



**INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR SMART POWER  
SYSTEM AND SUSTAINABLE ENERGY, (CISPSSE 2020)**

July 29<sup>th</sup> -31<sup>th</sup>, 2020,

Government College of Engineering, Keonjhar-758002, Odisha, India

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**TEQIP – III**

Technical Education Quality Improvement Programme



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**DEPARTMENT OF ELECTRICAL ENGINEERING & DEPARTMENT OF COMPUTER  
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GOVERNMENT COLLEGE OF ENGINEERING KEONJHAR-758002, ODISHA, INDIA  
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*Program Schedule – CISPSSE 2020*

Day 1: 29 <sup>th</sup> July 2020	Day 2: 30 <sup>th</sup> July 2020	Day 3: 31 <sup>st</sup> July 2020
<b>Registration</b>	<b>Registration</b>	<b>Registration</b>
Inaugural Session for International Conference 2:30 PM– 3:30 PM	<b>Key note Speaker3</b> Topic: Computational Intelligence in Power Systems <b>Dr. B. K. PANIGRAHI</b> Professor, IIT Delhi 9.45 AM -10.45 PM	<b>Key note Speaker 7</b> Topic: Deep Generative Models for Imbalanced Classification. <b>Dr. SWAGATAM DAS</b> Associate Professor, ISI Koikatta 9.45 AM – 10.25AM
<b>Key note Speaker1</b> Topic: The role of Advanced power flux management strategies of a Multi-Source in facilitating cooperative energy sharing.  <b>Dr. BRAMIYA DAKYO</b> Professor,Le Havre University France 03:30 PM - 04.15 PM	<b>Keynote Speaker 4</b> Topic: Energy Storage-based Electrical Grid Flexibility : using of Up and Down-Regulation Method <b>Dr. Mahamadou Abdou Tankari</b> Professor, University of Paris-Est Creteil France  10.50AM - 11.15AM	<b>Key note Speaker 8</b> Topic: Impact of DR Strategy in Optimal Planning of Smart DistributionSystem with DGs and PEVs  <b>Dr. P. K. Hota</b> Professor VSSUT, Burla 10.25 AM – 11.00 AM
	<b>Keynote Speaker 5</b> Power Quality Improvement in Electrical Power Systems <b>Dr. ANUP KUMAR PANDA</b> Professor NIT, Rourkela  11.20 AM – 11.40PM	
<b>Key note Speaker2</b> Topic: Randomization Based Deep and Shallow Learning Methods for Classification <b>Dr. P. N. SUGANTHAN</b> Professor, NTU, Singapore 4:15 PM – 5:00 PM	<b>Paper Presentation</b> <b>Session A</b> 11.45AM - 1.45PM	<b>Paper presentation</b> <b>Session C</b> 11.45 AM – 1.45PM
<b>Panel Discussions on Power Quality issues in present Gird lead by</b> <b>Dr S Paramasivam</b> Head R & D, ESAB 5.05PM to 5.45PM	<b>Keynote Speaker 6</b> Topic: The Effects of the Smart Grid System on the National Grids <b>Dr.RAMAZAN BAYINDIR</b> Professor, Gazi University Turkey 3.00 PM – 3.30PM	<b>Key note Speaker 10</b> Impacts of Digital Transformation on Alternative and Green Energies <b>Dr. ILHAMI COLAK</b> Professor, Nisantasi University, Turkey 2.15 PM – 3.15 PM
	<b>Paper Presentation</b> <b>Session B</b> 03.30 AM – 5.30PM	<b>Valedictory Function</b> 3.15 PM – 4.00 PM

**Day 2, Date 30-07-2020 Session A 11.45 am – 1.45 pm**

- Session 1: Power System Operation and Control
- Session 2: Role of Renewable Energy in Smart Grid
- Session 3: Electronics and Communication Engineering

**Day 2, Date 30-07-2020 Session B 3.30 pm – 5.30 pm**

- Session 4: Power Quality
- Session 5: Power Electronics & Drives
- Session 6: Sustainable Energy
- Session 8: Information Technology

**Date 3, Date 31-07-2020 Session C 11.45 am - 1.45 pm**

- Session 7: Application of Soft computing to Electrical Engineering
- Session 9: Computer Science and Engineering
- Session 10: Design of Converters and its Performances

