said, Port-Fouad, Egypt.
A. A. Eldesouky Dept. of Electrical Engineering, Faculty of Engineering, University of Suez Canal, Port-Said, Port-Fouad, Egypt.
A. A. Sallam Dept. of Electrical Engineering, Faculty of Engineering, University of Suez Canal, Port-Said, Port-Fouad, Egypt.

An Assessment of a Global Performance Index for Distributed Generation Impacts on Distribution Systems. (Paper No. 310)

Hussein. A. Attia Electrical Power and Machine Dept. Cairo University, Egypt.
M. El-Shibini Electrical Power and Machine Dept. Cairo University, Egypt.
Zeinab H. Osman Electrical Power and Machine Dept. Cairo University, Egypt.
Ahmed A. Moftah Electrical Power and Machine Dept. Cairo University, Egypt.

Tracking the Reliability indicators In Electric Power System. (Paper No. 246)

Hafez El Salmawy Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Kamelia Youssef Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Shereen Abdulla Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Mohamed Gamea Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Khaled Hamdy Egyptian Electric Utility and Consumer Protection Regulatory Agency.

Time: **10:30-12:30** Location: **Fayrouz Hall**

Session C1: **Computational Intelligence-based Systems.**

Development of New Consolidity Theory for Systems' Analysis and Design in Fully Fuzzy Environment. (Paper No. 100)

Hassen Taher Dorrah Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.
Walaa Ibrahim M. Gabr Egyptian Electric Holding Company; On leave to SDA Engineering Canada Inc. (Toronto, Ontario, Canada).

Optimal Energy Control of Single Phase Induction Motors Based On Multi Objective Particle Swarm Optimization. (Paper No. 176)

Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).
Adel A. A. El-Gammal Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Application of Augmented Lagrangian Particle Swarm Optimization in Selective Harmonic Elimination Problem (Paper No. 316)

Mohamed Azab Benha University-Egypt (On leave to Yanbu industrial College-Saudi Arabia).
Hisham M. Soliman Electrical Engineering Department, Faculty of Engineering, Cairo University, Egypt.

Synchronous Motor Design using Particle Swarm Optimization Technique. (Paper No. 287)

Ragab A. El-Sehiemy Department of electrical Engineering, University of Kafr Ellsheikh, Kafr Ellsheikh, Egypt.
M. I. Abd-Elwanis Department of electrical Engineering, University of Kafr Ellsheikh, Kafr Ellsheikh, Egypt.
A. B. kotb Department of electrical Engineering, University of Al-Azhar, Cairo, Egypt.
M. Elwany Department of electrical Engineering, University of Al-Azhar, Cairo, Egypt.

Optimal Tuning of PID Controller for AVR System using Modified Particle Swarm Optimization.(Paper No. 170)

G.Shabib Department Of Electrical Engineering, High Institute Of Energy, South Valley University, Aswan, Egypt
Mesalam Abdel Gayed Department Of Electrical Engineering, High Institute Of Energy, South Valley University, Aswan, Egypt
A.M.Rashwan Department Of Electrical Engineering, High Institute Of Energy, South Valley University, Aswan, Egypt

Optimal Sizing of Solar Water Heating System Based on Genetic Algorithm for Aquaculture System. (Paper No. 244)

Doaa M. Atia Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Faten H. Fahmy Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Ninet M. A. El-rahman Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Hassen T. Dorrah Electrical Power & Machines Dept., Cairo University, Egypt.

Speed Control of Permanent Magnet Transverse Flux Linear Motor using Artificial Neural Network Controller. (Paper No. 261)

Ahmed Y. Ellbiary Electrical Power & Machines Department, Ain Shams University, Faculty of Engineering, Cairo, Egypt.
Hany M. Hasanien Electrical Power & Machines Department, Ain Shams University, Faculty of Engineering, Cairo, Egypt.
M. A.L.Badr Electrical Power & Machines Department, Ain Shams University, Faculty of Engineering, Cairo, Egypt.

Neural Networks for Monitoring Mechanical Defects of Rotating Machines. (Paper No. 161)

Z. Derouiche Département Electronique. Faculté de Génie Electrique USTO Algeria.
M. Boukhobza Département Electronique. Faculté de Génie Electrique USTO Algeria.
B. Belmekki Département Electronique. Faculté de Génie Electrique USTO Algeria.
J.M. Rouvaen Laboratoire OAE, IEMN Université de Valenciennes France.

Spacecraft Power System Controller Based on Neural Network. (Paper No. 242)

Hanaa T. El-madany Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Faten H. Fahmy Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Ninet M. A. El-rahman Electronics Research Institute, National Research Center Building, Cairo, Egypt.
Hassen T. Dorrah Electrical Power & Machines Dept., Cairo University, Egypt.

Time: **10:30-12:30** Location: **Library Room**

Session D1: **Power Electronics (I)**

Simple Design Procedure for High-Power Three-Phase Inverters Operating in PWM and Six-Step Modes. (Paper No. 107)

Ahmed A. A. Hafez Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt.

Harmonic Distortion Rate Analysis of H-Bridges Multilevel Inverter. (Paper No. 119)

Mohamed Néjib Ben Nasr ESSTT 5av . Taha Hussein BP 56 Bab Mnara-1008 Tunis .
Anis Kebir ESSTT 5av . Taha Hussein BP 56 Bab Mnara-1008 Tunis .
Faouzi Ben Ammar INSAT Centre Urbain Nord, BP 676,1080 Tunis.

Implementing a Three Phase Nine-Level Cascaded Multilevel Inverter with low Harmonics Values (Paper No. 319)

Hussein A. Konber Department of Electrical Engineering, University of Al-Azhar, Cairo, Egypt,
Osama I. EL-Hamrawy Department of Electrical Engineering, University of Al-Azhar, Cairo, Egypt,
Mahmoud EL-Bakry Department of Power Electronics, Electronics Research Institute, Cairo, Egypt

Cascade H-Bridge Asymmetrical 11-Level Optimizition. (Paper No. 206)

Mohamed Néjib Ben Nasr ESSTT 5av . Taha Hussein BP 56 Bab Mnara-1008 Tunis.
Anis Kebir ESSTT 5av . Taha Hussein BP 56 Bab Mnara-1008 Tunis.
Faouzi Ben Ammar INSAT Centre Urbain Nord, BP 676, 1080 Tunis.

New Multilevel Inverter Topology With Reduced Number Of Switches (Paper No. 236)

Rokan Ali Ahmed Department of Electrical Engineering, University of Malaya,Kuala Lumpur, Malaysia.
S. Mekhilef Department of Electrical Engineering, University of Malaya,Kuala Lumpur, Malaysia.
Hew Wooi Ping Department of Electrical Engineering, University of Malaya,Kuala Lumpur, Malaysia.

Fault Tolerant Control of Four Switch Three Phase Inverter Fed Induction Motor Drive System. (Paper No. 266)

A. E. Kalas Electrical Engineering Dept., Faculty of Engineering, Port-Said, Suez Canal University.
M.Fawzi Electrical Engineering Dept., Faculty of Engineering, Port-Said, Suez Canal University.
Elwy E. El kholy Electrical Engineering Dept., Faculty of Engineering, Shebin El-Kom, Monefia University.

