2021 International Conference in Advances in Power, Signal, and Information Technology

APSIT-2021

08 –10 October, 2021 (ConferenceRecord#52773)

Technically co-sponsored by





Editors:

Dr. Niranjan Nayak, Dr. Tanmoy Parida Dr. Tara Prasanna Dash Mr. Lalit Mohan Satpathy Dr. Manohar Mishra Dr. Mrutunjaya Sahani Dr. D.A.Gadnayak Dr. Subhashree Coudhury

Organized by Department of



Department of Electrical& Electronics Engineering

Institute of Technical Education & Research, FET Siksha 'O' Anusandhan Deemed to be University, Bhubaneswar, Odisha, India www.soa.ac.in

2021 International Conference in Advances in Power, Signal, and Information Technology (APSIT-2021)

Table of Contents

Investigations of Capacity Expansion Planning using LEAP Model

N.K.Rayaguru; K.Karunanithi; S S Dash; P.Chandrasekar; Savita M Bani

A hybrid approach of Deep Learning Algorithms for Identification of COVID-19 disease using Chest X-Ray Images

Nour Haj Hammadah; Nilima Das; Mamata Nayak; Tripti Swarnkar

A New Pi-based Chaotic Map for Image Encryption Ugur Erkan; Abdurrahim Toktas; Feyza Toktas

Image Encryption using Chaotic Techniques: A Survey Study Jenan Ayad, Fadhil Sahib, Alaa H. Ali, Zaid Khudhur, Hanan j., Mustafa A., Ghaidaa Ahmed, Ahmed Sadiq

Performance Evaluation of Photovoltaic Based Distributed Generation against Neural Network based Feedback Control

Anshuman Satpathy; M. Mohamed Hamad Adam; Snehamoy Dhar; Tanmoy Parida; Niranjan Nayak; Naeem M. S. Hannoon

QoS Based Energy Efficiency Maximization for Uplink NOMA Networks Priya Gupta; D. Ghosh

Power Quality Improvement in Photovoltaic Microgrid System Using FOPID controllerbased DVR

Raseswari Pradhan; Minu Kumari

Power Quality Improvement in PV Grid System

Miss. NiyaleeMoharana , Mr. Dipak Dash , Mr. Sumant Kumar Dalai

Variation in the Electronic and Microstructural Properties of Benzyl Viologen treated MoS2/Si Heterojunction

Diana Pradhan; Anurag Gartia; Kiran Kumar Sahoo; Tanmoy Parida; Jyoti Prakash Kar

Solution to Economic Dispatch Problem Incorporating Micro Grid with Integration of Wind Energy Using Emperor Penguin Optimization Algorithm

Jagannath Paramguru; Subrat Kumar Barik; Arun Kumar Sahoo; Tanmoy Parida

Stability Analysis of Fractional-Order Filters Realized with PMMA Coated Elements Kumar Biswal ;Sanjeeb Kumar Kar ; Madhab Chandra Tripathy Review of Blockchain-based Energy Trading Models

Priyansha Sharma, Rudranarayan Senapati and Aleena Swetapadma

Efficacy of UPQC in Grid linked PV-SOFC System at Constant Irradiance with Variable Load

Rudranarayan Senapati, Priyansha Sharma, SthithaPranjan Mishra, Debani Prasad Mishra, Byomakesh Das, Jagat Jyoti Rath, and Rajendra Narayan Senapati

Real-time implementation of the MPPT algorithm based on fuzzy logic for solar PV system

Debabrata Routray; Pravat Kumar Rout; Binod Kumar Sahu

A brief review and comparative analysis of two classical MPPT techniques Debabrata Routray; Pravat Kumar Rout; Binod Kumar Sahu

- High-Speed MAC using Integrated Vedic-Mathematics Devika Jena; Satyaprakash N. Das; Taraprasanna Dash; Farida A. Ali
- Breast Cancer Data Analysis using Machine Learning Approaches Sidhant Mallick, Rasmita Dash, Rajashree Dash, Rasmita Rautray

