## **2023 International Conference on Power, Instrumentation, Control** and Computing (PICC 2023)

**Thrissur**, India 19 – 21 April 2023



IEEE Catalog Number: CFP23ZUX-POD **ISBN:** 

979-8-3503-3447-0

## **Copyright © 2023 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:	CFP23ZUX-POD
ISBN (Print-On-Demand):	979-8-3503-3447-0
ISBN (Online):	979-8-3503-3446-3

## 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



Table of Content- PICC2023		
Page #	Title	Authors
1	AN ADAPTIVE LOAD-SHEDDING METHOD FOR RENEWABLE INTEGRATED POWER SYSTEMS	Sk Fahim Abrar*; Nahid-Al Masood
7	Privacy Prevention Techniques in Cyber Physical System for Pharmaceutical Care Services	Swati Devliyal; Sachin Sharma*; Himanshu Rai Goyal
13	Stock Market Prediction using Machine Learning Techniques: A Systematic Review	Khushboo Joshi*; Aditi Gupta; Akansha .; Madhu Patel; Vibha Pratap
19	A K-Medoids-LSTM based Technique for Electromechanical Modes identification for Synchrophasor Applications	Manoranjan Sahoo; Anamika Roy*; Shekha Rai
25	Deep Learning and Binary Representational Image Approach for Malware Detection	Varsha S. Patil*; Shinit Shetty; Sanskruti Wathare; Anushka Tawte
32	Coupling Enhancement of Hemispherical Dielectric Resonator Antenna	Sheeba Varghese*; ABDULLA P; jasmine Muhammed; Ann Mary Baby
37	Reverse Engineering Piping and Instrumentation Drawings: A Deep Learning Approach	Indrajith Janaka Ekanayake*; Jayani Warnakula; Dr. Sameera Viswakula
41	Complementary Terminal Sliding Mode Control for Variable Speed Wind Turbine	Saravanakumar Rajendran*; Debashisha Jena; Matias Diaz
46	A Review on FPGA Implementation of Lightweight Cryptography for Wireless Sensor Network	Sreehari B*; Vinayak Sankar; Roshan Silvester Lopez; Vaishnav K S; CELINE MARY STUART
52	Research on Enhancing Accuracy in Vehicle Detection	Surya S Pandey*; Dr. B.Meenakshi Sundaram; Sneha A; Monesh G; Charan N
58	Control of Hybrid PV System with Battery Storage	Chiranjib Biswas; Vinay Gurram; Bikram Das; Prabir Ranjan Kasari; Abanishwar Chakraborti*; Swanirbhar Majumder

64	A Novel Dual Transformer Triple Active Bridge to Interface Renewable Energy Storage and Load	Adarsh S.*; Nagendrappa H
72	Newspaper Article Summarization using Combinational Method	Md. Siam Ansary*
76	Initial Results with Real-Time Testing of Smart-WAMS for Power Oscillation Monitoring	Lalit Kumar*; Nand Kishor; Jagdish Kumar; Merkebu Zenebe Degefa; Thuc Duong
82	Recursive Least Squares based Dynamic Model Predictive Control for Grid-Tied Active Front End Converters	RAJDIP DEBNATH*
87	Collision Avoidance Algorithm for a Quadrotor UAV in Dynamic Environments	ABITHA M.A.*; ABDUL SALEEM
93	A Combination of Optimal PWM Techniques for Control Across a Wide Modulation Range in Five Level Voltage-Source	Neerparaj Rai*; Ashish Maheshwari
99	Bridge-less Dual Source Integrated Converter for Electric Vehicle	Amala Baby*; ABDUL SALEEM
107	Grey Wolf Optimizer Applied to the Wide-Area Damping Controller Design	Murilo E. C. Bento*
113	Load Margin Assessment of Power Systems Using Chaotic Crow Search Algorithm	Murilo E. C. Bento*
118	Crowdsourcing of Internet of Things: Applications, Trends in technology and the Future	Anoopa S*; Salim A; Dr Dhanya S Pankaj
124	Machine Vision Techniques for Cervical Intraepithelial Neoplasia Detection	Akanksha Kapruwan; Himanshu Rai Goyal ; Sachin Sharma*
130	Frequency Stability Analysis in Islanded Microgrid via Sliding Mode	Ark Dev; Akash V. Barva; Vikash Kumar Verma; Sumant Anand*
136	Condition monitoring of degradation parameters using dynamic mode decomposition	Debashisha Jena*; Saravanakumar Rajendran

