2nd IEEE INTERNATIONAL CONFERENCE ON ELECTRICAL POWER AND ENERGY SYSTEMS ICEPES-2021

IEEE Conference Record: 52894

December 10-11, 2021

2021 IEEE 2nd International Conference On Electrical Power and Energy Systems (ICEPES) | 978-1-6654-0236-1/21/$31.00 ©2021 IEEE | DOI: 10.1109/ICEPES52894.2021.9699735

Integrated Program

10/12/2021 (Friday)												
10:00-11:00	11:00-12:00	12:00-12.30	12:30-2:00		2:15-3:00	3:15-4:45		5:00-6.30	
Inauguration	Keynote-1	LUNCH	TS1	T1a T1b	Keynote-2	TS2	T2+T3 T4	TS3	T5 T6+ T7+T8+T9

11/12/2021 (Saturday)												
9:15-10:45		11:00-12:00	12:15-1:45		1:45-2:15	2:15-3:00	3:15-4:45		5:00-6:30	
TS4	T10a T10b	Keynote-3	TS5	T12 T10c+T11	LUNCH	Keynote-4	TS6	T13a T13b	TS7	T13c T14+T15+T16

*TS : TECHNICAL SESSION, T: TRACK NUMBER

Session wise Program with Paper ID

Tech. Session No.	TS1		TS2		TS3		TS4		TS5		TS6		TS7	
Track No.	T1a	T1b	T2+T3	T4	T5	T6+T7+ T8+T9	T10a	T10b	T12	T10c+T11	T13a	T13b	T13c	T14+T15 +T16
Paper ID	29	140	64	65	30	41	11	51	67	141	45	133	167	20
	34	154	90	68	38	49	19	61	103	158	52	135	171	56
	35	156	122	69	43	96	24	82	124	177	63	139	182	86
	50	188	136	128	55	97	25	84	173	197	77	146	186	93
	60	198	164	144	94	115	27	87	180	200	80	147	193	95
	113	212	183	176	142	213	39	105	184	48	102	150	194	106
			203		143	215	191	107			120	151	214	134
			210		157						125	160	216	174
											132	166		175

*TS : TECHNICAL SESSION, T: TRACK NUMBER

DETAILED PROGRAM: DAY-I

Date: 10/12/2021 (Friday)

Time		Event	Mode
10:00-11:00AM		Inauguration **Chief Guest**: **Shri S. S. Barpanda** Director (Market Operation) Power System Operation Corporation Limited (POSOCO) New Delhi	Online
11:00-12:00PM		**Keynote - I** **Shri Abhishek Ranjan** Additional Vice-President, BSES Rajdhani Power Limited New Delhi	Online
12:00-12:30		**LUNCH**	
12:30-2:00 PM	TS1	T1a: **Power System Stability, Dynamics & Control**	Online, MANIT Bhopal
		T1b: **Power System Stability, Dynamics & Control**	Online, SLIET Longowal
2.15-3.00 PM		**Keynote - II** **Dr. Jiwan Kumar Pandit** Associate Director, Office of Media & Public Relations ISRO Bengaluru	Online
3:15-4:45 PM	TS2	T2: ***Power System Automation, Protection and Relaying*** T3: ***Restructuring of Power System, Electricity Markets and Energy Pricing***	Online, MANIT Bhopal
		T4: ***Smart Grid and Smart Technologies***	Online, SLIET Longowal
5:00-6:30 PM	TS3	T5: ***Distributed Generation, Renewable Energy Sources and Micro/mini Grid Operation***	Online, MANIT Bhopal
		T6: ***High Voltage and Insulation Engineering*** T7: ***Robotics and Control Systems*** T8: ***Sensors and Signal Conditioning*** T9: **Signals and Systems**	Online, SLIET Longowal

DETAILED PROGRAM: DAY-2

Date: 11/12/2021 (Saturday)

