

# **2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC 2021)**

**Bhubaneswar, India  
26-28 November 2021**



**IEEE Catalog Number: CFP21Q16-POD  
ISBN: 978-1-6654-4300-5**

**Copyright © 2021 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:	CFP21Q16-POD
ISBN (Print-On-Demand):	978-1-6654-4300-5
ISBN (Online):	978-1-6654-4299-2

**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

WIDE BAND ANTENNA ARRAY WITH DGS STRUCTURE FOR MM-WAVE 5G COMMUNICATIONS .....	1
<i>Aafreen Khan, Anwar Ahmad</i>	
DESIGN AND THROUGHPUT ANALYSIS OF 4 BIT ASYNCHRONOUS PIPELINED MULTIPLIER USING NULL CONVENTION LOGIC .....	5
<i>Jayesh Diwan, Nagendra P. Gajjar</i>	
EFFECT OF DEPOSITIONS ON PV PANEL WITH PROPOSAL OF A SELF CLEANING SYSTEM .....	10
<i>Sampurna Panda, Manoj Gupta, C S Malvi, Babita Panda</i>	
OPTIMAL SIZING AND LOCATION OF DG FOR POWER LOSS REDUCTION AND VOLTAGE IMPROVEMENT OF DISTRIBUTION SYSTEM USING IHSA ALGORITHM .....	16
<i>Pesingi Veerendra Rajesh Varma, Manoj Kumar Kar, Arun Kumar Singh</i>	
PERFORMANCE ANALYSIS OF IEEE802.11AX (WI-FI 6) TECHNOLOGY USING MULTI-USER MIMO AND UP-LINK OFDMA FOR DENSE ENVIRONMENT .....	21
<i>Raviraj Ganesh Rathor, Radhika D. Joshi</i>	
SMART METER: IMPACT AND USEFULNESS ON SMART GRIDS .....	28
<i>Soumya Ranjan Biswal, Tanmoy Roy Choudhury, Babita Panda, Byamakesh Nayak, Gopal Chandra Mahato</i>	
CONSTRUCTION AND MODELLING OF HIGHLY STABLE UNMANNED MINI SURVEILLANCE AIRCRAFT .....	34
<i>Rahul Chatterjee, Arindam Basak</i>	
PAPR REDUCTION USING BLEND OF PRECODER AND $\mu$ -LAW COMPANDER IN HACO SYSTEM .....	40
<i>Nishant Sharan, S. K Ghorai, Ajit Kumar</i>	
SAPON APPROACH: A NEW TECHNIQUE FOR LOW POWER VLSI DESIGN .....	45
<i>N Arumugam, M Shakthi Priya, Suntrakanesh Subramanian</i>	
PERFORMANCE EVALUATION OF NODEMCU BASED VEHICLE EMISSION MONITORING SYSTEM.....	51
<i>Siddhartha Nayak, Arindam Basak</i>	
RECENT ADVANCEMENT IN OPTICAL COMMUNICATION USING FEW-MODE FIBERS .....	56
<i>Bhagyalaxmi Behera, Mihir Narayan Mohanty, S K Varshney</i>	
EMD BASED BINARY CLASSIFICATION OF MAMMOGRAMS WITH NOVEL LEADER SELECTION TECHNIQUE.....	62
<i>Anirban Ghosh, Pooja Ramakant, Priya Ranjan</i>	
SCA ASSISTED REDUCED-ORDER MODELLING OF INTERVAL MODELLED DOHA WATER TREATMENT PLANT .....	68
<i>V. P. Meena, Shubham Singh, Meenakshi Kandpal, Rabindra K. Barik, V. P. Singh</i>	
A MINIATURIZED RECTANGULAR SLOTTED PATCH ANTENNA FOR WIFI FREQUENCY RANGE APPLICATIONS .....	74
<i>Jai Mangal, L Abhinav Varma</i>	

