



**CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY**

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1st International conference on Power Energy and Secure Smart Technologies (ICPEST-2024)

13 - 14 December 2024

Program Schedule

Track No: 1	Power System Protection, Operation & Control
Parallel Session	1A
Time and Date	15.00 – 16.30 Hrs. and 13 th December 2024
Venue	L-003, Computer Lab, L-Block, Ground floor
Chairs	Dr. Rupendra Kumar Pachauri, Associate Professor, University of Petroleum and Energy Studies, Dehradun
Meeting Link	https://meet.google.com/crg-yadx-vkw

Time	Paper ID	Paper Title and Authors
15.00 - 15.10	110	Testing of Hardware In the Loop to maintain Unity Input Power Factor Based on Artificial Intelligent Controller with Power Electronic Drive R.Hariharan; M. Deva Darshanam* (Saveetha School of Engineering, SIMATS, Chennai)
15.10 - 15.20	111	Improvisation of Electric Vehicle Battery Charging Efficiency Using Supervisory Power Management Control Algorithm Compared With Cell Balancing Optimization Algorithm by Reducing the Power Loss



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		R.Hariharan (Saveetha School of Engineering, SIMATS, Chennai);Rambabu.yerra* (Saveetha Institute of Medical and Technical Sciences, Chennai)
15.20 - 15.30	42	Revolutionizing Agriculture: A Fuzzy Logic System Approach for Optimized Operations, Precision Outputs, and Enhanced Productivity
		K.Vinitha;G.Arul Freeda Vinodhini; R.Hariharan* (Saveetha Institute Of Medical And Technical Sciences, Chennai)
15.30 – 15.40	106	Blackout Restoration at Short Period of Time using PPSR and PPPSR Algorithms with PHEV Systems in IEEE 39 Bus System
		R.Hariharan(Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai); P.Usharani* (RMD Engineering College, Chennai); T.Yuvaraj (Center of Smart Energy Systems, Chennai)
15.40 – 15.50	108	Loss Reduction and Bus Voltage Improvement in Distribution Network under Unbalanced Conditions using Cat Swarm Optimization Algorithm
		Chava Hari Babu* (Saveetha Institute of Medical and Technical Sciences); R.Hariharan (Saveetha School of Engineering)
15.50 – 16.00	70	ML-Based Time Series Forecasting For Microgrid Power Generation
		Balasubbareddy Mallala (Chaitanya Bharathi Institute of Technology, Hyderabad), (Amrita Vishwa Vidyapeetham, Amaravati Campus), Maloth Anusha* (Chaitanya Bharathi Institute of Technology, Hyderabad), Sastry V Pamidi (Florida State University, Tallahassee, USA), Md Omar Faruque (Florida State University, Tallahassee, USA), Rajasekhar Reddy M (Amrita Vishwa Vidyapeetham, Amaravati Campus)
16.00 – 16.10	118	SPWM Fed MLI (Multi-level Inverter) Configuration for Induction Motor Drive with Minimal Switch Count
		Shaik Rahimpasha* (Vardhaman college of engineering, Hyderabad), V.Sivarama Krishna (Chaitanya Bharathi Institute of Technology, Hyderabad), Karamalla Haleema (Vardhaman college of engineering, Hyderabad), Farooq Sunar Mahammad (Santhiram Engineering College, Nandyal)



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16.10 – 16.20	84	<p>Design and Implementation of Automatic Photovoltaic Panel Cleaning using IOT</p> <p>M.Perarasi* (R.M.K Engineering College, Chennai), Priscilla Whitin (Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai), Pavaiyarkarasi R (R.M.K Engineering College, Chennai), Chintala Venkatesh (Meenakshi Sundararajan Engineering College, Chennai), Sai Sharan P (R.M.K Engineering College, Chennai), B. Sarala (R.M.K Engineering College, Chennai)</p>
16.20 – 16.30	63	<p>Techno-Economic Analysis and Optimization of and Off-Grid Hybrid Systems for Sustainable Energy Solutions</p> <p>Pujari Harish Kumar (Cambridge Institute of Technology, Bangalore), N. Chinna Alluraiah* (Annamacharya University, Rajampet, Andhra Pradesh), Sunil Kumar P (Cambridge Institute of Technology, Bangalore), Soumya Mishra (KIIT University, Bhubaneswar), Nagaraja K G (Cambridge Institute of Technology, Bangalore), Rashmi G (Cambridge Institute of Technology, Bangalore)</p>