Thermally evaporated GaSb thin film grown from TVDS method for optical applications Farida Ashraf Ali, Jeevan Jyoti Mahakuda, Sushanta K. Kamilla

Diagnosis of PQ Disturbances using Local mean decomposition based SVD entropy and modified K-means clustering *Lipsa Privadarshini; Eluri N V D V Prasad; Pradipta Kishore Dash*

Frequency Stability Study in Electrical Power System with SMES and TCSC units Amiya Kumar Naik; Narendra Kumar Jena; Subhadra Sahoo; Binod Kumar Sahu

Detection and classification of power quality disturbances by using discrete Teager energy operator in the PV based DC microgrid *Kanche Anjaiah; P.K. Dash; Ranjeeta Bisoi*

SOS Algorithm Based TID Controller for AGC of an Interconnected Power System Jugajyoti Sahu; Pradeep Kumar Mohanty; Amiya Kumar Naik; Binod Kumar Sahu

Advanced Reactive Power Control Technique for Wind Power Application Buddhadeva Sahoo; Sangram Keshari Routray; Pravat Kumar Rout; Mohammed M Alhaider

Structural, Electrical and Dielectric Behavior of Holmium Substituted La_{0.67}Ca_{0.33}MnO₃ (La_{0.64} Ho_{.03}Ca_{0.33}MnO₃)

D.K. Subudhi; P. G.R. Achary; P. Pattnaik; D. K. Mishra

Performance of Ni-doped ZnO nanoparticles towards CH3-CO-CH3 sensing Nirlipta Kar; Sushanta Kumar Kamilla

Fabrication of Single Crystalline Zn(0.85)Cu(0.15)O Film Using CWD Coating Technique

Arun Kumar Das; S. K. Kamilla; Priyabrata Pattanaik; Dilip Kumar Mishra; R. K. Das

Fabrication of Co doped or un-doped ZnO/Al on glass substrate for sensor Applications Harapriya Nayak, Sushanta Kumar Kamilla

Multi-Hop Communication in Wireless Underground Sensor Network Hitesh Panda; Manoranjan Das; Benudhar Sahu

Design of Dual-Core Trench Assisted Few Mode- Fiber with Flattened Differential Mode Delay for Mode Division Multiplexing Bhagyalaxmi Behera; Mihir Narayan Mohanty;

Functionally Responsible waste Plastic Material, its Impact on the Environment and Its Bioremediation

Pratap Kumar Swain, Trinath Biswal and R B Panda

Advanced Control Technique based Neutral Clamped Inverter Operation Buddhadeva Sahoo, Sangram Keshari Routray and Pravat Kumar Rout

Self-Assembled Peptide Nanostructured Materials in Drug Delivery Application Deepti Rekha Sahoo and Trinath Biswal

Differential Protection of Microgrid using Signal Processing Approach

Nityananda Giri; Ranjan Kumar Mallick; Tushar Kumar Patel; Sairam Mishra

Neutral Clamped Three-level Inverter based Fractional Order Filter Design for Power Quality Advancement

Buddhadeva Sahoo; Sangram Keshari Routray; Pravat Kumar Rout; Mohammed M Alhaider

Improved Heuristic algorithm for short term hydrothermal including wind-solar generating power plant

Sangita R.Kar; D.P.Dash; S.K.Sanyal

Network Forensics: An approach towards detecting Cyber Crime Amarnath Mishra; Chintan Singh; Ayushi Dwivedi; Debabrata Singh; Anil Kumar Biswal

Islanding Detection with Empirical Mode Decomposition and Random Subspace Oriented Kth Nearest Neighbour Sairam Mishra; Prof. (Dr.) Ranjan Kumar Mallick; Dr. Debadatta Amaresh Gadanayak Voltage stabilization of SEIG based Isolated Microgrid using Electric Spring Soumya Mohanty; Abhijeet Choudhury; Swagat Pati; Sanjeeb Kumar Kar