A COMPACT FRACTAL ANTENNA FOR ULTRA-WIDE BAND OPERATION .....	79
<i>Biswa Ranjan Swain, Priya Chandan Satapathy, Ashish Kumar Sharma</i>	
COMPARISON OF DC & RF CHARACTERISTICS OF ALGAN/GAN HEMT USING DIFFERENT SURFACE PASSIVATION MATERIALS .....	82
<i>Geeta Pattnaik, Meryleen Mohapatra</i>	
INCORPORATING 5G WITH HUMAN BODY COMMUNICATION THROUGH REDTACTON TECHNOLOGY .....	87
<i>S. Preeti, A. Padhy, R. Swain</i>	
DEVELOPMENT AND PERFORMANCE ASSESSMENT OF BIO-INSPIRED BASED ANN MODEL FOR HANDWRITTEN ENGLISH NUMERAL RECOGNITION .....	91
<i>Ashutosh Rath, Prateek Sarangi, Adyasha Rath, Ganapati Panda</i>	
DESIGN AND ANALYSIS OF 50KW TWO STAGE PHOTOVOLTAIC SYSTEM .....	96
<i>Aditya Ankit Jha, Divyansh Rohatgi, Vishal Kumar, Arpit Patro, Shivam Prakash Gautam, Vikas Kumar</i>	
SIMULATION STUDY OF 10 KW ELECTRIC VEHICLE CHARGING STATION .....	102
<i>Indranil Banerjee, Mayank Mukesh, Shivam Prakash Gautam, Vikas Kumar</i>	
LOW COST SMART-GLASS USING ESP-32 .....	107
<i>Sourav Das, Shubham Saxena, Nirmal Kumar Rout</i>	
DESIGN OF A COMPACT RECONFIGURABLE FILTERING ANTENNA USING P-SHAPED MICROSTRIP FILTER .....	113
<i>Ramesh Boddu, Arindam Deb, Jibendu Sekhar Roy</i>	
AUTOMATED GARBAGE MANAGEMENT SYSTEM FOR SMART CITY APPLICATIONS .....	118
<i>Asma Mohiuddin, Md Iqbal, Nikhil Kumar, Sahil Anjum, Sarita Nanda</i>	
OPTIMAL ANTENNA PLACEMENT IN A DISTRIBUTED ANTENNA SYSTEM USING RSSI OPTIMIZATION FOR INDOOR-TO-OUTDOOR PROPAGATION .....	123
<i>Debolina Brahma, Arindam Deb, Jibendu Sekhar Roy</i>	
ECONOMIC ANALYSIS OF HYDROGEN FUEL CELL BASED HYBRID POWER SYSTEM AS ALTERNATIVE ENERGY SOLUTION .....	127
<i>Debika Debnath, Gopa Laskar</i>	
UTILIZATION OF DOUBLE-FILM TO CONTROL TOTAL REFLECTED AMPLITUDE OF POLARIZED LIGHT .....	132
<i>Moumita Saha, Sumita Deb</i>	
SMART FARMING USING IOT AND LORAWAN .....	138
<i>Subhra Debdas, Srijita Chakraborty, Biswarup Biswas, Sushree Mohapatra, Yana Gupta, Tiyasha Dutta</i>	
BRAIN TUMOR AREA DETECTION USING ANISOTROPIC DIFFUSION AND MORPHOLOGICAL OPERATIONS .....	143
<i>Sucharita Jena, Mamata Panigrahy, Jitendra Kumar Das</i>	
NON-ORTHOGONAL MULTIPLE ACCESS: PROCESSION TOWARDS B5G AND 6G .....	148
<i>Saurabh Srivastava, Prajna Parimita Dash</i>	