Time	Event		Mode
9:15-10:45 AM	TS4	T10a: ***Power Electronics, Instrumentation and control in Electrical drives***	Online, MANIT Bhopal
		T10b: ***Power Electronics, Instrumentation and control in Electrical drives***	Online, SLIET Longowal
11:00-12:00 PM	**Keynote - III** **Prof. M. F. Rahman** University of New South Wales, Sydney Australia		**Online**
12:15-1:45 PM	TS5	T10c: ***Power Electronics, Instrumentation and control in Electrical drives*** T11: ***Applications of Power Electronics in Power System***	Online, SLIET Longowal
		T12: ***Electrical Vehicular Systems***	Online, MANIT Bhopal
1:45-2.15 PM	**LUNCH**		
2:15-3:00 PM	**Keynote - IV** **Dr. Katsushi Ikeuchi,** Sr. Principal Research Manager Microsoft Corporation Headquarters, Redmond, Washington, USA		**Online**
3:15-4:45 PM	TS6	T13a: ***Applications of Soft Computing Techniques in Electrical Power and Energy Systems***	Online, MANIT Bhopal
		T13b: ***Applications of Soft Computing Techniques in Electrical Power and Energy Systems***	Online, SLIET Longowal
5:00-6:30 PM	TS7	T13c: ***Applications of Soft Computing Techniques in Electrical Power and Energy Systems***	Online, MANIT Bhopal
		T14: ***Instrumentation & Biomedical Engineering*** T15: ***Technology relevant to Covid-19 Pandemic*** T16: ***Any other relevant topic***	Online, SLIET Longowal

Technical Session: TS1-A Venue: MANIT Bhopal 10th Dec 2021	12.30-2.00 pm
Track 1(T1a): Power System Stability, Dynamics & Control	Chair: Dr. Pankaj Swarnkar Co-chair: Dr. Deepak Verma

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	29	REDUCTION IN POWER CONSUMPTION VIA INTEGRATION OF CVR WITH NETWORK RECONFIGURATION AND VAR CONTROL	NEHA SMITHA LAKRA
2	34	IMPACT OF ENERGY STORAGE ON TWO-AREA INTERCONNECTED POWER SYSTEM WITH ADVANCED FUZZY-PID CONTROLLER	ADARSH KUMAR
3	35	DELOADING ESTIMATION OF A VARIABLE SPEED WIND POWER SYSTEM PARTICIPATING IN FREQUENCY REGULATION	DR. GANESH P. P. PRAJAPAT
4	50	REVIEW OF DEMAND SIDE MANAGEMENT WITH THERMOSTATICALLY CONTROLLABLE LOADS	SOURAV CHAKRABORTY
5	60	USING WAVELET TRANSFORM AS A TOOL TO DETECT FAULTS IN POWER TRANSFORMERS	SOMIYA PANT
6	113	SCHEME TO PROTECT GRID CONNECTED SYSTEM USING SYNCHROPHASOR	ANKUR KUMAR GUPTA

Technical Session: TS1-B Venue: SLIET Longowal 10th Dec 2021	12.30-2.00 pm
Track 1(T1b): Power System Stability, Dynamics & Control	Chair: Dr. Manpreet Kaur Co-chair: Dr. Diljinder Singh

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	140	SYSTEM FREQUENCY RESPONSE BASED OPTIMUM LOAD SHEDDING FOR INDUSTRIAL POWER SYSTEM	MUKESH KUMAR KIRAR
2	154	COMPARATIVE PERFORMANCE ANALYSIS OF CONVENTIONAL TECHNOLOGIES AND EMERGING TRENDS IN WIND TURBINE GENERATOR	SHWETA MEHROLIYA
3	156	OPTIMAL PMU POSITIONING CONSIDERING THE EFFECT OF ZERO INJECTION BUSES IN ADVANCED GRID MONITORING	MOHD. NAVAID ANSARI
4	188	EFFECT OF REHEAT TURBINE ON PERFORMANCE OF AGC OF TWO-AREA THERMAL-THERMAL POWER SYSTEM IN DEREGULATED ENVIRONMENT USING PSO OPTIMIZED PID-N CONTROLLER	PRASHANT KHARE, M. RAJU
5	198	VOLTAGE STABILITY ASSESSMENT AND IMPROVEMENT IN POWER SYSTEMS WITH SOLAR PHOTOVOLTAIC PENETRATION	CHANDRAKANT DONDARIYA
6	212	LOAD FREQUENCY CONTROL OF MICROGRID INCLUDING SMALL HYDRO POWER PLANT AND DISTRIBUTED GENERATION WITH EV PENETRATION	M. RAJU

