

# **2019 International Conference on Innovative Trends in Computer Engineering (ITCE 2019)**

**Aswan, Egypt  
2 – 4 February 2019**



**IEEE Catalog Number: CFP19M23-POD  
ISBN: 978-1-5386-5262-6**

**Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP19M23-POD
ISBN (Print-On-Demand):	978-1-5386-5262-6
ISBN (Online):	978-1-5386-5261-9

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

<b>ACCURATE VEHICLE COUNTING APPROACH BASED ON DEEP NEURAL NETWORKS</b> .....	1
<i>Mohamed A. Abdelwahab</i>	
<b>APPLICATION OF FUZZY LOGIC ON ASTRONOMICAL IMAGES FOCUS MEASURE</b> .....	6
<i>Alaa Hamdy ; Farag Elnagahy ; Islam Helmy</i>	
<b>BREAST CANCER DETECTION USING POLYNOMIAL FITTING APPLIED ON CONTRAST ENHANCED SPECTRAL MAMMOGRAPHY</b> .....	11
<i>Shaimaa Mostafa ; Roaa Mubarak ; Mohamed El-Adawy ; Amr F. Ibrahim ; Mohamed M. Gomaa ; Rasha M. Kamal</i>	
<b>NUMPYCNNANDROID: A LIBRARY FOR STRAIGHTFORWARD IMPLEMENTATION OF CONVOLUTIONAL NEURAL NETWORKS FOR ANDROID DEVICES</b> .....	17
<i>Ahmed Fawzy Gad</i>	
<b>SINGLE IMAGE SUPER RESOLUTION BASED ON LEARNING FEATURES TO CONSTRAIN BACK PROJECTION</b> .....	23
<i>Yasser K. Badran ; Gouda I. Salama ; Tarek A. Mahmoud ; Aiman Mousa ; Adel E. Moussa</i>	
<b>CHARACTERIZATION OF THE SOURCES OF DEGRADATION IN REMOTE SENSING SATELLITE IMAGES</b> .....	29
<i>Mohammed S. Hussein ; Mohamed E. Hanafy ; Tarek A. Mahmoud</i>	
<b>INVESTIGATING RELATIONSHIP BETWEEN LATERAL TIME-TO-PEAK (TTP) DISPLACEMENT CURVES AND STIFFNESS OF VISCOELASTIC AGAR-GELATIN PHANTOMS</b> .....	35
<i>Hassan M. Ahmed ; Nancy M. Salem ; Ahmed F. Seddik ; Mohamed I. El-Adawy</i>	
<b>EFFECT OF DIFFERENT SPATIAL RESOLUTIONS OF MULTI-TEMPORAL SATELLITE IMAGES CHANGE DETECTION APPLICATION</b> .....	41
<i>Abdelrahman Yehia ; Hassan Elhifnawy ; Mohammed Safy</i>	
<b>ENHANCEMENT OF ULTRASOUND IMAGES QUALITY USING A NEW MATCHING MATERIAL</b> .....	47
<i>Asmaa Mohamed ; Ashraf A. Wahba ; Ahmed M. Sayed ; Marwa A. Haggag ; Mohamed I. El-Adawy</i>	
<b>AN EFFECTIVE HUMAN ACTION RECOGNITION SYSTEM BASED ON ZERNIKE MOMENT FEATURES</b> .....	52
<i>Saleh Aly ; Asmaa Sayed</i>	
<b>ENSEMBLE OF MULTIPLE CLASSIFIERS FOR AUTOMATIC MULTIMODAL BRAIN TUMOR SEGMENTATION</b> .....	58
<i>Moumen T. El-Melegy ; Khaled M. Abo El-Magd ; Samia A. Ali ; Khaled F. Hussain ; Yousef B. Mahdy</i>	
<b>EFFICIENT PREPROCESSING ALGORITHM FOR ONLINE HANDWRITTEN ARABIC STROKES</b> .....	64
<i>Mohamed Abdelnafea ; Samia Heshmat</i>	