DEEP LEARNING BASED NOISE IDENTIFICATION IN THE OPTICAL FIBER COMMUNICATION USING VARIATIONAL MODE DECOMPOSITION.....	152
<i>Nitish Sinha, Manthan Ghosh, Swanirbhar Majumder, Bishanka Brata Bhowmik</i>	
DEEP LEARNING BASED NOISE IDENTIFICATION IN THE OPTICAL FIBER COMMUNICATION USING VARIATIONAL MODE DECOMPOSITION.....	157
<i>Nitish Sinha, Manthan Ghosh, Swanirbhar Majumder, Bishanka Brata Bhowmik</i>	
TEMPERATURE DEPENDENT LINEARITY/HARMONIC ANALYSIS FOR FINFET AND GATE ALL AROUND (GAA) NANOWIRE FET.....	162
<i>Rinku Rani Das, Atanu Chowdhury, Apurba Chakraborty</i>	
GLIOMA SEGMENTATION FROM MULTIMODAL MRI USING U-NET CONVOLUTIONAL NEURAL NETWORKS.....	168
<i>Syed Samiul Islam, A. B. M. Aowlad Hossain</i>	
INSULATED SHALLOW EXTENSION DUAL METAL JUNCTIONLESS ACCUMULATION MODE MOSFET (ISE-DMJAM-MOSFET) .....	173
<i>Anupama, Sonam Rewari, Neeta Pandey</i>	
PERFORMANCE COMPARISON OF DIFFERENT CS BASED RECONSTRUCTION METHODS FOR WSN APPLICATION .....	177
<i>D. Nayak, K. B. Ray, T. Kar</i>	
A CIRCULARLY POLARIZED FIBONACCI SERIES-INSPIRED-ELLIPTICAL PATCH ANTENNA FOR UWB RADIATION.....	182
<i>Ananda Kumar Behera, Diptimayee Konhar, Debasis Mishra, Suwendu Narayan Mishra</i>	
ENHANCEMENT IN GAIN OF A COMPACT UWB VIVALDI ANTENNA BY USING ZERO INDEX METAMATERIAL ARRAY .....	186
<i>Oishik Mukherjee, Shankha Subhra Sarkar, Abhik Gorai, Rowdra Ghatak</i>	
DESIGN OF LOW COST VOICE OPERATED VENDING MACHINE USING V3 MODULE.....	190
<i>M. G Caleb Gangmei, Salam Surjit Singh, Biraj Shougaijam</i>	
A DECENTRALIZED NETWORK TO SECURE SMART GRID TRANSACTIONS USING ETHEREUM ON RISC-V .....	194
<i>Mahendra Swain, Dilip Lilaramani, G Mahesh, A K Srivastva</i>	
AN ENERGY EFFICIENT NODE LOCALIZATION ALGORITHM FOR WIRELESS SENSOR NETWORK .....	200
<i>Sasmita Padhy, Sachikanta Dash, Prince Priya Malla, Sidheswar Routray, Yinan Qi</i>	
DESIGN & ANALYSIS OF A PV-FUEL CELL-BASED STANDALONE DC MICROGRID IN TRIPURA .....	205
<i>Anindita Deb, Abhishek Debnath, Joyanta Yadav, Sunanda Chowdhury, Bijaya Paul</i>	
A NOVEL ENERGY MANAGEMENT ALGORITHM FOR SOLAR BASED ELECTRIC VEHICLE.....	211
<i>Rishav Das, Chandra Prakash Shrivastava, Harsh Kejriwal, Aditya Anand, Akshaya Kumar Pati</i>	
DESIGN OF A MILLIMETER WAVE ANTENNA USING MIMO FOR 5G APPLICATIONS.....	217
<i>Bylapudi Rama Devi, Challa Niharika, Alavilli Moulika Lakshmi, Durgasi Jayaram, Bommiidi Tarun</i>	