Technical Session: TS2-A Venue: MANIT Bhopal 10th Dec 2021	3.15-4.45 pm
Track 2(T2): Power System Automation, Protection and Relaying Track 3(T3): Restructuring of Power System, Electricity Markets and Energy Pricing	Chair: Dr. Anoop Arya/ Dr. Mukesh Kumar Kirar Co-Chair: Dr. Hemant Chappa

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	64	ANALYSIS OF PRACTICAL RESULT AND MATLAB SIMULATION OF LIGHTNING IMPULSE TEST ON TRANSFORMER	LAVKUSH KUSHWAHA
2	90	OPTIMAL DEFENCE RESOURCE ALLOCATION FOR POWER TRANSMISSION LINES USING GAME THEORY	MAHESH GANDRA, DEEP KIRAN
3	122	LOAD PROFILE SEGMENTATION OF VARIOUS LOAD CATEGORIES USING CLUSTERING	BHAVANA JANGID
4	136	DETECTION OF FAULTY REGIONS IN POWER DISTRIBUTION GRID WITH LIMITED MEASUREMENT	SUKALYAN MAJI
5	164	NETWORK PARTITIONING FOR PARALLEL POWER SYSTEM OPERATION	SATISH SHARMA, AJAY KUMAR VERMA
6	183	CLUSTERING MODELS FOR DEMAND RESPONSE AGGREGATION	ABHISHEK JAIN
7	203	REVIEW OF OPTIMIZED FSFCL EFFECTS ON THE TRANSIENT RECOVERY VOLTAGE OF A CIRCUIT BREAKER AT 550 KV	BANOTHU SOMANNA
8	210	DESIGN CONSIDERATIONS OF LINE TRAP TO CATER THE INCREASE IN SYSTEM FAULT LEVEL	RAJARAMAMOHANARAO CHENNU

Technical Session: TS2-B Venue: SLIET Longowal 10th Dec 2021			3.15-4.45 pm
Track 4(T4): Smart Grid and Smart Technologies			Chair: Dr. A.S. Arora Co-Chair: Dr. Charanjiv Gupta
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	65	RENEWABLE MICROGRIDS WITH ECONOMIC AND ENVIRONMENTAL BENEFITS: A REVIEW	SUNITA SHUKLA
2	68	A REVIEW OF MODERN VIRTUAL INERTIA CONTROL STRATEGIES FOR MICROGRID IMPLEMENTATION	ANIRUDH PRATAP
3	69	TRANSACTIVE ENERGY MANAGEMENT OF SOLAR INTEGRATED VILLAGES IN INDIA	PRERNA JAIN, TEJASWINI YERUSU
4	128	PLANNING AND CONTROL TECHNIQUES OF SMART GRIDS	SHUBHAJYOTI MONDAL, AASHISH KUMAR BOHRE
5	144	AN OVERVIEW OF CESC'S 315 KWH GRID CONNECTED BATTERY ENERGY STORAGE SYSTEM	RAJIB KUMAR DAS
6	176	EMPLOYING DEMAND RESPONSE IN ENERGY MANAGEMENT OF MICROGRID USING Q LEARNING	AKHILESH CHANDRAKAR

