





Date: 7 - 9 July 2022

Detailed Schedule

Department of Energy Science and Engineering, Indian Institute of Technology Bombay,

Mumbai-400076, India

Website: https://www.ese.iitb.ac.in/icaer2022





09:45-10:00 10:00-10:30

10:35-11:05

11:05-11:15

11:15-12:40

11:15-11:35

11:40-12:00 12:05-12:25

12:30-12:50

12:50-13:25

Technical Session 1

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8th International Conference on VD/VVICES IN EVIEDEA DESEVDOR



117	Bor	mbay		Brief Sc	chedul	e (Update	ed on	8 th July 20	022)		ज्ञानम् प	रमम् ध्येयम्
						Day 1: 07/	07/2022	1				7
09:30-10:00			Inaug	gural Session, Chief Gu	est: Shri Dinesh	h Dayanand Jagdale, 、	loint Secretary	, Ministry of New and	Renewable E	nergy (MNRE)		
10:05-10:35			Invited Talk 1	: Need to Rethink and I	Redesign Energ	y Systems in Context	of Climate Cha	ange (Prof. Chetan Sin	gh Solanki, P	rofessor, IIT Bombay)		
10:40 - 10:50	Ξ	Technical Session 1		Technical Session 2	2	Tea/Coffee Technical Session 3		Technical Session 4	<u>\$</u>	Technical Session 5		Technical Session 6
10:55-:11:15 11:20-11:40 11:45-12:05 12:10 - 12:30	Solar Thermal	111 133 149 205	Wind, Hydro and Ocean Energy	57 71 144 148	Thermal Energy Storage 1	9 20 34 49	Advanced Conventional Energy Technology 1	23 53 59 69	Electric Mobility and Sector Coupled Energy System	32 141 170 191	Energy Environment, and Society 1	10 38 85 89
12:35-13:05			Invite	d Talk 2: Smart Chargir	ng Infrastructur		nability (Mr. S					
13:10-14:05						Lunch E	Break					
14:10-14:40				Invite	ed Talk 3: Smart	Grids (Prof. Ariel Lieb	man, Director	, Monash Energy Instit	tute)			
14:45-15:15				Invited Talk 4: Chall	lenges in RE Int	tegration (Mr. A.D.Thir		, Energy Consultant, G	ovt. of Tamilr	nadu)		
15:15-15:25 15:30-17:35 15:30-15:50 15:55-16:15 16:20-16:45 16:50-17:10 17:15-17:35	Waste to Energy	Technical Session 1 27 55 72 166 189	Solar Thermal 2	Technical Session 2 7 15 26 44 50	Solar PV 1	Tea/Coffer Technical Session 3 39 60 64 107 113	Thermochemical, Bellectrochemical, Manual Hydrogen Storage 1	Technical Session 4 29 40 52 73 135	Advanced Conventional Energy Technology 2	Technical Session 5 70 79 83 120 129	Energy Policy, Economics and Management	Technical Session 6 30 68 159 164 182
						Day (1)	End					.02
						Day 2: 08/	07/2022					
						Day 2. 00/	01/2022					
09:45-10:00						Day 2 s	start					
10:00-10:30			Invito- T			/ Systems Modelling (F	_	-		Normant (IRADa)		
10:35-11:05 11:05-11:15			invited 1	alk 6: Energy sector in		. Pankaj Batra, Project Tea Bi		grated Research and At	CHON FOR DEVE	siopilient (IKADe))		
11:15-12:50 11:15-11:35 11:40-12:00 12:05-12:25 12:30-12:50	Biomass and Biofuels 1	Technical Session 1 63 104 136 168	Grid Integration of Renewables	Technical Session 2 4 109 123 130	Thermal Energy Storage 2	Technical Session 3 80 114 122 197 Lunch E	Energy Environment, and Society 2	Technical Session 4 94 99 173 185	Energy Environment, and Society 3	Technical Session 5 187 188 190 198	Industry Innovations in Energy	Technical Session 6 65 91 110
12:55-14:10 14:15-15:10			Invited Talk	7: Advanced Combusti	ion (LTC) and F	uture of Mobility Syste	m in Transpo	rtation (Dr. Simhachala	am Juttu, Gen	neral Manager, ARAI)		
15:15-15:25						Tea/Coffee						
15:30-17:30 15:30-15:50 15:55-16:15 16:20-16:40 16:45-17:05	olar Thermal 3	Technical Session 1 51 74 81 82	Solar PV 2	Technical Session 2 117 121 131 132	Fuel Cells	Technical Session 3 61 67 93	ermochemical, ectrochemical, ind Hydrogen Storage 2	Technical Session 4 162 163 178 184	Advanced Conventional Energy Technology 3	Technical Session 5 154 165 183 193		

