

2016 IEEE 7th Power India International Conference (PIICON 2016)

**Bikaner, Rajasthan, India
25-27 November 2016**

Pages 1-599



**IEEE Catalog Number: CFP1611A-POD
ISBN: 978-1-4673-8963-1**

**Copyright © 2016 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:	CFP1611A-POD
ISBN (Print-On-Demand):	978-1-4673-8963-1
ISBN (Online):	978-1-4673-8962-4

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
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

7th IEEE Power India International Conference 2016

Contents

Pg. No.	Paper ID	Title	Authors Names
1	2	A Topology Selection: An Isolated Flyback Converter	T. Halder
7	14	Micro controller based solar power system with grid synchronization	Amish Chauhan, Anand Panchbhai, Hiren Shah
13	18	Transient Stability and Other Important Aspects of Power System in Multi-DG Environment	Soumesh Chatterjee, Biman Kr. Saha Roy
17	24	Analysis of Faults on Series Compensated EHV Transmission Line in The Presence of Wind Generation	Aniva Sharma, Sheesh Ram Ola, Om Prakash Mahela
23	25	Deregulation of Transmission Pricing :MW-Mile Method	N.K.Garg, D.K. Palwalia
28	28	Diagnosis of Present-Day Cellulosic Insulating Materials used in Electrical Power Industry	Sakshi Singh, M. M. Mohsin, and Aeجاز Masood
32	30	An Approach to Identify Critical On Load Tap Changing (OLTC) Transformers under Network Contingencies	Gyara Mahendar, G.Yesuratnam
38	34	Power Quality Improved 18-pulse VSC based BTB HVDC System with Reduced Current Sensors	Ruchi Agarwal, Sanjeev Singh
43	39	A Novel Design of Tactile Sensor using Piezoresistive Cantilever for Robotic Application	Shweta Jain and Deepak Bhatia
48	43	Variable step Learning Based Control Algorithm for Power Quality in PMSG Based Power Generation System	Ashish Patel, Sabha Raj Arya and Anjana Jain
54	54	Composite Observer Based Control Technique for Single-Phase Solar PV-Grid Tied System	Rahul Agarwal, Ikhlāq Hussain and Bhim Singh
60	56	Experimental Analysis of Proposed SP-TCT, TCT-BL and CT-HC Configurations under Partial shading Conditions	Amit Kumar, Rupendra Kumar Pachauri and Yogesh Kr Chauhan
66	57	Control of Active and Reactive Power of Grid Connected Inverter using Adaptive Network based Fuzzy Inference System (ANFIS)	Sushma Kakkar, Dr. Rajesh Kumar Ahuja and Dr. Tanmoy Maity
71	58	Control of Standalone Wind/PV Hybrid Renewable Power Generation	Sushma Kakkar, Dr. Tanmoy Maity and Dr. Rajesh Kumar Ahuja
76	59	Regulating frequency of supply voltage using matrix converter and comparative evaluation with double end converter	Arnav Kundu and Panduranga Vittal
82	61	Detection of Power Quality Disturbances in the Utility Grid with Solar Energy Using S-Transform	Kavita Kumari, Atul Kumar Dadhich and Om Prakash Mahela
88	62	Optimal Capacitor Placement in Distribution System Using Genetic Algorithm	Sushma Lohia, Om Prakash Mahela and Sheesh Ram Ola
94	68	Performance Evaluation of D-STATCOM For Mitigation of Power Quality Problems At Different Source And Load Side Fault Conditions	Meenakshi Rastogi, Abdul Hamid Bhat and Aijaz Ahmad Zargar
100.	69	Performance of 1 MW Photovoltaic System in Rajasthan: A Case Study	Ankit Kumar Sarraf, Sunil Agarwal and Dinesh Kumar Sharma
105	74	The Cross Border Power Trading for Humanity & Friendship	Tapas Halder
111	75	Optimal Sizing of a PV/Wind Hybrid System using Pigeon Inspired Optimization	Aeidapu Mahesh and Kanwarjit Singh Sandhu
117	76	Dual Output Cuk Converter fed Switched Reluctance Motor Drive	Aniket Anand and Bhim Singh
123.	79	Design and Simulation of Vibration based Energy Harvesting Device with Stepped cantilever beams	Aishwarya Maheshwari and Deepak Bhatia
127	81	Application of Stockwell Transform in Bearing Fault Diagnosis of Induction Motor	Megha Singh and Abdul Gafoor Shaik
133	85	Comparative Analysis of Fault Resistance Compensation Methods for Mutually Coupled Parallel Transmission Lines	Shalvi Raut, Apurva Dehankar, Pallavi Bharti and Snehal Unde, Dr. S.S. Damdhare
138	89	Maximum Power Factor Based Vector Control Approach for Synchronous Reluctance Motor Driven Solar PV array Fed Water Pumping System	Bhim Singh and Anshul Varshney
144	90	Performance Comparison of Reference Current Extraction Techniques for Indirect Current Control Based Shunt Active Filter	Niharika Gotherwal, Soumyadeep Ray, Nitin Gupta and Jitendra Kumar Nama
150	91	Voltage and Frequency Control in a Wind-PV-Biogas Based Rural Microgrid with Limited Grid Operation	Dinesh Yadav and Trilochan Bhatti