141	Cluster Synchronization Conditions for Coupled Network of Class of Nonlinear Systems Using Partial Contraction	Akshay kumar Jaiswal*; yashasvi Chauhan; BHARAT BHUSHAN
147	Comparison of Faster RCNN and YOLO V3 for Video Anomaly Localization	ANOOPA S*
151	Prediction of RNA Binding Proteins from Amino Acid Sequences Using Machine Learning Techniques	SHILPA K SHIBU*; Salim A
159	Automated Irrigation System for Efficient and Portable Farming	Rajanikant A. Metri*; Aditya Desai; Shreyas Patil; Aishwarya Nagargoje; Devika Desai
165	Self-Tuning Backstepping and Sliding Mode Control for Robust Trajectory Tracking in Differential Drive Wheeled Mobile Robots	Kannan P Kochumon*; Lal Priya P S; HARI KUMAR R
171	A Novel Partial Shading Detection and Maximum Power Harvesting Algorithm for Reconfigurable PV Array	Naveen Bhati*; Manoj Tripathy
177	A Simulative Study on Operational Transconductance Amplifiers in CMOS Technology	Aswathy Krishnan B*; Najva N
182	Gaussian Process based Path Following Control of Snake Robots	Gopu Mohandas V M*; HARI KUMAR R; Lal Priya P S
188	A Survey on Stock Market Prediction Techniques	Krishnapriya C A*
194	Sign language recognition of Malayalam alphabets using transfer learning	BABY SYLA L*; Salim A
198	COMPARATIVE STUDY OF PARALLEL PREFIX ADDERS BASED ON CARRY PROPAGATION AND SUM PROPAGATION	Anagha M*
204	Wide Speed Range Control of PMSM Based on MTPA and Flux- Weakening Control	Abhishek Dalal*; Mini Sreejeth
209	Design and Analysis of Vienna Rectifier considering System Parasitic for off-Board EV Charging	Kushank Singh*; Vanjari Venkata Ramana

215	Design and Power Flow Control in Standalone PV System with Reduced Battery Current Ripple	Md. Modassir Masoom*; NARENDRA KUMAR; Mayank Kumar
221	A Current Controlled Isolated Integrated AC/DC LED Driver	RAMESH KUMAR P*; Shabna C
227	An Asynchronous Exciter fed Brushless Wound Field Synchronous Motor Drive for Electrified Vehicle Application	Surajit Saha*; Kaushik Mukherjee
233	A Non-Isolated Three Port DC/DC Converter to Integrate Solar PV and Energy Storage System	RAMESH KUMAR P*; AJANYA T P
241	Survey on Deep Learning based Automated Systems for the Detection and Grading of Diabetic Retinopathy using Retinal Fundus Images	Vinya Vijayan*; Salim A
247	Decentralized market model using Automated Market Maker for three- phase unbalanced distribution networks	K C Bevin*; Ashu Verma
253	Cloud Computing and IoT Integration Issues, Challenges and Opportunities	Anil Kumar Gankotiya*; Shiv Agarwal; Devendra Prasad; Sheo Kumar
261	Two Stage EV Charger based on Bridgeless PFC Converter for e- Rickshaw.	SREEHARI P*; Nisha B Kumar; Ismayil C
266	Power Decoupling Using Inductor In Triple Active Bridge	RAVI RANJAN; Anand Panchbhai*; GANESH CHILAKALAPUDI; Amritesh Kumar
271	Adaptive Backstepping Control of 2-DOF Helicopter System under Parametric Uncertainty	Md Imtiyaz Uddin; Rahul Kumar Sharma; Ram Kumar; Ezhilarasi Deenadayalan*
277	Simulation and Implementation of a 350kV, 50mA High Voltage DC Generator for Particle Accelerator Applications	Amal S*
284	Design and Control of Fault-Tolerant Interleaved Buck Converter for Battery Charging Applications	Abhishek Chawla*; Mayank Kumar