Optimum Transmission Power for Diversity Based Receiving System in Wireless Sensor Network with Nakagami Fading

Manoranjan Das; Benudhar Sahu

Fractional PSS for low frequency oscillation damping of variable solar penetrated power system

Samarjeet Satapathy, Narayan Nahak, Akshaya Patra, Ramachandra Agrawal, Alok Mishra

Enhancement of dynamic stability of power system by optimal STATCOM control action Samarjeet Satapathy, Narayan Nahak, Akshaya Patra

A Hybrid Fruit Fly ELM framework for Stock Index Price Movement Prediction Sidharth Samal; Rajashree Dash

Contactless Energization of Piezoelectric Components through dual directional Electric Field

Tanaya Nayak; Dipti Patnaik; Praveen Priyaranjan Nayak; Biswaranjan Swain; Satyanarayan Bhuyan

Visual Comfort for a Green Office Building: An Overview Ali Q. Al-Shetwi; Majid A. Abdullah; Thanikanti Sudhakar Babu; Muhamad Bin Mansor; Priya Ranjan Satpathy; Khaled Alzaareer

Stability Assessment of a Multiple DG based Microgrid during Islanding Situation with Improved FA

Shaktinarayana Mishra; Shibani Prasad Mohapatra; Prachitara Satapathy; Lokanath Tripathy; . Sabita Chaine; Chandra Sekhar Tripathy

An Adaptive Hybrid Particle Swarm Optimizer for Constrained Optimization Problem Jogeswar Tripathy; Rasmita Dash; Binod Kumar Pattanayak

Power Quality Conditioning due to Flickering Loads with Shunt Active Power Filter using Fuzzy-Granular Controller Method

Dr. Naeem M S Hannoon; Dr. D. V. N. Ananth; Dr. Nabil Hiday; Dr. P.S.R. Chowdary; Dr. V.V.S.S.S. Chakravarthy;

Stress Enhanced Performance Analysis for Trigate FinFETs at 7nm Node

J. Jena; T. P. Dash; S. Das; E. Mohapatra; C. K. Maiti

Optimal Placement of Piezoelectric Sensors and Actuators Pairs for Vibration Suppression

> Biswaranjan Swain; Nibedita Swain; Siddharth Sahany; Praveen Priyaranjan Nayak; Satyanarayan Bhuyan

Multi-kernel based Random Vector Functional Link Neural Network for Short-term Prediction of Wind Speed

Snigdha Sarangi; Pradipta Kishore Dash; Badri Narayan Sahoo; Ranjeeta Bisoi

Capacitor based Metamaterial Absorber for obtaining wideband Absorptivity

Prakash Kumar Panda, Hemanta Kumar Sahu, Arjun Muduli

Synthesis and characterization of lead-free sodium doped bismuth titanate

R.K. Parida; B.N. Parida; S. Mishra; S.K. Parida

Morphometric Analysis of a Sub-Watershed of Lower Budhabalanga River Basin in Baleswar District, Odisha: A Remote Sensing and GIS Approach

Satyaranjan Giri; Jagadish Kumar Tripathy; Prasanna Kumar; Pratyasha Singh; Debabrata Nandi; Kamal Lochan Mohanta

Geometry Dependent RF Performance of FinFETs

Sanghamitra Das, Aradhana Raju, Tara prasanna Dash

Analysis of Operation of Sensorless Brushless DC motor using Zero Crossing Point Algorithm

Manasi Patro

Frequency stability of an integrated power system using TLBO based TIDF controller

Umesh Chandra Prusty; BishwaranjanPasayat; Pratap Chandra Nayak; Ramesh Chandra Prusty; Sidhartha Panda

Slime mould algorithm based fractional order cascaded controller for frequency control of 2-area AC microgrid