156	92	A Novel DG Allocation Method For Power Loss Reduction In Radial Distribution System	Sarfraz Nawaz, Ajay Bansal and Mahavir Sharma
160.	97	Fault Location in Distribution Network with Distributed Generation: An Overview and Key Issues	Ranjeet Kumar and Dipti Saxena
166	98	Dual PID Loop Controller for HF Link Inverter in Two-Stage SST	Vineeta Agarwal and Rajneesh Bhaskar
170	99	Capacitor Voltage Balancing in Back-to-Back Modular Multilevel Converter	Rajneesh Bhaskar and Vineeta Agarwal
175	106	A Study on the PV potential analysis for grid connected PV system in NIT Rourkela	Rakesh Tarai, Mihir Kumar Sahoo, Vishal Minz and Paresh Kale
181	108	Parameter Dependent Invariant Manifolds To Construct Approximate Slow and Fast Models of a Multi Machine Power System	Sunitha Anup, T S Bhatti and Ashu Verma
187	109	Thyristor Converters are more energy Efficient than Diode Converters for the Electrolysis of the non-ferrous metals-A case study in Aluminium Smelters at Hindalco, India	Sharavan Kumar Jhahharia
192	110	Wind Solar Hybrid System – An innovative and Smart Approach to Augment Renewable Generation and Moderate Variability to the Grid	Subrata Mukhopadhyay, Vinod Agrawal, Archit Khemka, Krishna Manohoran and Dheeraj Jain
197	111	Artificial Neural Network based Three Phase Shunt Active Power Filter	Seema Agrawal, Prakash Kumar and Dheeraj Kumar Palwalia
203	113	Effect of Coil Geometry and Shielding on Wireless Power Transfer System	Kavitha Merugu, Phaneendra Babu Bobba and Dinkar Prasad
209	114	Effects of Coil Misalignment in a Four Coil Implantable Wireless Power Transfer System	Benny Varghese, Phaneendra Babu Bobba and Kavitha Merugu
214	117	Influence of distributed generation penetration level on performance indices of unbalance radial feeder	Jagdish Sharma, H. Ravishankar Kamath and Asheesh Shah
218	119	Voltage Stability Monitoring by Different ANN Architectures using PCA based Feature Selection	Harita Shah and Kusum Verma
224	120	Analysis of Faults in Power System Network in the Presence of Series Compensated EHV Transmission Lines	Aniva Sharma, Sheesh Ram Ola and Om Prakash Mahela
230	121	An Improved Topology of Reduced Switch Seven Level Inverter using Filters for THD Reduction	Ajay Singh Naruka, Dinesh Kumar Yadav
235	122	Direct Torque and Power Controlled PMSM Drive	Menka Dubey, Rakesh Saxena and Shailendra Sharma
241	124	Simulation and Hardware of Multi-Pulse Rectifier for More Electric Aircraft	Anand Panchbhai, Yash Patel and Nikunj Prajapati
247	128	Comparative Study of FACT Devices used for Stability Enhancement of off Shore Integrated Multi Machine System	Gottipati Ravibabu and Tenepalli Gowri Manohar
253	131	Hybrid Topology for Multilevel Inverter with Reduced Circuit Switches using Carrier based PWM Scheme	Kishor Thakre, Kanungo Barada Mohanty, Ashwini Kumar Nayak and Rabi Narayan Mishra
258	132	Development & simulation of dynamic conductance based High Intensity Discharge lamp model driven by Low Frequency Square Wave electronic ballast	Biswadeep Gupta Bakshi and Biswanath Roy
264	133	Free Space Optical Link Performance Evaluation with Different Atmospheric Conditions at Different Power and Diversity	Manisha Prajapat and Chetan Selwal
268	137	Comparative Analysis of Power Quality using Wavelets for Real Time Implementation	Sangeeta Mahaddalkar and Dr. Vinayak Shet
272	143	Damping of Power System Oscillations using RCGA optimization based TCSC controller	Qurratul Ain, Salman Hameed, Adil Iqbal, Kumail Hasan and Nadeem Ahmad
278	145	A Novel PWM Control For Asymmetric Multilevel Inverter Based on Half Bridge Module	Rakesh Kumar Kumawat and Dhreej Kumar Palwalia
283	147	Optimal Placement of Renewable DGs in balanced radial distribution system	Surender Singh Tanwar, D. K . Khatod
289	148	Energy and Exergy Analysis of an Irreversible Thermionic Generator	Ravita Lamba and S.C. Kaushik
295	149	An Optimal Phase Balancing Technique for Unbalanced Three-Phase Secondary Distribution Systems	Swapna Mansani and Udaykumar R Y
301	150	Robust Digital Relaying Scheme to Prevent the Miscoordination of Recloser-Fuse in Distributed Generation	Shiv Kumar, Vipin Kumar Jain and Neeraj Kumar Garg
306	152	Detection of Transmission Line Faults in the Presence of Wind Power Generation Using Discrete Wavelet Transform	Toshiba Suman, Om Prakash Mahela and Sheesh Ram Ola
312	160	Design & Analysis of D-STATCOM for Power Quality Improvement using ICCT with Conventional Controllers	Javed Khan Bhutto and Richpal Bana

318	163	Economic Environmental Dispatch with PV Generation Including Transmission Losses using PSO	Ajay Wadhawan, Preeti Verma, Sonia Grover and Himanshu Anand
324	164	Distance Protection of lines connected to Doubly Fed Induction Generator based wind farms	Vaishnavi Phadke, Akshata Rajput, Swarada Patradkar and Snehal Unde
330	167	Design and Analysis of TZ-Source Inverter for Integration of Renewable Energy	Ganesh N. Jadhav and Gaurav R. Dhikale
336	169	Designing of Electronic Load Controller for 3- ϕ SEIG used in Constant Power Prime-Mover Driven Pico/Micro Hydro Power Generation System	Umesh Rathore and Sanjeev Singh
342	172	A New Method for the Estimation of Time Difference of Arrival for Localization of Partial Discharge Sources using Acoustic Detection Technique	Riddhi Ghosh, Biswendu Chatterjee and Sovan Dalai
347	175	Investigation of Charge Trapping Behavior of LDPE using De-trapping Characteristics	Nasirul Haque, Biswendu Chatterjee, Sivaji Chakravorti and Sovan Dalai
352	177	Generation Adequacy Assessment for Microgrid with ESS	Rohikaa Micky R, Lakshmi R, Sunitha R and Ashok S
358	181	A New Binary Hybrid Cascaded H-Bridge Multi Level Converter For Power Quality Applications	Nirmal Mukundan and Dr.Jayaprakash P.
364	186	Stacked Switched Capacitor Architecture using Electrolytic Capacitors for size reduction	Mishal Rizwan, Faran Irshad and Nauman Zaffar
369	188	Multi-objective Economic Emission Load Dispatch Using Modified Biogeography Based Optimization Algorithm	Deblina Maity, Sumit Banerjee and Chandan Kumar Chanda
375	194	Torque Control of Microturbine Based Distributed Generation System	Mehul Saxena and Rupendra Pachauri, Yogesh Chauhan
381	195	Primary Frequency Support by Virtual Synchronous Generator with Precise Frequency Detection Techniques	Ganesh N. Jadhav and Omkar N. Buwa
387	204	Evaluation of Optimal Capacity of Pump Storage System in Standalone Green Microgrid with Resource Full Use of RES in Deregulated Power Sector	Digambar Singh and Yog Raj Sood
393	205	Small Signal Stability Enhancement of Multimachine Power System Stabilizer using Cuckoo Search Algorithm	Dhanraj Chitara, K. R. Niazi, Anil Swarnkar and Nikhil Gupta
399	209	Stability enhancement of DC-DC converters using robust droop control scheme and circulating current elimination in dc micro-grid	Amrita Jain, Shobhit Jain and Dheeraj Kumar Palwalia
405	212	Modified MISO DC-DC Converter Based PV Water Pumping System	Anuradha Tomar and Sukumar Mishra, Chandrashekhar N. Bhende
411	219	A New Multilevel Inverter for Grid Connection of PV modules	Rekha Agrawal and Shailendra Jain
417	222	Employment Creation and Human Development Index analysis of renewable mix in island mode	Ranjeeta Khare and Yogendra Kumar
423	226	A Thyristorised Phase-Controlled Cycloconverter Based Power Electronic Transformer for Grid Integration of Renewable Energy Sources	G Bhuvaneswari, Shuvam Gupta, Sunita Singh, Bhim Singh and Ned Mohan
429	227	Design and Simulation of a Solar Powered DC Home with Grid and Battery Back-up	G Bhuvaneswari, Apurva Jain, Deepu Vijay and Bhim Singh
435	230	Over Current Relay Coordination of Modified IEEE Test Systems with Distributed Generation Using Genetic Algorithm Approach	Sujo George and Ashok S
440	233	A Study of Performance Analysis of PKL electricity generation Parameters	Md. Kamrul Alam Khan, Md. Siddikur Rahman, Ripan Kumar Kundu, Shuva Paul, Md. Mahmudul Hasan, Mohammad Moniruzzaman and Mohammad Al Mamun
446	234	Comparison Between Conventional and Advance Maximum Power Point Tracking Techniques for Photovoltaic Power System	Tuna Nahak and Yash Pal
451	237	A Controller for Switch Reluctance Motor Drive using Sensorless Technique	Manish Tater and Lini Mathew
456	240	Detection of Transmission Line Faults in the Presence of Solar PV Generation Using Discrete Wavelet Transform	Toshiba Suman, Om Prakash Mahela and Sheesh Ram Ola
462	242	Chattering Free Sliding Mode Controller for Load Frequency Control of Multi Area Power System in Deregulated Environment	Vimala Kumar, Thalluru Anilkumar and V. Ganesh
467	247	A Non-Linear Adaptive Control Strategy for Grid Connected DC Microgrid	Subham Sahoo, Surya Prakash and Sukumar Mishra, Narayan Prasad padhy
472	254	Investigation on Dielectric Properties of HDPE with Alumina Nano Fillers	Ramkumar R and Pugazhendhi Sugumaran C
476	261	Control and Operation Of Grid-Connected Solar Photovoltaic For DC Microgrid Application	Kritgya Bawal, Ramjee Lal Meena, Avik Bhattachraya and Dheeraj