<b>SESSION</b>	<b>PAPER ID</b>	<b>TOTAL</b>
<b>1</b>	22,23,36,64,129,135,144,150,151, 200, 201,202	12
<b>2</b>	13,34,39,40,46,76,86,87,92,98,104,105,172,163,136	15
<b>3</b>	1,9,41,67,72,103,124,127,	8
<b>4</b>	55,79,81,88,90,94,141,161,166,180,186, 204	12
<b>5</b>	10,25,35,78,110,120,122,148,179,206	10
<b>6</b>	19,47,52,57,75,101,102,106,145,146,187,188,190,212	14
<b>7</b>	31,91,95,113,115,131,137,158, 171, 203, ,210,211	13
<b>8</b>	4,6,68,70,109,126, 139,155, 191	09
<b>9</b>	12,33,83,93,100,111,114,,176,	08
<b>10.</b>	49,59,73,116,119,128,133,134,147,168,, 170,205	11
	<b>TOTAL</b>	<b>112</b>

Venue 1: seminar hall

Venue 2: Computer Lab

Venue 3: Visitors Room/ HOD EE cabin

**SESSION 1**  
**POWER SYSTEM OPERATION & CONTROL**

<b>DATE</b> 30.07.2020	<b>Coordinator: Dr. Yogesh Nayak, GCEK</b> <b>Venue: Seminar Hall</b>	<b>TIME: 11.45 AM - 1.45PM</b>
<b>Chair Persons:</b> 1. Dr R K Sahoo, Professor, Professor, VSSUT Burla, Odisha, rksahu123@gmail.com, 9439702316,7504729930 2. Dr K Vijaya Kumar., Professor, SRMIST. Chennai <a href="mailto:hod.eee@ktr.srmist.edu.in">hod.eee@ktr.srmist.edu.in</a> ,9941540915 3. Dr Prema Goswami, Associate Professor, ICT, Mumbai <a href="mailto:p.goswami@ictmumbai.edu.in">mail p.goswami@ictmumbai.edu.in</a> 9004491450		
Paper ID	Title of the paper	Author(s)
22	Design and analysis of hybrid fuzzy FOPID-FOPI controller for frequency regulation of electrical power system	Soumya Ranjan Biswal, Rabindra Kumar Sahu and Pratap Chandra Pradhan
23	Fault detection in electrical power transmission system using artificial neural network	Bishal Kumar Sahoo, Sambit Pradhan, Basanta K. Panigrahi, Baladev Biswal, Nimai Charan Patel and Saloni Das
36	Analysis of Hybrid Tilt Integral Derivative Controller for Multi area Power System with Real Time Simulation	Prangya Mohanty and Rabindra Kumar Sahu
64	Inter-Area and Intra-Area Oscillation Damping for a Multi-machine Power System Integrated with Unified Power flow Controller Using Dynamuc Inertia Weight-Particle Swarm Optimization Based Fractional Order PID Controller	Siraiuddin Khan, Sonu Kumar Bansfore and Niranjana Nayak
129	Tuning of governor and damping controller parameters of hydro power station for small signal stability enhancement	Narayan Nahak, Prayag Raj Puan, Shubham Kumar, Sunit Kumar Acharya, Pratik Roul and Ramachandra Agrawal
135	Automatic Voltage Regulator Design based on Fractional Calculus Plus PID Controller	Jugajyoti Sahu, Priyambada Satapathy, Manoj Kumar Debnath, Pradeep Kumar Mohanty, Binod Kumar Sahu and Jyoti Ranjan Padhi
144	Market analysis in a Restructured power system with TCSC by LMP calculation	Ashish Singh and Aashish Kumar Bohre
150	Optimal design of a three degrees of freedom based controller for AGC of a power system with renewable energy sources	Narendra Kumar Jena, Subhadra Sahoo, Binod Kumar Sahu, Nimai Charan Patel and Kanungo Barada Mohanty
151	Optimal design and implementation of fuzzy fractional order PID controller for AGC study	Subhadra Sahoo, Narendra Kumar Jena, Amiya Kumar Naik, Binod Kumar Sahu and Manoj Kumar Debnath
200	Tuning of LFC in Multi-source Electrical Power Systems Implementing Novel Nature Inspired MFO Algorithm Based Controller Parameter	Pabitra Mohan Das, Sangram Keshori Mohapatra, Aswini Kumar Baliarsingh
201	Gravitational Search Algorithm for Optimal Tuning of controller parameters in AVR system	Nanda Kishore Ray, Sangram Keshori Mohapatra, Subhransu Sekhar Dash
202	Design and analysis of Static Synchronous Series Compensator based controller in multi machine 12 Bus power system	Sangram Keshori Mohapatra, Arijit Sahoo, Sibasis Behera, Durga Murmu, Smaranika Nayak