Technical Session: TS3-A Venue: MANIT Bhopal 10th Dec 2021			5.00-6.30 pm
Track 5(T5):Distributed Generation, Renewable Energy Sources and Micro/mini Grid Operation			Chair: Dr. Suresh Gawre Co-Chair: Dr. Vikas Khare
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	30	COORDINATED ALLOCATION OF ELECTRIC VEHICLE CHARGING STATIONS AND CAPACITORS IN DISTRIBUTION NETWORK	MOHD BILAL
2	38	IMPROVED MODELING OF BDFRG IN WIND POWER GENERATION APPLICATION	MANISH PAUL
3	43	DC SIDE CONTROLLERS FOR GRID CONNECTED HYBRID RENEWABLE ENERGY SOURCES	SHISHIR DIXIT, TATIKAYALA VINAY KUMAR
4	55	OPERATIONAL LOSSES OF A SOLAR POWER PLANT : A CASE STUDY	ASHWIN SHARMA
5	94	OPERATION ANALYSIS OF GRID INTEGRATED SOLAR MICRO HYDRO HYBRID SYSTEM FOR RURAL COMMUNITY	SUSMITA BANDYOPADHYAY
6	142	REAL TIME IMPLEMENTATION OF DROOP CONTROLLED WIND DFIG SYSTEM	NARAYAN PRASAD GUPTA
7	143	PLANNING OF RENEWABLE DG WITH DIFFERENT LOAD MODELLING	SOURAV CHAKRABORTY, AASHISH KUMAR BOHRE
8	157	A COMPREHENSIVE REVIEW ON FUEL CELL TECHNOLOGIES AND ITS APPLICATION IN MICROGRIDS	ULIYA MITRA

Technical Session: TS3-B Venue: SLIET Longowal 10th Dec 2021	5.00-6.30 pm
Track 6(T6): High Voltage and Insulation Engineering Track 7(T7): Robotics and Control Systems Track 8(T8): Sensors and Signal Conditioning Track 9(T9): Signals and Systems	Chair: Dr. Anupma Marwaha Co-Chair: Dr. Pratibha Tyagi

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	41	A REVIEW AND ANALYSIS OF TOPOLOGIES OF LIGHT EMITTING DIODE (LED) DRIVERS	NEHA GUPTA
2	49	3-D PARTICLE TRAJECTORY TRACKING AND CHARACTERIZATION OF ELECTRON BEAM PARAMETERS OF HIGH POWER ELECTRON GUN	VANYA GOEL
3	96	SMARTPHONE BASED CNN-GRU FRAMEWORK FOR HUMAN ACTIVITY RECOGNITION	UPDESH VERMA
4	97	OPTIMIZING THE POSITION OF GRAPHENE OXIDE ABSORBER TO ENHANCE THE RADIATION PATTERN OF ANTENNA ARRAY	SUREKHA RANI
5	115	ASSESSING THE RISK OF RELIABILITY OF THREE PHASE GIS UNDER VARIOUS MULTIPLE ABNORMALITIES	K. NAGA DIVYA, RAFI VEMPALLE
6	213	ON-SITE HEALTH ASSESSMENT OF 765KV BUSHING INSULATION USING VFTD	HARISH KUMAR SHARMA
7	215	MODEL ORDER REDUCTION OF INTERVAL SYSTEMS USING ROUTH APPROXIMATION WITH MID-POINT CONCEPT AND STABILITY EQUATION METHOD	SUNIL KUMAR GAUTAM

Technical Session: TS4-A Venue: MANIT Bhopal 11th Dec 2021	9.15-10.45 am
Track 10a(T10a): Power Electronics, Instrumentation and control in Electrical drives	Chair: Dr.Sushma Gupta Co-Chair: Dr. Renuka Kamdar