290	A Boost PFC fed LLC Resonant Converter For Electric Vehicle Application	Satyamit Kumar*; NARENDRA KUMAR
295	Atomic Orbital Search Optimization Based Fractional Order PID Controller for 4 DoF Lower Limb Exoskeleton	Ram Kumar; Yogesh Bothara; Ezhilarasi Deenadayalan*; Mohanavelu K
301	A Comparative Study of Radix-4 Adder and Accuracy-Configurable Radix-4 Adder	Indraja K P*; Dr Roy Francis
306	Comparison of Sine-wave inverter topologies: Infinite-Level inverter and Differential inverter	ADHIPA K R*; Jayanand B
313	A Machine Learning Approach to Self-Adjust Optimal Air Conditioning Temperature using Differential Air Velocity	Adithya SM*; Karunakara P. Menon; Anjana M; Anupama Joy
319	Beyond 5G Communication Networks Enabling Massive IoT	ashish sharma*; Rinku Garg
325	Broken Rotor Bar Fault in 3-Φ Squirrel-Cage Induction Motors: A Critical Observations	SSSR SARATHBABU DUVVURI*
331	A Simple, Linear Circuit for Measuring fF Range of Capacitances	Mthun M Sakthivel *; Virender Pawar
336	Generation of Synthetic Computed Tomography from Magnetic Resonance Images: A Literature Review	Gayathri Roy; Nimisha Mohan; Sneha R; Vaishnavi C Shubin; Dr Ashutosh Mishra*
342	TUNING OF PID CONTROLLER IN MAGNETIC LEVITATION SYSTEM APPLYING HONEY BADGER ALGORITHM	Vasudha Sharma*
347	A Survey of Bi-directional DC-DC Converters for Transportation Electrification and Microgrid Applications	Aaliya Farzana P. A.*; Rijil Ramchand; Harish Sudhakaran Nair
353	Solar PV fed Non-Isolated DC-DC Multiport Converter	Kumood .; Krishan Kumar; Jatin Dalal*; Mayank Kumar

359	Development of a Multipurpose Solar Powered Insect Pests Trap: KRISHI VIKAS	Jincy Jose*
365	Architectural Design of Malware Infected File Detection using Deep Learning	SREEPARNA SREEJAY O P*
370	Comparative Study on Extractive Summarization Using Sentance Ranking Algorithm and Text Ranking Algorithm	Mansoora Majeed*
375	Condition Monitoring of Submodule Capacitors in Modular Multilevel Converter Using Digital Twin	Manish Painuly*; Saravanakumar Rajendran; Debashisha Jena
382	In-house developed 32-bit Digital Signal Processor for Strategic Applications	Priya P*; Essy Samuel; Sheba Elizabeth D; Sreekumar S; Vinod P; Gopalakrishnan T
387	A REVIEW ON VARIOUS IN-PIPE INSPECTION METHODS FOR A PIPELINE	SABITH BANNA P*; ABDUL WADOOD K P; SONU STEEPHEN; SHAFEEK M
392	Experimental investigation to analyze the effect of ambient temperature on impedance spectra of LIB for optimum BESS application	MOHIT MURARKA*; Sagar Vashisht; Dibakar Rakshit; Ashu Verma
398	Blockchain Based Medical Records System and QR Based Medicine Validation	saibhavana aluri*; Archana P E; Vinayak Anil Pillai; Vignesh R Poduval; Sanjay S Kumar
405	A study on the impact of hall sensor toggling at magnetic crossover points in a fault tolerant quadruplux BLDC motor for aerospace applications	Vivek R S*
411	SOGI-PLL-based control scheme for PFC Boost Converter under Distorted Grid Condition	Sushant Chaturvedi*; Alka Singh
417	A 3-Point Control Scheme for a Fault Tolerant Duplex Coil BLDC Motor Based Launch Vehicle Electromechanical Actuation System	Denil V Robinson*

\_

423	Topology Identification of Low Voltage Distribution Networks using Smart Meter Data	Sonam Mittal*; Ashu Verma
-----	--	---------------------------