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Track No: 2	Power Electronics, Drives and Machines
Parallel Session	1B
Time and Date	15.00 – 16.30 Hrs. and 13 th December 2024
Venue	D-Block, Seminar Hall
Chairs	Prof. E. Vidya Sagar, Professor & Head Department of Electrical Engineering, University College of Engineering (A) Osmania University

Time	Paper ID	Paper Title and Authors
15.00 - 15.10	12	A Multi objective Cost Effective Approach of Energy Management of Multi-Microgrid Environment using hybrid Jaya-PSO optimization technique
		M. Sri Suresh*; Mandla Chandana; Essam Bhargavi; Solleti Rahul; Vaddi mithilesh (Chaitanya Bharathi Institute of Technology, Hyderabad); Thamatapu Eswara Rao (Vignan Institute of Information Technology, Visakhapatnam)
15.10 - 15.20	20	Optimizing Energy Efficiency in Autonomous Vehicle Platoons Using Deep Reinforcement Learning
		Abu Tayab*(Yanshan University, Qinhuangdao, China); Yanwen Li (Yanshan University, Qinhuangdao, China), Ahmad Syed (Yanshan University, Qinhuangdao, China); Zia Ur Rehman(Yanshan University, Qinhuangdao, China)
15.20 - 15.30	34	White Shark Optimization approach for optimal voltage regulation coordination between PV smart inverters and traditional Volt-VAR control devices
		Ravindhar Banothu* (BV Raju Institute of Technology Narsapur, Medak); B Suresh Kumar (Chaitanya Bharathi Institute of Technology, Hyderabad);Dr B Mangu (Osmania University, Hyderabad)



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15.30 – 15.40	66	A Novel Technique For Optimal DG Location And Sizing In Distribution System
		E. Manoj* ;B. Lalitha ;Md. Almas; P. Venkata Prasad (Chaitanya Bharathi Institute of Technology, Hyderabad)
15.40 – 15.50	79	Plasmonic structured CuO Nanofoams for optical Absorption Enhancements towards water-splitting applications
		Venumbaka Maneesh Reddy; Marepally Bhanu Chandra*; D.Nagadevi; T. Vasist Vikas Reddy; U. Harshith Varma; S. Srikar Reddy (Chaitanya Bharathi Institute of Technology, Hyderabad)
15.50 – 16.00	88	Smart Home Security and Monitoring System
		Sukhi Y*; Kavitha P;Mehul Anand G; Arigonda Roshan Kiruthik; Amith R R; Fayaz Ahamed A; Perarasi M; Sarala B (R.M.K. Engineering College, Kavaraipettai, Tamil Nadu)
16.00 – 16.10	107	Optimizing mmWave network performance by utilizing proximal V2I connected vehicles during blockages
		Vinodh Kumar Minchula*; Sharathchand Kodam (Chaitanya Bharathi Institute of Technology, Hyderabad)
16.10 – 16.20	56	Enhancing Grasshopper Techniques to Reduce Torque Ripples in Switched Reluctance Motor
		Deepa N* (Osmania University, Hyderabad); Krishnaveni. K (Chaitanya Bharathi Institute of Technology, Hyderabad); Mallesham G (Osmania University, Hyderabad)
16.20 – 16.30	93	Enhancing Electricity Forecasting with Random Forest: Utilizing Correlation Metrics for Advanced Feature Engineering
		Balasubbareddy Mallala (Chaitanya Bharathi Institute of Technology, Gandipet, Hyderabad), (Amrita Vishwa Vidyapeetham, Amaravati Campus), Azka Ihtesham Uddin Ahmeda*, Sastry V Pamidi (Florida State University, Tallahassee, USA), Md Omar Faruque (Florida State University, Tallahassee, USA), Rajasekhar Reddy M (Amrita Vishwa Vidyapeetham, Amaravati Campus), V Lakshmi Chetana (Amrita Vishwa Vidyapeetham, Amaravati Campus)