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	11	ELEVEN-LEVEL INVERTER TOPOLOGY WITH PHOTOVOLTAIC INTERFACE	BIPASA BIMALENDU PATRA
2	19	DISCRETE INPUT CURRENT ENHANCED BOOST QUASI-Z SOURCE INVERTERS WITH REDUCED CAPACITOR STRESS	VADTHYA JAGAN
3	24	PERFORMANCE ANALYSIS OF DVR AND UPQC TO IMPROVE POWER QUALITY OF THREE-PHASE DISTRIBUTION SYSTEM	SHIVAM TIWARI, DEEPAK VERMA
4	25	ANALYSIS OF SOLAR POWERED ELECTRIC VEHICLES	SHREYAS MAITREYA
5	27	APPLICATION OF FRACTIONAL CALCULUS IN VOLTAGE SOURCE CONVERTERS	MONIKA SHARMA
6	39	FUZZY BASED SOLAR MPPT FOR ELECTRIC VEHICLE APPLICATION	SHAHIDA PARVEEN SHAIK
7	191	FEM BASED ANALYSIS AND DESIGN OF LINEAR SWITCHED RELUCTANCE MOTOR TOPOLOGIES FOR HIGH SPEED TRANSIT APPLICATION	NISHA PRASAD

Technical Session: TS4-B Venue: SLIET Longowal 11th Dec 2021	9.15-10.45 am
Track 10b(T10b): Power Electronics, Instrumentation and control in Electrical drives	Chair: Dr. Sanjay Marwaha Co-Chair: Dr. M.S. Manna

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	51	DESIGN AND FINITE ELEMENT ANALYSIS OF BRUSHLESS DOUBLY FED RELUCTANCE MACHINE FOR VARIABLE SPEED APPLICATIONS	MUKESH KUMAR
2	61	MITIGATION OF COGGING TORQUE FOR THE OPTIMAL DESIGN OF BLDC MOTOR	RUPAM BANSAL
3	82	A NOVEL 3-PHASE SYMMETRIC/ASYMMETRIC REDUCED DEVICE COUNT MULTILEVEL INVERTER FOR ELECTRIC DRIVE APPLICATIONS	DILIP KUMAR PATEL
4	84	A BIPOLAR MULTILEVEL STRUCTURE FOR DC/AC CONVERSION WITH REDUCED DEVICE COUNT	NIRAJ KUMAR DEWANGAN
5	87	ANALYSIS OF AIR GAP INDUCTANCE AND ITS EFFECTS ON TORQUE PROFILE OF SWITCHED RELUCTANCE MOTOR	AVINASH KUMAR
6	105	AERODYNAMIC DESIGN OF ROTOR OF 1 KW HORIZONTAL AXIS WIND TURBINE	SONALI SHRIVASTAVA
7	107	DSP-BASED PWM AC-DC CONVERTER FOR DC VOLTAGE REGULATION WITH LINEAR CONTROL CHARACTERISTICS	VIKASH KUMAR, DHANANJAY KUMAR

Technical Session: TS5-A Venue: MANIT Bhopal 11th Dec 2021			12.15-1.45 pm
Track 12(T12): Electrical Vehicular Systems			Chair: Dr. Giribabu D Co-Chair: Dr. Saji Chako
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	67	SMART NAVIGATION DETECTION USING DEEP-LEARNING FOR VISUALLY IMPAIRED PERSON	NITIN KUMAR
2	103	AN ADAPTIVE INTEGRATED POWER CONVERSION SYSTEM FOR TRACTION AND CHARGING OF ELECTRIC VEHICLES	ARUNKRISHNA P
3	124	RESEARCH ON ELECTRIC VEHICLE CHARGING SYSTEM: KEY TECHNOLOGIES, COMMUNICATION TECHNIQUES, CONTROL STRATEGIES AND STANDARDS	C. VYJAYANTHI, NIVEDITA N NAIK
4	173	REVIEW AND ANALYSIS OF DC-DC POWER CONVERTER PERFORMANCE FOR FAST CHARGING OF EVS	REENA SINGH
5	180	MOTOR POWER CALCULATION FOR POWER-TRAIN FOR ELECTRIC VEHICLES AND SIMULATION OF ITS PERFORMANCE PARAMETERS USING MATLAB/SIMULINK	J.G. YADAV
6	184	VARIABLE SPEED PMSM BASED PV-BATTERY POWERED ELECTRIC VEHICLE	DEEPTI JAIN

