



International Conference on Smart and Sustainable Energy Systems (ICSSES 2024)



February 16-17, 2024



Organized by the Department of Electrical and Electronics Engineering

Vishnu Institute of Technology (Autonomous), Bhimavaram, Andhra Pradesh, India

(ONLINE mode)

Microsoft Team (MS Teams) Link: http://bit.ly/icsstes_vit_2024

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Conference Schedule

February 16, 2024 (Day 1)		
Time (IST)	Inaugural Event, Moderator: Prof. Bhanupriya, EEE	
9.00 AM to 10.30 AM	Begin with Prayer Song by Students	
	Welcoming the Gathering	Dr. R V D Rama Rao, Organizing Chair-ICSSES 2024
	Presidential Address	Dr. M Venu, Principal, VITB
	Felicitation Address	Dr. D Suryanarayana, Director, VITB
	Chief Guest Address 1	Dr. Akbar Ahmad, International Academic Consultant and Visiting Professor, Britts Imperial College University, Dubai.
	Chief Guest Address 2	Dr. V Karthikeyan, Associate Professor, Dept. of Electrical Engineering NIT Calicut, Kerala, India.
	Appreciation Note	Dr. Raju Aedla, Dean R&D, SVES
	Souvenir Release by the Dignitaries & Virtual Photo Session	
	Vote of Thanks	Dr. S. Pragaspathy, Convener-ICSSES 2024

Keynote Session, Moderator: Prof. Mamatha, EEE

Time (IST)		SESSION TALK BY INDUSTRIAL SPONSORS
11.00 AM	To	Tectzo Solutions PVT Ltd “A kick start to convert research into commercial product” By K. N. Thirukuralkani – Director Operations
12.30 PM		EV Retron Energies PVT Ltd “Advancing Sustainable Energy Solutions: Solar Integration, Advanced Batteries, and EV Performance Analysis” By B. Deepesh Kumar– Managing Director
		Avghni Solar PVT Ltd
12.30 PM to 1.15 PM		LUNCH BREAK

Paper Presentation Session 1, Moderator: Prof. P. Naveen, EEE

(10 Mins Presentation + 5 Mins Q/A)

Time (IST)	Paper ID	Correspond. Author (s)	Title of Paper	Track(s) – 1A
SESSION CHAIRS: Dr. V. KARTHIKEYAN (NIT-C) & Dr. E.B. ELANCHEZHIAN (Annamalai University)				
1.15 PM To 2.45 PM	3	KRISHNAVENI R	CATEGORIZATION OF VARIOUS DISEASES OF RICE LEAF USING CNN	Environmental Engineering and Sustainability & Sustainability for Industrial Applications
	10	SAMUEL MORES GEDDAM	CATALYSTS AND CONSTRAINTS: A COMPREHENSIVE REVIEW OF G20 COUNTRIES' PERFORMANCE IN FINANCIAL STABILITY, CLIMATE CHANGE MITIGATION, AND SUSTAINABLE DEVELOPMENT (2023)	
	11	VENKATA NAGA RANI BANDARU	ENHANCING DATA SECURITY IN IOT-ENABLED CLOUD COMPUTING ENVIRONMENTS THROUGH LIGHTWEIGHT CRYPTOGRAPHIC TECHNIQUES	
	13	BHARATHI G	ARTIFICIAL NEURAL NETWORK MPPT METHOD OF SOLAR PV SYSTEM FOR ELECTRIC VEHICLES USING MATLAB SIMULINK	
	14	BHARATHI G	FUZZY BASED SOLAR MPPT FOR ELECTRIC VEHICLE APPLICATION	
	18	TASNIM LUBIS	CONSERVATION OF ALABAN TREE (VITEX PINNATA L) IN THE COASTAL LANDSCAPES AT BANYAK ISLAND, ACEH PROVINCE	

