

2021 IEEE Madras Section Conference (MASCON 2021)

**Chennai, India
27-28 August 2021**



**IEEE Catalog Number: CFP20Z32-POD
ISBN: 978-1-6654-4736-2**

**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:	CFP20Z32-POD
ISBN (Print-On-Demand):	978-1-6654-4736-2
ISBN (Online):	978-1-6654-0405-1

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

eCF Paper ID Details

Page	AUTHORS	ARTICLE TITLE	Conference Paper ID	eCF PAPER ID
1	S Srinivasan and G Srinivasan	On Eliminating Cumbersome Measurements in Semi-active Suspension Control of Ground Vehicles	MASCON006	323169
7	Amit Singh Tandon, Naveen Yalla, AVJS Praneeth, Piyush Kumar and Vijay Anand	Design of GaN based 72 V, 3.3 KW LLC Resonant Converter for on-board EV Charger	MASCON043	323170
13	S.Jayalakshmy, B.Lakshmpriya, C.Vinothini and R.Revathi	Wavelet Packet Descriptors for Physiological Signal Classification	MASCON047	323152
19	B.Elizabeth Caroline, M.Margarat, K.Raveena, G.Afreen Begum, P.Nithya valli and E.Sri Idhaya	Design and Performance Analysis of PCSOA-MZI based All-Optical Binary Converter for Octal Inputs	MASCON048	323193
25	P.Partheban and R.P.Kumudini Devi	Phasor Estimation at Off-nominal Frequencies Using Five Point Stencil Method	MASCON049	323153
30	Geriki Polaiah, Krishnamoorthy.K and Muralidhar Kulkarni	Triple-Band Modified Square Slotted Antenna with Enhanced Gain for RF Energy Harvesting	MASCON060	323194
38	Aashish Kumar, Chandra Shekhar Rai and Mukesh Kumar Khandelwal	Omnidirectional Circularly Polarized 4-Port MIMO Antennas with Minimum Cross-Polarization for 5GApplications	MASCON066	323171
43	Pasala Gopi, M. Ramesh and M. Padma Lalitha	Evaluation of Automatic Voltage Regulator's PID Controller coefficients using Python	MASCON073	323195

50	Devi Selvakumar and Balasubramanian Madanmohan	Correlation of Bacteria Growth and Electrical Impedance Spectroscopy in Stored Raw Ground Water	MASCON084	323154
56	Usha Sharma, Garima Srivastava and Mukesh Kumar Khandelwal	A Compact Wide Impedance Bandwidth MIMO Antenna with Vias and Parasitic Strip	MASCON087	323196
60	Sowmiya M, Banu Rekha B, Dhaksana A, Priyadharshini A	An Integrated Vessel Segmentation and Machine Learning approach for abnormal vasculature detection in Retinal Images	MASCON088	323155
67	Manjari A P, S Sanchana, P Vijayakumar and Bala Naga Jyothi V	Model aided Simulation and demonstration of TrueNorth seeking algorithm using MEMS based Gyroscope	MASCON096	323197
73	Santosh Kumar Satapathy and Hari Kishan Kondaveeti	Automated Sleep Stage Analysis and Classification Based on Different Age Specified Subjects From a Single-Channel of EEG Signal	MASCON099	323156
80	K.Jayashree, D.Sivamani, A.Sangari, D.Shyam, J.Anto Sheeba and A.Nazar Ali	A Novel Method of Distributed Computing for Probabilistic Transient Stability Analysis	MASCON103	323172
85	Kesavakumar Balakrishnan, Arul Muthiah Manickavasagam, Vedachalam Narayanaswamy and Venkatesan Ramasamy	Machine Learning approach for prediction of status of rechargeable batteries used in deep ocean moored buoy system using in-situ parameters	MASCON117	323198
88	S.Divya, M.Krishna Paramathma and K.Premkumar	A novel strategy to solve combined economic emission dispatch using crow search algorithm	MASCON118	323157