Technical Session: TS5-B Venue: SLIET Longowal 11th Dec 2021	12.15-1.45 pm
Track 10c(T10c): Power Electronics, Instrumentation and control in Electrical drives Track 11(T11): Applications of Power Electronics in Power System	Chair: Dr. Shailendra Jain Co-Chair: Dr. Raj Kumar Garg

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	141	MODEL PREDICTIVE TORQUE CONTROL OF SWITCHED RELUCTANCE MOTOR DRIVE	VIJAYA VARDHAN REDDY P, GANTASALA BHAVANA
2	158	GRID INTEGRATED SOLAR PV SYSTEM WITH COMPARISON BETWEEN FUZZY LOGIC CONTROLLED MPPT AND P&O MPPT	ABHISHEK SRIVASTAVA, AMIT KUMAR ROY
3	177	IMPLEMENTATION AND DESIGN OF NINE LEVEL INVERTER WITH LESSER NUMBER OF SWITCHES USING PWM TECHNIQUE	PREETI PATERIYA
4	197	DIRECT POWER CONTROL SCHEME WITH VOLTAGE MODULATION CONTROL TECHNIQUE FOR A WEAK GRID CONNECTED VOLTAGE SOURCE INVERTERS THROUGH BAND PASS FILTER	MD. KAISAR AZAM ANSARI
5	200	A SURVEY ON GRID COUPLED POWER CONVERSION DEVICES THAT IMPLEMENT VIRTUAL INERTIA	JOSHUA T RYAN
6	48	ELECTRIC AND HYBRID VEHICLES – A COMPREHENSIVE OVERVIEW	SESHA GOPAL SELVAKUMAR

Technical Session: TS6-A Venue: MANIT Bhopal 11th Dec 2021	3.15-4.45 pm
Track 13a(T13a): Applications of Soft Computing Techniques in Electrical Power and Energy Systems	Chair: Dr. Raju More Co-Chair: Dr. Yashwant Sawle

S.N.	Paper ID	Paper Title	Primary/Registered Author
1	45	ANALYSIS OF PARITY-BASED SEARCH ALGORITHMS FOR EXECUTION OF TARGET NODE IN RELATION TO AUTOMATION APPLICATIONS	YOGITA PIMPLE, SACHIN GUPTA
2	52	MULTI-OBJECTIVE OPTIMIZATION PROBLEM USING HYBRID KRILL HERD ALGORITHM	AMARJEET KAUR
3	63	I-GWO ALGORITHM BASED SOLAR PHOTOVOLTAIC MODULE PARAMETER SELECTION	RAJA KUMAR V
4	77	CLASSIFICATION OF POWER QUALITY DISTURBANCES IN EMERGING POWER SYSTEM USING S-TRANSFORM AND SUPPORT VECTOR MACHINE	RAVISHANKAR SHALIGRAM KANKALE
5	80	DISTRIBUTED OPTIMIZATION IN POWER SYSTEM OPERATION: A COMPARATIVE REVIEW	DEBABRATO MUKHERJEE
6	102	DESIGN AND ANALYSIS OF A NEURAL NETWORKS BASED ON PARALLEL BUCK-BOOST CONVERTER TO IMPROVE STABILITY IN DC MICRO-GRID	U MANOJ VARMA
7	120	SELECTION OF POWER GENERATION TECHNOLOGY USING A COMBINATION OF CRITIC AND TOPSIS	NISHANT THAKKAR
8	125	ECONOMIC DISPATCH IN RENEWABLE ENERGY BASED MICROGRID USING MANTA RAY FORAGING OPTIMZATION	VIMAL TIWARI
9	132	APPLICATION OF AN APPLIANCE SCHEDULING ALGORITHM FOR DEMAND RESPONSE PROGRAM	MUKUND S GHOLE