SESSION 2		
ROLE OF RENEWABLE ENERGY IN SMART GRID		
<b>DATE</b> 30.07.2020	<b>Coordinator: Dr Manoj Kumar Senapati, GCEK</b> <b>Venue: Computer Lab</b>	<b>TIME: 11.45 AM - 1.45PM</b>
<b>Chair Persons:</b>		
1. Dr Sidhartha Panda, Professor, Professor, VSSUT Burla, Odisha, panda_sidhartha@rediffmail.com, 6370057910		
2. Dr Manas Nayak, Associate Professor, BPUT, Rourkela, manasn72@gmail.com, 9437332558		
3. Dr Aashish Kumar Bhore, Asst. Professor, NIT Durgapur, aashish.bohre@gmail.com, 9434788011		
Paper ID	Title of the paper	Author(s)
13	Maximum Power Tracking & Harmonic Reduction on grid PV System Using Chaotic Gravitational Search Algorithm Based MPPT Controller	Sangram Keshari Pattnayak, Niranjan Nayak, Meera Viswabandhya and Durgesh Bagarty
34	Islanding Detection of Microgrid using EMD and Random Forest Classifier	Sairam Mishra, Ranjan Mallick and Debadatta Amaresh Gadanayak
39	Islanding detection of microgrid using Neural Network	Sidharth Behera, Pravati Nayak, Ranjan Mallick and Nikhil Sinha
40	Optimal Sizing and Placement of Renewable DGs using GOA Considering Seasonal Variation of Load and DGs	Kumari Sandhya Rani, Bikash Kumar Saw, Parimal Acharjee and Aashish Kumar Bohre
46	Impact of Combined Wind Energy and Energy Storage System in Unbalanced Distribution Network	Manas Nayak, Diptimayee Behura and Saswat Nayak
76	An Improved Water Cycle Optimized Extreme Learning Machine with Ridge Regression towards Effective Maximum Power Extraction for Photovoltaic based Active Distribution Grids	Lokanath Tripathy, Smrutirekha Pattnaik and Snehamoy Dhar
86	Analysing the Essentiality of Energy Storing Device in Integration and Non-integration of Thermoelectric Generator in Microgrid	Sasmita Jena, Bhabasis Mohapatra, Binod Kumar Sahu and Sanjeeb Kumar Kar
87	Power Extraction through Various Interconnections of Solar PV Networks by Co-generation and Energy Production through EMAT model	Bhabasis Mohapatra, Sasmita Jena, Binod Kumar Sahu and Sanjeeb Kumar Kar
92	Integration of Cloud Computing and IoT (CloudIoT) in Smart Grids: Benefits, Challenges, and Solutions	Leila Bagherzadeh, Hossein Shahinzadeh, Hossein Shayeghi, Abdolmajid Dejamkhooy, Ramazan Bayindir and Mohammadreza Iranpour
98	Detailed review on embedded MMU and their performance analysis on test benches	Debasis Behera and Uma Ranjan Jena
104	Optimized V-f controller for PV-based microgrid	Anasuya Roy Choudhury, Chandra Sekhar Sahu, Shubham Keshari, Ranjan Mallick, Ramachandra Agrawal and Pravati Nayak
105	Islanding Detection of Micro-grid using Ridge Regression	Abhinav Kumar, Pratyush Kumar Das, Ranjan Mallick and Pravati Nayak
136	Cascaded controlled converter system for grid connected variable speed wind generator	Sasmita Tripathy and Banaja Mohanty
163	Fault Detection in Photovoltaic (PV) Based Low-Voltage DC Micro-Grid	Dr. Manoj Kumar Senapati and Dr. Chittaranjan Pradhan
172	A Passive Islanding Detection Technique for Grid connected Solar Photovoltaic System	Sonal Meshram and Niranjan Kumar

**SESSION 3**  
**ELECTRONICS & COMMUNICATION ENGINEERING**

<b>DATE</b> 30.07.2020	<b>Coordinator: Mr. R C Khamari</b> <b>Venue: HOD EE CABIN</b>	<b>TIME: 11.45 AM - 1.45PM</b>
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**Chair Persons:**

1. Dr. A Jayanthiladevi Professor, Srinivas University, Karnatak, drjayanthila@ieee.org, 7795114956
2. Dr. C. Lakshmi, Professor, SRMIST, Chennai, hod.swe.ktr@srmist.edu.in, 9345495431