09:45-10:00						Day 2 s	start					
10:00-10:30				Invite	d Talk 5: Energy	Systems Modelling (P	rof. Rangan E	Banerjee, Director, IIT D	elhi)			
10:35-11:05			Invited T	alk 6: Energy sector in	South Asia (Mr.	Pankaj Batra, Project	Director, Integ	rated Research and Ad	tion for Devel	opment (IRADe))		
11:05-11:15						Tea Br	eak					
11:15-12:50	p t	Technical Session 1	ation bles	Technical Session 2	ergy 2	Technical Session 3	ent, ty 2	Technical Session 4	ant,	Technical Session 5	ri s	Technical Session 6
11:15-11:35 11:40-12:00 12:05-12:25 12:30-12:50	Biomass and Biofuels 1	63 104 136 168	Grid Integration of Renewables	4 109 123 130	Thermal Energy Storage 2	80 114 122 197	Energy Environment and Society	94 99 173 185	Energy Environment, and Society 3	187 188 190 198	Industry Innovations i Energy	65 91 110
12:55-14:10		100		130		Lunch E	Break	103		130		
14:15-15:10			Invited Talk	7: Advanced Combust	ion (LTC) and F		·	rtation (Dr. Simhachala	ım Juttu, Gene	eral Manager, ARAI)		
15:15-15:25						Tea/Coffee						
15:30-17:30	23	Technical Session 1		Technical Session 2		Technical Session 3	cal,	Technical Session 4	- e	Technical Session 5		
15:30-15:50 15:55-16:15 16:20-16:40 16:45-17:05 17:10-17:30	Solar Therma	51 74 81 82 87	Solar PV 2	117 121 131 132 158	Fuel Cells	61 67 93 100 118	Thermochemical, Electrochemical, and Hydrogen Storage 2	162 163 178 184 196	Advanced Conventional Energy Technology 3	154 165 183 193 235		

Day (2) End

Invited talk 8: Using gaseous fuels to drive the transition to sustainable transportation (Dr. Gordon McTaggart-Cowan, Professor, Simon Fraser University)

Invited talk 9: Energy Efficient and Environment Friendly Porous Radiant Burners for Cooking and Industrial Applications (Dr. P. Muthukumar, Professor, IIT Tirupati)

Closing Ceremony

Technical Session 4

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Technical Session 5

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Technical Session 3

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Microgrids and Smart Grids

Technical Session 2

179 180

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117	Bon	nbay				July 7-9, . e (Updat e	2022		8 th July 20) 22)	Supplied	ALL THE THE	COMOLOGY BOMBA-
						Day 1: 07/	07/2022						
09:30-10:00			Inaug	gural Session, Chief Gu	ıest: Shri Dinesh	n Dayanand Jagdale, 、	Joint Secre	etary,	, Ministry of New and I	Renewable En	ergy (MNRE)		
10:05-10:35			Invited Talk 1	1: Need to Rethink and	Redesign Energ	y Systems in Context	of Climate	Cha	nge (Prof. Chetan Sing	jh Solanki, Pr	ofessor, IIT Bombay)		
10:40 - 10:50						Tea/Coffe	e Break						
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Day 1, 7 July 2022