Open Gate Drive Fault Diagnosis of a Voltage Fed Three Phase PWM Inverter Drive System. (Paper No. 267)

A. E. Kalas Electrical Engineering Dept. Faculty of Engineering, Port-Said, Suez Canal University.

Optimum Design for Multilevel Boost Converter. (Paper No. 275)

Mostafa Mousa APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Hilmy APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous E. Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Time: **14:00-16:00** Location: **Zomoroda Hall**

Panel Discussions I: Wind Energy Plan and Integration Issues in Egypt (Paper ID 323)

Speakers:

AbdElrahman Salah Chairman of New and Renewable Energy Authority.
Hafez Salmawy Egyptian Electric utility and Consumer Protection Regulatory Agency.
Mohamed El-Hadidy Expert-Protection, EETC Consultant.
Fatma Nada Consultant "A" for Studies and IPP Sector, BOO Wind Task Force Member, EETC.
Dalal Helmi Department Manager, IPP Sector, BOO Wind Task Force Menmber, EETC
Soufie Labib Basta BOO Wind Task Force Leader, EEHC Consultant.

Time: **14:00-16:00** Location: **Lo'loaa Hall**

Session B2: **Power System Planning and Operation.**

Contingency Analysis using Synchrophasor Measurements. (Paper No. 219)

Elham B. Makram 303 Riggs Hall, Clemson University, Clemson, SC 29631-0915.
Megan C. Vutsinas 303 Riggs Hall, Clemson University, Clemson, SC 29631-0915.
Adly A. Girgis 303 Riggs Hall, Clemson University, Clemson, SC 29631-0915.
Zheng Zhao 303 Riggs Hall, Clemson University, Clemson, SC 29631-0915.

Short Term Load Forecasting Using Evolutionary Optimized Modified Locally Weighted GMDH. (Paper No. 101)

Ehab E. Elattar The Department of Electrical Engineering, Minufiya University, Shebin El-Kom, Egypt.
John. Y. Goulermas The Department of Electrical Engineering and Electronics, The University of Liverpool, UK.
Q. H. Wu The Department of Electrical Engineering and Electronics, The University of Liverpool, UK.

A New Simulink Model to Study the VFT performance when Transferring Power Between Weak and Strong AC Grids. (Paper No. 106)

Dr. Ahmed Hossam El Din Department of Electrical Engineering, University of Alexandria, EGYPT.
Dr. Mohamed Abdullah Ashraf Department of Electrical Engineering, University of Alexandria, EGYPT.
Eng. Mona Ibrahim Department of Electrical Engineering, University of Alexandria, EGYPT.

A New Approach for Short-Term Load Forecasting Using Curve Fitting Prediction Optimized by Genetic Algorithms. (Paper No. 125)

M. A. Farahat Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Egypt.
M. Talaat Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Egypt.

Several Power Transmission Backbone Schemes. (Paper No. 182)

Yutian Liu School of Electrical Engineering, Shandong University, Jingshi Road, Jinan, China.
Dong Yang School of Electrical Engineering, Shandong University, Jingshi Road, Jinan, China.
Hong Chen School of Electrical Engineering, Shandong University, Jingshi Road, Jinan, China.

Optimal Based Demand Side Management DSM Formulation. (Paper No. 314)

Hussein. A. Attia Electric Power and Machines Dept. , Faculty of Engineering, Cairo University

Time: **14:00-16:00** Location: **Fayrouz Hall**

Session C2: **Fuzzy Control Systems**

Applications of Hyper-Fuzzy Logic in Field Oriented Control of Induction Machines.(Paper No. 179)

O. M. Salim High Institute of Technology, Benha University, Egypt.
M. A. Zohdy School of Engineering and Computer Science, Oakland University, Rochester.
H. T. Dorrah Electric Power and Machines, Faculty of Engineering, Cairo University, Egypt.
A. M. Kamel Electric Power and Machines, Faculty of Engineering, Cairo University, Egypt.

Adaptive Control of Shunt Active Power Filter Using Interval Type-2 Fuzzy Logic Controller.(Paper No. 159)

G. M. Sarhan Department of Electrical Engineering Technology, High Institute of Technology, University of Benha, Egypt.
A. A. Elkousy Department of Electrical Power Engineering, Faculty of Engineering, University of Cairo, Egypt.
A. A. Hagras Department of Physics, Cyclotron Project, Nuclear Research Centre, Egyptian Atomic Energy Authority (EAEA), Abo Zaabal, Cairo, Egypt.
Sh. M. Saad Department of Physics, Cyclotron Project, Nuclear Research Centre, Egyptian Atomic Energy Authority (EAEA), Abo Zaabal, Cairo, Egypt.

Design of PSO-Based Optimal Fuzzy PID Controllers for the Two-Coupled Distillation Columns Process.(Paper No. 148)

H. T. Dorrah Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.
A. M. El Garhy Department of Electronics, Communications and Computers, Faculty of Engineering, Helwan University, Helwan, Egypt.
M. E. El Shimy Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.

Development of New Fuzzy Logic-based Ant Colony Optimization Algorithm for Combinatorial Problems. (Paper No. 294)

Ahmed Rabie Ginidi Ginidi Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.
Ahmed M. A. M. Kamel Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.
Hassen Taher Dorrah Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.

Fuzzy Geometric Programming Optimization using New Arithmetic Fuzzy Logic-based Representation. (Paper No. 306)

Sameh Farid Saad Eid Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.
Ahmed Mohammed A. M. Kamel Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.
Hassen Taher Dorrah Automatic Control and System Engineering Group, Dept. of Electric Power and Machines Engineering, Faculty of Engineering, Cairo University, Giza, Egypt.

Fuzzy Logic Control of Three Phase Submerged Arc Ferrosilicon Furnace.(Paper No. 156)

G. Shabib Department of Electrical Engineering, Aswan High Institute of Energy, University of South valley , Sahare , Aswan, Egypt.
K. Hassan Egyptian Ferro-Alloys Company Edfu, Aswan, Egypt.

Applying Neurofuzzy Computing for Safety Improvement of Nuclear Power Reactor. (Paper No. 235)

Mohamed A. Metwally Suez Canal Authority.
Ashraf Aboshosh Atomic Energy Authority.
Doaa khalil Ibrahim Faculty of Engineering, Cairo University.
Essam EL-Din Abou EL-Zahab Faculty of Engineering, Cairo University.

Time: **14:00-16:00** Location: **Library Room**

Session D2: **Power Electronics (II).**

New Adaptive Hysteresis Modulation Technique for Three Phase Shunt Active Power Filter. (Paper No. 118)

Mohamed R. Amer Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.
Osama A. Mahgoub Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.
Sherif A. Zaid Department of Electrical Power and Machines, Faculty of Engineering, Cairo University, Giza, Egypt.

Ramptime Current -Controlled APF for Harmonic Mitigation, Power Factor Correction and Load Balancing. (Paper No. 135)

Mazen Abdel Salam Electric Engineering Department, Assiut University, Assiut, Egypt.
Adel Ahmed Electric Engineering Department, Assiut University, Assiut, Egypt.
Mohamed Abdel Sater Electric Engineering Department, Assiut University, Assiut, Egypt.

Review Paper for Passive and Active Circuits of Power Factor Correction in AC-DC Converters. (Paper No. 154)

H. Z. Azazi Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.
E. E. EL Kholy Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.
S. A. Mahmoud Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.
S. S. Shokralla Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.