<b>PERFORMANCE EVALUATION OF MEDIUM ACCESS CONTROL PROTOCOLS FOR COGNITIVE RADIO AD HOC NETWORKS</b> .....	76
<i>Shimaa Abdzاهر ; Mohamed Abdrabou ; Ahmed Al-Shami ; Imane Saroit</i>	
<b>ON NETWORK SYSTEMS DESIGN: PUSHING THE PERFORMANCE ENVELOPE VIA FPGA PROTOTYPING</b> .....	80
<i>Ahmed M. Abdelmoniem ; Yomna M. Abdelmoniem ; Brahim Bensaou</i>	
<b>AN AES DOUBLE-LAYER BASED MESSAGE SECURITY SCHEME</b> .....	86
<i>Wassim Alexan ; Ahmed Hamza ; Hana Medhat</i>	
<b>SPEEDUP FOR CRYPTOGRAPHY ON CUDA HETEROGENEOUS ARCHITECTURE</b> .....	92
<i>Hassan Youness</i>	
<b>PERFORMANCE EVALUATION OF BACKHAUL NETWORK IN CLOUD RADIO ACCESS NETWORKS</b> .....	98
<i>Nada Ehab ; Youmna Atef ; Maggie Mashaly</i>	
<b>IMPROVING THE PERFORMANCE OF THE SNORT INTRUSION DETECTION USING CLONAL SELECTION</b> .....	104
<i>Hussein M. Elshafie ; Tarek M. Mahmoud ; Abdelmgeid A. Ali</i>	
<b>EFFECT OF APPLICATION TYPES ON THE PERFORMANCE OF WIFI NETWORKS</b> .....	111
<i>Ahmed M. Mohamed ; Adel Agamy</i>	
<b>SECURE MESSAGE EMBEDDING IN 3D IMAGES</b> .....	117
<i>Salma Elsherif ; Ghadir Mostafa ; Sara Farrag ; Wassim Alexan</i>	

<b>MQL: MIXED QUERY LANGUAGE FOR QUERYING MYSQL AND HBASE DATABASES</b> .....	124
<i>Khaleel Mershad</i>	
<b>IS GPUS READY TO BOOST GENOMIC ALIGNMENT COMPUTATION</b> .....	130
<i>Fuhank Buntara ; Bu-Sung Lee ; Rikky Wenang Purbojati ; Chan Xian Zhou</i>	
<b>GRAMMATICAL FACIAL EXPRESSION RECOGNITION BASING ON A HYBRID OF FUZZY ROUGH ANT COLONY OPTIMIZATION AND NEAREST NEIGHBOR CLASSIFIER</b> .....	136
<i>Mona Gamal Gafar</i>	
<b>GENETIC ALGORITHMS FOR DISCOVERING COMMUNITY CORES HIDDEN WITHIN MULTIDIMENSIONAL SOCIAL NETWORKS</b> .....	142
<i>Moustafa Mahmoud Ahmed ; Yaser Maher Wazery</i>	
<b>RECOMMENDER SYSTEMS CHALLENGES AND SOLUTIONS SURVEY</b> .....	149
<i>Marwa Hussien Mohamed ; Mohamed Helmy Khafagy ; Mohamed Hasan Ibrahim</i>	
<b>AUTOMATED NEGOTIATION FRAMEWORK BASED ON INTELLIGENT AGENTS FOR CLOUD COMPUTING</b> .....	156
<i>D. M. El-Matary ; N. E. El-Attar ; W. A. Awad ; I. M. Hanafy</i>	
<b>A CLOUD-BASED MODEL FOR MEDICAL DIAGNOSIS USING FUZZY LOGIC CONCEPTS</b> .....	162
<i>Hosam F. El-Sofany ; Islam A. T. F. Taj-Eddin</i>	
<b>H-AHEAD MULTIVARIATE MICROCLIMATE FORECASTING SYSTEM BASED ON DEEP LEARNING</b> .....	168
<i>Esraa Elhariri ; Shereen A. Taie</i>	
<b>A FOG-BASED IOT PLATFORM FOR SMART BUILDINGS</b> .....	174
<i>Ghada Alsuhli ; Ahmed Khattab</i>	
<b>CONTEXT-AWARE RECOMMENDER SYSTEM FRAMEWORKS, TECHNIQUES, AND APPLICATIONS: A SURVEY</b> .....	180