Satyajeet Das; Sushil Kumar Bhoi; Pratap Chandra Nayak; Ramesh Chandra Prusty

A Flexible Auxiliary Damping Loop for the Islanded Microgrid

Dr. Pritam Bhowmik; Mr. Priya Ranjan Satpathy; Dr. Krishna Sarker; Dr. Venkata Siva Brahmaiah Rama; Mr. Subhajit Roy; Dr. Subhashree Choudhury

Combined AGC and ELD analysis of a multi area power system with WCA based PID Controller

Debashish Mishra; Srikanta Mohapatra; Prakash Chandra Sahu; Ramesh Chandra Prusty;Krushna Keshab Baral Intelligent Frequency Control of an AC Microgrid with HSA designed Tilt Controller

Prakash Chandra Sahu; Srikanta Mohapatra; Subhadra Sahoo; Binod Kumar Sahu; Manoj Kumar Debnath

Performance stability study of a hybrid power system under Levy flight CSA based fuzzy controller

Srikanta Mohapatra; Prakash Chandra Sahu ; Krushna Keshab Baral; Sushil Kumar Bhoi; Ramesh Chandra Prusty

Analysis of Crossover Techniques in Modification of Grasshopper Optimization Algorithm Paulos Bekana; Archana Sarangi; Shubhendu Kumar Sarangi

Vehicle Suspension System based on PID Controller with JAYA Optimization Technique

Akshaya Kumar Patra; Bidyadhar Rout; Dillip Kumar Subudhi

Akshaya Kumar Patra; Anuja Nanda; Bidyadhar Rout; Dillip Kumar Subudhi; Nayrayan Nahak; Saswata Pani

Resiliency Enhancement of Power Distribution System Using Distributed Generator *Raj kapurkumar; Sunil Koudagani;Partha Kayal*

Analytical Exploration of Stepped Asymmetric Work-function Modulated Trenched Stack Gate Silicon-on-Insulator MOSFET for Advancement of SCEs Sikha Mishra; Soumya S. Mohanty

Optimal Dispatch of a Hybrid Renewable Energy System Using Modified PSO Algorithm

Subrat Bhol; Nakul Charan Sahu; Amar Bijay Nanda

Design and Kinematic Analysis of a 6-DOF Asymmetric Parallel Robot Manipulator with 4-SPS and 2-CPS Type Legs

Metin Toz

VSC based HVDC Transmission System using Adaptive FPI Controller

Sunita S. Biswal, Dipak Ranjan Swain, Pravat Kumar Rout

The MHD Plane Couette Flow in Porous Medium with Transpiration Cooling

Sachidananda Sahoo; Paramananda Rout

Design and Simulation of In0.53Ga0.47As/InP Trench-Gate Power MOSFET to Improve the Device Performance

Soumya S. Mohanty; Sikha Mishra

Automatic Attendance System using Face Recognition

Susanta Kumar Sarangi; Arunesh Paul; Harshit Kishor; Kritath Pandey

Optimal Allocation of DSTATCOM Units in Electric Distribution Network Using Improved Symbiotic Organisms Search Algorithms

Subrat Kumar Dash; Sivkumar Mishra; Usharani Raut; Almoataz Y Abdelaziz

An Improved Symbiotic Organisms Search Algorithm for Multi-objective Simultaneous Optimal Allocation of DSTATCOM and DG Units

Subrat Kumar Dash; Sivkumar Mishra; Usharani Raut; Almoataz Y Abdelaziz

DCTSPA: A Proposed Model for Controlling Parking Spots

Sashikanta Prusty; Srikanta Pattanaik; Sujit Kumar Dash

Covid-19 Data Analysis of India and Future Forecasting using Fb Prophet Biswarup Biswas; Subhra Debdas; Subhankar Samanta; Srijita Chakraborty; Anuridhi Chhangani; Sarbani Mohanty

Programmable-Logic-Controller based Robust Automatic Cleaning of Solar Panel for Efficiency Improvement Sayak Roy, Manali Mandal, Chitralekha Jena, Pampa Sinha, Tarakanta Jena