Paper ID	Title of the paper	Author(s)
1	Design of Higher-Order Regulator System using Pole-Placement Technique	Saibal Manna, Shaili Shaw and Dr. Ashok Kumar Akella
9	Comparison of Classifiers for Power Quality Disturbances with Wavelet Statistical Analysis	Hemanta Kumar Palo, Laxmipriya Samal and Badri Narayan Sahu
41	Performance Analysis of Fractional Order Sallen-Key High-pass Filter Using Fractional Capacitors	Sumit Swain, Kumar Biswal, Madhab Chandra Tripathy and Sanjeeb Kar
67	QoS parameters for Comparison and Performance Evaluation of Reactive protocols	Dr.T.P.Latchoumi, A.Vijay Vasanth, Battula Bhavya, Anusha Viswanadapalli and Dr.A.Jayanthiladevi
72	Impact of wireless cellular network on heart rate variability	Akshay Dogra, Dr. Indu Saini and Dr. Neetu Sood
103	Frequency Reconfigurable Antennas for 5G application: A survey	Sameer Tathare and Perna Goswami
124	Radio Resource Management with Reduced Co-Channel Interference in WLAN	Prasanta Kumar Swain and Shashi Bhusan Panda
127	Investigation of Different Algorithms for Estimating Time Delays between UHF Signals Emitted from Partial Discharge Sources	Aman Kumar, Sourav Dhara and ChiranjibKoley

**SESSION 4  
POWER QUALITY**

**DATE**  
30.07.2020

**Coordinator: Mr. N C Patel, GCEK**  
**Venue: Seminar Hall**

**TIME: 03.30 PM - 5.30PM**

**Chair Persons:**

1. Dr Debashish Chatterjee, Professor, JU, Kolkatta debashisju@yahoo.com/dchatterjee@ee.jdvu.ac.in 7980324845
2. Dr Durgesh Prasad Bagarty, Associate Professor, CET, BBSR,dpbagarty03@yahoo.co.in, 9437536771
3. Dr N Chellamal, Associate Professor, SRMIST, Chennai, chellammal.n@ktr.srmist.edu, 9962964643

Paper ID	Title of the paper	Author(s)
55	Comparison of Power Quality Distortion Types and Methods Used in Classification	Mehmet Rida Tur and Ramazan Bayindir
79	Two and Three- level based DSTATCOM Topologies for Compensation Analysis	JogeswaraSabat and MrutyunjayaMangaraj
81	ZSI supported DSTATCOM for Plug-in Electrical Vehicle charging Station	Jagadeesh Varri, MrutyunjayaMangaraj, Kamala Madhuri Saluru, Naveen Vasadi and Chandrasekhararao Matcha
88	Comparison of power quality improvement by using 3P2L VSI and cascaded H-Bridge 3L inverter based dual DSTATCOM	Siva Ragolu, Mrutyunjaya Mangaraj, Janaki Pakalapati, Leela Prasanna Ardhala, Pratyusha Sasubilli and Bhagya Raj Valla
90	Comparative Analysis of both Three & Fifth Level based DSTATCOM using icos $\theta$ Technique	JogeswaraSabat and MrutyunjayaMangaraj
94	Real-Time Implementation of ALMS-NN controlled UPQC	Biswajit Sahoo, MrutyunjayaMangaraj, Anup Kumar Panda and Gyana Manjari Sahoo
141	Control mechanism for D-STATCOM using Cross Correlation Approach for power Quality Improvement in 3 phase 4 wire Distribution System	Atma Ram, Parsh Ram Sharma and Rajesh Kumar Ahuja
161	DSP Based Online Power Quality Events Detection and Classification Using Hilbert Huang Transform and Random Forest Method	MrutyunjayaSahani, Sasmita Choudhury and Pradipta Kishore Dash
166	Harmonic Mitigation in Single -Phase Grid Connected Photovoltaic System Using SPWM Inverter	Sumant Kumar Dalai, Rojali Sahu and Chandra Sekhar Tripathy
180	PERFORMANCE ANALYSIS OF A NON-LINEAR SYSTEM WITH REDUCED TOTAL HARMONIC DISTORTION (THD) BASED HYSTERESIS CURRENT CONTROLLER (HCC) USING 3 PHASE DC/AC	Christy Priscilla, ArokiasamyAnanthi Christy and R.BrindhaBrindha
186	A Fuzzy Based Custom Power Device for Grid - PV System to Improve Power Quality	N K Rayaguru, S Sekar and Dr. S S Dash
204	Coordinated control of STATCOM based controller using DE Algorithm	Sanat Kumar Barik, Sangram Keshori Mohapatra, Asitkumar Patra