			Khatod
481	263	Implementation of a Fuzzy Logic Based Perturb and Observe Approach for Maximum Power Point Tracking of Solar PV Modules	Gajendra Singh, Mayand Siwasia, Shashank Vyas and Rajesh Kumar
487	264	An Analytical Approach for Placement of Distributed Generation in Balanced Radial Distribution System Considering Load Variation	Prem Prakash and Dr Dheeraj Kumar Khatod
493	266	A State of Art Review and Challenges with Impedance Networks Topologies	Akhilesh Gupta, Paulson Samuel and Deepak Kumar
499	267	A Preliminary Study Towards Conceptualization and Implementation of a Load Learning Model for Smart Automated Demand Response	Ajay Singh, Shashank Vyas and Rajesh Kumar
505	270	Small Signal Stability and Coherency Analysis of Northern Regional Power Grid of India	Lalit Kumar and Nand Kishor
510	273	MRAS Based Speed Estimation of Single Stage Solar Powered Vector Controlled Induction Motor Drive For Water Pumping	Saurabh Shukla and Bhim Singh
516	276	High Gain Fourth-order Boost Converter For DC-grid Applications	Mummadi Veerachary
522	281	Modelling of Neutral Point Clamped based VSC-HVDC System	Dheeraj Kumar Saini, Shagufta Khan and Dr. Suman Bhowmick
528	286	Solar PV Based Single Stage Cascaded Seven Level Converter for Grid Interfaced Systems	Nidhi Mishra and Bhim Singh
533	290	Fuzzy Logic Control of OWC Wave Energy Plant for Preventing Wells Turbine S-talling	Sunil Kumar Mishra, Shubhi Purwar and Nand Kishor
539	291	Hysteresis Current Control of Switched Reluctance Motor Using Three Term Inductance Model	Srinivas Pratapgiri
545	294	ANFIS Based Energy Management Strategy for PV/Wind/Battery Hybrid Energy System	Aeidapu Mahesh and K S Sandhu
550	295	New Firing Scheme for a PV Based Hybrid CHB Multi-Level Inverter	Apar Bansal, Aeidapu Mahesh and Jagilinki Venkata Rao
556	296	Detection of Power Quality Disturbances in the Utility Grid with Wind Energy Penetration Using Stockwell's Transform	Kavita Kumari, Atul Kumar Dadhich and Om Prakash Mahela
562	297	Electric Vehicle Batteries; A Selection based on PROMETHEE Method	Shimin V V, Varsha A Shah and Makarand M Lokhande
568	298	DSC filter based Unit Vector Estimator for Reference generation and control of Dynamic Voltage Restorer	Sriram Kasyap M, Karthikeyan A, Venkatesaperumal B and Nagamani C
574	300	Takagi-Sugeno (TS)-type Fuzzy logic Controller for Three-phase Four-wire Shunt Active Power Filter for unbalanced load	Harsha Vanjani and Umakanta Choudhury, Meha Sharma, Bhavesh Vanjani
578	301	Effect of Particle Surface Treatment on Dielectric Properties of Epoxy-Alumina Nano-composites	Manohar Singh and J.C. Pandey
582	302	Analysis of Standalone Hybrid PV-SOFC-Battery Generation System Based on Shunt Hybrid Active Power Filter for Harmonics Mitigation	Seema Agrawal and D.K. Palwalia
588	306	PMU Emulation for Static Security Analysis of Power System	Devesh Shukla and S.P Singh
594	311	Integration Methodology of Ultracapacitor - Battery Based Hybrid Energy Storage System For Electrical Vehicle Power Management	Aditya Kachhwaha, Varsha A. Shah and Shimin V V
600	313	An Approach Towards Medium Term Forecasting Based on Support Vector Regression	Siddharth Ajmera, Alok Kumar Singh and Vibhor Chauhan
606	315	Comparative Analysis of DWT and WPT for Current Signal Analysis	Vasant Raj Mutha and Narendra Kumar
612	316	Design of a Variable Stiffness Actuator using Shape Memory Alloy Wire	Nalini D, Josephine Selvarani Ruth D and Dhanalakshmi K
617	319	Characterization of OIP under repeated impulses	T Bavisha, Archana Sasidharan and S Usa
623	323	Energy management in hybrid electric vehicles using Particle Swarm Optimization method	Hari Om Bansal and Aishwarya Panday
628	324	ISTF-PID BASED D.C. SERVO MOTOR CONTROL	Arjun Swami and Prerna Gaur
633	325	PMSG Based Constant Power Delivery Standalone WECS Using SST with Bidirectional Buck-Boost BESS	Haris Ahmed and Avik Bhattacharya
639	326	Torque Ripple Reduction in PMSM Drive based on Instantaneous Voltage Control Technique	Vinay Kumar T, Nithin K and Raj Kumar K
645	329	Serverless Cloud computing framework for Smart grid architecture	Shitikantha Dash and Dipak Kumar Dash
651	330	Finding Optimal Driving strategy of Electric Vehicle during Deceleration with Serial Regenerative Braking	Debasri Chakraborty and Arup Nandi
657	333	Comparative analysis of Linearization and Point Estimate Methods for Solving Probabilistic Load Flow	Abhishek Kumar, Sanjoy Kumar Parida and Sailesh Sourabh

