

**2018 Twentieth International Middle East Power Systems
Conference (MEPCON)**
Cairo University, Cairo, Egypt, December 18-20, 2018 (MEPCON'2018)



Conference Program

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18 December 2018



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Conference Program

Part I: Contributed Papers – Location Al Masah Hotel – Nasr City

Date	Time	Al-Zomorda Hall	Al-Loaloo Hall	Al-Zahabia Hall	Al-Fayrouz Hall	Solitaire Hall 2	Library Room
Monday 17/12/2018	12:00-18:00						Registration
Tuesday 18/12/2018	8:00 – 9:00						Registration
	9:00-10:15	Opening speeches by Conference Key Sponsors and Guest Speaker Dr. Shahidehpour:					Registration
	10:30-12:00	A1 FACTS and HVDC Systems 1	B1 Microgrids 1	C1 Power System Optimization 1	D1 Electric Machines and Drives 1	E1 Power Electronics 1	Registration
	12:00-12:30	Coffee Break					
	12:30-14:00	A2 Power Systems 1	B2 Photovoltaic Systems 1	C2 Wind Energy Systems 1	D2 Power Quality 1	E2 Fault Detection and Protection 1	Registration
	14:00-15:30	Lunch Break					
15:30-17:00	A3 AI Applications in Power Systems	B3 Distribution Systems 1	C3 Electric Vehicles	D3 Distributed Generation 1	E3 Fault Detection and Protection 2		



Date	Time	Al-Zomorda Hall	Al-Loalooa Hall	Al-Zahabia Hall	Al-Fayrouz Hall	Solitaire Hall 2	Library Room	
Wednesday 19/12/2018	9:00-10:30	A4 High Voltage and Dielectrics	B4 Distributed Generation 2	C4 FACTS and HVDC Systems 2	D4 Microgrids 2	E4 Electric Machines and Drives 2	Registration	
	10:45-12:15	A5 Power Systems Optimization 2	B5 Power System Optimization 3	C5 Wind Energy Systems 2	D5 Electric Machines and Drives 3	E5 Power Electronics 2	Registration	
	12:15-12:45	Coffee Break						
	12:45-14:15	A6 Power Systems 2	B6 Photovoltaic Systems 2	C6 Microgrids 3	D6 Wind Energy Systems 3	E6 Power Quality 2		
	14:15-15:30	Lunch Break						
	15:30-17:00	A7 AI Applications in Power Systems 2	B7 Distribution Systems 2	C7 Reliability and Asset Management	D7 Renewable Energy Systems	E7 Power Systems 3		
	17:00-17:30	Closing and Recommendations						

Part II: Tutorials – Location Faculty of Engineering - Cairo University: Main Conference Hall

Thursday 20/12/2018 Tutorials:

Session A8	Chairmen: Professor Hany ElGhazaly (Cairo University) and Professor Mouhab Mokhtar Hallouda (Cairo University)
9:00:12:00	Tutorials by: 1) Dr. Omar Hanafy Abdalla (Transmission System Security Standards). 2) Dr. Nabil Abbasy (Smart Grids – A Master Program. 3) Dr. Konstantinos Kopsidas (UK) (Transmission Systems Flexibility).
13:00-15:00	Tutorial by Opal-RT Technologies Canada – Dr. Simon Abourida (Real Time Simulation of Electric Power Systems).



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Proceedings Papers Distribution on Sessions

Ser.	Session #	Session Title	Paper ID #					
			2	26	95	136	157	158
1	A1	FACTS and HVDC Systems 1	2	26	95	136	157	158
2	A2	Power Systems 1	11	20	32	50	61	69
3	A3	AI Applications in Power Systems 1	12	30	55	91	156	163
4	A4	High Voltage and Dielectrics	34	114	207	242	244	252
5	A5	Power Systems Optimization 2	116	138	182	205	216	
6	A6	Power Systems 2	108	148	162	177	214	
7	A7	AI Applications in Power Systems 2	183	195	199	210	224	
8	B1	Microgrids 1	49	65	89	109	119	121
9	B2	Photovoltaic Systems 1	8	14	21	29	41	51
10	B3	Distribution Systems 1	16	19	52	93	101	145
11	B4	Distributed Generation 2	160	170	215	253	254	255
12	B5	Power System Optimization 3	218	233	245	247	249	265
13	B6	Photovoltaic Systems 2	54	62	99	107	110	112
14	B7	Distribution Systems 2	168	202	223	225	264	
15	C1	Power System Optimization 1	24	73	94	96	111	261
16	C2	Wind Energy Systems 1	1	46	57	70	78	84
17	C3	Electric Vehicles	115	124	174	181	189	241
18	C4	FACTS and HVDC Systems 2	188	194	198	200	211	
19	C5	Wind Energy Systems 2	130	161	166	173	179	
20	C6	Microgrids 3	212	213	240	243	246	266
21	C7	Reliability and Asset Management	22	98	103	104	123	267
22	D1	Electric Machines and Drives 1	6	36	60	190	201	237
23	D2	Power Quality 1	33	128	133	135	149	152
24	D3	Distributed Generation 1	85	100	102	113	141	196
25	D4	Microgrids 2	76	142	147	172	193	203
26	D5	Electric Machines and Drives 3	63	64	86	131	134	
27	D6	Wind Energy Systems 3	234	248	256	257	260	263
28	D7	Renewable Energy Systems	56	71	125	180	206	217
29	E1	Power Electronics 1	38	80	92	117	122	132
30	E2	Fault Detection and Protection 1	27	28	79	87	155	
31	E3	Fault Detection and Protection 2	159	178	184	191	220	
32	E4	Electric Machines and Drives 2	67	68	74	75	151	
33	E5	Power Electronics 2	167	192	230	238	251	
34	E6	Power Quality 2	183	204	209	232	259	
35	E7	Power Systems 3	82	83	153	208	250	



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Sessions Chairmen

Ser.	Session #	Session Title	Sessions Chairmen
1	A1	FACTS and HVDC Systems 1	Professor Nabil Hassan Abbasy Alexandria University
2	A2	Power Systems 1	Professor Adel Aly Abou El-Ela Menoufia University
3	A3	AI Applications in Power Systems 1	Professor Abdel Ghany Mohamed Abdel Ghany Helwan University and 6th of October University
4	A4	High Voltage and Dielectrics	Professor Mazen M. Abdel Salam Assiut University
5	A5	Power Systems Optimization 2	Professor Fahmy Metwally Bendary Benha University
6	A6	Power Systems 2	Professor Essam Abo EIDahab Cairo University
7	A7	AI Applications in Power Systems 2	Professor Mohamed ElShahat Masoud Helwan University
8	B1	Microgrids 1	Professor Omar Hanafy Abdalla Helwan University
9	B2	Photovoltaic Systems 1	Professor Khairy Farahat Helwa Cairo University
10	B3	Distribution Systems 1	Professor Ibrahim Megahed Alexandria University
11	B4	Distributed Generation 2	Professor Mohamed A. Tantawy Mansoura University
12	B5	Power System Optimization 3	Professor Abdel Rahman Zaghloul Cairo University
13	B6	Photovoltaic Systems 2	Professor Mohamed Ahmed Mostafa Hassan Cairo University
14	B7	Distribution Systems 2	Professor Elwy Eissa ElKholly Menoufia University
15	C1	Power System Optimization 1	Professor Hossam Abd El Fatah Cairo University