**SESSION 5  
POWER ELECTRONICS & DRIVES**

<b>DATE</b> 30.07.2020	<b>Coordinator: Mr. Duria Murali, GCEK</b> <b>Venue: Computer Lab</b>	<b>TIME: 03.30 PM - 5.30PM</b>
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**Chair Persons:**

1. Dr. Anup Kumar Panda, Professor, NIT Rourkela, Odisha, akpanda.ee@gmail.com, 9437369341
2. Dr. Bibhu Prasad Panigrahi. Professor, IGIT, Sarang, Odisha, bibhu89@yahoo.com, 7978120050
3. Dr. M. A. Tankari, Associate Professor, E P University, France, mahamadou.abdou-tankari@u-pec.fr

Paper ID	Title of the paper	Author(s)
10	A Novel Space Vectorized Single Reference Six Pulse Modulation for Fuel Cell Vehicle	Durgesh Prasad Bagarty, Sarthak Swaroop Dash, Satabdi Bastia and Priyanka Sahu
25	Performance of Six-Leg Solar Photovoltaic based ZSI-DVR	Miska Prasad and Yogesh Kumar Nayak
35	Implementation of Perturb & observe MPPT Technique using Boost converter in PV System	Shivendra Singh, Mohd Imam Hasan Mansoori, Saibal Manna and Dr. A. K. Akella
78	Performance Analysis of 6-Pulse HVDC-VSC Using Deadbeat Controller in d-q Reference Frame Under DC Fault Condition	Performance Analysis of 6-Pulse HVDC-VSC Using Deadbeat Controller in d-q Reference Frame Under DC Fault Condition
110	A Model Based Control Strategy for Variable Speed Operation of Three Phase Induction Generator	Sarang Khadtare, Satya Varun Sai Boni and Debashis Chatterjee
120	Speed Range Improvement of Induction Generator for wind Power Applications	Swati Suman, Debashis Chatterjee and Rupali Mohanty
122	Analysis of Three-phase Induction Machine With Balanced Condition And Unbalanced Condition	Priyanka Singh, Rudranarayan Dash, Chinmoy Kumar Panigrahi and Rakesh Rajan Shukla
148	Design and Analysis of Sliding Mode Control for Single-Phase VSI	Shubham Tiwari and Pradeep Sahu
179	PHOTOVOLTAIC BASED BRUSHLESS DC MOTOR USING CUCKOO ALGORITHM AS A MAXIMUM POWER POINT TRACKING	R.BrindhaR.Brindha, Arokiasamy Ananthi Christy and Anjaneya Anjaneya
206	Multi-Area Dynamic Economic Dispatch by Simulated Annealing	Jagat kishorepattanaik, Sangram KeshoriMohapatra, Nanda Kishore Ray, Binod Kumar Prusty, Subhransu Sekhar Dash



**SESSION 6  
SUSTAINABLE ENERGY**

<b>DATE</b> 30.07.2020	<b>Coordinator- Mr. Rakesh Ranjan Shukla, GCEK</b> <b>Venue: HOD EE CABIN</b>	<b>TIME: 03.30 AM - 5.30PM</b>
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**Chair Persons:**

1. Dr Ramazan Bayindir, Professor, Gazi University, Turkey, ramazanbayindir@gmail.com
2. Dr Ashwin Kumar Sahoo, Professor, GCVR U, Odisha, ashwinsahoo@cvrce.edu.in, 9444786904
3. Dr Binod Kumar Sahu, SOA University, Odisha, binoditer@gmail.com, 9937404248