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Track No: 3	Artificial Intelligence & Machine Learning
Parallel Session	1C
Time and Date	15.00 – 16.30 Hrs. and 13 th December 2024
Venue	IoT Lab (LAB - 9) – B Block
Chairs	Dr.A.Kannan, Former Professor and Head, Department of Information Science and Technology, College of Engineering Guindy, Anna University, Chennai-25.
Meeting Link	https://meet.google.com/txr-zheu-zcj

Time	Paper ID	Paper Title and Authors
15.00 - 15.10	29	Machine Learning in Phishing URL Detection: A Review of Recent Progress
		Adhit Simhadri*; Rishikesh M; Prof M Subramaniam (CBIT, Hyderabad)
15.10 - 15.20	30	A Review of Deep Learning Techniques for Earthquake Early Warning Systems
		Shrina Tyarla*; Masuna Hemashree; Prof. M. Subramaniam(CBIT, Hyderabad)
15.20 - 15.30	43	Advance Phishing Prediction On Website Through Novel Machine Learning Techniques
		Madhubaalakrishna*; M Gavaskar; K Vishwanathan; K K R. Rajakumari (National Engineering College, Kovilpatti)
15.30 – 15.40	94	Image Processing Smart Glasses for Visually Impaired
		Dr Kanchana.K*; Nithyasree.S; Babu.V (Saveetha engineering college Saveetha Nagar, Chennai)
15.40 – 15.50	95	Integrated Deep Learning Framework for Weapon-Behavior Analysis
		Shanti P*; Manjula V (Vellore Institute of Technology, Chennai Campus. Chennai, India)



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15.50 – 16.00	92	A Framework for Patient Specific Drug Recommendation and Side-Effect Prediction System
		Morarjee Kolla ; Vemula Ishitha Reddy* ;Rddhi Reddy (Chaitanya Bharathi Institute of Technology, Hyderabad)
16.00 – 16.10	18	Predicting Optimal Crops Using Environmental and Soil Data
		Swarup Parua, Dhiman Debsarma , Soumitra Samanta , Subir Gupta* (Haldia Institute of Technology Haldia, West Bengal), Sudipta Hazra (Asansol Engineering College, Asansol, West Bengal), Devareddy Harsha (Chaitanya Bharathi Institute of Technology, Hyderabad)
16.10 – 16.20	21	Enhancing BTST Trading with Sentiment Analysis and AI
		Ritambhar Ray, Vikas Kumar Bhandari, Saikat kumar Sau, Subir Gupta* (Haldia Institute Of technology, Haldia, West Bengal), Sudipta Hazra (Asansol Engineering College, Asansol, West Bengal), Cholleti Harish (Chaitanya Bharathi Institute of Technology, Hyderabad)
16.20 – 16.30	28	Video Secure Storage System using Blockchain and IPFS for Enhanced Security
		Prem A M*, Hirthick T, Ram Kumar S S, Dheenathayalan S (National Engineering College, Kovilpatti)



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Track No: 4	Security & Block Chain Technology
Parallel Session	1D
Time and Date	15.00 – 16.30 Hrs. and 13 th December 2024
Venue	Cyber Security Lab (LAB - 10) – A Block
Chairs	Prof. Rutvij H. Jhaveri, School of Technology, Pandit Deendayal Energy University, India
Meeting Link	https://meet.google.com/hkm-xyjy-ghp