Time	Paper Id	Title		
9:30 - 9:45		Day 1 Start		
9:30 - 10:00	Inaugural Session, Chief Guest: Shri Dinesh Dayanand Jagdale, Joint Secretary, Ministry of New and Renewable Energy (MNRE)			
10:05 - 10:35		Need to Rethink and Redesign Energy Systems in Context of lange (Prof. Chetan Singh Solanki, Professor, IIT Bombay)		
10:40 – 10:50		Tea/Coffee Break		
10:55 – 12:30		Technical Session 1: Solar Thermal 1		
10:55 - 11:15	111	Experimental investigation of the effect of double inlets on the thermal performance of serpentine flat plate solar collector		
11:20 - 12:40	133	Activated carbon-graphene composite/ethanol-based adsorption refrigeration system: Minimum regeneration temperature, uptake efficiency, and cooling performance		
12:45 - 12:05	149	Investigation of convective Heat Transfer inside Evacuated U Pipe Solar Thermal Collector with TiN Nanofluid and Twisted Tape Combination		
12: 10 - 12:30	205	Thermal Performance Evaluation of Indian Standard Solar Box Cooker (SBC) with Retrofitted Radiative Control		
10:55 – 12:30	Тес	chnical Session 2: Wind, Hydro and Ocean Energy		
10:55 - 11:15	57	Derivation of Hydrodynamic Characteristics of a Medium Speed Francis Turbine Operated Under Various Loading Conditions		
11:20 - 12:40	71	Influence of negative overlap ratio on the performance of semicircular savonius rotor with straight edge extension on overlap region		





12:45 - 12:05	144	A novel wind speed forecasting framework using data pre- processing based adversarial approach
12: 10 - 12:30	148	Two-Stage Boost Inverter for Wave Energy Conversion
10:55 – 12:30		Technical Session 3: Thermal Energy Storage 1
10:55 - 11:15	9	Design and Application of Concrete Bricks using Phase Change Materials
11:20 - 12:40	20	Thermal performance of multi-tubular sensible energy storage with coil inserts
12:45 - 12:05	34	Numerical investigation of melting of layered PCM in squared cavity
12: 10 - 12:30	49	Effects of Ambient Condition on the Performance of Ammonia Based Loop Heat Pipe
10:55 – 12:30	Technical	Session 4: Advanced Conventional Energy Technology 1
10:55 - 11:15	23	Efficiency of Simultaneous Operation of Heat Pumps with a Heating Unit of a CHPP with Steam Cross communications of Boilers
11:20 - 12:40	53	Investigation of the stress-strain state of a turbine blade twisted according to the law of potential vortex by the finite element method
12:45 - 12:05	59	Experimental Assessment of Liquid Suction Heat Exchanger Used with Vapour Compression Refrigeration System by The Application of Twisted Strip Inserted Condenser
12: 10 - 12:30	69	Performance emission vibration analysis of petrol engine using alcoholic fuel blends
10:55 – 12:30	Techn	ical Session 5: Electric Mobility and Sector coupled Energy System
10:55 - 11:15	32	Smart algorithm for optimal energy utilization in EV charging stations





11:20 - 12:40	141	Steady state calorimetric measurement of total hemispherical emissivity of All Glass Evacuated Tube Collector samples at 80 oC temperature.
12:45 - 12:05	170	A comprehensive review for the optimal deployment of plug- in electric vehicle charging station with solution techniques
12: 10 - 12:30	191	Optimal Allocation of Electric Vehicle Charging Station with Distribution Generation and D-STATCOM using Grey Wolf Optimization
10:55 – 12:30	Ted	chnical Session 6: Energy Environment and society 1
10:55 - 11:15	10	From slum-to-slum rehabilitation: Comparing the factors affecting energy consumption and environmental satisfaction among the low-income housing in Mumbai
11:20 - 12:40	38	Impact of Consumer preferences for vehicle options for climate change mitigation potential
12:45 - 12:05	85	The impact of solar photovoltaic (PV) rooftop panels of temperature profiles of surroundings and urban thermal environment
12: 10 - 12:30	89	Analysis of Organic Rankine Cycle Using Various Working Fluids for Low-grade Waste Heat Recovery
12:35 – 13:05		: Smart Charging Infrastructure and its role in sustainability Sandeep Bangia, Business Head, EV, TATA Power)
13:10 – 14:05		Lunch Break
14:10 - 14:40	Invited Talk 3	: Smart Grids (Prof. Ariel Liebman, Director, Monash Energy Institute)
14:45 - 15:15	Invited Talk	4: Challenges in RE Integration (Mr. A.D.Thirumoorthy B.E, Energy Consultant, Govt. of Tamilnadu)