<b>Paper ID</b>	<b>Title of the paper</b>	<b>Author(s)</b>
<b>19</b>	Bypass Diodes Configurations for Mismatch and Hotspot Reduction in PV Modules	Priya Ranjan Satpathy, Renu Sharma, Suraj Kumar Panigrahi and Sobhit Panda
<b>47</b>	Economic Operation of Grid tied PV with BESS for Increasing Battery Longevity	Manas Nayak, Sonam Gupta and Saswat Nayak
<b>52</b>	An Improved MPPT Technique Under Partial Shading Condition Using Simple P&O Algorithm	Satya Varun Sai Boni, Sarang Khadtare and Debashis Chatterjee
<b>57</b>	ANALYSIS AND SIMULATION OF A HIGH EFFICIENCY InGaP/GaAs SINGLE JUNCTION SOLAR CELL	Niharika Behera, Pruthviraj Panda and Manasa Ranjan Jena
<b>75</b>	Shifting from Carbon to Hydrogen Economy: A Case Study of Rajasthan State in India	Mohd. Faijan Mansuri, Bharat Kumar Saxena and Sanjeev Mishra
<b>101</b>	A Review on Tidal Energy	Pankaj Warak and Prerna Goswami
<b>102</b>	Performance Analysis and Cost Calculation of Stand-alone PV-DG Generation System Without Storage	Subrat Bhol and Nakul Charan Sahu
<b>106</b>	Study of Hybrid Renewable Energy System Under Various Loads	Debayani Mishra and Manoj Kumar Maharana
<b>111</b>	Design of solar tree with photovoltaic panel using phyllotaxis phenomenon	Sasmita Kar, Bhagabat Panda, Bibhu Nanda and Nandanandan Moharana
<b>145</b>	An Efficient Machine Learning Approach for Accurate Short-Term Solar Power Prediction	Shaktinarayana Mishra, Lokanath Tripathy, Prachitara Satapathy, Pradipta Kishore Dash and Nitasha Sahani
<b>146</b>	Performance Analysis of Different PV Array Configurations under Partial Shading Condition	Smruti Madhura Maharana, Abhinaba Kundu and Alivarani Mohapatra
<b>187</b>	Design and Realisation of a Low-Cost Solar PV Incorporated Electric Vehicle for Parking Premises same as 82	Suraj Kumar Panigrahi, Priya Ranjan Satpathy, Renu Sharma and Satyanarayan Bhuyan
<b>188</b>	Optimization tools for designing Solar Photovoltaic systems paper	Sonali Goel, Renu Sharma and Saumya Ranjan Lenka
<b>190</b>	Ancillary Services for Distribution Grid: Demand Response of Building Thermal Inertia case	Jura Arkhangelski, Mahamadou Abdou-Tankari, Gilles Lefebvre

**SESSION 7**  
**APPLICATION OF SOFT COMPUTING TO POWER SYSTEM PROBLEMS**

<b>DATE</b> 31.07.2020	<b>Coordinator: Mr. N C Patel</b> <b>Venue: Seminar Hall</b>	<b>TIME: 11.45 AM - 1.30PM</b>
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**Chair Persons:**

1. Dr. D Devaraj, Professor, Kalaslingam University, Tamilnadu, deva230@yahoo.com, 9842913053
2. Dr. Pravat Ray, Associate Professor, NIT, Rourkela, rayp@nitrrkl.ac.in, 9337031556
3. Dr. L N Tripathy, Associate Professor, CET, Odisha, loknathtripathy@yahoo.co.in, 9438324244

Paper ID	Title of the paper	Author(s)
31	Design and analysis of hybrid fuzzy fractional order PD-PI controller for frequency regulation problem	Abhishek Chawpattnaik, Rabindra Kumar Sahu and Pratap Chandra Pradhan
91	Optimal design and implementation of fuzzy logic based controllers for LFC study in power system incorporated with wind farms	Benazeer Begum, Narendra Kumar Jena, Subhadra Sahoo, Nimai Charan Patel and Dr. Binod Kumar Sahu
95	Design and analysis of automatic generation control of two area power system based on modified differential evolution algorithm	Ruhika Pattnaik, Sheetal Chandak, Pravat Kumar Rout, Samgram Routray and Binod Kumar Sahu
113	Frequency regulation of an Islanded AC micro grid with DFA Optimized fuzzy controller under various uncertainties	Prakash Chandra Sahu, Subhankar Acharya, Ajit Pradhan and Ramachandra Agrawal
115	Comparison and Superiority analysis of JAYA algorithm based 2DOF-IDD controller in AGC of multi area wind power system	Prakash Chandra Sahu, Subhankar Acharya, Ajit Kumar Pradhan and Kundan Kumar
131	Two-staged (PDF+1PI) Controller Design for Load Frequency Control	Nimai Charan Patel, Ramachandra Agrawal, Priyadarshini Pradhan, Sandeepana Satapathy, Ilyas Ahmed and Manoj Kumar Debnath
137	Design and implementation of EVDEPSO based IDN-FPI controller for AGC in interconnected non-reheat thermal power system	Priyambada Satapathy, Jugajyoti Sahu, Nimai Charan Patel, Manoj Kumar Debnath, Pradeep Kumar Mohanty and Jyoti Ranjan Padhi
158	Optimal Reconfiguration of Distribution System based on Multi-objective Approach to Enhance the System Performance	Balmukund Kumar, Bikash Kumar Saw and Dr. Aashish Kumar Bohre
171	Automatic generation control of power systems with unified power flow controller by improved grasshopper optimization algorithm	Pabitra Mohan Dash Sangram Keshori Mohapatra Asini kumar Baliarsingh
203	Coordinated control of SSSC based controller using GSA Algorithm	Asit kumar Patra Sangram Keshori Mohapatra Sanat K Barik
210	Optimization and Design of Grid Connected Rooftop Solar Power Plant under Various Operating Conditions	Bibhu Padarbinda Mohanty Moingi Srivalli
211	An Investigation on Orthogonal Machining of a Hybrid Polymer Composites Reinforced with Particulate Natural and Synthetic fibres: A Soft Computing Approach	Dayanidhi Jena Alok Kumar Das Ramesh Chandra Mohapatra