Improving the Performance of the Power Supply of the MGC-20 Cyclotron Harmonic Coils. (Paper No. 168)

S. G. Ramadan High Institute of Technology, Benha University, Benha, Egypt.
G. M. Sarhan High Institute of Technology, Benha University, Benha, Egypt.
A. A. Hagras Nuclear Research Centre, Egyptian Atomic Energy Authority (EAEA), Abo Zaabal, Cairo, Egypt.
Sh. M. Saad Nuclear Research Centre, Egyptian Atomic Energy Authority (EAEA), Abo Zaabal, Cairo, Egypt.

Design of Integrated High Efficiency Two Stage Point of Load DC-DC Converter. (Paper No. 269)

Mohamed Saad APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
El-Sayed Hasaneen El-Minia University, El-Minia, Egypt.
Ashraf Lotfi Enpirion Inc. New Jersey 08827, USA.

Microcontroller –Based Modified SEPIC Converter for Driving LED Lamp with power factor Correction. (Paper No. 270)

Mokhtar Ali APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Amgad Keshka APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous E .Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Abdelali El-Aorudi Rovira i Virgili University, Tarragona, Spain.

Digital Control of Boost PFC AC-DC Converters with Predictive Control. (Paper No. 273)

H.Z.Azazi Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt
E. E. EL Kholy Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt
S. A. Mahmoud Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt
S. S. Shokralla Electrical Engineering Department, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt

Program of Monday 20/12/2010

Time: **9:00-10:15** Location: **Zomoroda Hall**

Invited Papers

Tribute to Late Professor Dr. Adly Girgis (Clemson University, USA).

Tribute to Late Professor Dr. El-Sayed Azzoz (Helwan University) and Member of MEPCON Steering Committee.

Innovations in Power Systems, by Dr. Elham Makram (Clemson University, USA) (Paper ID 99).

What makes a Transmission Grid Smart, by Dr. Abdel-Aty Edris (Quanta Technology, USA) (Paper ID 322).

Time: **10:30-12:30** Location: **Zomoroda Hall**

Session A2: **Facts**

Impacts of Midpoint STATCOM and SVC on the Coordination between Generator Distance Phase Backup Protection and Generator Capability Curves. (Paper No. 158)

M. Elsamahy Student Member, IEEE.
S.O. Faried Senior Member, IEEE.
T. S. Sidhu Fellow, IEEE.
G. Ramakrishna Member, IEEE.

Optimal Allocation of TCSC Devices Using Genetic Algorithms. (Paper No. 195)

A. Y. Abdelaziz Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
M. A. El-Sharkawy Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
M. A. Attia Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Power System Stability Enhancement using the Unified Power Flow Controller. (Paper No. 240)

A. Elkholy Photovoltaic Cells Department Electronics Research Institute, Egypt.
F. H. Fahmy Photovoltaic Cells Department Electronics Research Institute, Egypt.
A. Abu Elela Power Electrical Department Elmenufia University, Egypt.

Newton-Raphson TCSC Model for Power Flow Solution with Different Types of Load Models. (Paper No. 250)

Abdel Moamen M. A. Electrical Engineering Department, Faculty of Engineering, South Valley University, Qena, Egypt.

Direct Modeling of UPFC in Newton Raphson Power flow Analysis Based on Current Injections. (Paper No. 281)

Salah Kamel APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mamdouh Abdel Akher APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Transmission Loss Minimization and UPFC Installation Cost using Evolutionary Computation for Improvement of Voltage Stability. (Paper No. 293)

Nor Rul Hasma Abdullah Universiti Teknologi MARA, Shah Alam, Malaysia.
Ismail Musirin Universiti Teknologi MARA, Shah Alam, Malaysia.
Muhammad Murtadha Othman Universiti Teknologi MARA, Shah Alam, Malaysia.

Hybrid Power and Current Mismatches Newton-Raphson Load-Flow Analysis for Solving Power Systems with Voltage Controlled Devices. (Paper No. 280)

Salah Kamel APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mamdouh Abdel Akher APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Time: **10:30-12:30** Location: **Lo'loaa Hall**

Session B3: **Wind Energy Systems: Operation and Control**

Reactive Power Control in Future Large-Scale DFIG-Based Grid-Connected Offshore Wind Farms. (Paper No.122)

M. EL Shimy Electric Power and Machines Department, Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Dynamic Modeling and Control of Microturbine DG System for Autonomous Operation. (Paper No. 172)

Mahmoud S. Kandil Mansoura University, Department of Electrical Engineering, Mansoura, Egypt.
Magdi M. El-Saadawi Mansoura University, Department of Electrical Engineering, Mansoura, Egypt.
Ahmed E. Hassan Mansoura University, Department of Electrical Engineering, Mansoura, Egypt.
Khaled M. Abo-Al-Ez Mansoura University, Department of Electrical Engineering, Mansoura, Egypt.

Statcom For Improved Dynamic Performance Of Wind Farms In Power Grid. (Paper No. 207)

G. Elsady Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt.
Y. A. Mobarak Electrical Engineering Department, High Institute of Energy, South Valley University, Aswan, Egypt.
A-R Youssef Faculty of Technology, High Ministry of Education, Qena, Egypt.

Studying the Effect of Decentralized Battery Storage to Smooth the Generated Power of a Grid Integrated Wind Energy Conversion System. (Paper No. 253)

Mohamed Ibrahim Faculty of Engineering, Cairo University
Amr Khairy Faculty of Engineering, Cairo University
Hani Hagras Faculty of Engineering, Cairo University
Mina Zaher Faculty of Engineering, Cairo University
Abdellatif El Shafei Faculty of Engineering, Cairo University
Adel Shaltout Faculty of Engineering, Cairo University
Naser Abdel Rehim Faculty of Engineering, Cairo Univeristy

Fuzzy Logic Control of Wind Energy Systems. (Paper No. 311)

M. Azouz Cairo University.
A. Shaltout Cairo University.
M. A. L. Elshafei Cairo University.
N. Abdel Rahim Benha University.
H. Hagras German University in Cairo.
M. Zaher German University in Cairo.
M. Ibrahim Hielbronn University.

Multi-Objective Fuzzy Baesd Procedure For Optimal Reactive Dispatch In Power Systems. (Paper No. 312)

A. A. Abou El-Ela Electrical Engineering Department, Faculty of Engineering, Monefia University, Egypt
R. A. El-Sehiemy Electrical Engineering Department, Faculty of Engineering, Kafr El Sheikh University, Egypt.
A. M. SHAHEEN South Delta Electricity Distribution Company, Egypt.

Innovative Renewable Energy - Load Management Technology via Controlled Weight Motion. (Paper No. 212)

M. A. El Kady Saudi Electricity Company Chair in Power System Reliability and Security College of Engineering, King Saud University, Riyadh, Saudi Arabia.
M. S. Al-Saud Saudi Electricity Company Chair in Power System Reliability and Security College of Engineering, King Saud University, Riyadh, Saudi Arabia.
M. Alkhamis Saudi Electricity Company Chair in Power System Reliability and Security College of Engineering, King Saud University, Riyadh, Saudi Arabia.

Modeling and Control of Direct Drive Variable Speed Stand-Alone Wind Energy Conversion Systems. (Paper No. 276)

Mohamed Hilmy APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous E. Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed El Nemer APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Time: **10:30-12:30** Location: **Fayrouz Hall**

Tutorial on Smart Grids: Principles and Applications (Selinc, USA).