A Technical Review on Artificial Intelligence Optimization Techniques used for Micro Grid Planning Rajani Ahirwar; Priyanka Paliwal; Tripta Thakur

Structural and optical properties investigation of the hybrid CZTS-MWCNT composite hole transporting material

Jagatpati Raiguru; Priyadarshini Raiguru; Pitamber Mahanandia; Bidyadhar Subudhi

An Effective EMI Mitigation Technique Using Chaotic PWM for Interleaved Boost Converter

Sudhakar Natarajan; Thanikanti Sudhakar Babu; Karthik Balasubramanian; Chiranjit Sain; Priya Ranjan Satpathy

Universal Motor with On-Off Controller for Washing Machine Application

Sudhakar Natarajan; Karthik Balasubramanian; Priya Ranjan Satpathy; Thanikanti

Sudhakar Babu

Thermal Comfort for a Green Office Building: Current Status and Future Direction

Ali Q. Al-Shetwi; Majid A. Abdullah; M A Hannan; Thanikanti Sudhakar Babu; Priya Ranjan Satpathy; Renu Sharma

Performance analysis of single-phase grid interactive voltage source inverter using different filter

Satyaranjan Jena; Amiya Kumar Naik; Neha Singh; Samartha Senapati; Pradeep Kumar Sahu; Chinmoy Kumar Panigrahi

Study of Harmonics Contribution by Various Types of Loads in a Low Voltage Distribution System and Reduction of Harmonics

Soma Biswas; Swapan Kumar Goswami

Solar PV Array Fed Fuzzy Logic Controlled PMSM Drive for Water Pumping System

Biranchi Narayan Kar; Paulson Samuel; Amiya Naik

Machine Learning based approach in building QSAR models for the study of Asparagine Endopeptidase

P.G.R. Achary; Nilima R. Das

Generating Power through Numerous Interconnection of Solar PV Modules with Incorporation of Thermoelectric Generator and Estimating Energy Rating

Sunil Kumar Bhatta; Srikanta Mohapatra; Sarat Chandra Swain; Sasmita Jena

Sliding Mode Controlled IDBHCC for Single phase LC filter PWM Voltage Source Inverter

Neha Singh; Satyaranjan Jena; Chinmoy Kumar Panigrahi

Ambipolarity suppression in SiGe/Si-TFET using hetero-dielectric BOX engineering

Shwetapadma Panda; Guru Prasad Mishra; Sidhartha Dash

Effectiveness of Data Augmentation for classification of Melanoma using Deep Convolutional Neural Network

Bhanja Kishor Swain; Susanta Kumar Rout; Mrutyunjaya Sahani; Pushti Kumari; Renu Sharma

Smart Shopping Trolley using Raspberry Pi

Dipika D. Pradhan; Sabita Mali; Ashwini Ubale; M.M. Sardeshmukh; Swapnalini Pattnaik; Puja Bajirao Sindhe

Analysis of Type-2 Fuzzy Recurrent Wavelet Neural Network to Identify Non-linear dynamic System

Debashisa Samal; Santosh Kumar Padhy; Laxmipriya Samal; Hemanta Kumar Palo; Badri Narayan Sahu

Emotional Speech Recognition using Particle Swarm Optimization Algorithm

Surjyo Narayana Panigrahi; Dr. Hemant Kumar Palo

Speech Emotion Recognition using K-means Apriori Feature Selection Algorithm

Biswajeet Sahu; Hemanta Kumar Palo; ShubhamShrotriya

ASSIE: Application of Squirrel Search Algorithm for Information Extraction Problem

Rasmita Rautray, Rasmita Dash, Rajashree Dash, Rajendra Kumar Sahoo, Aswasana Pujari, Raunak Kumar Barik, J Amartya

A Comparative Study of Short Channel Effects in 3-D FinFET with High-K Gate Dielectric