**SESSION 8  
INFORMATION TECHNOLOGY**

<b>DATE</b> 30.07.2020	<b>Coordinator: Mr. Sanjit Kumar Barik GCEK</b> <b>Venue: Seminar Hall</b>	<b>TIME: 3.30 PM – 5.30PM</b>
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**Chair Persons:**

1. Dr. Dilip Singh Sisodia, Professor, NIT, Raipur, [dissisodia.cs@nitrr.ac.in](mailto:dissisodia.cs@nitrr.ac.in), 8462808174
2. Dr. Pradipta Kumar Das, VSSUT, Burla, [daspradipta78@gmail.com](mailto:daspradipta78@gmail.com), 8480142375

<b>Paper ID</b>	<b>Title of the paper</b>	<b>Author(s)</b>
<b>4</b>	Genetic Algorithm based FOPID Controller Design for Balancing an Inverted Pendulum	Akshaya Kumar Patra, Abhishek Kumar Patra, Alok Kumar Mishra, Ramachandra Agrawal, Dillip Kumar Subudhi and Anuja Nanda
<b>6</b>	REAL-TIME RESUME CLASSIFICATION SYSTEM USING LINKEDIN PROFILE DESCRIPTIONS	S Ramraj, V Sivakumar and G Kaushik Ramnath
<b>68</b>	Improving Lifetime of IoT Network by Improvising Routing Protocol on Low Power and Lossy Network by using Contiki Cooja Tool	Shreenidhi H S and Narayana Swamy Ramaiah
<b>70</b>	Survey on State of Art IoT Protocols and Applications	Rajeesh Kumar.N.V and Mohan Kumar
<b>109</b>	Multi-objective optimization of high-speed end milling on Al6061/ 3% RHA/ 6% TiC reinforced hybrid composite using Taguchi coupled GRA	A.ChinnamahammadBhasha, K.Balamurugan
<b>126</b>	SMS-Based Offline Mobile Device Security System	Royston Furtado, Atharva More, Jay Bhatt and Vandana Patil
<b>139</b>	Expeditious Banking Using Blockchain Technology	Varsha Naik, Riya Pejawar, Rishabh Singh, AnaghaAher and Sneha Kanchan
<b>155</b>	Detection and Prediction of Spyware for user Applications by interdisciplinary approach	Mahesh V and Dr. Sumithra Devi K A
<b>191</b>	AN EARLY PREDICTION AND DETECTION OF ALZHEIMER'S DISEASE: A COMPARATIVE ANALYSIS ON VARIOUS ASSISTIVE TECHNOLOGIES	Subetha T, Rashmita Khilar, Sarat Kumar Sahoo

**SESSION 9  
COMPUTER SCIENCE & ENGINEERING**

<b>DATE</b> 31.07.2020	<b>Coordinator: Mr. Sanjit Kumar Barik, GCEK</b> <b>Venue: Seminar Hall</b>	<b>TIME: 11.45 AM – 1.30PM</b>
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**Chair Persons:**

1. Dr. Manas Ranjan Senapati, Professor, VSSUT Burla, manassena@gmail.com, 9437132010
2. Dr. Rakesh Shukla, Professor, SIRT, Bhopal, sukladrrajeshk@gmail.com, 9893192616
3. Dr. Sarojananda Mishra, Professor, IGIT Sarang, sarose.mishra@gmail.com, 9861414972