Time: **10:30-12:30** Location: **Library Room**

Session D3: **Measurement and Control Systems**

Power Quality Disturbance Detection and Visualization Utilizing Image Processing Methods.(Paper No. 157)

Hussain Shareef — Faculty of Engineering and Build Environment, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.
Azah Mohamed — Faculty of Engineering and Build Environment, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.

Intelligent Energy Management In Residential Buildings With A Real-Time Control & Wireless Meter-Recording System. (Paper No. 263)

Nhat-Hai NGUYEN — Grenoble Institute of Technology, Grenoble, France.
Quoc-Tuan TRAN — Grenoble Institute of Technology, Grenoble, France.
Jean-Michel LEGER — Grenoble Institute of Technology, Grenoble, France.
Tan-Phu VUONG — Grenoble Institute of Technology, Grenoble, France.

Practical Issues of Power Line Communication for Automatic Meter Reading Systems. (Paper No. 252)

Yasser Fathi — Faculty of Engineering, Monefia University, Shebin El Kom
Tamer A. kawady — Faculty of Engineering, Monefia University, Shebin El Kom
Ahmed Husein — Faculty of Engineering, Monefia University, Shebin El Kom
Mohamed El Geziry — Faculty of Engineering, Monefia University, Shebin El Kom

Performance Evaluation of VFT during Healthy and Faulted Conditions. (Paper No. 247)

E. T. Raslan — Department of Electrical Engineering, Faculty of Engineering, Alexandria University, Egypt.
A. S. Abdel Khalik — Department of Electrical Engineering, Faculty of Engineering, Alexandria University, Egypt.
M. A. Abdulla — Department of Electrical Engineering, Faculty of Engineering, Alexandria University, Egypt.
M. Z. Mustafa — Department of Electrical Engineering, Faculty of Engineering, Alexandria University, Egypt.

Comparative study between TCSC and PSS in damping electro-mechanical oscillations. (Paper No. 298)

Amr Abd Elnaeem — Faculty of Engineering, Cairo University, Cairo, Egypt.
Hossam Kamal Mohammed — Faculty of Engineering, Cairo University, Cairo, Egypt.
Hussain Magdy Zeineldin — Faculty of Engineering, Cairo University, Cairo, Egypt.

ANFIS Based Synchro-Phasors Measurements for Real-Time Estimation of Critical Clearing Time. (Paper No. 193)

Mohamed A. Ali — Department of Electrical Engineering, University of Benha, Cairo, Egypt.
Wael R. Anis — Department of Electrical Engineering, University of Zagazig, Cairo, Egypt
Wagdy M. Mansour — Department of Electrical Engineering, University of Benha, Cairo, Egypt.
Fahmy M. Bendary — Department of Electrical Engineering, University of Benha, Cairo, Egypt.

Time: **14:00-16:00** Location: **Zomoroda Hall**

Panel Discussions II: Electricity and Environment

Speakers:

Roshdy Radwan — Department of Electrical Engineering, Cairo University.
Mazen Abdel Salam — Department of Electrical Engineering, Assiut University.
Hussein Anis — Department of Electrical Engineering, Cairo University.

Time: **14:00-16:00** Location: **Lo'loaa Hall**

Session B4: **Distribution Systems**

Demand Side Management Program Evaluation Based on Industrial and Commercial Field Data. (Paper No. 105)

M. M. Eissa Department of Electrical Engineering, Helwan University, Helwan, Egypt...

DS Reconfiguration for Loss Minimization Using GA and Load Flow Solution. (Paper No. 117)

Eng. Mohamed Magdy Farou Engineer of Electric Power in Arab Consulting Company, Department of electric power engineering, University of Cairo.
Dr. Hossam Kamal Youssef Engineer of Electric Power in Arab Consulting Company, Department of electric power engineering, University of Cairo.

Factors Affecting on the Life Time of The Electric Joints. (Paper No. 145)

M. A. Farahat Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Egypt.

Impact of Reactive Power Control on Energy Saving of Electric Residential Loads in Egypt. (Paper No. 160)

Dr. Abla A. Gado South Delta Company of Electric Distribution, Tanta, Egypt.
Prof Atef A. El Zeftawy Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.

Unified Web Based Electricity Consumers Services System. (Paper No. 201)

Hafez El-Salamawy Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Kamelia Youssef Egyptian Electric Utility and Consumer Protection Regulatory Agency.
Elsayed Mansour Egyptian Electric Utility and Consumer Protection Regulatory Agency.

Optimal Location of Remote Terminal Units in Distribution System Using Genetic Algorithm. (Paper No. 296)

A.A.E. Shammah South Delta Electricity, Distribution Company SDEDC.
A. Abou El-Ela Faculty of Engineering, Minoufiya University.
Ahmed M. Azmy Faculty of Engineering, Tanta University.

A Practical Framework for Pricing of Backup Reserve and Wheeling in Power Systems. (Paper No. 214)

F. Al Duaij Saudi Electricity Company, Riyadh, Saudi Arabia.
M.S. Owayedh Saudi Electricity Company, Riyadh, Saudi Arabia.
M.A. El Kady Saudi Electricity Company Chair in Power System Reliability and Security College of Engineering, King Saud University, Riyadh, Saudi Arabia.
Y.A. Al Turki Saudi Electricity Company Chair in Power System Reliability and Security College of Engineering, King Saud University, Riyadh, Saudi Arabia.

Time: **14:00-16:00** Location: **Fayrouz Hall**

Tutorial Continued

Time: **14:00-16:00** Location: **Library Room**

Session D4: **Control Systems Applications**

Unified Power Flow Controller with Decoupled State Feedback. (Paper No. 307)

Omar H. Abdalla Oman Electricity Transmission, Company, Muscat, Sultanate of Oman.
Mohammed A. E. Ghazy October University of Modern Sciences, & Arts, 6th of October City, Egypt.
Lotfy M. Lotfy Dept. of Electrical Power and Machines Engineering, University of Helwan, Egypt.
Nermeen A. M. Hassan Dept. of Electrical Power and Machines Engineering, University of Helwan, Egypt.

Simulation Study of Conventional Control Versus MTPA-Based for PMSM Control. (Paper No. 183)

Mohamed Taha Elsayed Department of Electrical Power and Machines, Cairo University, Giza, Egypt.
Osama Ahmed Mahgoub Department of Electrical Power and Machines, Cairo University, Giza, Egypt.
Sherif Ahmed Zaid Department of Electrical Power and Machines, Cairo University, Giza, Egypt.

Gain Scheduling Adaptive PI Control of Hybrid Stepper Motor Drives. (Paper No. 121)

Mohamed S. Zaky Electrical Engineering Dept., Faculty of Engineering, Shebin El-Kom, Minoufiya University, Egypt.
Ehab M. Ismaeil Electrical Engineering Dept., Faculty of Engineering, Shebin El-Kom, Minoufiya University, Egypt.

Speed Sensorless Control of DFIG Based MRAS Observer. (Paper No. 210)

Ahmad Amar Naassani	Department of Electrical Drives, University of Aleppo, Aleppo, Syria.
Abdulkader Ghazal	Department of Electrical Drives, University of Aleppo, Aleppo, Syria.
Abdulkader Joukhadar	Department of Mechatronics, University of Aleppo, Aleppo, Syria.
Abdel Latif El Shafei	Department of Electric Power and Machines, Cairo University, Giza, Egypt.