> Rao Muhammad Asif; Saif Ur Rehman; Ateeq Ur Rehman; Mohit Bajaj; Subhashree Choudhury; T. P. Dash

Active Power Management in an AC Microgrid Using Artificial Neural Network and DSTATCOM

Devi Prasad Acharya; Niranjan Nayak; Subhashree Choudhury

A Comprehensive Survey on Active Power Filters: Classifications, Issues and Future Trends

Subhashree Choudhury; Devi Prasad Acharya; Niranjan Nayak

Tunable Q-Wavelet Transform based Entropy Measurement to detect and classify faults in CERTS Microgrid Test Bed

S Ramana Kumar Joga; Pampa Sinha; Manoj Kumar Maharana; Chitralekha Jena

Application of Data Structure Algorithm For Sparse Matrix Computation in Power System

Subhranshu Sekhar Puhan, Sobhit Panda, Saumya Ranjan Lenka, Dr. Renu Sharma

Passive Islanding Detection in Photovoltaic Based DC microgrid using Decision Parameters with Binary Tree

Eluri N V D V Prasad; Lipsa Priyadarshini; Pradipta Kishore Dash

Harmonic Analysis of Fuzzy Controller Based Permanent Magnet Synchronous Generator with Reduced Switch Multilevel Inverter

Debswarup Rath; Sanjeeb Kumar Kar; Satyaprasad Mohapatra; Akshaya Kumar Patra; Bidyadhar Rout; Dilip Kumar Subudhi

Modelling of Machine Learning Controller Based Reduced Switch Multi Level Inverter

Debswarup Rath; Sanjeeb Kar; Akshaya Kumar Patra; Bidyadhar Rout

Grid Independent Operation of 200 hp DC Drive Using Solar-Wind-Battery Hybrid Power Source

Debswarup Rath; Sanjeeb Kar; Akshaya Patra; Satyaprasad Mohapatra;

Face Recognition from Partial Face Data

Safa Alfattama ; Priyadarshi Kanungo ; Sukant KishoroBisoy;

MAC Layer Protocol Selection Mechanism for the Energy Efficient Cross Layer Protocol Design of Wireless Sensor Network

S. Arockiaraj; H. Hebbar; K. Makkithaya

Study on detection of breast cancer using Machine Learning

Sunpreet Kour; Rakesh Kumar; Meenu Gupta

Hexagonal Spiral Photonic Crystal Fiber

Arshiya Aggarwal; Rohan Gupta; Ankur Saharia; Manish Tiwari

IoT Based Fog and Cloud Analytics in Smart Dairy Farming

Subhra Debdas; Sarbani Mohanty; Biswarup Biswas; Anuridhi Chhangani; Subhankar Samanta; Srijita Chakraborty