<i>Hamdy Fadl Abdulkarem ; Ghada Y. Abozaid ; Mostafa I. Soliman</i>	
<b>EVALUATION OF SCHEDULING TECHNIQUES IN CLOUD DATA CENTERS: SIMULATION AND EXPERIMENTATION</b> .....	186
<i>Maggie Mashaly ; Paul J. Kuehn</i>	
<b>A NOVEL ALGORITHM FOR COURSE LEARNING OBJECT RECOMMENDATION BASED ON STUDENT LEARNING STYLES</b> .....	192
<i>Shaimaa M. Nafea ; François Siewe ; Ying He</i>	
<b>MATCHING TUMOUR CANDIDATE POINTS IN MULTIPLE MAMMOGRAPHIC VIEWS FOR BREAST CANCER DETECTION</b> .....	202
<i>Mohamed Abdel-Nasser ; Antonio Moreno ; Mohamed A. Abdelwahab ; Adel Saleh ; Saddam Abdulwahab ; Vivek K. Singh ; Domenec Puig</i>	
<b>THE STUDY OF PERPENDICULAR DISTANCE APPROACH BASED ON RSSI FOR INDOOR LOCALIZATION</b> .....	208
<i>Ahmed Abdelraouf ; Mohamed Ashour ; Hany F Hammad ; Tallal Elshabrawy</i>	
<b>LABVIEW-BASED INTERACTIVE REMOTE EXPERIMENTATION IMPLEMENTATION USING NI MYRIO</b> .....	214
<i>Mohamad Odema ; Ihab Adly ; Hani A. Ghali</i>	
<b>COMPARATIVE EVALUATION OF PWM TECHNIQUES USED AT MEGA 328/P WITH PI CONTROL FOR INVERTER-FED INDUCTION MOTOR</b> .....	219
<i>Emad H. El-Zohri ; Mohamed A. Mosbah</i>	
<b>HIGH PERFORMANCE CONTROL OF PMSM DRIVE SYSTEM IMPLEMENTATION BASED ON DSP REAL-TIME CONTROLLER</b> .....	225
<i>Y. M. Alsayed ; A. Maamoun ; A. Shaltout</i>	
<b>COMPARATIVE ANALYSIS OF USING SINGLE / THREE-PHASE VOLTAGE-SOURCE FOR SVPWM THREE-PHASE INVERTER FEEDING A PM SERVO MOTOR</b> .....	236
<i>Y. M. Alsayed ; A. Maamoun ; A. Shaltout</i>	
<b>SYSTEM DESIGN AND IMPLEMENTATION OF WALL CLIMBING ROBOT FOR WIND TURBINE BLADE INSPECTION</b> .....	242
<i>Anwar Sahbel ; Ayman Abbas ; Tariq Sattar</i>	
<b>EFFICIENCY IMPROVEMENT AND SAVING ENERGY WITHIN ELECTRO-PNEUMATIC SYSTEM USING VFD - (CASE STUDY: PRODUCTION LINE)</b> .....	248
<i>Esraa M. Abd Elsadek ; Hamdy Ashour ; Ragy Ali Refaat ; Mohamed Mostafa</i>	
<b>AUTOMATIC TRAFFIC VIOLATION RECORDING AND REPORTING SYSTEM TO LIMIT TRAFFIC ACCIDENTS: BASED ON VEHICULAR AD-HOC NETWORKS (VANET)</b> .....	254
<i>Samir A. Elzagheer Mohamed</i>	
<b>CROWD MODELING BASED AUTO ACTIVATED BARRIERS FOR MANAGEMENT OF PILGRIMS IN MATAF</b> .....	260
<i>Samir A. Elzagheer Mohamed ; Mohammad Tanvir Parvez</i>	

<b>COMPACT PLANER UWB ANTENNA FOR HIGH SPEED COMMUNICATIONS</b> .....	266
<i>Ahmed A. Ibrahim</i>	
<b>WIFI ANTENNA DESIGN AND MODELING USING ARTIFICIAL NEURAL NETWORKS</b> .....	270
<i>Passant K. Abbassi ; N. M. Badra ; A. M. M. A. Allam ; Ahmed El-Rafei</i>	