Technical Session: TS6-B Venue: SLIET Longowal 11th Dec 2021			3.15-4.45 pm
Track 13b(T13b): Applications of Soft Computing Techniques in Electrical Power and Energy Systems			Chair: Dr. J.S. Dhillon Co-Chair: Dr. Manmohan Singh
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	133	EXPERIMENTAL ANALYSIS OF EFFECT OF TUNING PARAMETERS ON THE PERFORMANCE OF DIVERSITY-DRIVEN MULTI-PARENT EVOLUTIONARY ALGORITHM	SUMIKA CHAUHAN
2	135	PERFORMANCE ANALYSIS OF MODEL PREDICTIVE CONTROL FOR CASCADED TANK LEVEL CONTROL SYSTEM	BHAWESH PRASAD
3	139	OPTIMAL GENERATION SCHEDULING OF ELECTRICAL POWER SYSTEM BY USING HYBRID METAHEURISTIC SEARCH TECHNIQUE	ASHUTOSH BHADORIA
4	146	SHORT-RANGE FIXED-HEAD HYDROTHERMAL GENERATION SCHEDULING USING WATER CYCLE ALGORITHM	ASHOK KUMAR
5	147	APPLICATION OF HYBRID ARTIFICIAL ALGAE ALGORITHM FOR DYNAMIC ECONOMIC LOAD DISPATCH PROBLEM	VEENUS KANSAL
6	150	ECONOMIC LOAD DISPATCH USING HCGSA	AVNEET KAUR
7	151	MULTIOBJECTIVE DYNAMIC ECONOMIC DISPATCH AMALGAMATING SOLAR PV AND WIND POWER GENERATION USING HYBRID SCA	GURPREET KAUR
8	160	AN EXTENSIVE STUDY ON OPTIMIZATION AND CONTROL TECHNIQUES FOR POWER QUALITY IMPROVEMENT	RITU VERMA
9	166	ECONOMIC LOAD DISPATCH USING BLACK WIDOW OPTIMIZATION ALGORITHM	KANCHAN PAWANI

Technical Session: TS7-A Venue: MANIT Bhopal 11th Dec 2021			5.00-6.30 pm
Track 13c(T13c): Applications of Soft Computing Techniques in Electrical Power and Energy Systems			Chair: Dr. Priyanka Paliwal Co-Chair: Dr. Ashish Bohre
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	167	COMPARISON OF DECOMPOSITION-BASED MACHINE LEARNING MODELS FOR MULTI-STEP TIME SERIES FORECASTING OF WIND POWER GENERATION	PRIYANKA MALHAN
2	171	STABILIZATION OF SYSTEM FREQUENCY USING ADAPTIVE LOAD SHEDDING SCHEME BASED ON ARTIFICIAL NEURAL NETWORK	PRADEEPTI LAKRA
3	182	AN INTELLIGENT FAULT DIAGNOSIS SCHEME FOR PV ARRAY USING MACHINE LEARNING TECHNIQUES	LAXMAN SOLANKEE
4	186	ENVIRO-ECONOMIC SIZING OF A GRID-CONNECTED HYBRID ENERGY SYSTEM USING TUNICATE SWARM ALGORITHM	POONAM SINGH
5	193	MULTI OBJECTIVE OPTIMAL PLANNING OF FAST CHARGING STATION AND DISTRIBUTED GENERATORS IN A DISTRIBUTION SYSTEM	AJIT KUMAR MOHANTY
6	194	ARTIFICIAL GORILLA TROOPS OPTIMIZER FOR TUNING POWER SYSTEM STABILIZER CONTROL PARAMETERS	MURALI KRISHNA GUDE
7	214	FUZZY BASED HEALTH ASSESSMENT OF DISTRIBUTION TRANSFORMER IN SERVICE	SREEJA S
8	216	AN INTEGRATED OPTIMIZATION ALGORITHM TO SOLVE PROFIT BASED UNIT COMMITMENT PROBLEM	Dr JATINDER DHALIWAL