Comparison of Fault Detection Technique for AC Microgrid Protection

Rudranarayan Pradhan; Premalata Jena

12/3/22, 3:00 PM Study of Harmonics Contribution by Various Types of Loads in a Low Voltage Distribution System and Reduction of Harmonic... IEEE.ora IEEE Xplore IEEE SA **IEEE Spectrum** More Sites Cart Create Personal . ➡)Account Sign In Access provided by: Sign Out My Settings V Help V Browse V Dr B C Roy Engineering College Access provided by: Sign Out Dr B C Roy Engineering College Q All ADVANCED SEARCH Conferences > 2021 International Conference... Study of Harmonics Contribution by Various Types of Loads in a Low Voltage Distribution System and **Reduction of Harmonics** Publisher: IEEE PDF **Cite This** S. Biswas; S. K. Goswami All Authors ₿ᢏ**₽**©₻♠ More Like This 45 Alerts Power Quality Investigation of Distribution Full Networks with High Penetration of Solar **Text Views** Energy Manage Content Alerts 2019 21st International Middle East Power Systems Conference (MEPCON) Add to Citation Alerts Published: 2019 Analysis of the distributed power generation Abstract ĥ with focus on power plant technical conditions Document 2021 20th International Symposium Sections **INFOTEH-JAHORINA (INFOTEH)** Abstract: This paper studies the different sources of harmonics from residential I. Introduction Published: 2021 and commercial loads in the low voltage distribution zone. To study the impact II. Study on of harmonics, an IEE... View more Show More Harmonic Sources Metadata Abstract: III. Harmonic Load This paper studies the different sources of harmonics from residential and Flow Analysis commercial loads in the low voltage distribution zone. To study the impact of IV. System Under harmonics, an IEEE 33 bus radial distribution system is considered. Different Consideration types of nonlinear loads are assumed to be distributed along the radial distribution system. The contribution of harmonics by any one non linear load V. Simulation and has almost no significant effect. This paper shows that their cumulative effect Results can produce a noticeable amount of harmonics and hence has a poor impact Show Full Outline on power quality. Some techniques are also applied to study how the harmonics can be reduced. The program is simulated with the help of MATLAB. Authors Published in: 2021 International Conference in Advances in Power, Signal, Figures and Information Technology (APSIT) References Date of Conference: 08-10 October **INSPEC Accession Number:** 21526764 2021 Keywords Date Added to IEEE Xplore: 21 DOI: Metrics December 2021 10.1109/APSIT52773.2021.9641412

https://ieeexplore.ieee.org/document/9641412/authors#authors

12/3/22, 3:00 PM

ction of Harmonic...

ore Like This VISBN	Information:	Publisher: IEEE	
ISBN Print	ronic :978-1-6654-2506-3 on Demand(PoD) :978-1-6654-2507-0	Conference Location: Bhubane India	swar,
S. Biswas Dept. of E West Ber	electrical Engineering, Dr.	B. C. Roy Engineering College, Durga	apur,
S. K. Gos Dept. of E		avpur University, Kolkata, India	
	:=	Contents	
Due to and ele importa the res harmor supply voltage conditio current owing t 15th, e	ctronic equipments, the ha int phenomenon. More em- earch for finding the harmonic peak demand become over of the transfo Biger insteaCt on. These phenomenon less and production of harmonic o triple harmonics (i.e. odd icc.)[I]. This spectral compo- he transformer making on	phasis is given now a day on onic sources, impacts of cs etc. Transformers when orloaded. Again the terminal ontingutigRtsatting or no load ads to distortion of magnetizing ics. The distortion is mainly d multiples of three, like 3rd, 9th, nent can be encapsulated	
Author	s		~
S. Bisw	as		
	Dept. of Electrical Engineering, Dr. B. C. Roy Engineering College, Durgapur, West Bengal, India		
S. K. G Dept. of		idavpur University, Kolkata, India	
Figures			v
References			~
Keyword	Keywords		~
Metrics			~
E Personal Account	Purchase Details	Profile Information	Need Help?
ANGE	PAYMENT OPTION		US & CANADA: +1 800 678
ERNAME/PASSWORD	VIEW PURCHASE	PREFERENCES	4333

0060

TECHNICAL INTERESTS CONTACT & SUPPORT

EDUCATION

Follow f in 🎔

2/3

12/3/22, 3:00 PM Study of Harmonics Contribution by Various Types of Loads in a Low Voltage Distribution System and Reduction of Harmonic...

About IEEE Xplore | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | IEEE Ethics Reporting 🗹 | Sitemap |

IEEE Privacy Policy

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2022 IEEE - All rights reserved.

IEEE /	Account
--------	---------

- » Change Username/Password
- » Update Address
- » Payment Options » Order History » View Purchased Documents

Purchase Details

Profile Information

- » Communications Preferences
- » Profession and Education
- » Technical Interests

Need Help?

- » US & Canada: +1 800 678 4333
- » Worldwide: +1 732 981 0060
- » Contact & Support

About IEEE Xplore | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. © Copyright 2022 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.