<b>TRI-BAND PASS FILTER USING OPTIMIZED PSI-SHAPED RESONATORS</b> .....	275
<i>Shahenda Hatem ; Hesham A. Mohamed ; Roaa Mubarak ; Korany R. Mahmoud</i>	
<b>A QOS-BASED POWER OPTIMIZATION FOR D2D UNDERLAYING MACRO-SMALL CELLULAR NETWORKS WITH IMPERFECT CHANNEL ESTIMATION</b> .....	281
<i>Engy Aly Maher ; Ahmed El-Mahdy</i>	
<b>RF ENERGY HARVESTING USING TRANSPARENT ANTENNA FOR IOT APPLICATION</b> .....	287
<i>Nermeen A. Eltresy ; Dalia N. Elsheakh ; Esmat A. Abdallah ; Hadia M. Elhennawy</i>	
<b>COMPACT BROADBAND RECTENNA FOR HARVESTING RF ENERGY IN WLAN AND WIMAX APPLICATIONS</b> .....	292
<i>Osama M. A. Dardeer ; Hala A. Elsadek ; Esmat A. Abdallah</i>	
<b>THE EFFECT OF DIFFERENT SURFACE GRATING SHAPES ON THIN FILM SOLAR CELL EFFICIENCY</b> .....	297
<i>Khalil M. Elkhamisy ; S. El-Rabaie ; Salah S. Elagooz ; Hamdy Abd Elhamid</i>	
<b>COMPACT BANDPASS FILTER BASED ON SPLIT RING RESONATORS</b> .....	301
<i>Mohamed Hesham ; Sameh O. Abdellatif</i>	
<b>INVESTIGATING ANTENNA POSITIONING, BEAM WIDTH AND DIRECTION IN INDOOR DAS SYSTEMS TO MEET COVERAGE</b> .....	304
<i>Hadil Hesham ; Yasmine Ayman ; Mohamed Ashour</i>	
<b>CROSS-TIER INTERFERENCE REDUCTION IN MIMO HETEROGENEOUS NETWORK WITH IMPERFECT CSI</b> .....	310
<i>Engy Aly Maher ; Ahmed El-Mahdy</i>	
<b>CLUSTERING OF REMOTE RADIO HEADS IN C-RAN TO MINIMIZE THE NUMBER OF BASE-BAND UNITS</b> .....	316
<i>Hadil Hesham ; Rana Hesham ; Mohamed Ashour</i>	
<b>REMAINING ENERGY AWARE ML-CSMA/TDMA HYBRID MAC PROTOCOL FOR LTE-M2M WIRELESS NETWORK</b> .....	322
<i>Ahmed Naguib ; Waleed Saad ; Mona Shokair</i>	
<b>DESIGN OF AREA EFFICIENT AND LOW POWER 4-BIT MULTIPLIER BASED ON FULL-SWING GDI TECHNIQUE</b> .....	328
<i>Omnia Ali Albadry ; M. A. Mohamed El-Bendary ; Fathy Z. Amer ; Said M. Singy</i>	
<b>PERFORMANCE OF RF UNDERWATER COMMUNICATIONS OPERATING AT 433 MHZ AND 2.4 GHZ</b> .....	334
<i>Salma M. Maher ; Ziad M. Ali ; Haitham H. Mahmoud ; Sameh O. Abdellatif ; Mohammad M. Abdellatif</i>	
<b>A COMPARATIVE STUDY OF RELAYING NETWORKS: AN OUTAGE PROBABILITY APPROACH</b> .....	340
<i>Wassim Alexan ; Rowan Zaki ; Saleh Megahed</i>	
<b>OPTIMIZING GATE-ON-SOURCE OVERLAPPED TFET DEVICE PARAMETERS BY CHANGING GATE DIFFERENTIAL WORK FUNCTION AND OVERLAP DIELECTRIC</b> .....	347
<i>Muhammad Elgamal ; Mostafa Fedawy</i>	
<b>IMPROVEMENT OF ALL DIGITAL INTERFEROMETER FIBER OPTIC GYROSCOPE (IFOG) ACCURACY USING TRUE-LOG AMPLIFIER</b> .....	353