Time	Paper ID	Paper Title and Authors
15.00 - 15.15	22	Online Block Chain Based Certificate Generation and Validation
		P. Vinayasree ;J. Siva Prashanth ;P. Narsimhulu ; P. SriGanesh* (Anurag University, Hyderabad)
15.15 - 15.30	40	A Decentralized, Lightweight and Resilient Group Key Agreement Protocol Using Shamir Secret Sharing and HMAC for IoT Devices
		Kavya Sri Yakkala*; Naga Mohith Reddy Konireddy; Kavita Agrawal (CBIT, Hyderabad)
15.30 - 15.45	67	Blockchain Based Intelligent Product Expiry Management System using Image Recognition (OCR)
		Keerthana Birelli*; Sushma Siluveru; Sangeeta Gupta (CBIT, Hyderabad)
15.45 – 16.00	77	A Decentralized Blockchain Framework for Enhanced Crowdfunding Security
		Owais Siddiqui* ; Karen R. Johnson; Sangeeta Gupta (CBIT, Hyderabad)
16.00 – 16.15	78	System-Level Security Framework Using Virtualization and Neural Cryptography for Encryption in Edge Devices
		Bharath Devaraju*; Kovith Chinthala; Kavitha Agrawal (CBIT, Hyderabad)



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Track No: 5	Renewable Energy Systems and their Integration
Parallel Session	2A
Time and Date	09.30 – 11.00 Hrs. and 14th December 2024
Venue	L-003, Computer Lab, L-Block, Ground floor
Chairs	Dr. Omar Faruque Associate Professor FAMU-FSU College of Engineering Tallahassee, USA
Meeting Link	https://meet.google.com/qtj-wovb-tiq

Time	Paper ID	Paper Title and Authors
09.30 - 09.40	3	A Classical H6 Topology for Modern PV Inverter Design Namburi Nireekshana* (Methodist College of Engineering and Technology, Hyderabad), A.Archana (Methodist College of Engineering and Technology, Hyderabad), K.Pullareddy (Methodist College of Engineering and Technology, Hyderabad), Rajini kanth (Methodist College of Engineering and Technology, Hyderabad)
		Enhancing Solar Power Generation Efficiency and Grid Interfacing through Improved MPPT and OFOPID PWM Controllers Tippa Venkateswara Rao*, GIET University, Gunupur- Odisha), Dr.Ch Venkateswara Rao GIET University, Gunupur- Odisha), Kappagantula BVS Subrahmanyam (DNR College of Engineering & Technology, Bhimavaram)
09.50 - 10.00	8	Implementation and Analysis of Fuzzy Logic Control and Direct Torque Control in Brushless DC Motors



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		Ramya L N*, Abhishek Raj, Mordwaj Thakur, MD Zibran Alam (Aarupadai Veedu Institute of Technology, Vinayaka Mission's Research Foundation (Deemed to be University), Paiyanur)
10.00 - 10.10	13	Implementation of Automatic Speed Control System for Electric Vehicles Pydikalva Padmavathi* (Srinivasa Ramanujan Institute of Technology, Anantapur); Yaganti Krishna Priya, Talari Manohar (Anantha Lakshmi Institute of Technology and sciences, Anantapur); Gautham L, Navya Sree A (Srinivasa Ramanujan Institute of Technology, Anantapur); Pasala Pratheep (Anantha Lakshmi Institute of Technology and sciences, Anantapur)
10.10 - 10.20	19	An Improved Neutral point clamped HERIC based Transformerless PV Inverter Topology N. Santosh Kumar (CBIT, Hyderabad), Ahmad Syed* (Yanshan University, Qinhuangdao China), P. Hemeshwar Chary (CBIT, Hyderabad), Syed Sarfaraz Nawaz (Gokaraju Rangaraju Institute of Engineering & Technology, Hyderabad), Abu Tayab (Yanshan University, Qinhuangdao China), Zia Ur Rehman (Yanshan University, Qinhuangdao China)
10.20 - 10.30	27	Grid Integration of Inverter Based Generation and Battery Energy Storage Systems: A Review of Challenges Mahabaleshwara Sharma K*, Nagesh Prabhu (Visvesvaraya Technological University, Belagavi NMAM Institute of Technology-Nitte)
10.30 - 10.40	33	Esterification and property assessment of hybrid biodiesel from palm kernel-waste cooking oil: Case of pretreatment by Taguchi technique Olusegun D. Samuel*, (Federal University of Petroleum Resources, Nigeria), (University of South Africa, South Africa), Ufuoma Peter Anaidhuno, (Federal University of Petroleum Resources, Nigeria), Fidelis I. Abam, (University of Calabar), Christopher C. Enweremadu (University of South Africa, South Africa), B. Krishna Chaitanya (CBIT, Hyderabad)
10.40 - 10.50	60	Electromagnetic Design Of An Energy Efficient BLDC Motor Using Altair Flux-A Review M. Sindhu*, K. Meghana, D. Rohan, G. Sureshbabu, (CBIT, Hyderabad)