96	S.Jayalakshmy, Gnanou Florence Sudha and Sushmitha Sundaram	Prediction Model based on pink noise respiratory signal augmentation	MASCON123	323199
102	Engr. Roselito E. Tolentino, Janielle D. Antiporta, Carlo G. Coste, John Carlos H. Garro, Ariane Grace B. Hernandez and Mariela A. Pasamba	Recognizing Threat through Object and Gesture Recognition by Applying Convolutional Neural Network and Adaptive Boosting Algorithm Using Microsoft Kinect for Xbox One	MASCON130	323158
110	Priyadarshini Mahalingam, D.Kalpana and T.Thyagarajan	Overfit Analysis on Decision Tree Classifier for Fault Classification in DAMADICS	MASCON133	323200
114	Menaghapriya B R and Sangeetha R G	Performance Analysis of Optical Mesh Network using Machine Learning Approach	MASCON147	323159
120	S. Anita Shanthy and R. Valarmathi	Image processing on fuzzy near sets	MASCON156	323160
125	Dharmendrakumar Patel and Nagendra Gajjar	Stability and Single Event Upset Analysis of Rad-hard SRAM Bit Cells in CMOS 90nm Technology	MASCON174	323201
129	Kishore Bingi, Rakshit Raghavendra Kulkarni and Rhea Mantri	Design and Analysis of Complex Fractional-order PID Controllers	MASCON190	323173
135	Kishore Bingi, Rakshit Raghavendra Kulkarni and Rhea Mantri	Development of Hybrid Algorithm Using Moth-Flame and Particle Swarm Optimization	MASCON191	323202
141	Abishek R, Monalisa Maiti, Sunder M, Kishore Bingi and Harshita Puri	Adaptation of Spiral Radius and Angle in Hypotrochoid Spiral Dynamic Algorithm	MASCON192	323161

147	Girish B. Shettar, Anil D. Devangavi and Piyush kumar Pareek	A Novel Architecture for Optimum Association of Cellular Phone Users to Multi Access Edge Computing (MAEC)	MASCON194	323203
152	Rhea Mantri, Kaushik Ram Selvaraj, Monalisa Maiti, Kishore Bingi and Rakshit Raghavendra Kulkarni	Development of Exponentially Weighted Sine Cosine Optimization Algorithm	MASCON205	323162
158	Harshita Puri, Jhanavi Chaudhary, Kishore Bingi, Upasana Sivaramakrishnan and Namrata Panga	Design of Adaptive Weighted Whale Optimization Algorithm	MASCON206	323204
164	Namrata Panga, Upasana Sivaramakrishnan, Abishek R, Kishore Bingi and Jhanavi Chaudhary	An Improved Arithmetic Optimization Algorithm	MASCON209	323163
170	Rakshit Raghavendra Kulkarni, Sunder M, Kishore Bingi, Rhea Mantri and Kaushik Ram Selvaraj	An Inertia Weight Concept-Based Salp Swarm Optimization Algorithm	MASCON225	323174
176	Ponukupati Ravi Teja and R. Shanmughasundaram	ANALYSIS ON SOC ESTIMATION OF LITHIUM ION BATTERY USING EKF AND LSTM	MASCON235	323164
181	Ansith S and Bini A A	A modified Generative Adversarial Network (GAN) architecture for land use classification	MASCON242	323205
188	Trevor Pinto and Yakub Sebastian	Detecting DDoS attacks using a cascade of machine learning classifiers based on Random Forest and MLP-ANN	MASCON244	323175
194	M.Karuppasamyandiyan, P.Aruna Jeyanthi, D.Devaraj and V.Agnes Idhaya Selvi	Hopf bifurcation based dynamic available transfer capability calculation in renewable integrated deregulated power system	MASCON258	323243

204	Manish Dash and Dipankar Pal	Multifunction Filter using CNTFET based Current Conveyors	MASCON260	323206
208	Shreyas Madhav A V, M V Pranav, S Vishakhavel, Harshaan Murali and S K Ayesha	A Multi-Dimensional Deep Hierarchical Approach Towards Aerial Hyperspectral Image Classification	MASCON263	323165
215	Karri Babu Ravi Teja and Navneet Gupta	High Work Function Metal Electrodes for Performance Improvement of an Organic Thin Film Transistor (OTFT)	MASCON265	323207
219	Aditya Jyoti Paul	Advances in Classifying the Stages of Diabetic Retinopathy Using Convolutional Neural Networks in Low Memory Edge Devices	MASCON272	323176
227	Ramesh B Darla and Chitra A	A Blackbox Failure Rate Prediction Method for Power Electronic Converters	MASCON277	323208
233	Ishita Agarwal, Ayushi Agrawal and Navneet Gupta	Organic Thin Film Transistors: Device Architecture, Material Selection and Modelling	MASCON280	323177
238	A.Poornima and N.Savithaa	Classification of Pathological and Non Pathological Murmur based on Priori Knowledge of Heart sound	MASCON288	323209
243	Sonu S B and A. Suyampulingam	Linear Regression Based Air Quality Data Analysis and Prediction using Python	MASCON290	323210
250	Sandip Roy and Joseph John	Wiener filter equalization for higher data rate over 100m large-core 1mm SI-POF	MASCON296	323166