2.50 PM to 3.20 PM	KEYNOTE SESSION BY PROF. D P KOTHARI Ex-Director - IIT Delhi, Honorary Adjunct Professor VNIT - Nagpur Ex-Vice-Chancellor VIT University			
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Time (IST)	Paper ID	Correspond. Author (s)	Title of Paper	Track(s) – 1B
Session Chairs: Dr. KIRAN TEEPARTHI (NIT-AP) & Dr. K. KALYAN SAGAR (SVECW)				
3.30 PM to 5.00 PM	26	N A A ABUS	WASTE BANK MANAGEMENT AS AN ALTERNATIVE COMMUNITY-BASED WASTE MANAGEMENT STRATEGY IN LANGSA CITY, ACEH PROVINCE	Environmental Engineering and Sustainability & Sustainability for Industrial Applications
	38	V KARTHIKEYAN	A STATE OF ART ON HEART RATE BASED DISEASE DETECTION IN HUMANS	
	40	N. PADMAVATHY	A FUSION OF HISTOGRAM EQUALIZATION TECHNIQUE AND FUZZY LOGIC FOR SUSTAINED ENHANCEMENT OF COLOR IMAGES	
	24	K GOKUL RAJ	AN EFFICIENT COOLING SYSTEM DESIGN FOR HIGH-PERFORMANCE ELECTRIC VEHICLE BATTERY PACKS	
	27	I VIJETHA	SUSTAINABLE PARKING INNOVATIONS: ENHANCING SECURITY WITH IOT AND FACIAL IMAGE RECOGNITION	

February 17, 2024 (Day 2)

**Paper Presentation Session 2, Moderator: Prof. N S D. Prakash Korlepara, EEE
(10 Mins Presentation + 5 Mins Q/A)**

Time (IST)	Paper ID	Correspond. Author (s)	Title of Paper	Track(s) – 2A
SESSION CHAIRS: Mr. K. N. THIRUKKURALKANI (TECTZO SOLUTIONS) & Dr. N. PADMAVATHY (VIT-B)				

9.15 AM To 10.45 AM	07	RAMU BHUKYA	AUTOMATIC WATER LEVEL MONITORING FOR OVERHEAD WATER TANK - PROTO MODEL	Renewable Energy Engineering and Technologies
	12	PINKI KUMARI	PARAMETER ESTIMATION OF SOLAR PV MODULE EMPLOYING ELECTRIC EEL FORAGING OPTIMIZATION ALGORITHM	
	17	ADE SANA RUHIYAT	CHARACTERISTICS AND ASH-RELATED PROBLEM PREDICTION OF REFUSED DERIVED FUEL FROM RIVER WASTE	

	23	M MATHANKUMAR	LC BASED ACTIVE CELL BALANCING FOR EFFICIENT ENERGY MANAGEMENT IN AUTOMOTIVE BATTERIES	& Smart Energy Systems
	25	I KASIREDDY	PERFORMANCE COMPARISON OF RANDOM FOREST REGRESSOR AND SUPPORT VECTOR REGRESSION FOR SOLAR ENERGY PREDICTION	
	29	CH RAJYALAKSHMI	MICROBIAL FUEL CELLS: BIO ENERGY FOR SENSOR APPLICATIONS	
10.50 AM to 11.15 AM	KEYNOTE SESSION BY Dr. DEVARA VIJAY BHASKAR Department of Electrical Engineering, IIT Dhanbad			
Time (IST)	Paper ID	Correspond. Author (s)	Title of Paper	Track(s) – 2B
Session Chairs: Dr. T. VINAY KUMAR (NIT-W) & Dr. K. RAYUDU (BVRIT-N)				
11.15 AM To 12.30 PM	32	R. ARUNAN	IMPROVING THE EFFICIENCY OF PHOTOVOLTAIC SYSTEMS THROUGH HYBRID ENERGY STORAGE MANAGEMENT FOR DC APPLICATIONS	Renewable Energy Engineering and Technologies & Smart Energy Systems
	35	DEENU MOL	INTELLIGENT MOVIE RECOMMENDATION PLATFORM WITH AI DRIVEN RECOMMENDATION USING MACHINE LEARNING	
	36	RELIGIANA HENDARTI	INFLUENCE OF HUMIDITY ON THE PERFORMANCE OF FLOATING PHOTOVOLTAIC SYSTEMS OVER PONDS IN A TROPICAL URBAN ENVIRONMENT	
	04	CH PHANI KUMAR	BLYNK ENABLED INTELLIGENT GREENHOUSE SYSTEM	
	37	IOANA OCTAVIA BUCUR	NUMERICAL STUDY ON THE INFLUENCE OF TILTED CAVITIES PLACEMENT ON AIRFOILS FOR WIND SYSTEMS APPLICATIONS	
12.30 PM To 1.00 PM	LUNCH BREAK			
Paper Presentation Session 3, Moderator: Prof. Vijetha, EEE (10 Mins Presentation + 5 Mins Q/A)				
Time (IST)	Paper ID	Correspond. Author (s)	Title of Paper	Track(s) - 3
SESSION CHAIRS: Dr. M. SUMAN (IIT-BHU) & Dr. S. SUGUMARAN (VIT-B)				
	31	K N S D PRAKASH	REAL-TIME PRECISION IRRIGATION SYSTEM FOR OPTIMAL CROP YIELD AND WATER CONSERVATION	