CNN BASED DESIGN RULE CHECKER FOR VLSI LAYOUTS .....	224
<i>Eshan Saraogi, Giriraj Singh Chouhan, Dipesh Panchal, Manish I. Patel, Ruchi Gajjar</i>	
SELECTION OF GRADIENT DESCENT OPTIMIZERS FOR CONVOLUTIONAL NEURAL NETWORK BASED BRAIN TUMOR DETECTORS .....	230
<i>Arjita Chatterjee, Abhisansa, Sonali Sulgna Mohanty, Sunil Kumar Mishra, Bhargav Appasani, Amitkumar Vidyakant Jha</i>	
COMPACT ELLIPTICAL SLOTTED ANTENNA WITH MULTI BANDS NOTCHED FOR UWB APPLICATIONS .....	236
<i>Srilata Basu, Sasmita Pahadsingh, Sudhakar Sahu</i>	
INVESTIGATION OF PULSE POWER TECHNOLOGY FOR CRIMPING OF ELECTRICAL CABLES.....	242
<i>Rajat Saxena, Surender Kumar Sharma</i>	
ANDROID BASED CLOUD PLATFORM FOR HEALTH MONITORING OF COVID19 AFFECTED PERSON.....	247
<i>Rajdeep Das, Nishita Sinha, Sunil Kumar Mishra, Barbie Banashri Gowalla, Utkarsha Rout, Akshaya Kumar Pati, Tanishka Chhabra</i>	
CONCENTRATION MEASUREMENT OF GLUCOSE, SUCROSE AND POTASSIUM CHLORIDE IN BLOOD USING PHOTONIC CRYSTAL FIBER .....	252
<i>Bhukya Arun Kumar, Sanjay Kumar Sahu, Gopinath Palai</i>	
A SLOT COUPLED PARASITIC DRA ANTENNA USING EBG WALL FOR HIGH GAIN USED FOR RADIO ASTRONOMY AND SPACE TO EARTH APPLICATIONS .....	256
<i>D Venkatachari, Sudhakar Sahu</i>	
ANT COLONY OPTIMIZATION BASED QOS ROUTING IN MOBILE AD HOC NETWORK: A MOBILITY MODEL IN URBAN ENVIRONMENTS .....	261
<i>Sanjaya Kumar Sarangi, Mrutyunjaya Panda</i>	
DESIGN OF SLOT COUPLED MULTIBAND ANTENNA FOR C-BAND AND X-BAND APPLICATIONS.....	268
<i>Dhavaleswarapu Venkatachari, P S Kameswararao, S Shivani, P Mohan Ganesh, S Sumanth</i>	
TRANSFER LEARNING BASED COVID-19 DETECTION USING RADIOLOGICAL IMAGES .....	273
<i>Aurosweta Mahapatra, Sasmita Pahadsingh, T. Kar</i>	
COPLANAR WAVEGUIDE FED METASURFACE ANTENNA FOR WIDEBAND APPLICATIONS.....	277
<i>Shaik Abdul Khadar, Sudhakar Sahu</i>	
CHANNEL ESTIMATION OF MIMO-NOMA SYSTEM BASED ON A VARIABLE FORGETTING FACTOR RECURSIVE LEAST SQUARE ALGORITHM .....	280
<i>Ankit Nayak, Manidipa Sarkar, Swetaleena Sahoo, Sarita Nanda</i>	
AN IMPROVED ADAPTIVE SYSTEM IDENTIFICATION METHOD FOR A NONLINEAR SPARSE SYSTEM BY CONVEX COMBINATION OF ALGORITHMS .....	285
<i>Rosalin, Nirmal Kumar Rout, Debi Prasad Das</i>	
VERILOG-HDL BASED IMPLEMENTATION OF SUM OF ABSOLUTE DIFFERENCE ARCHITECTURE USING ADDER COMPRESSORS .....	290
<i>Sibi Karthikeyan Selvan</i>	