<i>Ahmed El Ghrabawy ; Mostafa Fedawy ; Mohamed S. Elmahallawy</i>	
<b>LOOSE ANIMAL-VEHICLE ACCIDENTS MITIGATION: VISION AND CHALLENGES</b> .....	359
<i>Waleed Saad ; Abdulaziz Alsayyari</i>	
<b>DESIGN OF 6 GHZ HIGH EFFICIENCY LONG RANGE WIRELESS POWER TRANSFER SYSTEM USING OFFSET REFLECTORS FED BY CONICAL HORNS</b> .....	365
<i>Mahmoud Abdelhafeez ; Khalil Yousef ; Mohamed Abdelraheem ; Elsayed Essam M. Khaled</i>	
<b>APPLICATION OF MULTI-VERSE OPTIMIZER FOR TRANSMISSION NETWORK EXPANSION PLANNING IN POWER SYSTEMS</b> .....	371
<i>Abdullah M. Shaheen ; Ragab A. El-Sehiemy</i>	
<b>OPTIMAL ALLOCATION OF DISTRIBUTED GENERATIONS AND CAPACITOR USING MULTI-OBJECTIVE DIFFERENT OPTIMIZATION TECHNIQUES</b> .....	377
<i>Ayat Ali Saleh ; Al-Attar Ali Mohamed ; A. M. Hemeida</i>	
<b>MITIGATION OF ELECTRIC VEHICLES CHARGING IMPACTS ON DISTRIBUTION NETWORK WITH PHOTOVOLTAIC GENERATION</b> .....	384
<i>Morsy Nour ; Abdelfatah Ali ; Csaba Farkas</i>	

<b>OPTIMAL PLACEMENT OF DISTRIBUTED ENERGY RESOURCES INCLUDING DIFFERENT LOAD MODELS USING DIFFERENT OPTIMIZATION TECHNIQUES .....</b>	<b>389</b>
<i>Al-Attar Ali Mohamed ; Shima Mohamed Ali ; A. M. Hemeida ; Abdalla Ahmed Ibrahim</i>	
<b>MODIFIED MAXIMUM POWER POINT TRACKING TECHNIQUE BASED ON ONE CYCLE CONTROL FOR PV APPLICATIONS .....</b>	<b>396</b>
<i>Khalid Awad ; Omar Abdel-Rahim ; Mohamed Orabi</i>	
<b>IMPACT OF OPTIMUM ALLOCATION OF DISTRIBUTED GENERATIONS ON DISTRIBUTION NETWORKS BASED ON MULTI-OBJECTIVE DIFFERENT OPTIMIZATION TECHNIQUES.....</b>	<b>401</b>
<i>Ayat Ali Saleh ; Al-Attar Ali Mohamed ; A. M. Hemeida</i>	
<b>MODELING AND CONTROL OF A CHARGE/DISCHARGE UNIT OF ELECTRIC POWER SYSTEM FOR LOW EARTH ORBIT SATELLITES .....</b>	<b>408</b>
<i>Ahmed Adam Ibrahim ; Sherif Helmy ; Usama Abuzayed ; Ramadan Moustafa</i>	
<b>VOLTAGE/FREQUENCY CONTROL OF ISOLATED UNBALANCED RADIAL DISTRIBUTION SYSTEM FED FROM INTERMITTENT WIND/PV POWER USING FUZZY LOGIC CONTROLLED-SMES.....</b>	<b>414</b>
<i>Hossam S. Salama ; Mohamed M. Aly ; I. Vokony</i>	
<b>RECLOSER-FUSE COORDINATION OF RADIAL DISTRIBUTION SYSTEMS WITH DIFFERENT TECHNOLOGIES OF DISTRIBUTED GENERATION .....</b>	<b>420</b>
<i>Mohamed M. Aly ; Hammad Mahrous ; Mahmoud M. A. Mahmoud</i>	
<b>PERFORMANCE ASSESSMENT OF A REALISTIC EGYPTIAN DISTRIBUTION NETWORK INCLUDING PV PENETRATION WITH DSTATCOM.....</b>	<b>426</b>
<i>Ashraf Ramadan ; Mohamed Ebeed ; Salah Kamel</i>	
<b>SMART CHARGING OF ELECTRIC VEHICLES ACCORDING TO ELECTRICITY PRICE.....</b>	<b>432</b>