<b>Paper ID</b>	<b>Title of the paper</b>	<b>Author(s)</b>
<b>12</b>	Human Following Cart Using 360-degree Camera	Aquino, Beltran, Fajardo, Lopez, Sambajon and Tolentino
<b>33</b>	Topic categorization of Tamil News Articles using Pretrained Word2Vec Embeddings with Convolutional Neural Network	S Ramraj, R Arthi, V SolaiMurugan and J Julie
<b>83</b>	Data analytics to increase efficiency of the AI based energy consumption predictor	Smrutishikta Das, Tapas Kumar Choudhury and Sunil Kumar Mohapatra
<b>93</b>	Analysis of Adaptive Mutation in Crazy Particle Swarm Optimization	Sonali Samal, Shubhendu Kumar Sarangi and Archana Sarangi
<b>100</b>	Array Thinning of Beamformers using Simple Genetic Algorithm	Anurag Mohan and Dr. A ABazil Raj
<b>114</b>	Performance improvement of Cryo treated WC-Co insert turning of AISI 1018 steel using Multi objective optimization	K.Arunkarthikeyan, K.Balamurugan
<b>176</b>	EFFICIENT DEEPLARNING TECHNIQUE TO PERSON RE-IDENTIFICATION IN CONTENT BASED VIDEO SYTEM	Kolluru Pavan Kumar, K Sri Vijaya and Amar Jukuntla
<b>212</b>	Hybrid Energy Harvesting for Maximizing Lifespan and Sustainability of Wireless Sensor Networks – A Comprehensive Review and Proposed System	Mukesh Bathre, Dr. Pradipta Kumar Das

**SESSION 10**  
**DESIGN OF CONVERTERS AND ITS PERFORMANCES**

<b>DATE</b> 31.07.2020	<b>Coordinator: Mrs. Sasmita Choudhury, GCEK</b> <b>Venue: Seminar Hall</b>	<b>TIME: 11.45 AM – 1.30PM</b>
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**Chair Persons:**

1. Dr. R K Jena, Professor, BPUT, Rourkela, ranjankjena@gmail.com, 9437040077
2. Dr. Sarat Kumar Sahoo, Professor, PMEC, Odisha, sksahoo.ee@pmec.ac.in, 9840263009
3. Dr. N K Mohanty, Professor, SVCE, Chennai, nkmohanty@svce.ac.in, 8668165607

Paper ID	Title of the paper	Author(s)
49	Dynamic and Reliable Power Control Scheme for a Hybrid Autonomous System using a M-FLC based Nine Switch Converter	Soumya Mohanty, Abhijeet Choudhury, Swagat Pati, Sanjeeb Kumar Kar and Rumeet Kumar Swain
59	Design and Implementation of Perturb & Observe MPPT Algorithm under Partial Shading Conditions (PSC) for DC-DC Boost Converter by Simulation analysis	Pattathurani L, Dr. Subhransu Sekhar Dash and Rajat Kumar Dwibedi
73	BOOST CONVERTER WITH FUZZY LOGIC, PI CONTROLLER AND SLIDING MODE CONTROL FOR A VARIABLE SOURCE INPUT	Vishnu K, Nema R K and Amit Ojha
116	Impact Analysis of Inter-phase Transformer on A Double Star AC/DC Controlled Converter	Ranjan Kumar, Sanjeev Singh and Rishi Kumar Singh
119	Common Mode Voltage Reduction in NPC Multilevel Inverter by SVPWM using gh-Coordinate System	Sesadribhusan Sahoo and Irfan Ahmed
128	Design & Simulation of high gain ratio Bidirectional converter for energy storage applications	Epuganti Sri Harsha, Rajesh Kumar Nema, Savita Nema and R.D Kulkarni
133	Model Predictive Control of Three Phase Inverter Fed RL Load	ShaswatChirantan and BibhutiBhusanPati
134	A Mamdani-FLC based Nine Switch Converter Topology for Integration and Power Control of HAS	Abhijeet Choudhury, Soumya Mohanty, Swagat Pati, Sanjeeb Kumar Kar and Rumeet Kumar Swain
147	Enhancement of Dynamic Performance of A Single Phase Cascaded H-Bridge Multi-level Inverter using Closed Loop Controllers	Alok Acharya, KantipudiVvsr Chowdary, Pradeep Kumar Sahu and Kundan Kumar
168	Regulated Soft-Switching Power Supply Using Buck-Boost Converter	Siddhartha Behera, Brijesh Kumar, Rabindra Behera, Bibhu Prasad Panigrahi, Ranjan Kumar Behera and Durgesh Prasad Bagarty
170	Efficiency Enhancement of ZVS based PFC converter With Average Current Controlled Scheme	Sovit Kumar Pradhan Sreejith S. Radhakrishna Das
205	Design and simulation of hybrid cascaded multilevel inverter	Sangram Keshori Mohapatra, Ashit Khadiratna, Ankush Kumar Behera, Pragyantit Jena, Shubhashish Nayak
213	Simulation of Three, Five, Seven, Nine and Eleven-Level Cascaded H-Bridge Multilevel Inverter	Manoj Kumar, Sahu Madhusmita, Biswal Jagan Mohan Rao Malla