663	337	Application of Gravitational Search Algorithm to Analyse Economic Load Dispatch in Power System Network.	Anu Meha, Kaushik Paul, K.B. Yadav and Niranjana Kumar
669	338	Performance Study of Common DC Link Connected Wind and PV Hybrid System	Vinod Hiremani and Sanjeev Nayak
674	341	Implication of Optimal Performance of Renewable Energy System	Shyama Kant Jha
679	344	Speed loop pseudo derivative feedback controller based direct torque controlled Permanent Magnet Synchronous Motor drive	Prabhakaran K K, Karthikeyan A, Venkatesa Perumal B and Nagamani C
684	348	Blocking of Distance Relays Zone3 under Load Encroachment Conditions Using Decision Tree Technique	Nikhil Chaudhari, Trupti Hinge and Sanjay Dambhare
688	349	Modelling of Inverter for Stability Analysis of Microgrid	Dhanashri Changan and Ganesh Jadhav
694	356	Resilience Assessment using Microgrids in Radial Distribution Network	Rohit K. Mathew, Ashok S and Kumaravel S
698	359	Power flow Control with Different Operating Modes of UPFC	Chintu Rza and Dr. Lillie Dewan
702	364	Comparative analysis of 6,12 and 48 pulse T-STATCOM	Swapnil Mahajan, Meera Murali and Tushar Mali
708	367	Power Theft: Major Cause of Non -Technical Losses in Indian Distribution Sector	Priyamvada Chandel, Dr. Tripta Thakur, Dr. Rakhi Sharma and B.A. Sawle
714	370	Current Controlled Voltage Source Inverter Based Amplifier for Power Hardware in Loop Simulation Using Miniature Full Spectrum Simulator	Kapil Upamanyu, Mandela Chaitanya, Gopalaratnam Narayanan and Gurunath Gurralla
720	372	Complete Position Sensorless Control of PMBLDC Motor for variable speed applications	Sachin Singh and Sanjeev Singh
726	373	Online Estimation and Analysis of Equivalent Circuit Parameters of Three Phase Induction Motor Using Particle Swarm Optimization	Diptarshi Bhowmick, Mithun Manna and Suparna Kar Chowdhury
731	374	Novel Approach to Optimize The Power System Stabilizer (PSS) Parameters	Ravi Ucheniya and Dr. Tarun Chopra
737	375	ZA-QLMS Based Control Approach for DSTATCOM under Abnormal Grid Conditions	Maulik Kandpal, Ikhlq Hussain and Bhim Singh
742	426	Digital Controller for Multi Pulse Converter Based Battery Charging Systems	Ujjwal Kumar Kalla, Rakhi Suthar, Keshav Joshi and Kunal Sharma
748	431	Availability Based Distributed Resource Management of Microgrid	Shalaka Chaphekar, Himanshu Panandikar and Anjali Dharme
754	440	PV Solar Farm As Statcom For Voltage Regulation	Vishal Varma and S.T. Nagarajan
759	442	A Meticulous Approach Towards Contingency Clustering in Power System	Jatin Verma, Imran Sharieff and Ranjana Sodhi
765	443	Real Time Implementation of Sign-Sign LMS Algorithm in Single Phase SPV Grid Integrated System	Yashi Singh, Ikhlq Hussain, Bhim Singh and Sukumar Mishra
770	447	Power production strategies from Renewable energy resources in a hospital campus considering economic aspect	Abhik Hazra, Ashish Laddha and Mousumi Basu
775	448	Application of Fuzzy Q Learning (FQL) Technique to Wind Turbine Imbalance Fault Identification Using Generator Current Signals	Hasmat Malik and Sukumar Mishra
781	450	A Modified Differential Evolution Approach to PHEV Integrated Thermal Unit Commitment Problem	Nandan Kumar Navin and Rajneesh Sharma
785	455	Speed Estimation of Induction Motor using TMS320F28335 Digital Signal Processor	Tanmay Tandel, Ujjwala Mate, Snehal Unde, Atul Gupta and Siddhartho Chaudhary
791	458	Transmission Line Congestion Management in Liberalized Environment	Kumar Saurabh and Shweta Gupta
797	460	Modular Multilevel E-STATCOM Considering Distributed Energy Storage at the DC Link	Anil Bharadwaj Chivukula and Suman Maiti
803	462	Photo-Voltaic System for Refrigeration Plants in Isolated Areas	Menka Dubey, Rakesh Saxena and Shailendra Sharma
809	464	Islanding Based Optimal Placement of Phasor Measurement Units using MILP	Satyendra Pratap Singh and Shiv Pujan Singh
814	466	Design of Adaptive Perturb and Observe-Fuzzy MPPT Controller for High Voltage Gain Multilevel Boost Converter	Hari Priya T and Alivelu M. Parimi
820	469	Loop Transfer Recovery Based Control Technique for Grid Integrated SPV System	Shailendra Kumar and Bhim Singh
826	471	A Second-order Volterra Filter Based Control of SPV-DSTATCOM System to Achieve Lyapunov's Stability	Neha Beniwal, Ikhlq Hussain and Bhim Singh