Technical Session: TS7-B Venue: SLIET Longowal 11th Dec 2021			5.00-6.30 pm
Track 14(T14): Instrumentation & Biomedical Engineering Track 15(T15): Technology relevant to Covid-19 Pandemic Track 16(T16): Any other relevant topic			Chair: Dr.Surita Maini Co-Chair: Dr. Ashwani Kumar Aggarwal
S.N.	**Paper ID**	**Paper Title**	**Primary/Registered Author**
1	20	THE FINANCIAL IMPLICATION OF COVID-19 ON THE INDIAN POWER SECTOR	SUBHADIP BHATTACHARYA
2	56	USE OF PHASE CHANGE MATERIAL (PCM) AND AL2O3 NANOFLUIDS IN PYRAMIDAL SOLAR STILL	SRINIVAS DHARAMSOTH
3	86	A HYBRID APPROACH FOR TARGET DRUG DELIVERY WITH MICROWAVE THERMAL ABLATION	SIMRAN KAUR
4	93	BIOMASS AVAILABILITY AND BIOMASS-BASED GENERATING UNITS IN NORTH INDIA: A REVIEW	PRADEEP KUMAR
5	95	RANDOM FOREST FOR HEART DISEASE DETECTION: A CLASSIFICATION APPROACH	SANJAY DHANKA
6	106	GRAPHENE AND ITS NANOCOMPOSITES BASED MICROWAVE NON-INVASIVE PATCH APPLICATORS FOR MAXIMUM POWER LOCALIZATION	ALKA SINGLA
7	134	DETECTION OF PRESSURE POINTS ON THE RESIDUAL LIMB IN TRANSTIBIAL AMPUTATION USING THERMAL IMAGING	BHASKAR PANDEY
8	174	ALZHEINET: A SHALLOW CONVOLUTION NEURAL NETWORK FOR ALZHEIMER DETECTION USING MRI SCANS	SOURAV KUMAR SHUKLA
9	175	SHALLOW CONVOLUTION NEURAL NETWORK FOR BRAIN TUMOR CLASSIFICATION USING T1-WEIGHTED MRI SCANS	SOURAV KUMAR SHUKLA

DC Side Controllers for Grid Connected Hybrid Renewable Energy Sources

Publisher: IEEE

Vinay Kumar Tatikayala ; Shishir Dixit All Authors

Abstract: The grid-connected Renewable energy systems have risen in popularity in recent times as they are reliable for both consumers and the grid, among them hybrid photovoltaic ... **View more**

Metadata

Abstract:
The grid-connected Renewable energy systems have risen in popularity in recent times as they are reliable for both consumers and the grid, among them hybrid photovoltaic (PV) and PMSG wind turbines is trendy. The power output from PV and wind system is uncertain, an energy storage device, like a battery that is capable of effectively storing excess energy from both of these energy sources and also supplies the required power when needed. As these sources exhibit insignificant behavior fluctuations in supply may occur, to mitigate them a controller is designed. Here Takagi Sugeno (TS-Fuzzy) controller is considered that give a better performance compared to a Proportional Integral (PI) and Mamdani Fuzzy controllers. This paper proposes DC side controllers, those utilizes TS-Fuzzy technique. The battery here is connected to dc-link via a DC-to-DC bidirectional power flow converter, and its controller is designed to regulate dc-link voltage, to function as Maximum power point tracker (MPPT) for PV system.

Published in: 2021 IEEE 2nd International Conference On Electrical Power and Energy Systems (ICEPES)

Date of Conference: 10-11 December 2021

INSPEC Accession Number: 21646265

Date Added to IEEE *Xplore*: 04 February 2022

DOI: 10.1109/ICEPES52894.2021.9699605

ISBN Information:

Publisher: IEEE