Controlling of Two-Phase Servomotor by Changing The Phase Difference Angle Using Polynomial–Proportional Plus Integral (PPI) Controller.(Paper No. 104)

H. M. El Zoghby	Dep. of Electrical Power and Machine Engineering Faculty of Engineering, Helwan University.
S. M. Sharaf	Dep. of Electrical Power and Machine Engineering Faculty of Engineering, Helwan University.
M. A. Ghazy	Dep. of Electrical Power and Machine Engineering Faculty of Engineering, Helwan University.

Mitigating Subsynchronous Resonance Torques Using Dynamic Braking Resistor. (Paper No. 192)

S. Helmy	Armed Forces, Egypt.
Amged S. El-Wakeel	Armed Forces, Egypt.
M. Abdel Rahman	Department of electric power and machines, Faculty of engineering, Ain-Shams university, Cairo, Egypt.
M. A. L. Badr	Department of electric power and machines, Faculty of engineering, Ain-Shams university, Cairo, Egypt.

Program of Tuesday 21/12/2010

Time: **9:00-10:45** Location: **Zomoroda Hall**

Session A3: **High Voltage (I)**

A Simulation Model of Fluid Flow and Streamlines Induced by Non-Uniform Electric Field. (Paper No. 181)

M. Talaat Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Egypt.

A Study on the Topology Processor for 765kV Substation in Korea (Paper No. 318)

Chan-Ho Lim Department of Computer Engineering, University of Gyeongju, Gyeongju, 780-712, Korea
Won-Kun Yu, Department of Electrical Engineering, University of Kwangwoon, Seoul, Korea
Eun-Jae Lee Department of Electrical Engineering, University of Kwangwoon, Seoul, Korea
Heung-Jae Lee Department of Electrical Engineering, University of Kwangwoon, Seoul, Korea
Jun-Ho Park Department of Electrical Engineering, Pusan National University, Pusan, Korea

Improving the Under-Ground Cables Ampacity by Using Artificial Backfill Materials. (Paper No. 110)

Ossama E. Gouda Faculty of Engineering, Cairo University, Giza Egypt.
Adel Z. El Dein High Institute of Energy, South Valley University, Aswan, Egypt.
Ghada M. Amer High Institute of Technology, Benha University, Benha, Egypt.

Streamer In Dielectric Liquids On An Energy Balance Concepts. (Paper No. 167)

A.El-Zein Faculty of Engineering, Zagazig university, Zagazig , Egypt.
M.Fekry Faculty of Engineering, Zagazig university, Zagazig , Egypt.

Developing Dielectric Properties of Industrial Materials by Using Nano-Technology Technique. (Paper No. 142)

Osama Gouda Power Engineering and Machines Dept., Cairo University, Faculty of Engineering, Giza, Egypt.
Ahmed Thabet Nano-Technology Research Centre, South Valley University, High Institute of Energy, Aswan, Egypt.
Mohamed Abdrabo High Dam power station, Upper Egypt Electricity Generation Co. Aswan, Egypt.

A Simulation Model for Calculating the Dielectric properties of Nano-Composite Materials and Comprehensive Interphase Approach. (Paper No. 140)

Osama Gouda Power Engineering and Machines Dept., Cairo University, Faculty of Engineering, Giza, Egypt.
Youssef Mobarak Nano-Technology Research Centre, South Valley University, High Institute of Energy, Aswan, Egypt.
Mohamed Samir Upper Egypt Electricity Distribution Co., Egyptian Electricity Holding Co., Aswan, Egypt.

Investigation of Partial Discharge Measurement for HV Cable System with Variable Frequency. (Paper No. 128)

A. EL Faraskoury Egyptian Electricity Holding Company, Extra High Voltage Research Centre, Cairo, EGYPT.
F. Tahoun Egyptian Electricity Holding Company, Extra High Voltage Research Centre, Cairo, EGYPT.
M. Awad Egyptian Electricity Holding Company, Extra High Voltage Research Centre, Cairo, EGYPT.
O. E. Gouda Faculty of Engineering, Cairo University, Cairo, Egypt.

Smart Sensors and Online Condition Monitoring of High Voltage Cables for the Smart Grid. (Paper No. 289)

R. Ambikairajah School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, Australia.
B. T. Phung School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, Australia.
J. Ravishankar School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, Australia.
T. R. Blackburn School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, Australia.
Z. Liu School of Electrical Engineering & Telecommunications, University of New South Wales, Sydney, Australia.

Time: **9:00-10:45** Location: **Lo'loaa Hall**

Session B5: **Power System Control**

Bayesian Networks for Fault Diagnosis of Large Power Generating Stations. (Paper No. 152)

Wael M. Soliman High Dam Power Station (HPGC), Egypt.
Bahaa El Din H. Soudy Egypt Elec. Trans. Co. (EETC), Egypt.
Mohamed A. A. Wahab Senior Member, IEEE, Minia University.
M. M. Mansour Ain Shams University, Egypt.

Optimal Tuning of Power System Stabilizers Using Modified Particle Swarm Optimization. (Paper No. 184)

Mahdiyeh Eslami Department of Electrical, Electronic & Systems Engineering, University Kebangsaan Malaysia, Bangi,Selangor, Malaysia.
Hussain Shareef Department of Electrical,Electronic & Systems Engineering, University Kebangsaan Malaysia, Bangi,Selangor, Malaysia.
Azah Mohamed Department of Electrical,Electronic & Systems Engineering, University Kebangsaan Malaysia, Bangi,Selangor, Malaysia.

Optimal PID Tuning for Load Frequency Control Using Bacteria Foraging Optimization Algorithm. (Paper No. 191)

E. Salim Ali Electric power & Machine Dept., Faculty of Engineering, Zagazig University, Zagazig, Egypt.
S. M. Abd-Elazim Electric power & Machine Dept., Faculty of Engineering, Zagazig University, Zagazig, Egypt.

Identification of Coherent Groups of Generators Based on Fuzzy Algorithm. (Paper No. 303)

Mahdi M. M. El-arini Department of Electric Power and Machines, University of Zagazig, Zagazig City, Egypt.
Ahmed Fathy Department of Electric Power and Machines, University of Zagazig, Zagazig City, Egypt.

Optimal Reactive Power Dispatch Using Ant Colony Optimization Algorithm. (Paper No. 315)

A. A. Abou El-Ela Department of electrical Engineering, Faculty of engineering, Monefia University, Egypt
A. M. Kinawy Department of electrical Engineering, Faculty of engineering, Monefia University, Egypt
M. T. Mouwafi Department of electrical Engineering, Faculty of engineering, Monefia University, Egypt
R. A. El Sehiemy Department of electrical Engineering, Faculty of engineering, Kafr El Sheikh University, Egypt

Time: **9:00-10:45** Location: **Fayrouz Hall**

Session C3: **Distributed Generation**

Wind Driven Induction Generation Energy Saving of Single Phase Induction Motor Drives Using Multi Objective Genetic Algorithm Optimization. (Paper No. 177)

Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).
Adel A. A. El-Gammal Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Study on Doubly Fed Induction Generator Control. (Paper No. 251)

Sherihan Ashraf Shaheen Faculty of Engineering, Ain Shams University
Hany M. Hasanien Faculty of Engineering, Ain Shams University
M. Abd-El Latif Badr Faculty of Engineering, Ain Shams University

Alternative configurations for induction-generator based geared wind turbine systems for reliability and availability improvement. (Paper No. 228)

M. El Shimy Electric Power and Machines Department, Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Simple Direct Sensorless Control of Permanent Magnet Synchronous Generator Wind Turbine. (Paper No. 257)

Mahmoud M. Hussein APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous E. Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
M. A. Abd El Wahab Department of Electrical Engineering, Menia University, Menia City, Egypt.
M. M. Hamada Department of Electrical Engineering, Menia University, Menia City, Egypt.