Ser.	Session #	Session Title	Sessions Chairmen
16	C2	Wind Energy Systems 1	Professor Almoataz Yousef Abdelaziz Future University in Cairo
17	C3	Electric Vehicles	Professor Ahmed A. Hossam-EIDin Alexandria University
18	C4	FACTS and HVDC Systems 2	Professor Tarek Aly Sharaf Cairo University
19	C5	Wind Energy Systems 2	Professor Mohamed Kamel El-Sherbiny Assiut University
20	C6	Microgrids 3	Professor Hussein Magdy Zein El Din Cairo University
21	C7	Reliability and Asset Management	Professor Mohamed Salah ElSobky Cairo University
22	D1	Electric Machines and Drives 1	Professor Mohamed E. Izzularab Menoufia University
23	D2	Power Quality 1	Professor Ahmed Bahgat Gamal Bahgat Cairo University
24	D3	Distributed Generation 1	Professor Magdy El-Marsafawy Cairo University
25	D4	Microgrids 2	Professor Ahmed Abdel Satar Abdel Fatah Ain Shams University
26	D5	Electric Machines and Drives 3	Professor Adel Dia EIDin Shaltout Cairo University
27	D6	Wind Energy Systems 3	Professor Samia Mahmoud El Hakim Cairo University
28	D7	Renewable Energy Systems	Professor Hossam Kamal Yousef Cairo University
29	E1	Power Electronics 1	Professor Said Wahsh Electronics Research Institute
30	E2	Fault Detection and Protection 1	Professor Mahmoud Gilany Cairo University
31	E3	Fault Detection and Protection 2	Professor Mervat Elshazly Cairo University
32	E4	Electric Machines and Drives 2	Professor Mohamed Fahim Sakr Cairo University
33	E5	Power Electronics 2	Professor Magdy Abdel Ghani Abo ElEla Cairo University



Ser.	Session #	Session Title	Sessions Chairmen
34	E6	Power Quality 2	Professor Zainab M. Osman Fahmy Cairo University
35	E7	Power Systems 3	Professor Ahdab Elmorshedy Cairo University
36	A8	Tutorials	Professor Hany ElGhazaly Cairo University Professor Mouhab Mokhtar Hallouda Cairo University



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Date:	Tuesday 18/12/2018
Time:	10:30-12:00
Location:	Al-Zomorda Hall
Session Name:	A1: FACTS and HVDC Systems 1
Session Chairman Name:	Professor Nabil Hassan Abbasy
Affiliation:	Alexandria University

Session A1: Papers

Paper	Authors	Proceedings Page No.
Paper No. 2: Optimal Location and Size of FACTS Devices for Distributed Voltage Control	Omar M. Abo Gabl Amgad El-Deib, and Magdy El-Marsafawy	6
Paper No. 26: Enhanced performance of substation dynamics during large induction motor starting using SVC	Ahmed Sobhy Nabil Hassan Abbasy, and Ragi Refaat	82
Paper No. 95: Novel HVDC Transmission Line Protection scheme Based on current differential	Mahmoud Gamal Dina Mourad, and A. M. Abd-Elaziz	383
Paper No. 136: Modeling and Analysis of New Advanced FACTS Devices for Voltage Swells Mitigation	Yasser Mamdouh Aboelazm Wael Esmail Wahba, and Mohamed Ahmed Moustafa Hassan	574
Paper No. 157: Optimal Allocation of STATCOM for Voltage Stability and System Loadability	Mahrous A. Taher Salah Kamel Francisco Jurado, and Abdalla Ahmed	654
Paper No. 158: Optimal Integration of D-STATCOM in Radial Distribution Systems Using a Novel Optimization Technique	Mohamed Ebeed Salah Kamel, and Abdelraheem Youssef	660



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Date:	Tuesday 18/12/2018
Time:	12:30 -14:00
Location:	Al-Zomorda Hall
Session Name:	A2: Power Systems 1
Session Chairman Name:	Professor Adel Aly Abou El-Ela
Affiliation:	Menoufia University

Session A2: Papers

Paper	Authors	Proceedings Page No.
Paper No. 11: Solving Multiobjective Economical Power Dispatch Problem using MO-FOA	Adel Ali Abou El-Ela Ragab El-Sehiemy Rizk Masoud, and Dalia Salman	24
Paper No. 20: Gas Turbines for Power Generation –Operability, Performance and Efficiency	Zahra Amjad	58
Paper No. 32: Hybrid PICS-Phase Advance Control for SCG in a Multi-machine Power System	Ragab Amer Heba Abdel Hamid Khattab, and Gamal Abdel-Wahab Morsy	115
Paper No. 50: From Distributed Generation to Virtual Power Plants: The Future of Electric Power Systems	Waheed Sabry	162
Paper No. 61: Terminal Voltage and Power Regulation Using Vehicle-to-Grid (V2G) Schemes Connected to Two-Area Power System	Tarek Hassan Mohamed, and Heba Ahmed Hassan	208
Paper No. 69: Transmission Lines Restoration Using Resilience Analysis	Yasser Khalil Rasha El-Azab Maged Abu Adma, and Said Elmasry	254



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Date:	Tuesday 18/12/2018
Time:	15:30-17:00
Location:	Al-Zomorda Hall
Session Name:	A3: AI Applications in Power Systems
Session Chairman Name:	Professor Abdel Ghany Mohamed Abdel Ghany
Affiliations:	Helwan University and 6th of October University

Session A3: Papers

Paper	Authors	Proceedings Page No.
Paper No. 12: Artificial Intelligence For Air Quality Control Systems: A Holistic Approach	Tony Bazzi, and Mohamed Zohdy	30
Paper No. 30: Fuzzy Fractional-Order PID Tuned via Relative Rate Observer for the Egyptian Load Frequency Control	Mohamed Abdel Ghany Abdel Ghany Mohamed Abdel Ghany Ahmed Bensenouci Mohamed Ahmed Bensenouci, and Mohamed Nazih Syed-Ahmad	108
Paper No. 55: Short-Term Load Forecasting Approach Based on Different Input Methods of One Variable: Conceptual and Validation Study	Amr A. Aydarous Mostafa Elshahed, and Mohamed Ahmed Moustafa Hassan	184
Paper No. 91: A Novel Algorithm to Generate Synthetic Data for Continuous-State Stationary Stochastic Process (Wind Data Application)	Omar Mohamed Salim Hassen Taher Dorrah, and Mahmoud Adel El-Kahawy	355
Paper No. 156: Adaptive Neuro-Fuzzy Inference System Based Field Oriented Control of PMSM & Speed Estimation	Waleed Abdel Aziz Salem Gomaa Fahmy Osman, and Shawki Hamed Arfa	648
Paper No. 163: Fuzzy-Based Position-Velocity Controller Gain Scheduling for Load Disturbance Rejection in a Positioning Servo System	Marwa M. Hamed Esam Hafez Abdelhameed Tarek Hassan Mohamed, and Gaber El-Saady	688



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Date:	Wednesday 19/12/2018
Time:	9:00-10:30
Location:	Al-Zomorda Hall
Session Name:	A4: High Voltage and Dielectrics
Session Chairman Name:	Professor Mazen M. Abdel Salam
Affiliation:	Assiut University

Session A4: Papers

Paper	Authors	Proceedings Page No.
Paper No. 34: New Design for Polypropylene Thin Film of HV Metallized Power Capacitor Using Multiple Nanoparticles Technique	Ahmed Thabet Mohamed Samir, and Mountasser Mohamed	127
Paper No. 114: Partial Discharge Detection inside Transformer Oils using On-line Monitoring Nanotechnology Techniques	Ahmed Emam Mohamed Badawi, and Sameh Hassan	474
Paper No. 207: Negative Corona Inception Voltage Determination in the Three- Electrode System	Mohamed Anwar Mohamed Badawi, and Ahmed Omar	897
Paper No. 242: A Review of Partial Discharge Detection Techniques in Power Transformers	Shady S. Refaat Mahmoud Sayed Mohammed Ali Shams, and Amira Mohamed	1042
Paper No. 244: Influence of Nanofiller Types on Electrical treeing in Silicone Rubber Nanocomposites	Safaa F. Elzoghby Mohamed E. Ibrahim Amr M. Abd-Elhady, and Mohamed A. Izzularab	1056
Paper No. 252: Dielectric Response of PVC and LDPE Nanocomposites upon Functionalization of their Containing Nanoparticles	Nagat M. K. Abdel-Gawad Elsayed Y. El-Kady Adel Zein El Dein Diaa-Eldin A. Mansour, Hanaa M. Ahmed, and M. M. F. Darwish	1103