A NOVEL OCTAGONAL PATCH ANTENNA WITH OPTIMIZED FEED AND MODIFIED GROUND FOR 5G COMMUNICATIONS .....	295
<i>Shaktijeet Mahapatra, Mihir Narayan Mohanty</i>	
DESIGN OF KU BAND DOWNLINK ARRAY ANTENNA WITH SIO2 SUBSTRATE FOR GAIN ENHANCEMENT.....	299
<i>Sarmistha Satrusallya, Mihir Narayan Mohanty</i>	
DIFFERENCE BETWEEN ALZHEIMER’S DISEASE AND MILD COGNITIVE IMPAIRMENT: Z-TEST BASED STUDY .....	305
<i>Abhijit Chandra, Subhabrata Roy</i>	
A NETWORK INTRUSION DETECTION SYSTEM BASED ON ENSEMBLE MACHINE LEARNING TECHNIQUES.....	310
<i>Prachiti Parkar</i>	
EFFICIENT DESIGN OF MULTIPLIER USING EGDI TECHNIQUE.....	316
<i>E. Jagadeeswara Rao, K. Murali Krishna, Miranji Katta, Kalesh Busa</i>	
A SYSTEMATIC ANALYSIS OF LOW POWER AND LOW AREA MULTIPLIERS BY EVADING WASTAGE OF ENERGY .....	323
<i>J. Sudhkar, E. Jagadeeswara Rao, D. Sravani</i>	
ASPECT RATIO ESTIMATION FOR MOS AMPLIFIER USING MACHINE LEARNING.....	329
<i>Jeenang Shah, Harshil Patel, Ruchi Gajjar, Dipesh Panchal, Manish I. Patel</i>	
SOLUTION TO DYNAMIC ECONOMIC DISPATCH PROBLEM IN THE CURRENT POWER SYSTEM SCENARIO USING SPOTTED HYENA OPTIMIZER.....	335
<i>Jagannath Paramguru, Subrat Kumar Barik, Arun Kumar Sahoo, Adapa Sudhir Kumar</i>	
FUZZY LOGIC BASED SENSORLESS CONTROL OF FIVE PHASE IPMSM DRIVES THROUGH HF-SVI INTO THIRD HARMONIC SPACE.....	341
<i>T Vemagiri, Sridhar Savarapu</i>	
PERFORMANCE ANALYSIS OF REGENERATIVE BRAKING IN ELECTRICAL VEHICLES WITH IPMSM DRIVE SYSTEM BY USING ANN CONTROLLER .....	347
<i>Lakshmireddy Surapureddygari, Sridhar Savarapu</i>	
RESPIRATORY SIGNAL CLASSIFICATION BY CGAN AUGMENTED EMD-SCALOGRAMS.....	354
<i>S. Jayalakshmy, Gnanou Florence Sudha</i>	
PATTERN RECOGNITION TECHNIQUE BASED FAULT DETECTION IN MULTI-MICROGRID .....	359
<i>Balamurali Krishna Ponukumati, Pampa Sinha, Manoj Kumar Maharana, Chitrlekha Jenab, A V Pavan Kumar, Karthik Akkenaguntla</i>	
POWER SYSTEM FAULT DETECTION USING IMAGE PROCESSING AND PATTERN RECOGNITION.....	365
<i>Balamurali Krishna P, Pampa Sinha, Manoj Kumar Maharana, Chitrlekha Jena, A V Pavan Kumar, Karthik Akkenaguntla</i>	
REDUCED SWITCH MULTI-LEVEL INVERTER WITH FAULT RESILIENT ABILITY FOR OFF GRID APPLICATIONS.....	370
<i>C. Pavan Kumar, N. Karthick, A. Madhukar Rao</i>	