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Track No: 6	Electric Mobility & Energy Management Systems
Parallel Session	2B
Time and Date	09.30 – 11.00 Hrs. and 14th December 2024
Venue	D-Block, Seminar Hall
Chairs	Dr. Sastry Pamidi Professor and Chair FAMU-FSU College of Engineering Tallahassee, USA
Meeting Link	https://meet.google.com/pfj-mzvd-qww

Time	Paper ID	Paper Title and Authors
09.30 - 09.40	64	Innovative Concept Of Dual-Stator Dual-Rotor Radial Flux Pm Motor Bura Aishwarya*, Dasari Sai Kiran, Komma Ganesh, Umakanta Choudhury (Chaitanya Bharathi Institute of Technology, Hyderabad)
		Design and Implementation of an IoT-Enabled Smart Energy Meter Using Arduino
09.40 - 09.50	89	Sukhi Y*, Kavitha P, Adlin Sharo E J, Bavithra Jayamohan, Kanimozhi M N, Fayaz Ahamed A, Sarala B (Perarasi M R.M.K. Engineering College, Kavaraipettai); Jeyashree Y (SRM Institute of Science and Technology, Kattankulathur)
		Optimization of Power Loss Mitigation in Distribution Systems Using Hunter-Prey Optimization Algorithm for Multiple Types of DFACTS
09.50 - 10.00	99	Thirumalai M*, Ulagammai M, Suresh T D, John De Britto C, Hemalatha R (Saveetha Engineering College, Chennai); Yuvaraj T (Chennai Institute of Technology, Chennai); Farooq Sunar Mahammad (Santhiram Engineering College, Nandyal)



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10.00 - 10.10	100	Optimal Placement of Renewable Based DG and DSTATCOM in Distribution Systems to Alleviate the Effects of EVCS
		Suresh T D*, Thirumalai M, Ulagammai M, Hemalatha R, John De Britto C (Saveetha Engineering College, Chennai); Yuvaraj T (Chennai Institute of Technology, Chennai); Farooq Sunar Mahammad (Santhiram Engineering College, Nandyal)
10.10 - 10.20	101	Intelligent Residential Energy Control with Demand Response Incorporating Renewable Power Sources and Electric Vehicle Integration
		Ulagammai M*, Hemalatha R, John De Britto C, Suresh T D, Thirumalai M (Saveetha Engineering College, Chennai); Yuvaraj T (Chennai Institute of Technology, Chennai)
10.20 - 10.30	102	Strengthening Resilience in Distribution Networks through Microgrid Development and Integration of Distributed Energy Resources Using the Group Instruction Optimization Algorithm
		John De Britto C*, Suresh T D, Hemalatha R, Thirumalai M, Ulagammai M (Saveetha Engineering College, Chennai); Yuvaraj T (Chennai Institute of Technology, Chennai)
10.30 - 10.40	103	Reliability Analysis of Distribution Systems with Solar-Based DG and Capacitor Integration Using the Water Cycle Optimization Algorithm
		Hemalatha R*, John De Britto C (Saveetha Engineering College, Chennai); Yuvaraj T (Chennai Institute of Technology, Chennai); Ulagammai M, Suresh T D, Thirumalai M (Saveetha Engineering College, Chennai)
10.40 - 10.50	109	Hardware in the Loop (HIL) Implemented for An Investigation to Unity Input Power Factor in Presence of Permanent Magnet Synchronous Motor Drive
		R.Hariharan, M. Deva Darshanam* (Saveetha School of Engineering, Chennai)
10.50 - 11.00	117	India's National Green Hydrogen Mission: Barriers and Climatic Impact
		Rajeev Kumar*, Sonali Goel, Renu Sharma (Siksha 'O' Anusandhan Deemed to be University, Bhubaneswar); Belqasem Aljafari (Najran University, Saudi Arabia)