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Date:	Wednesday 19/12/2018
Time:	10:45-12:15
Location:	Al-Zomorda Hall
Session Name:	A5: Power Systems Optimization 2
Session Chairman Name:	Professor Fahmy Metwally Bendary
Affiliation:	Benha University

Session A5: Papers

Paper	Authors	Proceedings Page No.
Paper No. 116: Grey-wolf Optimization Scenario for Security Constrained Optimal Power Flow Problem	Reham Hosny Salem Almoataz Youssef Abdelaziz, and Mohamed Ezzat	485
Paper No. 138: Reactive Power and Voltage Control of Offshore Wind Parks Based PI Controller tuning for STATCOM via Genetic Algorithm	Ahmed Hussein Naggar Saad, and Said Mekhamer	580
Paper No. 182: Power Level Control of Nuclear Research Reactors Using a Particle Swarm Optimized Fuzzy Controller	Omar Mohamed Salim Abdel-Rahman El-Kafas Salah Ramadan, and Ahmed Badawy	762
Paper No. 205: Optimal Arrangement for the Grounding Grid Conductors by Using PSO	El-Sayed M. El-Refaie M. K. Abd Elrahman M. Kh. Mohamed, and Abd Elrahman S. Tawfic	884
Paper No. 216: Lightning Attachment Optimization Technique for Solving Optimal Power Flow Problem	Salma Abd El-Sattar Salah Kamel Marcos Tostado, and Francisco Jurado	952



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Date:	Wednesday 19/12/2018
Time:	12:45-14:15
Location:	Al-Zomorda Hall
Session Name:	A6: Power Systems 2
Session Chairman Name:	Professor Essam Abo EIDahab
Affiliation:	Cairo University

Session A6: Papers

Paper	Authors	Proceedings Page No.
Paper No. 108: A systematic approach for simulating transient stability of multi-machine power system using a proposed machine template procedure	Mahmoud Nour Ali	440
Paper No. 148: Phase-Shifting Transformers' Model for an Optimal Load Flow Formulation	Shazly Mohamed, and Abdel-Moamen Ahmed	611
Paper No. 162: Different Biomass Gasification Reactors for Energy Applications	Shaymaa Bakheet Salah Kamel Hoda Abd El-Sattar, and Francisco Jurado	682
Paper No. 177: A design of a Modified Power System Stabilizer for Power System Transient Stability Enhancement	Abd El-Fath Eliwa Zakaria Khalil, and Waheed Sabry	734
Paper No. 214: Optimal Long Term Planning of Hybrid Generation System for A Part of Egyptian Network	Adel Ali Abou El-Ela Sohir Allam Shimaa Spea, and Mohamed Magdy	940



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Date:	Wednesday 19/12/2018
Time:	15:30-17:00
Location:	Al-Zomorda Hall
Session Name:	A7: AI Applications in Power Systems 2
Session Chairman Name:	Professor Mohamed ElShahat Masoud
Affiliation:	Helwan University

Session A7: Papers

Paper	Authors	Proceedings Page No.
Paper No. 183: Maximizing the Generated Power from Hybrid Wind-Solar System Based on Fuzzy Self Tuning Single Neuron PID Controller	Ola Abdelnasser Mosaad Ali Helmy Mohamed El-Zoghby, and Abdel Ghany Mohamed Abdel Ghany	770
Paper No. 195: Design and Analysis of Combined Chopper-Crowbar Protection Scheme for Wind Power System Based on Artificial Intelligence	Omar Noureldean, and Ibrahim Hamdan	831
Paper No. 199: Direct Current Signal Injection enhanced with Artificial Intelligence Technique for Asynchronous Motors Thermal Monitoring	Taha Ahmed Mohamed Ahmed Moustafa Hassan, and El Said Othman	850
Paper No. 210: Toward Symbolic Representation and Analysis of Parameter Varying Control Systems	Amera Mahmoud Hala Elhadidy Kamel Elserafi, and Hassen Taher Dorrah	916
Paper No. 224: Short-Term Hybrid Probabilistic Forecasting Model for Electricity Market Prices	Vasco Campos Gerardo Osório Miadreza Shafie-Khah, Mohamed Lotfi, and João P. S. Catalão	984

---[End of Sessions A]---



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Date:	Tuesday 18/12/2018
Time:	10:30-12:00
Location:	Al-Loaloo Hall
Session Name:	B1: Microgrids 1
Session Chairman Name:	Professor Omar Hanafy Abdalla
Affiliation:	Helwan University

Session B1: Papers

Paper	Authors	Proceedings Page No.
Paper No. 49: Harmonic Reduction of Islanded Microgrid Ships using Fuzzy Controlled DCMLI	Ahmed Abdel Hamid Mansour	157
Paper No. 65: Spatial and Capacity Optimization of Small and Medium Renewable Energy Grids for Remote Areas With Application	Walaa Ibrahim Gabr Mahmoud Mohamed Elbahy, and Muhammad Taha Eissa	233
Paper No. 89: Voltage Profile Enhancement for Remote Areas through Renewable Energy Resources Integration	Ziad Ali Fathi Abousif, and Salah Kamel	350
Paper No. 109: Online Gain Tuning of Conventional Load Frequency Controller for Microgrid Power System	Tarek Hassan Mohamed, and Mahmoud Hussein	446
Paper No. 119: Optimal Allocation of Energy Storage System for Improving Performance of Microgrid Using Symbiotic Organisms Search	Mostafa Hassan Mostafa Samia Gharib Ali Shady Hossam Eldeen Abdel Aleem, and Almoataz Youssef Abdelaziz	496
Paper No. 121: MPPT of PV-Wind-Fuel cell of off-grid Hybrid System for a New Community	M. Osama Abed El-Raouf Mohamed I. Mosaad Adel Mallawany Mahmoud A. Al-Ahmar, and Fahmy M. Bendary	502



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Date:	Tuesday 18/12/2018
Time:	12:30-14:00
Location:	Al-Loaloo Hall
Session Name:	B2: Photovoltaic Systems 1
Session Chairman Name:	Professor Khairy Farahat Helwa
Affiliation:	Cairo University

Session B2: Papers

Paper	Authors	Proceedings Page No.
Paper No. 8: Statistical Approach for the Optimum Selection of Photovoltaic Modules on a Specific Site	Mohamed Aboushal Mohamed Zakaria, and Ibrahim Fouad Elarabawy	18
Paper No. 14: Voltage Regulation of Photovoltaic System connected to Grid based on FOPID Controllers Using Evolutionary Computational Techniques	Rofida Ghobashy Mohamed Ismail, and Mohamed Moustafa	38
Paper No. 21: Experimental Comparison between Microcontrollers and Programmable Logic Controllers in Sun Tracking Applications	Hilmy Awad Sameh Moawad, and Ahmad Atalla	63
Paper No. 29: Improved Design of Artificial Neural Network for MPPT of Grid-Connected PV Systems	Mahmoud Nour Ali	102
Paper No. 41: The Effect of Grid Connected Photovoltaic Location and Penetration level on Total Harmonic Distortion	Mariam Yakoub Said El Masry, and Mohamed Ismail	146
Paper No. 51: Evaluation of Various Layouts of PV - Based Houses	Hilmy Awad Mohamed Fouad Dina Murad, and Wael Radi	167



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Date:	Tuesday 18/12/2018
Time:	15:30-17:00
Location:	Al-Loaloo Hall
Session Name:	B3: Distribution Systems 1
Session Chairman Name:	Professor Ibrahim Megahed
Affiliation:	Alexandria University