<i>Morsy Nour ; Sayed M. Saïd ; Abdelfatah Ali ; Csaba Farkas</i>	
<b>THE WHALE OPTIMIZATION ALGORITHM BASED CONTROLLER FOR PMSG WIND ENERGY GENERATION SYSTEM.....</b>	<b>438</b>
<i>Al-Attar Ali Mohamed ; Ahmed Lotfy Haridy ; A. M. Hemeida</i>	
<b>SUBMERGED SOLAR ENERGY HARVESTERS PERFORMANCE FOR UNDERWATER APPLICATIONS .....</b>	<b>444</b>
<i>Salsabeel Kamal ; Ghazal M. Al-Sayyad ; Rana Abdelmoteleb ; Mohammad Abdellatif ; Sameh O. Abdellatif</i>	
<b>DISTRIBUTION NETWORK RECONFIGURATION USING AUGMENTED GREY WOLF OPTIMIZATION ALGORITHM FOR POWER LOSS MINIMIZATION .....</b>	<b>450</b>
<i>Hanan Hamour ; Salah Kamel ; Loai Nasrat ; Juan Yu</i>	
<b>SIMULATING THE THERMOELECTRIC BEHAVIOUR OF CNT BASED HARVESTER .....</b>	<b>455</b>
<i>Mohamed F. Sanad ; Ahmed Shaker ; Sameh O. Abdellatif ; Hani A. Ghali</i>	
<b>MULTI-OBJECTIVE WHALE OPTIMIZATION ALGORITHM FOR OPTIMAL ALLOCATION OF DISTRIBUTED GENERATION AND CAPACITOR BANK .....</b>	<b>459</b>
<i>Ayat Ali Saleh ; Al-Attar Ali Mohamed ; A. M. Hemeida ; Abdalla Ahmed Ibrahim</i>	
<b>MOST VALUABLE PLAYER ALGORITHM FOR SOLVING DIRECTION OVERCURRENT RELAYS COORDINATION PROBLEM.....</b>	<b>466</b>
<i>Ahmed Korashy ; Salah Kamel ; Abdel-Raheem Youssef ; Francisco Jurado</i>	
<b>IMPACT OF OPTIMAL ALLOCATION OF RENEWABLE DISTRIBUTED GENERATION IN RADIAL DISTRIBUTION SYSTEMS BASED ON DIFFERENT OPTIMIZATION ALGORITHMS.....</b>	<b>472</b>
<i>Shima Mohamed Ali ; Al-Attar Ali Mohamed ; A. M. Hemeida</i>	
<b>AN ENHANCED JAYA OPTIMIZATION ALGORITHM (EJOA) FOR SOLVING MULTI-OBJECTIVE ORPD PROBLEM.....</b>	<b>479</b>
<i>A. F. Barakat ; Ragab A. El-Sehiemy ; Mohamed I. Elsayd ; E. Osman</i>	
<b>DESIGN OF MICROGRID WITH FLYWHEEL ENERGY STORAGE SYSTEM USING HOMER SOFTWARE FOR CASE STUDY .....</b>	<b>485</b>
<i>Abdelmaged M. Aly ; Ahmed M. Kassem ; Khairy Sayed ; Ismail Aboelhassan</i>	
<b>DEVELOPING PHASE-SHIFT PWM-BASED DISTRIBUTED MPPT TECHNIQUE FOR PHOTOVOLTAIC SYSTEMS.....</b>	<b>492</b>
<i>A. Elmelegi ; Mokhtar Aly ; Emad M. Ahmed</i>	
<b>A PARETO STRATEGY BASED ON MULTI-OBJECTIVE FOR OPTIMAL PLACEMENT OF DISTRIBUTED GENERATION CONSIDERING VOLTAGE STABILITY .....</b>	<b>498</b>
<i>Shima Mohamed Ali ; Al-Attar Ali Mohamed ; A. M. Hemeida</i>	
<b>IMPACT OF DISTRIBUTED GENERATION ON RECLOSER-FUSE COORDINATION OF RADIAL DISTRIBUTION NETWORKS.....</b>	<b>505</b>
<i>Aliaa Arafa ; Mohamed M. Aly ; Salah Kamel</i>	