257	Pasala Gopi, M. Ramesh and M. Padma Lalitha	Practical design of an Off-grid Solar PV system for Domestic application	MASCON297	323227
263	Y V Krishna Reddy, Mule Lakshmi Devi, A V Sudhakara Reddy and P Vinod Kumar	Economic dispatch solutions with piecewise quadratic cost functions using Spotted hyena Optimizer	MASCON298	323228
269	Mahfooz Alam, Mohammad Shahid and Suhel Mustajab	SAHEFT: Security Aware Heterogeneous Earliest Finish Time Workflow Allocation Strategy for IaaS Cloud Environment	MASCON308	323178
277	SAM Matiur Rahman, Md. Asraf Ali and Md. Abdullah Al Mamun	Using Surface Electromyographic Signal to Assess Fractal Dimension from Biceps Brachii Muscle based on Different Elbow Joint Angles	MASCON327	323211
281	Mohammad Dehan Rahman, Fahim Faisal, Mirza Muntasir Nishat and Md. Rafid Kaysar Shagor	Design and Analysis of Passive LC3 Component Boost Converter	MASCON329	323229
287	Rupendra Kumar Pachauri, Madhura Kamalakar Pardhe, Safia A. Kazmi and Ankur Kumar Gupta	Improved SDK based Shade Dispersion Methodology to Achieve Higher GMPP of PV Systems under Shading Scenarios	MASCON333	323179
293	Diksha Mehta, Shriya Sehgal, Tanupriya Choudhury and Tanmay Sarkar	Fruit Quality Analysis using Modern Computer Vision Methodologies	MASCON339	323212
300	Yugal Kishor and R.N. Patel	Solar PV fed Two-Stage DC/DC Converter for Low-Voltage DC-Microgrid	MASCON346	323230
305	Sankalp Gour, Deepak Kumar and Vinod Yadav	Charge-controlled electromechanical instability modeling of a dielectric plate actuator	MASCON349	323180

309	P. Sivaraman, J. S. Sakthi Suriya Raj, P. Ajith Kumar	Power quality impact of electric vehicle charging station on utility grid	MASCON350	323181
313	M Shwetha, Swathi V, E Annie Evangelene, Gokul S Nair, Praveen Kumar N, Balakrishnan P	Application of EWT for Analysing Stator Inter-Turn Fault in SPMSM using Finite Element Method	MASCON356	323213
320	John Bosco P and S. Janakiraman	Combined Edge Detection (CED) for Similar Images Retrieval and Re-ranking	MASCON367	323251
328	Palthur Shashavali and V. Sankar	Evaluation of Probabilistic Measures of Interleaved Flyback Inverter with Switched Redundancy and Cutset Concepts	MASCON374	323231
338	Manju Khanna, Tarun Tiwari, Satyam Agarwal and Aakarsh Etar	Visual Perception Stack for Autonomous Vehicle Using Semantic Segmentation and Object Detection	MASCON376	323214
343	Subhranil Das, Mainaki Saraf, Vinay Jagadeesh, Amardeep MJ and H.L. Phalachandra	Deduplication of Docker Image Registry	MASCON382	323182
351	Alok Kumar Mishra, Shubham Sinha, Subbarao D.D.V, D. Vaithyanathan and Baljit Kaur	Study and Implementation of Low Power Decoder using DVL and TGL Logic	MASCON391	323232
357	Alok Kumar Mishra, Shubham Sinha, Subbarao D.D.V, D. Vaithyanathan and Baljit Kaur	Implementation and Investigation of Different SRAM Cells using DLTFET Device	MASCON392	323183
363	D Vaithyanathan , Sanket Mukund Sonar, J Britto Pari, K.Mariammal and K Kunaraj	Performance analysis of full adder circuit using conventional and hybrid techniques	MASCON395	323184