MULTI-MODAL BIOMETRIC SYSTEM FOR FACE AND FINGERPRINT USING CONVOLUTIONAL NEURAL NETWORK.....	377
<i>Sujana S, V. S. K. Reddy</i>	
INVESTIGATION OF LIQUID DIELECTRIC PROPERTY USING CIRCULAR SPLIT-RING RESONATOR ANTENNA.....	383
<i>Puneet Sehgal, Kamlesh Patel</i>	
MOBILE LOCATION MANAGEMENT BASED ON REPORTING CELL PLANNING AND DIFFERENTIAL EVOLUTION APPROACH.....	387
<i>Vedaant Singh, Srishty Singh, Swati Swayamsiddha, Sudhansu Sekhar Singh</i>	
PERFORMANCE ANALYSIS OF PASSIVE HARMONIC FILTERS IN HVDC TRANSMISSION SYSTEM.....	392
<i>Banishree Misra, Poonam Tripathy, Silpashree Sahu</i>	
PERFORMANCE ANALYSIS OF ZN(O, S)/CDTE SOLAR CELL WITH BACK SURFACE FIELD CONTACT.....	398
<i>Ipsita Jena, R. Prasad, Udai P. Singh</i>	
DESIGN AND CONTROL OF SINGLE-PHASE SOLAR PV INVERTER WITH MPPT ALGORITHM.....	403
<i>Raj Laxmi, Pradeep Kumar Sahu, Satyaranjan Jena, Anuj Kumar Achrya, Srinibasa Padhy, Suchismita Roy</i>	
DESIGN OF AN ENERGY EFFICIENCY COMPARATOR USING DYNAMIC CANCELLATION.....	408
<i>V. Deepika, Sangeetha Singh</i>	
ASSESSMENT OF MENTAL STRESS FROM LIMITED FEATURES BASED ON GRU-RNN.....	412
<i>Sambit Prasad Kar, Nirmal Kumar Rout, Jonathan Joshi</i>	
A COMPARATIVE ANALYSIS OF NUMERICAL ITERATIVE METHODS FOR POWER FLOW USING IEEE 5-BUS TEST SYSTEM.....	416
<i>Ravi Shankar Tiwari, Anurag Priyadarshi, Om Hari Gupta</i>	
LOW COST IMPLEMENTATION OF DTC-SVM OF INDUCTION MOTOR USING ARDUINO UNO.....	422
<i>Y. Laxmi Narsimha Rao, G. Ravindranath</i>	
OPTICAL CARRIER SUPPRESSION BASED SINGLE SIDEBAND MILLIMETER WAVE TRANSMISSION FOR 5G ROF SYSTEM.....	426
<i>Asha, Sandeep Dahiya</i>	
IMPROVEMENT OF DENOISING IN IMAGES USING GENERIC IMAGE DENOISING NETWORK (GID NET).....	432
<i>Koustav Dutta, Rasmita Lenka, Md Selim Sarowar</i>	
A REVIEW ON SIGN LANGUAGE RECOGNITION SYSTEMS.....	438
<i>Rajiv Ranjan, B Shivalal Patro, Mohammad Daim Khan, Manas Chandan Behera, Raushan Kumar, Utsav Raj</i>	
A SIMPLE ACTIVE GATE DRIVER CIRCUIT TO REDUCE SWITCHING OSCILLATIONS AND OVERSHOOT.....	443
<i>Tushar Janarao Nistane, Samarjeet Singh, Jaryaraman Kalaiselvi</i>	



METASURFACE FOR INDEPENDENT CONTROL OF REFLECTION AMPLITUDE .....	449
<i>Subhagya Pani, Amit Kumar Sahu, Deepak Kumar Naik, Rajeev Kumar Parida, Dhruba Charan Panda</i>	
KNOWLEDGE-EMBEDDED MGGP MODEL FOR RESONANT FREQUENCY OF MICROSTRIP ANTENNA.....	452
<i>Deepak Kumar Naik, Amit Kumar Sahu, Rajeev Kumar Parida, Dhruba Charan Panda, Rabindra Kishore Mishra</i>	
KU-BAND TUNABLE BANDSTOP FILTER USING RF MEMS .....	455
<i>Amit Kumar Sahu, Rajeev Kumar Parida, Deepak Kumar Naik, Subhagya Pani, Dhruba Charan Panda</i>	
FREQUENCY REGULATION IN HYBRID RENEWABLE POWER SYSTEM USING FRACTIONAL ORDER PID UNDER VARIOUS UNCERTAINTIES .....	458
<i>Swati Smaranika Mishra, Chitralkha Jena, Prakash Kumar Ray</i>	
INTERFERENCE NULLING OVER BROAD ANGULAR REGION USING MODIFIED BINARY CAT SWARM OPTIMIZATION .....	464
<i>Sahiti Vankayalapati, Lakhsman Pappula, Ktps Kumar</i>	
IMPLEMENTATION OF FIREFLY ALGORITHM FOR REAL TIME ECONOMIC LOAD DISPATCH WITH CONSIDERATION OF WIND POWER .....	468
<i>Pravat Biswal, Rishi Kumar Khanna, Manoj Kumar Beuria, Suman Roy</i>	
ON THE ANALYSIS OF SEQUENCES GENERATED BY S-BOXES CASCADED WITH S-LFSRS .....	472
<i>Sangsaptak Pal, Poulomee Ghosh, Suman Roy, Pravat Biswal</i>	
FREQUENCY CONTROL OF HYBRID ISOLATED MICROGRID USING DROOP CONTROL.....	476
<i>Bhagabat Panda, Babita Panda, Bibhu Prasad Nanda, Snigdha Devi, Nandanandan Moharana</i>	

**Author Index**