Genetic Algorithm for Optimum Siting and Sizing of Distributed Generation. (Paper No. 196)

M.F.Kotb Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt.
K.M.Shebl Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt.
M. El Khazendar Electrical Engineering Department, Faculty of Engineering, Tanta University, Egypt.
A. El Husseiny North Delta Electricity Distribution Company (NDEDC).

Optimized Sizing of High Speed PM Generator for Renewable Energy Applications. (Paper No. 231)

Adel El Shahat Department of Electrical and Computer Engineering, The Ohio State University, Columbus, Ohio, USA.
Ali Keyhani Department of Electrical and Computer Engineering, The Ohio State University, Columbus, Ohio, USA.
Hamed M. El Shewy Electrical Power and Machines Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt.

Multi-Deployment of Dispersed Power Sources Using RBF Neural Network. (Paper No. 254)

Yaser Soliman Qudaih	Department of Computer Science and Electrical Engineering, Kumamoto University, Kurokami, Kumamoto, Japan.
Syafaruddin	Department of Computer Science and Electrical Engineering, Kumamoto University, Kurokami, Kumamoto, Japan.
Takashi Hiyama	Department of Computer Science and Electrical Engineering, Kumamoto University, Kurokami, Kumamoto, Japan.

Comparative Study On Modelling Of Gas Turbines In Combined Cycle Power Plants (Paper No. 317).

H. E. M. A. Shalan	El-Kureimat Power Station, Ministry of Electricity, Cairo, Egypt.
M. A. Moustafa Hassan	Electrical Power Department, Faculty of Engineering, Cairo University, Giza, Egypt.
A. B. G. Bahgat	Electrical Power Department, Faculty of Engineering, Cairo University, Giza, Egypt.

Time: **9:00-10:45** Location: **Library Room**

Session D5: **Electric Drives (I)**

Model Predictive Control of A Speed Sensorless Linear Induction Motor Drive.(Paper No. 173)

Ahmed Abd Eltawwab Hassan	Faculty of Engineering, Minia University, Minia, Egypt.
Yehia Sayed Mohamed	Faculty of Engineering, Minia University, Minia, Egypt.
Takashi Hiyama	Faculty of Electrical Engineering & Computer Science, Kumamoto University, Kumamoto, Japan.
Tarek Hassan Mohamed	Faculty of Electrical Engineering & Computer Science, Kumamoto University, Kumamoto, Japan.

Stability Analysis of Simultaneous Estimation of Speed and Stator Resistance for Sensorless Induction Motor Drives. (Paper No. 180)

Mohamed S. Zaky	Electrical Engineering Dept., Faculty of Engineering, Monefia University, Shebin El-Kom, Minoufiya, Egypt.

Combination of Transient and Fundamental Wave Excitation for Low and Zero Speed Sensorless Control of Induction Machines. (Paper No. 302)

M.K. Metwally	Department of Electrical Engineering, Faculty of Engineering, Monefia University, Shebin El-Kom, Egypt.
T.M. Wolbank	Department of Electrical Drives and Machines, Vienna University of Technology, Vienna, Austria.

Speed Estimation performance for Multiphase Induction Machines under Fault Conditions. (Paper No. 218)

Shady M. Gadoue	Department of Electrical Engineering, Alexandria University, Alexandria, Egypt.
Ayman S. Abdel Khalik	Department of Electrical Engineering, Alexandria University, Alexandria, Egypt.

Fuzzy-Based Speed Control Of Five-Phase In-duction Motor. (Paper No. 268)

I. Bedir	Faculty of Engineering, Tanta University, Tanta, Egypt
Abd Elwahab Hassan	Faculty of Engineering, Tanta University, Tanta, Egypt
M. A. El khazendar	Faculty of Engineering, Tanta University, Tanta, Egypt
S. A. Mahmoud	Faculty of Engineering, Shebin El-Kom, Minoufiya university, Egypt.

Dynamic Simulation of Switched Reluctance Motor using Matlab and Fuzzy Logic. (Paper No. 291)

M. Nagrial	Power Conversion and Intelligent Motion Control Group, University of Western Sydney, Locked Bag 1797, Penrith South DC, NSW 1797 Australia.
J. Rizk	Power Conversion and Intelligent Motion Control Group, University of Western Sydney, Locked Bag 1797, Penrith South DC, NSW 1797 Australia.
W. Aljaism	Power Conversion and Intelligent Motion Control Group, University of Western Sydney, Locked Bag 1797, Penrith South DC, NSW 1797 Australia.

Modeling of Induction motor Based on Winding Function Theory to Study Motor under Stator/Rotor Internal Faults. (Paper No. 215)

Ahmed K. Ibrahim	Electrical power and Machine department, Ain-Shams university, Cairo, Egypt.
Mostafa I. Marei	Electrical power and Machine department, Ain-Shams university, Cairo, Egypt.
Hamdy S. El Gohary	Electrical power and Machine department, Ain-Shams university, Cairo, Egypt.
Somaya A. Mohamed	Electrical power and Machine department, Ain-Shams university, Cairo, Egypt.

Experimental Verification of A New Variable Hysteresis Band Current Controlled VSI Fed Induction Motor drives. (Paper No. 283)

Ahmed E. kalas — Electrical Engineering Department, Faculty of Engineering, Suez Canal University, Port Said, Egypt.
M.El-shahat Dessouki — Electrical Engineering Department, Faculty of Engineering, Suez Canal University, Port Said, Egypt.
Elwy E.Elkholy — Electrical Engineering Department, Faculty of Engineering, Menoufiya University, Shebin El-Kom, Egypt.

Time: **11:00-13:00** Location: **Zomoroda Hall**

Session A4: **High Voltage (II)**

Earth Surface Potentials and GPR for Grids Having Different Conductors' Distributions Buried in different Layer Soil Structures. (Paper No. 229)

Osama Elsayed Gouda — Department of Electrical Power and Machines, Faculty of Engineering, Cairo University.
Hanan Mohamed Ahmed Ibrahim — National Energy Control Center, Egyptian Electricity Transmission Company.

Study Transient Impedance of Spherical Electrode Buried in the Ground. (Paper No. 260)

Mohamed Nayel — Assiut University, Electrical Engineering Department, Assiut, Egypt.

Simplified Approach to Calculate the Back Flashover Voltage of Shielded H.V. Transmission Line Towers. (Paper No. 120)

Ghada M. Amer — Higher Institute of Technology, Banha University, Banha, Egypt.

New Concept for Lightning Protection of Ships: The Leader Potential Concept Method. (Paper No. 185)

Ahmed A. Hossam-Eldin — Department of Electrical Engineering, Alexandria University, Alexandria , Egypt.
Abdalla Badr Abdalla — Department of Electrical Engineering, Alexandria University, Alexandria , Egypt.

Tall-Structure Lightning Return-Stroke Modelling. (Paper No. 313)

M. Milewski — Electrical and Computer Engineering Department, Ryerson University, Toronto, Ontario, Canada.
A.M. Hussein — Electrical and Computer Engineering Department, Ryerson University, Toronto, Ontario, Canada.