Session B3: Papers

Paper	Authors	Proceedings Page No.
Paper No. 16: Performance Enhancement of Distribution Systems using Distributed Generators and Capacitor Banks at Medium and Low Voltage Networks	Abdallah Elsayed Mohamed Hegab, and Sobhy Farrag	44
Paper No. 19: Sources of Power Generation in Pakistan –A Feasibility Study	Zahra Amjad	52
Paper No. 52: Hosting Capacity Enhancement of Electrical Distribution Systems under Sinusoidal and Non-Sinusoidal Conditions	Sherif Mohsen Ismael Shady Hossam Eldeen Abdel Aleem, and Almoataz Youssef Abdelaziz	173
Paper No. 93: Harmonic Cancellation in Residential Buildings	Ahmed Elhenawy Mahmoud Sayed, and Mahmoud Gilany	368
Paper No. 101: Investigation of Thermal Characteristics of Low Power LED Units	Hend Abd El-Monem Salama	411
Paper No. 145: Optimal Capacitor Placement in Distribution Networks Considering Fault Periods	Mohammed Banna Nabil Hassan Abbasy, and Ashraf Megahed	599



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Date:	Wednesday 19/12/2018
Time:	9:00-10:30
Location:	Al-Loaloo Hall
Session Name:	B4: Distributed Generation 2
Session Chairman Name:	Professor Mohamed A. Tantawy
Affiliation:	Mansoura University

Session B4: Papers

Paper	Authors	Proceedings Page No.
Paper No. 160: Optimal Allocation of PV based DG in Distribution Networks at Different Load Levels	Ismail Mahmoud Salah Kamel Hussein Abdelmawgoud, and Juan Yu	671
Paper No. 170: Hybrid Optimization Technique for Optimal Allocation of DG and D-STATCOM in Distribution Networks	Ali Selim Salah Kamel, and Francisco Jurado	711
Paper No. 215: The Penetration Level of Optimizing DG In Distribution Systems Considering Technical Impacts and Protection coordination	Ahmed Mohamed Essam Abou El-Zahab Aboufotouh Abd Elrheem Mohamed, and Mohamed Ahmed Moustafa Hassan	945
Paper No. 253: Developed Analytical Technique for Optimal Placement and Sizing of DG and DSTATCOM in Radial Distribution Systems	Amal Amin Salah Kamel, and Juan Yu	1109
Paper No. 254: Optimal Allocation of DGs and TCSC in Radial Networks Using Ant Lion Optimizer	Thomas Gerge Abdel-Raheem Youssef, and Salah Kamel	1114
Paper No. 255: Development of Probabilistic Power Flow Algorithm for Radial Distribution Systems with DG Using Analytical Approach	Walaa Hamdy, Kamel, and Francisco Jurado	1120



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Date:	Wednesday 19/12/2018
Time:	10:45-12:15
Location:	Al-Loaloo Hall
Session Name:	B5: Power System Optimization 3
Session Chairman Name:	Professor Abdel Rahman Zaghoul
Affiliation:	Cairo University

Session B5: Papers

Paper	Authors	Proceedings Page No.
Paper No. 218: Congestion Management in Power System Based on Optimal Load Shedding Using Grey Wolf Optimizer	Fatma Sayed Salah Kamel Marcos Tostado, and Francisco Jurado	964
Paper No. 233: Comparison Between Optimization Of PI Parameters For Speed Controller Of PMSM By * Using Particle Swarm And Cuttlefish Optimization	Tassneem Mohamed Reda Karim Hassan Youssef Ibrahim Fouad Elarabawy, and Tamer Helmy Abdelhamid	1008
Paper No. 245: Optimal Economic Analysis Study for Renewable Energy Systems to Electrify Remote Region in Kingdom of Saudi Arabia	Nahar Alshammari Mohamed Mahmoud Samy, and Johnson Asumadu	1062
Paper No. 247: Optimal Power Flow Considering Loading Margin Stability Using Lightning Attachment Optimization Technique	Heba Youssef Salah Kamel, and Mohamed Ebeed	1075
Paper No. 249: Voltage Profile Improvement in Active Distribution Networks Using Hybrid WOA-SCA Optimization Algorithm	Ali Selim Salah Kamel, and Francisco Jurado	1086
Paper No. 265: Hybrid Particle Swarm Optimization and Gravitational Search Algorithm for BLDC Motor Speed Control	Dina Mustafa Karim Hassan Youssef Ibrahim Fouad Elarabawy, and Tamer Helmy Abdelhamid	1165



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Date:	Wednesday 19/12/2018
Time:	12:45-14:15
Location:	Al-Loaloo Hall
Session Name:	B6: Photovoltaic Systems 2
Session Chairman Name:	Professor Mohamed Mostafa Hassan
Affiliation:	Cairo University

Session B6: Papers

Paper	Authors	Proceedings Page No.
Paper No. 54: An ATP/TACS-Based Proposed PV Generator Model	Eman A. Awad, and Ebrahim A. Badran	179
Paper No. 62: Design PV System for a Small GEO Satellite and Studying the Effect of using Different Types of Propulsion	Ahmed Lotfy Wagdy Anis, and Joseph Halim	214
Paper No. 99: Modeling and Control of Stand-alone PV System Based on Fractional-Order PID Controller	Mohamed Ahmed Ebrahim Mohamed Ahmed Mohsin, and Mohamed Mustafa	399
Paper No. 107: Performance Evaluation of Different PV Technologies and Its Effect on Associated Inverter under Different Climatic Conditions	Magdi A. Mosa Adel A. Elsamahy, and Mariem Zaki	433
Paper No. 110: Design PV for a CubeSat and effect of the Electric Propulsion and Deployed Wings in the lifetime	Ahmed Lotfy Wagdy Anis, and Joseph Halim	451
Paper No. 112: Control of a Grid Connected PV Inverter for Supplying Powers with Different Power Factors	Mahmoud Hussein	462



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Date:	Wednesday 19/12/2018
Time:	15:30-17:00
Location:	Al-Loalooa Hall
Session Name:	B7: Distribution Systems 2
Session Chairman Name:	Professor Elwy Eissa ElKholy
Affiliation:	Menoufia University

Session B7: Papers

Paper	Authors	Proceedings Page No.
Paper No. 168: Electrical Characteristics Modeling for Photovoltaic Modules based on Single and Two Diode Models	R. Elgohary Adel Ali Abou El-Ela, and A. Elkholy	707
Paper No. 202: Voltage Control of Distribution Systems Using Electronic OLTC	Eman O. Hassan Ahmed Hatata Ebrahim A. Badran, and Fathi M.H. Yossef	867
Paper No. 223: An Analytic Approach to Determine Maximum Penetration Level of Distributed Generation Considering Power Loss	Ayşe Aybike Şeker Tuba Gözel, and Mehmet Hakan Hoccoğlu	978
Paper No. 225: Evolution of Demand Response: A Historical Analysis of Legislation and Research Trends	Mohamed Lotfi Cláudio Monteiro Miadreza Shafie-Khah, and João P. S. Catalão	990
Paper No. 264: Behavioral Modeling of a Flat-plate Solar Collector	Fatima Zohra Baouche Farida Hobar, and Bilel Abderazzak	1162

---[End of Sessions B]---



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Date:	Tuesday 18/12/2018
Time:	10:30-12:00
Location:	Al-Zahabia Hall
Session Name:	C1: Power System Optimization 1
Session Chairman Name:	Professor Hossam Abd El Fatah
Affiliation:	Cairo University

Session C1: Papers

Paper	Authors	Proceedings Page No.
Paper No. 24: Optimal Analysis of Flexible Reconfigurable Networks Using Movable and Changeable Components	Walaa Ibrahim Gabr Hassen Taher Dorrah, and Sara Atif El-Gendy	74
Paper No. 73: Multiobjective fruit fly optimization algorithm for OPF solution in power system	Adel Ali Abou El-Ela Ragab El-Sehiemy Mohamed Mouwafi, and Dalia Salman	270
Paper No. 94: Optimum Design of Substation Grounding Grid Based on Grid Balancing Parameters using Genetic Algorithm	Ahmed Taher Abdelrahman Said Tamer Eliyan, and Abdelsalam Hamza	374
Paper No. 96: Load Frequency Controller with Virtual Inertia Generator for Interconnected Power Systems via Artificial Bee Colony	Farag Kamal Abo-Elyousr	389
Paper No. 111: Moderation of Voltage Sag and Swell in Grid Connected Wind Energy Based PMSG by DSTATCOM	Hazem Ahmed Naggar Saad, and Khaled Salah Eldin	455
Paper No. 261: dSPACE DS1202 Based Real Time Implementation of Cuckoo Search Optimized FDTTC of PMSM	Amir Yassin Said Wahsh, and Mohamed Abdelatif Badr	1148