831	484	FOGI-QSG Based Control of Multifunctional Grid Tied SECS	Priyank Shah, Ikhtlaq Hussain and Bhim Singh
837	489	Premature Failure of Modern Turbine Generator Rotor Windings	Kumar P.G.S., K.Kalyan Kumar and K. Malla Reddy
843	493	Modeling of Speed Controller for Industrial Applications: A Two Mass Drive System	Satish Choudhary, Santosh Kumar Sharma and Vivek Shrivastava
848	498	A Novel MPPT-Based Synchronous Buck Converter for Solar Power System in Fishing Trawler	Sajib Chakraborty, Mohammed Mahedi Hasan, Saurav Das and Md Abdur Razzak
854	502	A Consensus Priority Algorithm Based V2G Charging Framework for Frequency Response	Subham Sahoo, Deepak Reddy P, Sukumar Mishra and Narayana Padhy
860	504	Integration of Multiple Source SPV Grid Tied System Using 27-Level Cascaded H-bridge Converter	Moksh Mehtani, Ikhtlaq Hussain, Maulik Kandpal and Bhim Singh
865	505	Optimal Voltage Unbalance Compensation in a Microgrid Using PSO Algorithm	Sina Fazlollahzadeh Eilaghi, Ali Ahmadian and Masoud Aliakbar-Golkar
871	510	Compensation Techniques to Maintain the Line Parameters on Traction Power Supply System using FACTS Device	Laxman Singh, Chandan Vaishnav and Vivek Shrivastava
876	511	Automatic Generation Control of two-Area ST- Thermal Power Plant Optimized with Grey Wolf Optimization	Sandeep Bhongade and Nidhi Mate
882	513	A Smart Solar Water Pumping System with Bidirectional Power Flow Capabilities	Utkarsh Sharma, Bhim Singh and Shailendra Dwivedi
888	515	Battery Energy Storage in Standalone Microgrid - Synchronization and Transfer between Operating Modes	Priyesh Chauhan, B. Dastagiri Reddy and Sanjib Kumar Panda
894	520	Detection of Transmission Line Faults in the Presence of Solar PV System Using Stockwell's Transform	Surbhi Thukral, Om Prakash Mahela and Bipul Kumar
900	524	Artificial Neural Network Based Intelligent Model for Wind Power Assessment in India	Abdul Azeem, Gaurav Kumar and Hasmat Malik
906	525	Harmonic Analysis of Residential Load Based on Power Quality	Karuna Nikum, Rakesh Saxena and Abhay Wagh
912	526	A Novel Modular Voltage and Frequency Controller for Standalone Wind Energy Conversion System	Priyesh Chauhan and J. K. Chatterjee
918	530	Comparative Reliability Study of Existing & Proposed Configurations of a PV Plant	Ashwini Kumar Nayak, Kanungo Barada Mohanty, Kishor Thakre and Vinaya Sagar Kommukuri
923	531	Detection of Transmission Line Faults in The Presence of Dynamic Load Using Stockwell's Transform	Neha Agarwal, Om Prakash Mahela and Bipul Kumar
929	532	Analysis of Secluded Bi-Direction DC/DC Converters for the Performance Enhancement of Photo-voltaic System and Energy Storage System	Mallikarjuna Reddy Bandi and Paulson Samuel
935	538	Cuk PFC Converter for High Brightness LED Driver with Brightness Control	Aman Jha and Bhim Singh
941	539	A Controller for Cascaded H-Bridge Multilevel Inverter	Ujjwal Kalla, Avanti Verma, Bhim Singh and Keshav Joshi
947	540	Intelligent Task Repeatability of an Industrial Robotic Arm	Saunak Saha, Amitangshu Mukherjee, Dr. Sanchoy Das and Babak Hoseini
952	546	Real-Time Parameter Estimation of Single-Phase Transformer	Ram Krishan, Anshul Kumar Mishra and Bharat Singh Rajpurohit
958	547	Small Signal Stability Analysis and Optimal Control of Multi-Area Power System	Thomas Joseph, Barjeev Tyagi and Vishal Kumar
964	548	Modelling and Simulation of Wind Turbine Emulator using DC Motor	Amit Kumar Yadav, Madhusudan Singh and Duli Chand Meena
969	550	Comparative study of meta-heuristics based approaches for Maximum Power Point Tracking for PV systems	Puneet Joshi and Sudha Arora
975	553	A study of different hard-switched and soft-switched variants of buck-boost converter	Neha Vashisth and Rajeev Gupta
981	555	An 18-Pulse AC-DC Converter-Fed 27-Level Inverter Based Vector Controlled Induction Motor Drive	Piyush Kant and Bhim Singh
987	556	Space Phasor based HCC for Shunt Active Power Filter with Reduced Average Switching Frequency	Anubrata Dey, Anil Poonia, Vidisha Anand and Sanjeevkumar Padmanaban
993	558	Power Factor Corrected Bridgeless Modular Zeta Converter Based SMPS	Swati Narula, G Bhuvaneswari and Bhim Singh
998	560	Loss Optimization of IEEE 12 Bus Radial Distribution System Integration with Wind Weibull Distribution Function using PSO Technique	Ajay Bansal, Anil Kumar and Naresh Kumar

1004	561	Wireless Monitoring of Power Quality Disturbances in the Supply to Induction Motor	Sridhar S, K Uma Rao, Shetty Aashik Ashok Kumar and Nihaal M. S
1009	566	Rotor resistance estimation for induction motor using model reference adaptive controller	Kratika Kanwal and Madhusudan Singh
1015	567	An Efficient Hill-Climbing Technique for Peak Power Tracking of Photovoltaic Systems	Vibhu Jatily and Sudha Arora
1020	569	SVPWM based Decoupled Control of Active and Reactive Power for single stage Grid Connected Solar PV System	Abanishwar Chakrabarty, Bikram Das, Prabir Ranjan Kasari, Arnab Sarkar, Amal C Sunny and Sayantan Bhattacharya
1026	570	Energy Saving Certificate Market in India	Girja Shankar, A. R. Abhyankar and Bhim Singh
1031	571	Overview Strategy: Of Wind Farm in VSC-HVDC Power Transmission	Tarun Shrivastava, Dr. Arun M. Shandilya and Shiv Charan Gupta
1037	573	Identification of Type of Internal Fault in Indirect Symmetrical Phase Shift Transformer Based on PRN	Shailendra Kumar Bhasker, Manoj Tripathy and Vishal Kumar
1041	574	Statistically Generalized Rating For CLR In Power Transmission Systems	Swati Devabhaktuni, Hari Shankar Jain and Pramod Kumar Vujjini
1045	575	Comparative Performance Analysis of Decoupled SVPWM Techniques for a Four – Level Open End Winding Induction Motor Drive	Suresh Lakhimsetty, V. Kartikeya Jaya Durga Prasad
1051	577	Voltage and Power Flow Controlled Parallel DC-DC Converter System	Sridhar Reddy Gelella and Srinivasa Rao Katta
1057	581	Hysteresis Current Controlled Three Phase PWM Converter	Anurag Dwivedi and A.N. Tiwari
1063	583	Implementation and Practical Evaluation of an Automatic Solar Tracking System for Different Weather Conditions	Julakanti Satheesh Reddy, Abanishwar Chakraborti and Bikram Das
1069	584	Short Term Wind Speed and Power Forecasting in Indian and UK Wind Power Farms	Madan Tripathi, Ankita Singh, Gurtej K, Gourav Jain and Faraz Nayyar
1074	586	Sniffer Detection and Load Balancing Using Aglets in a Cluster of Heterogeneous Distributed System Environment	Amit Mishra, Rahul Singh Chowhan and Ajay Mathur
1080	587	Novel Hybrid Price Forecasting Model using Wavelet Transform, Time Series Time Delay Neural Network and Zero Phase filter in AEMC Market	Siddharth Sharma and Madan Tripathi
1086	588	A Novel Bidirectional Z-Source DC Circuit Breaker for DC Microgrids.	Muhammad Waqas Aslam and Nauman Ahmad Zaffar
1091	589	Grid Voltage Stabilization for Smart Grid Systems	Saurav Das, Farzam Aidelkhani, Somir Mustak, A Kalam Baki and M. Abdur Razzak
1097	591	Performance analysis of Robust and Nonlinear MPPT controllers for Autonomous wind power system	Hemachandra Gudimindla and Manjunatha Sharma K
1103	597	Aggrandize Text Security and Hiding Data Though Text Steganography	Sunita Chaudhary, Dr. Meenu Dave and Dr. Amit Sanghi
1108	598	Development of a wind turbine simulator using separately excited DC motor for Induction Generator Testing	Ubaid Bashir Qureshi and Shiekh Javaid Iqbal
1113	599	Experimental Analysis of Power Factor Correction using Magnetic Energy Recovery Switch	Rahul K. Garg and Nitin Gupta
1119	606	Power Transformer Failure Analysis using Interval Type-2 Fuzzy Set Theory Based Fault Tree Analysis	Rituparna Mitra, Galiveeti Hemakumar Reddy, Arup Kumar Goswami and Nalin B Dev Choudhury
1123	609	Development of visualization toolbox for monitoring electromechanical oscillations	Ashish Kumar, Priya Solanki, Nand Kishor and Shweta Gupta
1129	611	Application of Waikato Environment for Knowledge Analysis Based Artificial Neural Network Models for Wind Speed Forecasting	Abdul Azeem, Gaurav Kumar and Hasmat Malik
1135	615	A Single Stage Smoothing Filter for the Speed Estimation of Induction motor	Uma Syamkumar and Jayanand B.
1141	618	Reactive Power Control of Induction Motor Drive using Chopper Operated Slip Power Recovery Scheme	Sita Ram Bhardwaj, O.P. Rahi, Veena Sharma, Prakash Kumar, Rishav Choudhary, Gaurav Vardhan and Rajat Choudhary
1147	620	Integrated Tuning of modified PID Load Frequency Controller for Two Area Interconnected System Including Renewable Energy Sources	Preeti Sonkar, O.P. Rahi, K. S. R. Murthy and Sita Ram Bhardwaj
1153	622	Real Time Intelligent Oscillatory Stability Monitoring and Coherent Groups Identification	Abhilash Kumar Gupta, Kusum Verma and Khaleequr Rehman Niazi