1.00 PM To 2.30 PM	30	DHANASELVAM J	A CRITICAL REVIEW ON KEY ISSUES OF PERFORMANCE DEGRADATION FACTORS FOR LITHIUM-ION BATTERIES	Energy Efficiency and Management & Future Challenges and Opportunities in Energy Sectors
	39	K. B. SANTHOSH KUMAR	SOFT OUTPUT VITERBI TURBO DECODER FOR EFFICIENT TRANSMISSION OF EEG SIGNAL IN TELEMEDICINE APPLICATIONS	
	47	RAVI KANT MITTAL	EXPERIMENTAL STUDIES AND ANALYSIS FOR PERFORMANCE ASSESSMENT OF FLOATING SOLAR PHOTOVOLTAIC SYSTEMS	
	49	DHANABALAN G	DATA PRECISION AND NETWORK UTILIZATION IN INTERNET OF THINGS SENSOR NETWORK USING MESSAGE QUEUING TELEMETRY TRANSPORT	
	55	KAVYA SANTHOSHI B	NEAR UNITY POWER FACTOR CORRECTION VIENNA RECTIFIER FOR PLUG-IN TYPE THREE PHASE EV CHARGING STATION	

SHORT SESSION BREAK

Time (IST)	Paper ID	Author (s)	Title of Paper	Track(s) - 4
Session Chair: Dr. MATTA MANI SANKAR (BIT-Sindri) & Dr. S. SARAVANAN (BVRIT-N)				
2.45 PM To 4.00 PM	01	KAVYA SANTHOSHI	MULTIPOINT BIDIRECTIONAL CONVERTER FOR SOLAR FED HYBRID ELECTRIC VEHICLE USING SWITCHED RELUCTANCE MOTOR DRIVE	Power Converters in Renewable Energy Applications
	06	JIMMY LINGGARJATI	EXPERIMENTAL OF PID SOLAR CHARGE CONTROLLER USING ARDUINO UNO FOR A FLOATING PV SYSTEM OVER AN AQUACULTURE	
	09	Y T R PALLESWARI	11-LEVEL SWITCHED-CAPACITOR BASED CASCADED HALF-BRIDGE MULTILEVEL INVERTER (SC-CHMLI) FOR PV SYSTEM	
	33	N MOHANASUNDARAM	A MODIFIED VIRT WITH PLANAR TRANSFORMER FOR LOW POWER APPLICATIONS	
	85	PRABIN KUMAR MAHATO	INVESTIGATING THE IMPACT OF ANNEALING TEMPERATURE ON CDS NANOPARTICLES: OPTIMIZING SOLAR PHOTOVOLTAIC EFFICIENCY	
	87	NARTU TEJESWARA RAO	SIMULATION OF VARIOUS MATRIX CONVERTERS USING MATLAB	

Time (IST)	Valedictory Event, Moderator: Prof. Bhanupriya, EEE	
4.00 PM To 5.30 PM	Address by the Organizing Chair	Dr. R V D Rama Rao, Organizing Chair – ICSSES 2024
	Chief Guest Address	Dr. B. Chitti Babu PV Research Laboratory, IIIT D&M, Kancheepuram, Tamil Nadu
	Convener Address	Dr. S. Pragaspathy, Convener – ICSSES 2024
	Principal's Address	Dr. M Venu, Principal, VITB
	Director's Address	Dr. D. Suryanarayana, Director, VITB
	Announcing the Track wise Best Papers followed by the Feedback Session	
	Virtual Photo Session	
	Vote of Thanks	Dr. I. Kasireddy, Convener – ICSSES 2024