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Date:	Tuesday 18/12/2018
Time:	12:30-14:00
Location:	Al-Zahabia Hall
Session Name:	C2: Wind Energy Systems 1
Session Chairman Name:	Professor Almoataz Yousef Abdelaziz
Affiliation:	Ain Shams University

Session C2: Papers

Paper	Authors	Proceedings Page No.
Paper No. 1: Online Grid Impedance Estimation for Enhancing the Stability of Type IV Wind Turbines Connected to Weak networks	Mohammed Morgan Amgad Eldieb, and Magdy El Marsafawy	1
Paper No. 46: Adaptive Maximum Power Tracking Control Technique for Wind Energy Conversion Systems	Esam Hafez Abdelhameed, and Heba Ahmed Hassan	151
Paper No. 57: Different Control Strategies for Converter Based DC Energy Transmission in Offshore Wind Power: A Literature Survey	Hassan Youssef Yousef Ahmed Hussien Besheer Hany Mohamed Hasanien, and Almoataz Youssef Abdelaziz	195
Paper No. 70: Fault Ride-Through Study and Control of a Wind Turbine Driving Squirrel Cage or Doubly-Fed Induction Generator; Comparative Study	Mahmoud Essam M. Harby, and Helmy Mohamed El-Zoghby	259
Paper No. 78: Investigating the Performance of Two-Area Interconnected Power System with High Wind Power Penetration in Presence of Plug-in Hybrid Electric Vehicles	Mahmoud Essam M. Harby	293
Paper No. 84: Model Predictive Speed Control of Five-Phase PMSG Based Variable Speed Wind Generation System	Hossam H. H. Mousa Abdel-Raheem Youssef, and Essam E. M. Mohamed	326



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Date:	Tuesday 18/12/2018
Time:	15:30-17:00
Location:	Al-Zahabia Hall
Session Name:	C3: Electric Vehicles
Session Chairman Name:	Professor Ahmed A. Hossam-EIDin
Affiliation:	Alexandria University

Session C3: Papers

Paper	Authors	Proceedings Page No.
Paper No. 115: Decarbonized Unit Commitment Applying Water Cycle Algorithm Integrating Plug-in Electric Vehicles	Heba El-Azab Rania Swief, Noha El-Amary, and Hesham Temraz	477
Paper No. 124: Operation of Brushless DC Motor to Drive the Electric Vehicle	Mahmoud Hassanin Fathy Abdelkader Sanaa Amer, and Ahmed Abu-Moubarka	522
Paper No. 174: Scalar Control Technique For Three Phase Induction Motor For Electric Vehicle Application	Sayed Mohammed Goda Yasser Saieed Elkotesly Ahmed Nasr Ouda, and Abd Elfatah Elawa	727
Paper No. 181: Smart Charging and Discharging of Plug-in Electric Vehicles for Peak Shaving and Valley Filling of the Grid Power	Hassanien Ramadan Abdelfatah Ali Morsy Nour, and Csaba Farkas	757
Paper No. 189: Control of Electric Vehicles Charging without Communication Infrastructure	Morsy Nour Sayed Said Hassanien Ramadan Abdelfatah Ali, and Csaba Farkas	795
Paper No. 241: Increase The Reliability Of The Operating System For Electric Vehicles Using Eight Switches Bridge Converter	Mahmoud Hassanin Fathy Abdel-Kader Sanaa Amer, and Ahmed Abu-Moubarka	1036



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Date:	Wednesday 19/12/2018
Time:	9:00-10:30
Location:	Al-Zahabia Hall
Session Name:	C4: FACTS and HVDC Systems 2
Session Chairman Name:	Professor Tarek Aly Sharaf
Affiliation:	Cairo University

Session C4: Papers

Paper	Authors	Proceedings Page No.
Paper No. 188: Power Injection Models of HVDC and UPFC: A Comparison	Mahmoud A. Aboelhassan Salah Kamel Mohamed Ebeed, and Loai S. Nasrat	789
Paper No. 194: Congestion Alleviation in Market-based Power Systems using Co-optimization of FACTS Devices and Generation rescheduling	Ahmed Hamdy Elsayy Azza Eldesouky Abdelfattah Eladl, and Medhat Elfar	825
Paper No. 198: Impact of STATCOM Controller on the Wind Farm Performance under Grid Faults	Shazly Abdo Mohamed, and Salma Abdelaal Shaaban	844
Paper No. 200: Optimal Placement of D-STATCOM in Distribution Systems Using JAYA Algorithm	Adel Ali Abou El-Ela Mohamed Mouwafi Abeer El-Shorbagy, and Dina Abdel-Ghany	856
Paper No. 211: Analysis of DC Pole to Pole Fault in VSC-HVDC Transmission System	Sobhy S. Dessouky M. Fawzi Hamed A. Ibrahim, and Nagwa F. Ibrahim	922



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Date:	Wednesday 19/12/2018
Time:	10:45-12:15
Location:	Al-Zahabia Hall
Session Name:	C5: Wind Energy Systems 2
Session Chairman Name:	Professor Mohamed Kamel El-Sherbiny
Affiliation:	Assiut University

Session C5: Papers

Paper	Authors	Proceedings Page No.
Paper No. 130: Constant Power-Control of DFIG Wind Farm with LVRT Improvement during Extreme Gust Using Super-Capacitors	Omar Noureldeen, and Marwa M. M. Youssef	537
Paper No. 161: Design of Fuzzy Logic Control for Direct and Quadratic Components of DFIG's Rotor and Grid Side Control System Based Wind Turbines	Abdelhady Ramadan Salah Kamel Ahmed Rashad, and Juan Yu	677
Paper No. 166: Optimal Performance of DFIG integrated with Different Power System Areas Using Multi-Objective Genetic Algorithm	Ahmed H. A. Elkasem Salah Kamel Ahmed Rashad, and Francisco Jurado	694
Paper No. 173: Sensorless Wind Speed Control of 1.5 MW DFIG Wind Turbines for MPPT	Essam H. Abdou Abdelraheem Youssef Salah Kamel, and Mohamed M. Aly	722
Paper No. 179: Wind Speed Estimation Maximum Power Point Tracking Technique in Grid-connected Wind Energy Conversion System	Abdelraheem Youssef	745



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Date:	Wednesday 19/12/2018
Time:	12:45-14:15
Location:	Al-Zahabia Hall
Session Name:	C6: Microgrids 3
Session Chairman Name:	Professor Hussein Magdy Zein El Din
Affiliations:	Cairo University

Session C6: Papers

Paper	Authors	Proceedings Page No.
Paper No. 212: Effective Power Management of DC Microgrids Using Adaptive Droop Control	Eman K. Belal Doaa M. Yehia, and Ahmed M. Azmy	927
Paper No. 213: Accurate fault analysis and proposed protection scheme for battery energy storage system integrated with DC microgrids	Eatmad W. Nahas Diaa-Eldin A. Mansour Hossam A. Abd El-Ghany, and Moustafa M. Eissa	933
Paper No. 240: New Fuzzy Control of Photovoltaic Conversion Cascade Based Three Levels Inverter for Stand-Alone Applications	Thameur Abdelkrim Abdelhalim Borni Abdelkader Lakhdari Boualem Benlahbib Noureddine Bouarroudj Karima Benamrane, and Tarak Benslimane	1031
Paper No. 243: A Novel Control Strategy for Improving the Power Quality of an Isolated Microgrid under Different Load Conditions	Sara M. Ismail Ahmed A Daoud Kamel El-Serafi, and Sobhy S. Dessouky	1048
Paper No. 246: A New Method of Unintentional Islanding Detection for Distribution Network with Synchronous DG	Hossam A. Abd El-Ghany Mahmoud A. Elsadd, and Eman S. Ahmed	1068
Paper No. 266: Optimal PI Based Secondary Control for Autonomous Micro-grid via Particle Swarm Optimization Technique	M. A. Ebrahim Beshoy Abdou Aziz F. A. Osman, and Maged N. F. Nashed	1173