Parameters Affecting the Back Flashover Across the Overhead Transmission Line Insulator Caused by Lightning. (Paper No. 111)

Ossama E. Gouda — Faculty of Engineering, Cairo University, Giza Egypt.
Adel Z. El Dein — High Institute of Energy, South Valley University, Aswan, Egypt.
Ghada M. Amer — High Institute of Technology, Benha University, Benha, Egypt.

Charge Meter for Impulse-Voltage Measurement. (Paper No. 146)

I. A. Metwally — Sultan Qaboos University, College of Engineering, Department of Electrical & Computer Engineering, Muscat-123, Sultanate of Oman.

Corona Onset Voltage and Corona Power Losses in an Indoor Corona Cage. (Paper No. 286)

Cem Eroncel — Department of Electrical Engineering, Istanbul Technical University, Maslak, Istanbul, Turkey.
Suat Ilhan — Department of Electrical Engineering, Istanbul Technical University, Maslak, Istanbul, Turkey.
Aydogan Ozdemir — Department of Electrical Engineering, Istanbul Technical University, Maslak, Istanbul, Turkey
Adnan Kaypmaz — Department of Electrical Engineering, Istanbul Technical University, Maslak, Istanbul, Turkey.

Experimental Evaluation of Rogowski Coil Performance for Locating PD in Energized Overhead Covered-Conductor Feeder. (Paper No. 239)

M. Isa — Department of Electrical Engineering, Aalto University School of Science and Technology, Espoo, Finland.
G. M. Hashmi — Department of Electrical Engineering, Aalto University School of Science and Technology, Espoo, Finland.
M. Lehtonen — Department of Electrical Engineering, Aalto University School of Science and Technology, Espoo, Finland.
N. I. Elkalashy — Department of Electrical Engineering, Shebin Elkom, Minoufiya University, Egypt.
N. Tarhuni — Department of Electrical and Computer Engineering, Sultan Qaboos University, Oman.

Magnetic Field Exposure Assessment of Lineman Brain Model during Live Line Maintenance. (Paper No. 109)

M. A. Abd-Allah — Department of Electrical Engineering, University of Benha, Shoubra, Cairo, Egypt
Reda E. Morsi — Department of Electrical Engineering, University of Benha, Shoubra, Cairo, Egypt

Time: **11:00-13:00** Location: **Lo'loaa Hall**

Session B6: **Power System Protection (I)**

Non-Linear HIF Detection and Classification for Egyptian 500 kV Transmission Line. (Paper No. 147)

Saber Mohamed Saleh Ministry of Electricity and Energy, Cairo, Egypt.
Doaa khalil Ibrahim Faculty of Engineering, Cairo University.

An Ellipse Technique Based Relay For Extra High Voltage Transmission Lines Protection. (Paper No. 162)

Ali M. El-Rifaie National Institute of Standards (NIS), Haram, Giza, Egypt.
Sohair Fakhry National Institute of Standards (NIS), Haram, Giza, Egypt.
Alaa M. Hamdy Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.
S. M. Moussa Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.
E.H.Shehab El_Din Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.

Discrimination Approach of Large Modern Power Transformer Internal Faults and Inrush Currents. (Paper No. 178)

Wael Hamdy Yousef Power Generation Engineering and Services Company, PGESCO.
Doaa khalil Ibrahim Electrical Power and Machines Department, Faculty of Engineering, Cairo University.
Essam Abo El-Zahab Electrical Power and Machines Department, Faculty of Engineering, Cairo University.

A Classification Technique for Protection Coordination Assessment of Distribution Systems with Distributed Generation. (Paper No. 190)

A. F. Naiem Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
Y. Hegazy Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
A. Y. Abdelaziz Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
M. A. Elsharkawy Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Fault Identification of Overhead Transmission Lines Terminated with Underground Cables. (Paper No. 202)

A. Elmitwally Elect. Eng. Dept., Mansoura University, Mansoura, Egypt.
S. Mahmoud Elect. Eng. Dept., Mansoura University, Mansoura, Egypt.
M. H. Abdel-Rahman Elect. Eng. Dept., Mansoura University, Mansoura, Egypt.

Do Utilities Still Need Stand Alone Disturbance Recorders? (Paper No. 304)

Mohamed A. El-Hadidy Egyptian Electricity Transmission Company (Eetc), Egypt.
Dalal H. Helmi Egyptian Electricity Transmission Company (Eetc), Egypt.
Maha S. Abdelhady Egyptian Electricity Transmission Company (Eetc), Egypt.

Transmission Line Faults Classification Using Wavelet Transform. (Paper No. 225)

S. A. Shaaban Assistant Lecture –High Institute of Energy, South Valley University Egypt.
Takashi Hiyama Department of computer science and electrical engineering, Graduate School of science and Technology, Kumamoto University, Japan.

Then Versus Now: A Comparison of Total Scheme Complexity. (Paper No. 300)

Bob Morris Schweitzer Engineering Laboratories, Inc., USA
Roy Moxley Schweitzer Engineering Laboratories, Inc., USA
Christina Kusch Schweitzer Engineering Laboratories, Inc., USA

Time: **11:00-13:00** Location: **Fayrouz Hall**

Session C4: **Photovoltaic Energy Systems**

Comparison Study of Maximum Power Point Tracker Techniques for PV Systems. (Paper No. 278)

Hairul Nissah Zainudin Electrical Department, Engineering Faculty, University of Malaya, Kuala Lumpur, Malaysia.
Saad Mehkielf Electrical Department, Engineering Faculty, University of Malaya, Kuala Lumpur, Malaysia.

Two stages Maximum Power Point Tracking Algorithm for PV Systems Operating Under Partially Shaded conditions. (Paper No. 265)

Hamdy Radwan APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Omar Abdel Rahim APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

High Performance Power Conditioning For Grid Connected PV Module. (Paper No. 274)

Omar Abdel Rahim APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Impacts Of Photovoltaic And Wind Energies On The Voltage Profile And Power Losses Of Distribution Systems. (Paper No. 279)

Karar Mahmoud APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mamdouh Abdel Akher APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.

Optimum Design and Implementation of Stand-Alone Tracking Photovoltaic Power System Based on PLC and Microcontroller. (Paper No. 129)

Dr. Osama Gouda Faculty of Engineering, Cairo University, Cairo, Egypt.
Dr. Ghada Amer Department of Power Engineering, Benha University.
Dr. Tamer El khodragy Department of Power Engineering, Benha University.
Eng. Mohammed Awaad Department of Power Engineering, Benha University.

Simple Maximum Power Point Controller for Single phase Grid-Connected PV System. (Paper No. 123)

Ahmed A. A. Hafez Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt
Daniel Montesinos-Miracle Centre D'Innovació Tecnològica En Convertidors Estàtics i Accionaments (CITCEA-UPC), Departament D'Enginyeria Elèctrica, Universitat Politècnica De Catalunya.ETS d'Enginyeria Industrial de Barcelona, Av. Diagonal, 647, Pl. 2. 08028 Barcelona, Spain.
Antoni Sudrià-Andreu Centre D'Innovació Tecnològica En Convertidors Estàtics i Accionaments (CITCEA-UPC), Departament D'Enginyeria Elèctrica, Universitat Politècnica De Catalunya.ETS d'Enginyeria Industrial de Barcelona, Av. Diagonal, 647, Pl. 2. 08028 Barcelona, Spain.