1159	623	Double Stage Solar PV Array Fed Water Pump Driven by Permanent Magnet Synchronous Motor	Shadab Murshid and Bhim Singh
1164	626	Design and Implementation of Fuzzy and Neuro-fuzzy controller for Robot Navigation	Bhagyashree Borole, Sharad Jadhav and Poonam Waje
1169	633	Load Management in Intermittent and Weak Grid Communities	Zain Bin Tariq and Nauman Ahmad Zaffar
1175	634	Design and Implementation of High Speed Digital FIR Filter using Unfolding	Shilpa Thakral, Divya Goswami, Ritu Sharma, Krishna Prasanna Challa and Dr. Amit Mahesh Joshi
1179	639	A Voltage balanced Back-to-Back Stacked Multicell Converter	Gaurav Sharma and A K Kapoor
1185	641	Speed Control of a Three Phase Induction Motor Using DSP Controller and Harmonic Reduction Using Passive Filter	Madhu Br and Dinesh M.N.
1191	643	A Robust STFT Based Algorithm for Detection of Symmetrical Fault during Power Swing	Rupanjali Bhattacharjee and Abhinandan De
1196	645	Electrical Characteristics of 14nm SiC-3C Channel SOI FinFET with Dual-k Spacer	Navneet Kaur, Munish Rattan and Sandeep Singh Gill
1201	647	Control of Wind Diesel Hybrid System with BESS for Optimal Operation	Shailendra K. Tiwari, Bhim Singh and Puneet K. Goel
1207	648	A Reduced Voltage Rated Unified Power Quality Conditioner for Harmonic Compensations	Jithin Sukumaran, Amal Thomas and Avik Bhattacharya
1212	649	Selection of Most Relevant Input Parameters Using WEKA for Artificial Neural Network Based Concrete Compressive Strength Prediction Model	Syed Saad, Hasmat Malik and Mohammed Ishtiyaque
1218	650	Current Source Inverter with reduced leakage current for Transformer-less Grid -PV interface	Mini Rajeev and Vivek Agarwal
1224	654	Standalone BLDC Based Solar Air Cooler with MPPT Tracking for Improved Efficiency	Deepak Pullaguram, Sukumar Mishra and Sunanda Banerjee
1229	659	Public Delegation & Verifiability of Matrix Multiplication to a Malicious Cloud Server	Malay Kumar, Jasraj Meena, Manu Vardhan and Sanjeev Jain
1236	660	Power Flow Control and Implementation of PFC Rectifier for DC Motor Drive	Maloth Naresh and Ramesh Kumar Tripathi
1241	661	A Novel PV Inverter Control for Maximization of Wind Power Penetration	Ashu Verma, Ram Krishan and Sukumar Mishra
1246	711	Techno-Economical Analysis for PV based Water Pumping System under Partial Shading/Mismatching Phenomena	Anuradha Tomar and Sukumar Mishra, Chandrashekhara N. Bhende
1252	712	DTFC-SVM for Three-Level Diode Clamped Inverter Fed IM Drive	Yakala Ravi kumar, Tejavathu Ramesh, Aenugn Mastanaiah and A.K. Panda
1259	714	Performance Analysis of Carrier Based PWM Technique for Three Level Diode Clamped Multilevel Inverter with Different Reference Signals	Marif Daula Siddique and Adil Sarwar
1265	715	Cascaded Flying Capacitor Half Bridge Inverter for Power Rating Enhancement in PV Based Inverter System	Bhupender Sharma and Jayaram Nakka
1271	716	Optimization and Implementation of Hybrid Energy Sources in Remote and Grid active Microgrids –A Case Study for Indian scenario	Arun Kumar V and Ashu Verma
1277	718	An analytical approach for optimal allocation of DG unit in Distribution system	Preeti Kumawat, Sarfaraz Nawaz and Ankush Tandon
1283	719	Theoretical Estimation of Core Loss in a Trapezoidal Back-EMF Motor	Gourab Ghosh, Krishna Vasudevan and N. Lakshminarasamma
1289	722	Loss Reduction of 220 kV Substation with Optimum Reactive Power Management at 33 kV Voltage Level : A Case Study	Mr Ashish Dandotia, Mr. Hemant Kaushik, Dr. M.P. Sharma and Bhavesh Vyas
1295	723	Design and Fabrication of Regulated DC Electronic Load for Testing Power Supplies and Batteries	Swaroop Sadarjoshi and Usha P
1301	724	Design of Wireless Sensor Network based Fuzzy Logic Controller for a Cold Storage System	Sathish Kumar A and S Sudha
1307	725	Anti-Islanding Detection Method selection for Grid Connected DFIG Wind Farms using ANP method	Debasree Saha, Biman Kr Saha Roy and Priya Nath Das
1313	729	An Improved P&O MPPT Algorithm for Single Stage Three-Phase Grid Integrated Solar PV System	Amresh Kumar Singh, Ikhlq Hussain and Bhim Singh
1319	730	LMT Based Adaptive Control of Multifunctional Single Stage Three Phase Solar PV Grid Integrated System	Kanchan Mathuria, Ikhlq Hussain and Bhim Singh
1325	734	Detection of Transmission Line Faults in the Presence of Thyristor Switched Capacitor Using Discrete Wavelet Transform	Sunita Choudhary, Om Prakash Mahela and Sheesh Ram Ola