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Date:	Wednesday 19/12/2018
Time:	15:30-17:00
Location:	Al-Zahabia Hall
Session Name:	C7: Reliability and Asset Management
Session Chairman Name:	Professor Mohamed Salah EISobky
Affiliation:	Cairo University

Session C7: Papers

Paper	Authors	Proceedings Page No.
Paper No. 22: Assessment of Utility's Investment Options for Improving Reliability of Customer Delivery Systems	Gomaa Hamoud Larry Lee, and Sherif Faried	69
Paper No. 98: DISCHARGE-BASED DIAGNOSTICS IN POLLUTED GAS-INSULATED SWITCHGEAR	Mohamed H. Elmashtoly, and Hussein I. Anis	395
Paper No. 103: Enhancement of Power Transformer State of Health Diagnostics Based on Fuzzy Logic System of DGA	Ehnaish Aburaghiega Mohamed Farrag Donald Hepburn, and Ayman Haggag	422
Paper No. 104: Degradation analysis of m-c-Si PV modules after long term exposure under desert climate	Ahmed Bouraiou Ammar Neçaibia, Mohammed Mostefaoui Abderrezzaq Ziane Nordine Sahouane, and Rachid Dabou	428
Paper No. 123: Impact of Long-Term Climatic Conditions on the Ageing and Cost Effectiveness of the Oil-Filled Transformer	Mohamed Moenes Mohamed Salama Diaa-Eldin A. Mansour Samir Mohamed Abdelmaksoud, and Ahmed Abdelmoneim Abbas	516
Paper No. 267: Nuclear Power in the Low Carbon Economy		

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Date:	Tuesday 18/12/2018
Time:	10:30-12:00
Location:	Al-Fayrouz Hall
Session Name:	D1: Electric Machines and Drives 1
Session Chairman Name:	Professor Mohamed E. Izzularab
Affiliation:	Menoufia University

Session D1: Papers

Paper	Authors	Proceedings Page No.
Paper No. 6: Analyzing The Effect of Motor Loads and Introducing a Method for Selection of Electric Generator Power Rating	Ahmed Elsebaay Maged Abuadma, and Mahmoud Ramadan	12
Paper No. 36: Model Predictive Phase Angle Control for an Induction Motor Drive	Mahmoud Mossa, and Silverio Bolognani	133
Paper No. 60: Design and Analysis of a Brushless Three Phase Flux Switching Generator for Aircraft Auxiliary Power Unit	Ahmed Selema Dina Osheba Salwa Tahoun, and Mohamed El-Shanawany	203
Paper No. 190: State of the Art of Switched Reluctance Motor Drives and Control Techniques	Reyad Abdelfadil, and László Számel	801
Paper No. 201: Power Saving of Multi Pump-Motor Systems Using Variable Speed Drives	Abdelsalam Ahmed Basma Moharam, and Essam Eddin Mohamed Rashad	861
Paper No. 237: Thrust Force Characteristics of Permanent-Magnet-Assisted Linear Synchronous Reluctance Machines Using Finite Element Analysis	Hani Mohamed El-Touni Mohamed Kamal El-Nemr, and Essam Eddin Mohamed Rashad	1020



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Date:	Tuesday 18/12/2018
Time:	12:30-14:00
Location:	Al-Fayrouz Hall
Session Name:	D2: Power Quality 1
Session Chairman Name:	Professor Ahmed Bahgat Gamal Bahgat
Affiliation:	Cairo University

Session D2: Papers

Paper	Authors	Proceedings Page No.
Paper No. 33: Enhancement of Power System Quality Using PI Control Technique with DVR for Mitigation Voltage Sag	Ali Mohamed Eltamaly Yehia Sayed Mohamed Abou-Hashema Mustafa El-Sayed, and Amer Nasr Abd Elghaffar	121
Paper No. 128: Three Phase Switched Capacitor Active Power Filter for Improving Power Factor and Harmonic Current	Tim Emmanuel Karim Moharm, and Mohamed Elhabrouk	532
Paper No. 133: Simulation Study of the Mitigation of Nonlinear Load Harmonics and Unbalanced Voltage Stabilization Using 3-Wires and 4-Wires UPQC.	Ahmed Abdalla Hossam-Eldin Ahmed Abdel Hamid Mansour Mohammed Elsaid El Gamal, and Karim Hassan Youssef	557
Paper No. 135: Harmonics Characterization for Various Photovoltaic Systems Using PSCAD Simulation	Abdullah Alhussainy Thamer Alquthami, and Abdullah Alshaikh	568
Paper No. 149: Mitigation of Overvoltages at Induction Motor Terminals Fed from an Inverter through Long Cable	Nehad B. Basheer Mohamed E. Ezzat, and Mohamed A. Izzularab	617
Paper No. 152: Impact of Grid Connected Photovoltaic System on Total Harmonics Distortion (THD) of Low Voltage Distribution Network: A Case Study	Walaa Ibrahim Gabr, and Waleed Abdel Aziz Salem	630



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Date:	Tuesday 18/12/2018
Time:	15:30-17:00
Location:	Al-Fayrouz Hall
Session Name:	D3: Distributed Generation 1
Session Chairman Name:	Professor Magdy El-Marsafawy
Affiliation:	Cairo University

Session D3: Papers

Paper	Authors	Proceedings Page No.
Paper No. 85: ANN Control for a PV-array Connected to Public Grid	Ragab Amer	332
Paper No. 100: A Fuzzy Logic MPPT For Three-Phase Grid-Connected PV Inverter	Abderrezzaq Ziane Necaibia Ammar Mostefaoui Mohammed Ahmed Bouraiou Nordine Sahouane, and Rachid Dabou	405
Paper No. 102: Battery-Pack Capacity Optimization Layout for Electric Motorbike Competition	Pablo Esparza Sandra Castano-Solis Jesus Fraile-Ardanuy, and Manuel Merino-Egea	417
Paper No. 113: Practical Implementation of Dual Axis Solar Power Tracking System	Hend Abd El-Monem Salama, and Adel Taha Mohamed Taha	468
Paper No. 141: Stand-Alone Micro grid Energy Storage Schemes: Comparative Study	Ahmed Ewais, and Rasha Elazab	586
Paper No. 196: Design Case Study of A Nine-Phase Integrated On-board Battery Charger	Mohamed Yehia Metwly Fadi Adel Maximos Ahmed Tarek Ahmed Ahmed Sarya Hawam Ahmed Abdel-Moneim Zaki Amr Abdel-Moneim Helal Salman Mohamed Abdelghaffar Rawan Ahmed Taha Abdel-Rahman Mohamed Mokhtar Ragi Ali Hamdy, and Ayman Sami Abdel-Khalik	837



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Date:	Wednesday 19/12/2018
Time:	9:00-10:30
Location:	Al-Fayrouz Hall
Session Name:	D4: Microgrids 2
Session Chairman Name:	Professor Ahmed Abdel Satar Abdel Fatah
Affiliation:	Ain Shams University