Studying of the Available Wind and Photovoltaic Energy Resources in Egypt. (Paper No. 258)

Mahmoud M. Hussein APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mustafa Mosa APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mamdouh Abdel Akher APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mohamed Orabi APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
Mahrous E. Ahmed APEARC, Department of Electrical Engineering, South Valley University, Aswan City, Egypt.
M. A. Abd El Wahab Department of Electrical Engineering, Menia University, Menia City, Egypt.
M. M. Hamada Department of Electrical Engineering, Menia University, Menia City, Egypt.

Time: **11:00-13:00** Location: **Library Room**

Session D6: **Electric Drives (II)**

Approaches for Minimizing the Torque Ripples in the Switched Reluctance Motor. (Paper No. 245)

Eyhab El Kharashi Department of Electrical Power & Machines, Faculty of Engineering, Ain Shams University, Abdou Basha Square, Abbasia, Cairo, Egypt.

Optimum Design Parameters For Synchronous Reluctance Motors. (Paper No. 290)

J. Rizk School of Engineering, University of Western Sydney, Australia.
M. H. Nagrial School of Engineering, University of Western Sydney, Australia.
A. Hellany School of Engineering, University of Western Sydney, Australia.

Speed Control of Switched Reluctance Motor Based on Fuzzy Logic Controller.(Paper No. 166)

Gamal M. Hashem Department of Electrical Power and Machines, Ain Sham University, Cairo, Egypt.
Hany M. Hasanien Department of Electrical Power and Machines, Ain Sham University, Cairo, Egypt.

Effects of Single Phase AC / DC Converter Drive on the Torque-Speed Characteristic of DC Motor. (Paper No. 284)

Mohamed. A. Enany Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt.

Brushless DC Motor Performance Improvement through Switch-on and Switch-off Angles Control. (Paper No. 285)

Mohamed. A. Enany Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt.
Hamed. M. Elshewy Electrical Power & Machines Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt.
Fathy. E. Abdel-kader Electrical Engineering Department, Faculty of Engineering, Menofeya University, Shebin El-Koum, Egypt.

Firing Approach for Higher Levels of Diode Clamped Multi-Level Inverters. (Paper No. 115)

Mohammed El Gamal SUMED Co., Alex., Egypt.
Ahmed Lotfy AAST&MT, Egypt.
G. E. M. Ali Tanta University, Egypt.

Time: **14:00-16:00** Location: **Zomoroda Hall**

Session A5: **Power System Protection (II)**

A Combined MODELS-TACS ATPdraw General Model of the High Impedance Faults in Distribution Networks. (Paper No. 220)

Kamal M. Shebl Electrical Engineering Department, Faculty of Engineering, Mansoura University, Mansoura, Egypt.
Ebrahim A. Badran Electrical Engineering Department, Faculty of Engineering, Mansoura University, Mansoura, Egypt.
Elsaeed Abdalla Electrical Engineering Department, Faculty of Engineering, Mansoura University, Mansoura, Egypt.

A New Fault Detection Technique Based on Features Measurements of Current Versus Voltage Image for Extra High Voltage Transmission Line. (Paper No. 155)

Ali M. El Rifaie National Institute of Standards (NIS), Haram, Giza, Egypt.
Sohair Fakhry National Institute of Standards (NIS), Haram, Giza, Egypt.
Alaa M. Hamdy Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.
S. M. Moussa Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.
E. H. Shehab El Din Faculty of Engineering, Helwan University, Helwan, Cairo, Egypt.

Blocking of Distance Relays Zone3 under Load Encroachment Conditions- A New Approach Using Phasor Measurements Technique . (Paper No. 200)

Amr El-Hadidy Institute of Power Systems and Power Economics, TU-Dortmund, Dortmund, Germany.
Christian Rehtanz Institute of Power Systems and Power Economics, TU-Dortmund, Dortmund, Germany.

Improving Transmission Line Performance using Transient Based Adaptive SPAR. (Paper No. 249)

O. E. Gouda Department of Electrical Power Engineering, Cairo University, Cairo, Egypt.
D. K. Ibrahim Department of Electrical Power Engineering, Cairo University, Cairo, Egypt.
D. H. Helmi Egyptian Electricity Transmission Company, Cairo, Egypt.
D. M. Khalifa Egyptian Electricity Transmission Company, Cairo, Egypt.
G. M. Amer Higher Institute of Technology, Banha University, Banha, Egypt.

Using Time Error Differential Measurement in Protection Applications. (Paper No. 301)

Roy Moxley Schweitzer Engineering Laboratories, Inc., USA
Mirek Wronski Schweitzer Engineering Laboratories, Inc., USA

Time: **14:00-16:00** Location: **Lo'loaa Hall**

Session B7: **Hybrid Energy Systems**

A New GA-Based Self Regulating PID Controller for Hybrid PV-FC-Diesel-Battery Electric Vehicles. (Paper No. 174)

Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).
Adel A. A. El-Gammal Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Global Hyper Saline Power Generation Qattara Depression Potentials (Paper No. 320)

Maher Kelada MIK Technology, Houston, Texas, USA

Performance of Stand-alone Hybrid wind-Photovoltaic System with Battery Storage. (Paper No. 297)

O. E. M. Youssef Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
N. M. B. Abdel-Rahim Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
A. Shaltout Faculty of Engineering, Cairo University, Cairo, Egypt.

Integration of Photovoltaic-Fuel Cell Scheme for Energy Supply in Remote Areas. (Paper No. 130)

Mohamed A. H. El Sayed Electrical Engineering Department, Kuwait University.
Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Hybrid Wind-Fuel Cell Renewable Energy Utilization Scheme for Village Electricity. (Paper No. 132)

Mohamed A. H. El Sayed Electrical Engineering Department, Kuwait University.
Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Modeling and Analysis of a PEM Fuel cell for Electrical Applications. (Paper No. 217)

Adel A. Elbaset Dept. of Electrical Engineering, Minia University, Minia, Egypt.

Small Scale Wave Energy Utilization for Water Pumping. (Paper No. 131)

Mohamed A. H. El Sayed Electrical Engineering Department, Kuwait University.
Adel M. Sharaf Centre for Energy Studies, University of Trinidad and Tobago (UTT).

Integration of Distributed Generators Units into Distribution Networks. (Paper No. 288)

Ragab. A. El-Sehiemy Department of Electrical Engineering, Kafr El Sheikh University, Kafr El Sheikh, Egypt.
Eman. S. Ahmed Department of Electrical Engineering, Kafr El Sheikh University, Kafr El Sheikh, Egypt.

Improvement of Energy-Capturing Efficiency in Standalone Photovoltaic Systems with Battery Storage. (Paper No. 295)

O. E. M. Youssef Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
N. M. B. Abdel Rahim Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
A. Shaltout Faculty of Engineering, Cairo University, Cairo, Egypt.

Selection of Optimum Hybrid Stand Alone Systems. (Paper No. 321)

Belgin Emre Turkay Electrical Engineering Department, Istanbul Technical University, Ayazağa, Turkey.

Time: **16:00-16:30** Location: **Zomoroda Hall**

Closing and Recommendations

Roshdy Radwan Faculty of Engineering, Cairo University.
Zeinab Hanem Osman Faculty of Engineering, Cairo University.
Magdy El Marsafawy Faculty of Engineering, Cairo University.