1330	736	Performance of wind system with battery–UC in grid connected mode	Santhosha Kumar A and Dattatraya Gaonkar
1336	738	Energy Efficient and Secure Data Aggregation with Malicious Aggregator Node Detection (ESMD) in WSNs	Arabinda Nanda and Amiya Kumar Rath
1341	739	Online Volt/Var Control in a Smart Grid with Multiple Distributed Generation Systems	Raghavendra P and Dattatraya Gaonkar
1347	740	Brushless DC Motor Based Ceiling Fan Using Buck-Boost Converter	Saurabh Manglik, Shubham Sundeep and Bhim Singh
1353	741	Reactive Power Loadability based Optimal Placement of Wind and Solar DG in Distribution Network	Deepesh Ramawat, Ganesh P. Prajapat and Nagendra Kumar Swarnkar
1358	745	Energy Efficient Density-Based K Clusters for Wireless Sensor Networks	Priyanka Pancholi and Amritpal Singh Yadav
1364	750	A Solar PV System Controlled by Least Sum of Exponentials Algorithm	Shuvam Gupta, Ikhtlaq Hussain and Bhim Singh
1370	760	Solar PV Interfaced to Multifunctional VSC with a Battery Support	Nupur Saxena, Ikhtlaq Hussain, Bhim Singh and A. L. Vyas
1376	763	Condition Monitoring of Induction Motor Using Negative Sequence Component and THD of the Stator Current	Sridhar S, K Uma Rao, Harish K. S and Raksha Umesh
1382	765	Forearm Movements Classification Of Emg Signals Using Hilbert Huang Transform And Artificial Neural Networks	Amit Kukker, Rajneesh Sharma and Hasmat Malik
1388	769	A Hybrid FNLMS Approach to Improve the Performance of a Grid Integrated Solar PV System	Subarni Pradhan, Ikhtlaq Hussain, Bhim Singh and B. K. Panigrahi
1394	770	Theory of the Effect of Torque and re-Torque Practices on Electrical Connectors with Clamping Fasteners	Sivasakthipriyan Kasi, Lee Herron and Balathandayutham Thiyagarajan
1400	771	Implementation of FPGA based Space Vector PWM Method for Five Level Cascaded Inverter	Bogimi Sirisha and Satish Kumar P
1406	772	Effectuation in SPWM Technique for 3- Φ VSI using STM32F4 Discovery Board Interfaced with MATLAB	Nil Patel and Krunal Rao
1411	777	Benchmarking of Text Segmentation in Devnagari Handwritten Document	Maninder Nehra, Neeta Nain and Mushtaq Ahmed
1415	785	Automatic Image Annotation using an Ant Colony Optimization Algorithm (ACO)	Kavita Akhilesh and Dr. R.R Sedamkar
1419	790	Online Monitoring and Protection of Voltage Stability for LCC Based HVDC System	Soham Chakraborty
1425	791	A New Cross Switched cascaded Multilevel Inverter Topology with Reduced Number of Switches	Kamaldeep Boora and Jagdish Kumar
1431	793	Price Prediction Techniques for Residential Demand Response using Support Vector Regression	Shalini Pal and Rajesh Kumar
1437	796	Implementation and designing of FIR filters using Kaiser window for De-Noiseing of Electrocardiogram Signals on FPGA	Surender Kumar, Rajesh Mehra and Chandni
1443	797	Paralleling Of Inverters with Dynamic Load Sharing	Krishna Kishan V, Pawanputhra P and Narender Reddy K
1449	798	Reconfigurable FIR Filter for Denoising of ECG Signal	Bhupender Singh, Rajesh Mehra and Chandni Khatana
1455	799	Design of SRM Driven BESS Based PV Powered Water Pumping System	Vijaytarang Narayana, Anjaneesh Mishra and Bhim Singh
1461	804	Energy Saving Strategy on Electric Propulsion System Integrated with Doubly Fed Asynchronous Motors	Raja Singh R, Thanga Raj Chelliah, Deepak Khare and Ramesh U. S
1467	805	Hybrid Control for High Efficiency LLC Resonant Converter	Sunder Nelson Geddham and Susmitha A
1473	806	Life Cycle Cost Analysis of Power Generation System Using Cow Urine	Wahidul Hasan, Sajib Chakraborty, Zaima Tasneem, K.M. Salim and Abdur Razzak
1477	809	Thyristor - MOSFET Hybrid Single-Phase Transformerless H-5 Photovoltaic String-Converter	Sumit Chattopadhyay and Chandan Chakraborty
1482	811	A Neuro Fuzzy Sliding Mode Controller for Load Frequency Problem in Deregulated Environment for Multi Area Power System	Ganga Dinesh Kumar Arra and Ramana N.V.
1488	815	Brushless Induction Excited Synchronous Generator with Induction Machine Operating in Plugging Mode	Chandan Chakraborty and Yalla Tirumala Rao
1494	817	A Novel Three Phase 7-Level Asymmetrical Multilevel Inverter with Reduced Number of Power Electronic Switches	Kamaldeep Boora and Jagdish Kumar
1499	820	Effect of Pole Placement of a Full Order State Observer in Sensorless Speed Estimation of Brushed DC Motor	Tirlingi Madhava Rao, Mousam Ghosh and Biswaji Halder
1505	821	Brushless Induction Excited Synchronous Motor (BInSyM): A New Motor for High Power Applications	Chandan Chakraborty, Yalla Tirumala Rao and Haimanti Bhattacharjee

1511	823	Dead Cell Extracted-Urine Powered Battery Energy Harvesting System	Simarjit Saini, Jaspreet Singh, Hemant Bhatia and Ekambir Sidhu
1516	826	Ultrasound Based Assistive Mobility Devices For The Visually Impaired	Tirthasarathi Lodh, Akshay Subramaniam and Ashish Paswan
1522	827	A Hybrid Modular Multilevel Converter for Solar Power Integration	Tuhin S Basu, Suman Maiti and Chandan Chakraborty
1528	830	Solar Energy Optimization using MPPT Controller By Maximum Conductance Method	Veeresh Gonal and Dr. G.S. Sheshadri
1534	834	Full Bridge Level Doubling Network Assisted Multilevel DC Link Inverter	Rajesh V, Sumit Chattopadhyay and Chandan Chakraborty
1540	835	Quantization Based Adaptive Control of SPV-Grid Tied System	Bakul Kandpal, Ikhtlaq Hussain, Bhim Singh and K. P. Tomar
1545	838	Control Algorithm Based on Amplitude Adaptive Filter for DSTATCOM	Parlee Doley, Sanjay K Patel, Sabha Raj Arya and Ujjwal Kumar Kalla
1551	839	Experimental Evaluation of Interleaved DC-DC Converters for Maximum PV Power Tracking	Rakesh Maurya, Sabha Raj Arya and Arjun P Raj
1557	840	Design and Simulation of Feedback System to Generate Plasma Arc in Current Source Mode	Vishal Jain, Sudhir K Nema and Vivek Agarwal
1562	841	Bi-Directional Charger for Electric Vehicle with Four Quadrant Capabilities	Anjeet Verma and Bhim Singh
1568	851	Control of DVR using SPLL Strategy in Distribution System	J. Bangararaju, V. Rajagopal, V. Nagamalleswari, Sabha Raj Arya and B. Subhash
1574	855	A Novel Method of Frequency Regulation in Microgrid	Upama Bose, Sumit Chattopadhyay, Chandan Chakraborty and Bikash Pal
1580	859	Performance Analysis of a New and Conventional Standalone Solar PV Power Generating Systems	Arun Verma, Bhim Singh and D.T Shahani
1586	860	Network Security Risk Level Estimation Tool for Information Security Measure	Umesh Kumar Singh and Chanchala Joshi
1592	862	Design and Analysis of LCL Filter for Interconnection with Grid Connected PV System	Divya Jain and Ujjwal Kumar Kalla
1598	863	Analysis of Grid-LCL Filter Interfaced PV-Array System	Divya Jain and Ujjwal Kumar Kalla
1604	864	Anti-Hebbian Control Algorithm for Three-Phase Grid Connected Solar PV System	Divya Jain and Ujjwal Kumar Kalla
1609	865	Experimental Investigations and Power Quality Analysis of Controlled Rectifier Based Systems	Ujjwal Kumar kalla, Jaiwin Ghotia, Sanjeev Jain, Vikas Sharma, Pankaj Kumar and S. K. Bishnoi
1615	866	Minor Component Analysis Based Anti-Hebbian Neural Network Scheme of Decoupled Voltage and Frequency Controller (DVFC) for Nanohydro System	Ujjwal Kumar Kalla
1621	867	Sliding Reinforced Competitive Learning Scheme for Voltage and Frequency Regulation of Diesel Engine Driven Standalone Single Phase Generators	Ujjwal Kumar Kalla
1626	868	Single Voltage Measurement Based Control Algorithm for Voltage Source Converter	Krishan Kant, Bhim Singh and Ujjwal Kalla
1630	869	An Efficient Controller for PV operated PMBLDC Drive Based Electric Vehicle System	Ujjwal Kalla , Kuldeep Singh Rathore, Deven Gurjar and Prateek Dixit
1636	871	A PFC Based Control Scheme for LED Lighting System	Ujjwal Kumar Kalla
1640	872	A Novel Control Scheme for PMBLDC Drive	Ujjwal Kumar Kalla and Kuldeep Singh Rathore
1644	873	A Normalized Neural Network Based Controller for Power Quality Improved Grid Connected Solar PV System	Ujjwal Kumar Kalla
1649	874	An Adaptive control of Voltage Source Converter Based Scheme for Grid Connected Solar PV - Battery System	Ujjwal Kumar Kalla and Madhuri Mantri
1654	376	A FFP Based Adaptive Control of SPV System Tied to Weak Grid	Vandana Jain, Ikhtlaq Hussain and Bhim Singh
1660	377	A PFC Based EV Battery Charger Using a Bridgeless SEPIC Converter	Bhim Singh and Radha Kushwaha
1666	383	Sinusoidal Tracer Control of Single-Stage SPV-Hydro-Battery Based Microgrid	Seema Kewat and Bhim Singh
1672	386	Coordination of Electro-mechanical Based overcurrent Relays Using CMA-ES algorithm	Manohar Singh
1678	387	Control of Wind-Solar Microgrid for Rural Electrification	Bhim Singh, Bijaya K. Panigrahi and Geeta Pathak