Session D4: Papers

Paper	Authors	Proceedings Page No.
Paper No. 76: Optimal Design of Slotless PM Halbach Array Linear Generator for Wave Energy Converters at Maximum Power Transfer Condition	Ahmed Elgebaly, and Mohamed Kamal El-Nemr	287
Paper No. 142: Improving the Resiliency of a PV Standalone System Under Variable Solar Radiation and Load Profile	Mohammed A. Elsayed Eid Saad A. Mohamed Abdelwahab Hamed A. Ibrahim, and Ali H. Kasem Alaboudy	592
Paper No. 147: Energy Management System of Autonomous Low Voltage DC Microgrid Consists of Energy Storage System	Magdi A. Mosa Ahmed A. Ali Helmy Mohamed El-Zoghpy Adel A. El Samahy, and Abdel Ghany Mohamed Abdel Ghany	604
Paper No. 172: Sizing and Analysis of Grid-Connected Microgrid System for Assiut University Using HOMER Software	Mohammed Morad Mohammed Nayel Adel Abd Elbaset, and Ahmed Ibrahim	716
Paper No. 193: An Advanced Load Shedding Algorithm to Enhance Intentional-Islanding Dynamics	Ahmed M. Elkholy Hossam A. Abd El-Ghany, and Ahmed M. Azmy	819
Paper No. 203: An Improved Droop Control for a Low Voltage DC Microgrid Operation	Emad Shehata, Jean Thomas Ramadan Mostafa, and Mohamed Ghalib	872



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Date:	Wednesday 19/12/2018
Time:	10:45-12:15
Location:	Al-Fayrouz Hall
Session Name:	D5: Electric Machines and Drives 3
Session Chairman Name:	Professor Adel Shaltout
Affiliation:	Cairo University

Session D5: Papers

Paper	Authors	Proceedings Page No.
Paper No. 63: Improving Performance Characteristics of Induction Motor through the DTC with Magnetizing Inductance Compensation	Hamdy Soliman	218
Paper No. 64: Control and Performance Analysis for A Doubly-Fed Induction Generator Driven by A Wind Turbine Using Different Optimized Controllers	Gamal Abdel-Wahab Morsy Heba Abdel Hamid Khattab, and Asmaa El-Sayed Helal	226
Paper No. 86: State-Feedback-Based Practical Disturbance Compensation in a Point-to-Point Servomechanism	Esam Hafez Abdelhameed Reem Yousry, and Gaber El-Saady	338
Paper No. 131: Design and Development of an Electromagnetic Micropower Generator for Activity Tracking	Andrew Kirolos Ahmed Moustafa Ayman El-Badawy Mohamed Habib Ramy Mohamed Mostafa Soliman, and Eihab Abdel-Rahman	544
Paper No. 134: Recommendations for an Accurate Simulation of Electrical Motors with Shaft Torsional Dynamics	Omar El-Sayed Mohammed Youssef, and Adel Dia El-Din Shaltout	562



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Date:	Wednesday 19/12/2018
Time:	12:45-14:15
Location:	Al-Fayrouz Hall
Session Name:	D6: Wind Energy Systems 3
Session Chairman Name:	Professor Samia Mahmoud El Hakim
Affiliation:	Cairo University

Session D6: Papers

Paper	Authors	Proceedings Page No.
Paper No. 234: Dual Three-Phase Partitioned Stator Flux-Switching PM Machine for Wind Generating Systems	Essam E. M. Mohamed Mahmoud S. R. Saeed, and Ahmed I. M. Ali	1014
Paper No. 248: Short-term Frequency Stability regulation for Power System with Large-Scale Wind energy Penetration using PID controller	Eslam M. Wazeer Rasha El-Azab Mohamed Daowd, and Abdel Ghany Mohamed Abdel Ghany	1081
Paper No. 256: Fault-Ride Through Capability Enhancement of DFIG-Based Wind Turbines by SFCL	Walid S. E. Abdellatif Ali H. Kasem Alaboudy, and Ahmed M. Azmy	1126
Paper No. 257: Adaptive Fuzzy-PID Based Pitch Angle Control of Wind Turbine	Mustafa M. M. Ali Abdel-Raheem Youssef, G. T. Abdel-Jaber, and Ahmed S. Ali	1132
Paper No. 260: Maximum Power Point Tracking Achieved of DFIG-Based Wind Turbines Using Perturb and Observant Method	Sobhy S. Dessouky Walid S. E. Abdellatif Saad A. Mohamed Abdelwahab, and Marwa A. Ali	1143
Paper No. 263: Experimental Analysis of a Prototype Low Speed PMSG Unit with Different Loading Conditions	Ahmed Hebala Waseem Wafik Hamdy A. Ashour, and Waleed M. A. Ghoneim	1156



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Date:	Wednesday 19/12/2018
Time:	15:30-17:00
Location:	Al-Fayrouz Hall
Session Name:	D7: Renewable Energy Systems
Session Chairman Name:	Professor Hossam Kamal Yousef
Affiliation:	Cairo University

Session D7: Papers

Paper	Authors	Proceedings Page No.
Paper No. 56: Fault Analysis and Detection in Total Cross Tied Photovoltaic Arrays	Mohamed Zakaria Shamseldein Almoataz Youssef Abdelaziz, and Abdelhamid Abdelbaset Mahmoud	190
Paper No. 71: Impact of Plug-in Hybrid Electric Vehicles on Power Systems with High Wind Power Penetration	Mahmoud Essam M. Harby	264
Paper No. 125: Maximum Power Point Tracking for Hybrid Wind-Solar Energy System Using Optimum Controllers Techniques	Ola Abdelnasser Mosaad Ali Helmy Mohamed El-Zoghby, and Abdel Ghany Mohamed Abdel Ghany	526
Paper No. 180: Use of resistive superconducting fault current limiter for fuse-recloser coordination in radial distribution networks connected with distributed generation	Hammad Mahrous, and Mohamed M. Aly	751
Paper No. 206: Analysis of the Dynamic Interaction between Doubly Fed Induction Generator Wind Farms and the Egyptian Transmission Grid	Ingy Abouzeid Mohamed Abdelatif Badr, and Rania Swief	890
Paper No. 217: PSO based PI Control for a Solar Array Connected to Grid through Impedance Source Inverter using MCBC Method	Gamal Abdel-Wahab Morsy Ragab Ahmed Amer, and Hanan Mosalam	958

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Date:	Tuesday 18/12/2018
Time:	10:30-12:00
Location:	Solitaire Hall 2
Session Name:	E1: Power Electronics 1
Session Chairman Name:	Professor Said Wahsh
Affiliation:	Electronics Research Institute

Session E1: Papers

Paper	Authors	Proceedings Page No.
Paper No. 38: Velocity Command Shaping for Transmission Error Compensation in a Precision Servo Actuator	Wafaa Hamdy Mahmoud, and Esam Hafez Abdelhameed	140
Paper No. 80: A new topology for the Large-Scale Photovoltaic Systems grid Connection based on Modular Multilevel Converter	Ahmed Rashwan	308
Paper No. 92: Application of Fuzzy Logic for controlling a PV array connected to grid through Z- Source-Inverter	Gamal Abdel-Wahab Morsy Ragab Ahmed Amer, and Hanan Mosalam	361
Paper No. 117: Novel Overlapping Technique to Realize Half Period Symmetry in the Modulation of Current Source Inverter	Mahmoud Gaber Omar Abdelrahim, and Mohamed Orabi	491
Paper No. 122: Performance analysis of Fourth Order Buck Converter based on Current Sensorless Maximum Power Point Tracking Technique for Photovoltaic Systems	Ahmed Gamal Abdel- Rahman Naggar Hassan Saad, and Ahmed Abdel-Sattar Abdel- Fatah	510
Paper No. 132: Enhanced Performance Four-Switch Three-Phase Buck-Boost Based Inverter	Ahmed Abdalla Hossam- Eldin Ahmed Abdelallah Kadry Abdelsalam, and Abdelrahman Farghly	550



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Date:	Tuesday 18/12/2018
Time:	12:30-14:00
Location:	Solitaire Hall 2
Session Name:	E2: Fault Detection and Protection 1
Session Chairman Name:	Professor Mahmoud Gilany
Affiliation:	Cairo University