370	Nithin Rao R and Rinki Sharma	Analysis of Interest and Data Packet Behaviour in Vehicular Named Data Network	MASCON401	323185
375	Ramkumar Natarajan, Eswaran Parthasarathy and P. Muragapandyan	High-Performance In _{0.13} Al _{0.83} Ga _{0.04} N/AlN/GaN/In _{0.04} Ga _{0.96} N HEMT for High Power Millimeter Wave Electronics	MASCON405	323186
380	Lingampally Shalini, Soumyalatha Naveen and Ashwinkumar U. M	PREDICTION OF AUTOMOBILE MPG USING OPTIMIZATION TECHNIQUES	MASCON407	323247
386	Karuna Kumawat, D. S. Ajnar, P. K. Jain	Design and Analysis of Noise Immune High Speed and Leakage-Tolerant Schmitt Trigger using 180nm CMOS Technology	MASCON411	323215
391	Aromal S, George Zachariah V, Harisankar M, Nikhil Narayanan and Ansamma John	Denoising Heterogeneous Malayalam Document Images Through Binarization	MASCON419	323233
397	V. Vinay Kumar, K.V Ranga Rao and V. Sridhar	Subspace Analysis Technique on Featured Images in Leaf Species Recognition	MASCON436	323216
405	Shubham Kumar Sharma, R. S. Gamad, P. P. Bansod	Design and Analysis of Low Power, High Speed, Leakage Control Comparator using 180nm Technology For A/D Converters	MASCON437	323217
410	Kamalesh MS, N.Senthilnathan, C.Bharatiraja, C. Kumar and L.Deepika	Analysis of Ripples in SEPIC based Buck-Boost Converter for Low Power Applications	MASCON453	323218
417	Ravi Eswar Kodumur Meesala, Sivaprasad Athikkal, Pooja Pradhan, Shanid Prasad, Ankit Prasad	Modified Direct Torque Control of PMSM Drive for Electric Vehicle Application	MASCON463	323234

422	Jim Elliot Christopherjames and J. B. Jeeva	A handheld optical probe for breast imaging using Monte Carlo Simulation technique	MASCON468	323235
428	Rahul Raj R and Peter K Abraham	Sine Wave Inverter with Three Stage Battery Charger for Solar Photovoltaic Application	MASCON474	323236
433	Jagadeesh Babu Kamili, Kiran Kumar Bandi, Tathababu Addepalli and Siva Sai Lella	Characteristic Mode Analysis of Curved Conducting Planes	MASCON477	323237
437	V. K. Viekash, Pramoth Arun, S. Manimozhi, Gaurav Devendra Nagotanekar and Ezhilarasi Deenadayalan	Deep Learning Based Muscle Intent Classification in Continuous Passive Motion Machine for Knee Osteoarthritis Rehabilitation	MASCON480	323219
445	Preethi Rajan and K.R.M Vijaya Chandrakala	Statistical Model Approach of Electricity Price Forecasting for Indian Electricity Market	MASCON498	323248
450.	Surendra Kumar Koganti, G Purnima, Pechetti Bhavana, Y Veera Raghava and R Resmi	Comparative Study between Cell Balancing Methods in Electric Vehicle	MASCON509	323220
457	D. Vaithyanathan, Alok Kumar Mishra, Twinkle Bhardwaj, Vipul Jee Verma, Baljit Kaur	Power Consumption and Delay Comparison of a Modified TCFF with Existing FF Implemented using FinFET and Load Test Circuit Analysis	MASCON520	323249
462	Tanushree Mukherjee, Sagar Sharma and Dr.K. Suganthi	Alzheimer Detection Using Deep Convolutional GAN	MASCON524	323221
468	Ahtasham Ali and Sundresan AI-Perumal	Source Code Analysis for Mobile Applications for Privacy Leaks	MASCON527	323238
474	Girisha S, Manohara Pai M.M, Ujjwal Verma and Radhika M. Pai	Semantic Segmentation with Enhanced Temporal Smoothness Using CRF in Aerial Videos	MASCON531	323250

479	Nilu R. Salim, Sankaranarayanan N and Umarani Jayaraman	Gender Classification beyond Visible Spectrum using Shallow Convolution Neural Network	MASCON532	323225
486	C.H. Kamesh Rao, R.N. Patel and Lalit Kumar Sahu	A Reconfigurable, Single Inductor based Non- Isolated Multiple Port DC/DC Converter	MASCON537	323223
493	Jayshri Kulkarni, Chow-Yen- Desmond Sim, Abhijeet Chitre, Neeta Kulkarni, Shailesh Kulkarni and Rajendra Talware	Design and Analysis of Compact 2D MIMO Sub-6GHz 5G Flexible Antenna	MASCON565	323239
498	Jayshri Kulkarni, Chow-Yen- Desmond Sim, Abhijeet Chitre, Neeta Kulkarni, Shailesh Kulkarni and Rajendra Talware	A Dual-Band Flexible CPW Fed Interlocked Concentric Rings Antenna	MASCON566	323240
502	Himanshu N Chaudhari, Pranav Darji	Analysis of Reduced Switch Multilevel Inverter Fed Permanent Magnet Synchronous Motor Drive	MASCON572	323241
508	Monirul Islam Pavel, Dewan Ahmed Muhtasim and Omar Faruk	Decision Making Process of Stock Trading Implementing DRQN And ARIMA	MASCON575	323242