<b>OPTIMAL REACTIVE POWER DISPATCH USING MODIFIED SINE COSINE ALGORITHM.....</b>	<b>510</b>
<i>Said Abdel-Fatah ; Mohamed Ebeed ; Salah Kamel</i>	

<b>DESIGN AND ANALYSIS OF MULTI-PHASE BUCK DC-DC CONVERTERS FOR LI-FI ATTOCELL DRIVERS .....</b>	<b>515</b>
<i>Anwaar M. Damerdash ; Mokhtar Aly ; Emad M. Ahmed</i>	
<b>TECHNO-ECONOMIC FEASIBILITY OF PHOTOVOLTAIC SYSTEM FOR AN EDUCATIONAL BUILDING IN EGYPT (CASE STUDY) .....</b>	<b>521</b>
<i>Mira M. Zarie ; Peter Makeen ; Sameh O. Abdellatif ; I. M. Mahmoud ; T. S. Abdel-Salam</i>	
<b>MACHINE TOPOLOGY FOR INTEGRAL STARTER-GENERATOR IN MORE-ELECTRIC AIRCRAFT .....</b>	<b>526</b>
<i>Ahmed. A. Abdelhafez ; Ali M. Yousef</i>	
<b>DELAY OPTIMIZATION OF 4-BIT ALU DESIGNED IN FS-GDI TECHNIQUE .....</b>	<b>534</b>
<i>Mahmoud Aymen Ahmed ; M. A. Mohamed El-Bendary ; Fathy Z. Amer ; Said M. Singy</i>	
<b>SECURE TRANSMISSION OF SPACE IMAGES USING JOINT ENCRYPTION COMPRESSION .....</b>	<b>538</b>
<i>Essam Abdelwanees ; Ashraf Dida Bayoumy ; Amr Mohamed Abdelaziz</i>	
<b>CELLULAR NETWORK POWER CONTROL OPTIMIZATION USING UNSUPERVISED MACHINE LEARNINGS .....</b>	<b>544</b>
<i>Ayman Gaber ; Mohamed Mahmoud Zaki ; Ahmed Maher Mohamed ; Mohamed Abdellatif Beshara</i>	
<b>DATA SECURITY IN CLOUD COMPUTING USING STEGANOGRAPHY: A REVIEW .....</b>	<b>549</b>
<i>Aya Y. Alkhamese ; Wafaa R. Shabana ; Ibrahim M. Hanafy</i>	
<b>PRACTICAL PERFORMANCE ANALYSIS AND DEVICE SELECTION FOR PHOTOVOLTAIC MULTILEVEL INVERTERS INSTALLATIONS.....</b>	<b>559</b>
<i>Doaa Ramadan ; Mokhtar Aly ; Emad M. Ahmed</i>	
<b>PHOTOVOLTAIC APPLICATIONS FOR LIGHTING LOAD ENERGY SAVING: CASE STUDIES, EDUCATIONAL BUILDING .....</b>	<b>564</b>
<i>Nancy M. Elsayed ; Rania A. Swief ; Sameh O. Abdellatif ; Tarek S. Abdel-Salam</i>	
<b>MODELING THE AUTOMATIC VOLTAGE REGULATOR (AVR) USING ARTIFICIAL NEURAL NETWORK .....</b>	<b>570</b>
<i>Salem Alkhalaf</i>	
<b>COMPARATIVE STUDY TO INVESTIGATE THE EFFECT OF FIVE VS SEVEN SEGMENT MODULATION SEQUENCE ON THE WAVEFORM DISTORTION RESULTED BY THE OVERLAP TIME IN CURRENT SOURCE INVERTER.....</b>	<b>576</b>
<i>Mahmoud G. Sayed ; Omar Abdel-Rahim ; M. Orabi</i>	
<b>SINGLE-PHASE ISOLATED BIDIRECTIONAL AC-DC BATTERY CHARGER FOR ELECTRIC VEHICLE – REVIEW .....</b>	<b>581</b>
<i>Mahmoud Nassary ; Mohamed Orabi ; Maged Ghoneima ; Mohamed K. El-Nemr</i>	
<b>PERFORMANCE ANALYSIS FOR SINGLE-STAGE BUCK-BOOST INVERTER.....</b>	<b>587</b>
<i>Eltaib Abdeen ; Mahmoud A. Gaafar ; Mohamed Orabi</i>	
<b>Author Index</b>	