Session E2: Papers

Paper	Authors	Proceedings Page No.
Paper No. 27: Fault Detection and Monitoring in Secondary Electric Distribution Network based on Distributed Processing	Daudi Mnyanghwalo, Shamte Kawambwa Rukia Mwifunyi Gilbert Mapunda David Makota, and Nerey Mvungi	89
Paper No. 28: Instantaneous Faults Detection in Power Systems	Richard Binns Salwa Juma Al-Mamari, and Mehdi Salehifar	95
Paper No. 79: Intelligent Phase Measurement Mho Relay for Reactive Power Compensated Transmission Lines	Ahmed Abdelhafez, and Ahmed Hatata	299
Paper No. 87: Flux Linkage, and Inductance Measurement of a Fault Tolerant Switched Reluctance Motor Drive	Ahmed Shehata Yasser Abdalla Amged El-Wakeel, and Ramadan Mostafa	344
Paper No. 155: Solving Optimal Coordination of Direction Overcurrent Relays Problem Using Grey Wolf Optimization (GWO) Algorithm	Ahmed Korashy Salah Kamel Abdel-Raheem Youssef, and Francisco Jurado	643



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Date:	Tuesday 18/12/2018
Time:	15:30-17:00
Location:	Solitaire Hall 2
Session Name:	E3: Fault Detection and Protection 2
Session Chairman Name:	Professor Mervat Elhazly
Affiliation:	Cairo University

Session E3: Papers

Paper	Authors	Proceedings Page No.
Paper No. 159: Evaporation Rate Water Cycle Algorithm for Optimal Coordination of Direction Overcurrent Relays	Ahmed Korashy Salah Kamel Abdelraheem Youssef, and Francisco Jurado	665
Paper No. 178: Optimal relay setting for utility distribution feeders	Amr Ali Azza Eldosuky, and Abdelhay Salam	740
Paper No. 184: A Proposed Adaptive Distance Relay Model in ATPDraw	Walaa Elhadad Ahmed Hatata, and Ebrahim A. Badran	776
Paper No. 191: A Proposed Algorithm for Current Differential Protection of Delta Hexagonal Phase Shifting Transformer	Ismail A. Soliman Hossam A. Abd El-Ghany, and Ahmed M. Azmy	807
Paper No. 220: Enhancing Recloser-Fuse Coordination using Distributed Agents in Deregulated Distribution Systems	Loubna Saleh Mahmoud A. Elsadd Ramadan Abd El-Aal, and Samir El-Makkawy	970



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Date:	Wednesday 19/12/2018
Time:	9:00-10:30
Location:	Solitaire Hall 2
Session Name:	E4: Electric Machines and Drives 2
Session Chairman Name:	Professor Mohamed Fahim Sakr
Affiliation:	Cairo University

Session E4: Papers

Paper	Authors	Proceedings Page No.
Paper No. 67: Cuckoo Search Based Real Time Implementation of Direct Torque Control of PMSM	Amir Yassin Mohamed Abdelatif Badr, and Said Wahsh	240
Paper No. 68: Predictive Control for an Induction Motor Drive Based on a Quasi-Linear Model	Mahmoud Mossa, and Silverio Bolognani	247
Paper No. 74: The 30 kVA Permanent Magnet Synchronous Generator Wind-Cube Design, Implementation, Control; and Performance Measurements and Analysis	Aml Abdelgawad Waheed Sabry Usama Abouzayed Reda Abdellateef, and Mohamed Fathy	276
Paper No. 75: A New Open-Loop Volts/Hertz Control Method for Induction Motors	Omar El-Sayed, and Mohammed Youssef	282
Paper No. 151: Study of Multilevel Inverter Fed single phase Induction Motor	Taiea Ahmed Ahmed I. M. Ali Abdelraheem Youssef, and Essam E. M. Mohamed	625



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Date:	Wednesday 19/12/2018
Time:	10:45-12:15
Location:	Solitaire Hall 2
Session Name:	E5: Power Electronics 2
Session Chairman Name:	Professor Magdy Abdel Ghani Abo EIEla
Affiliation:	Cairo University

Session E5: Papers

Paper	Authors	Proceedings Page No.
Paper No. 167: Current Control Strategies for Two-Phase Induction Motor Driven by Three-Leg Voltage Source Inverter	Cathrine E. S. Feloups, and Essam E. M. Mohamed	701
Paper No. 192: Design and Development of a Self-Powered Wireless Wearable Activity Tracker	Ayman El-Badawy Sara Said Andrew Kirolos Kareem Arida, and Eihab Abdel-Rahman	813
Paper No. 230: Design and Validation of a Single phase Multi-level Inverter with Reduced Switches Number	Ahmed I. M. Ali Essam E. M. Mohamed Mahmoud Sayed Mahmoud S. R. Saeed, and Ahmed M. Azmy	996
Paper No. 238: Analysis of Selective Harmonic Elimination Pulse Width Modulation for a Three-phase Multilevel Inverter	Abdelwahab Elasawi, and Ahmed Omara	1026
Paper No. 251: A Grid-Connected Current Controlled Granular Multilevel Converter	M. M. El-Zawahry M. I. Marei, and Ahmed A. Abdel Sattar	1097



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Cairo University, Cairo, Egypt, December 18-20, 2018
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Date:	Wednesday 19/12/2018
Time:	12:45-14:15
Location:	Solitaire Hall 2
Session Name:	E6: Power Quality 2
Session Chairman Name:	Professor Zainab M. Osman Fahmy
Affiliation:	Cairo University

Session E6: Papers

Paper	Authors	Proceedings Page No.
Paper No. 185: Voltage Dip's Mitigation during PV-Grid-Connection using STATCOM	Ibrahim Hamdeen Mohammed A. Saeed, and Ebrahim A. Badran	782
Paper No. 204: Modeling, Simulation and Experimental Performance Analysis of PEM Fuel Cell	Asmaa Fared Nasef Heba Abdel Hamid Khattab Ragab Ahmed Amer, and Gamal Abdel-Wahab Morsy	878
Paper No. 209: Effects of Increasing Wind and Solar Power Energy on the Voltage Stability and Losses of the Egyptian Power System	Ibrahim A. Nassar, and Mahmoud Mohamed Abdella	909
Paper No. 232: Optimal Unbalance Mitigation for Three-Phase Distribution Networks Equipped with Single-Phase PV Systems	Naggar Saad Walid El-Khattam, and Ibrahim Saad	1002
Paper No. 259: Voltage Stability Analysis of Distribution Network in Egypt Including UPQC Device	Ayman Awad Abdou Salah Kamel Mamdouh Abdel-Akher, and Francisco Jurado	1137



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Date:	Wednesday 19/12/2018
Time:	15:30-17:00
Location:	Solitaire Hall 2
Session Name:	E7: Power Systems 3
Session Chairman Name:	Professor Ahdab Elmorshedy
Affiliation:	Cairo University

Session E7: Papers

Paper	Authors	Proceedings Page No.
Paper No. 82: Electrical Energy Consumption Forecasting Using Gaussian Process Regression	Mohammed Morad Hossam Abbas Mohammed Nayel Adel Abd Elbaset, and Ahmed Ibrahim	314
Paper No. 83: Thermoelectric Power Generation System-Simulation And Experimental Investigation	Mohamed Elzalik Hegazy Rezk Emad Gameil Jean Thomas, and Ramadan Mostafa	320
Paper No. 153: New Methods for Designing a Grounding System for Future Expansion of High Voltage Substations	Mohamed Khater Emtethal Abdallah, and Nabil Hassan Abbasy	637
Paper No. 208: Attenuation of Transformer Inrush Current Using Controlled Switching System on Delta-Star Transformer	Ahmed Emam Ahdab Elmorshedy, and Mohamed Hashim	904
Paper No. 250: Reliability evaluation incorporating Demand Response and Time varying thermal Ratings of OHLs	Mohamed Abogaleela, and Konstantinos Kopsidas	1091

---[End of Sessions E]---