1683	391	Low Cost PV Based Irrigation Pump using SR Motor with Cascaded 'Bo-Bu' Converter	Anjaneer Kumar Mishra and Bhim Singh
1689	394	Design Approach of Integrated Renewable Energy System for Small Autonomous Power System	Alpeshkumar Patel and Dr. Sunil Singal
1694	396	Implementation- Performance Analysis Of High Speed MAP Decoder For Long Term Evolution	Vijyata Dhankhar, Dr. R.S. Meena and J.B.Sharma Sharma
1700	397	Detection of Transmission Line Faults in the Presence of Thyristor Controlled Reactor Using Discrete Wavelet Transform	Sunita Choudhary, Om Prakash Mahela and Sheesh Ram Ola
1705	407	Design and Analysis of Zero-Voltage Transition Low Current Ripple Fifth-Order Boost Converter	Mummadi Veerachary & Akshit Ranjan
1711	408	Fuzzy Logic Based Dynamic Voltage Restorer for Addressing Various Power Quality Problems	Shubhendra Pratap Singh, Dr. Abdul Hamid Bhat and Anupam Kumar
1716	411	Grid Interactive Solar PV Based Water Pumping Using BLDC Motor Drive	Rajan Kumar and Bhim Singh
1722	414	Off Grid Rural Electrification Using Integrated Renewable Energy System	Alpesh kumar Patel and Dr. Sunil Singal
1727	416	Distribution System Expansion Planning Incorporating Distributed Generation	Rahul Kumar Malee, Purna Jain, Pranda Prashant Gupta and Sharma Suman Dharmpal
1733	419	Effect of Magnet Segmentation on Cogging Torque of Radial Flux Permanent Magnet Brushless DC Motor	Amit Kapil and Jayati Pandya
1736	424	FPGA Based Adaptive Delta Modulated Direct Matrix Converter	Irfan Ahmad Khan and Anshul Agarwal
1742	662	Combined Optimal DG Placement and Reactive Power Management in Unbalanced Distribution Systems	Arjun Tyagi, Ashu Verma and Soumya Das
1747	668	An Enhancement in Electrical Efficiency of Photovoltaic Module	Subhash Chandra, Sanjay Agrawal, Durg Singh Chauhan and C.S. Rajoria
1752	671	Detection of Power Quality Disturbances in The Utility grid Using Stockwell Transform	Ankit Kumar Sharma, Om Prakash Mahela and Sheesh Ram Ola
1757	672	Analysis on Feasibility of Electric Power Generation-via-Wind Power	Sridhar Reddy Gelella and Srinivasa Rao Katta
1762	675	Artificial Neural Network based Wind power forecasting in Belgium	Jyothi Varanasi and Madan Mohan Tripathi
1768	680	Maximum Power Extraction from Partially Shaded PV Panel in Rainy Season by using Improved Antlions Optimization Algorithm	Nishant Kumar, Ikhlaiq Hussain, Bhim Singh and Bijay Ketan Panigrahi
1774	695	Integrated Approach for Loss Reduction In Power System	Monika Manglani, Mahaveer Prasad Sharma, Bhavesh Vyas and Sheeshram Ola
1780	699	Artificial Intelligence Based Approach for Secured Protection during Stressed Conditions	Sayari Das, Rahul Dubey and Bijaya Ketan Panigrahi
1785	700	Impact of a Microgrid on Utility Grid Under Symmetrical and Unsymmetrical Fault Conditions	Md Asif Hasan, Sanjoy Parida and Sailesh Sourabh
1791	701	Modelling and Design of a Modified Neuro-Fuzzy Control-based IM Drive via Feedback Linearization	Rabi Mishra, Kanungo Barada Mohanty, Kishore Thakre and Ashwini Kumar Nayak
1797	702	Byzantine Fault Tolerance for Real Time Price in Hierarchical Smart Grid Communication Infrastructure	Deepika Durgvanshi, Brijendra Pratap Singh and Manoj Madhava Gore
1803	704	A novel Constant frequency Sliding Mode Control Of DC-DC Converters	Arvind Sivakumar, Akshay R and Sreedevi A
1809	706	Enhancement Of ECG Signal Using EMD and Hurst-Based Mode Selection Technique	Lalita Gupta and Harsh Vardhan
1814	707	Firing Angle Optimization of Seven-Level Cascaded H-bridge Multilevel Inverter with Un-Equal DC Sources using GSA approach	Jagilinki Venkata Rao and Aidapu Mahesh
1820	709	Effective Generation of Electrical Energy from Exhaust gases in Automobiles	Sagar Venkateshwar, Divyanshu Shahi and Mala De