15:15 - 15:25		Tea/Coffee Break
15:30 - 17:35		Technical Session 1: Waste to Energy
15:30 - 15:50	27	Capture and characterization of particulates from a single-cylinder diesel engine fuelled with refined tire pyrolysis oil
15:55-16:15	55	Comparative Analysis for Performance Characteristics of a Compression Ignition Engine Running on Microalgae Methyl Ester and Diesel Blends with Base Engine and Coated Engine
16:20-16:45	72	Refuse Derived Fuel (RDF) co-processing in kiln main burner in a Cement Plant: A Case Study
16:50-17:10	166	Present and Future Scope of Waste to Energy Plants in Metropolitan Regions of Kolkata: An Extensive Review of Waste Electricity
17:15-17:35	189	Structural and Electrochemical Performance Analysis of Waste Coconut Shells derived Activated Carbon for Supercapacitors
15:30 - 17:35		Technical Session 2: Solar Thermal 2
15:30 - 15:50	7	Prediction and Optimization of Thermal Conductivity and Viscosity of Stable Plasmonic TiN Nanofluid Using RSM and ANN Combined Approach for Solar Thermal Applications
15:55-16:15	15	Experimental and Numerical Investigation of Cooling Photovoltaic Panel using Turbo-Ventilator and Aluminum Fins
16:20-16:45	26	Thermal Analysis of Multi Reflector Compound Parabolic Collector (MRCPC)
16:50-17:10	44	Experimental evaluation of natural convection indirect solar dryer with and without thermal energy storage while drying guava slices
17:15-17:35	50	Design and development of Artificial neural network-based prediction model for hemispherical solar still





15:30 - 17:35		Technical Session 3: Solar PV 1
15:30 - 15:50	39	Enhancing the performance of the standalone rooftop SPV panel by underneath tray water cooling and front surface coating
15:55-16:15	60	Design and Analysis of Grid-connected 10 kW Solar Photovoltaic (SPV) Power Plant
16:20-16:45	64	Precursor tuning for post-treatment free MAPbI3 films for efficient and stable perovskite solar cells
16:50-17:10	107	Potential Assessment for Repowering of Solar Projects in India
17:15-17:35	113	Conductance Factor-Based Control of Solar Photo-Voltaic fed Shunt Active Power Filter
15:30 - 17:35	Technical S	Session 4: Thermochemical, Electrochemical, and Hydrogen Storage 1
15:30 - 17:35 15:30 - 15:50	Technical S	
		Storage 1 Estimation of heat generation and thermal behavior of
15:30 - 15:50	29	Storage 1 Estimation of heat generation and thermal behavior of cylindrical lithium-ion battery under natural convection Electrochemical hydrogen storage within a modified reversible PEM fuel cell and its performance analysis with
15:30 - 15:50 15:55-16:15	29 40	Estimation of heat generation and thermal behavior of cylindrical lithium-ion battery under natural convection Electrochemical hydrogen storage within a modified reversible PEM fuel cell and its performance analysis with interdigitated and spiral micro flow channels Effect of pseudopotentials on the electronic structures for
15:30 - 15:50 15:55-16:15 16:20-16:45	29 40 52	Estimation of heat generation and thermal behavior of cylindrical lithium-ion battery under natural convection Electrochemical hydrogen storage within a modified reversible PEM fuel cell and its performance analysis with interdigitated and spiral micro flow channels Effect of pseudopotentials on the electronic structures for hydrogen adsorption Development of Integrated Test Set for SoC-SoH Estimation of
15:30 - 15:50 15:55-16:15 16:20-16:45 16:50-17:10	29 40 52 73	Estimation of heat generation and thermal behavior of cylindrical lithium-ion battery under natural convection Electrochemical hydrogen storage within a modified reversible PEM fuel cell and its performance analysis with interdigitated and spiral micro flow channels Effect of pseudopotentials on the electronic structures for hydrogen adsorption Development of Integrated Test Set for SoC-SoH Estimation of Lithium-Ion Battery Highly Carbonized, Porous Activated Carbon Derived from





15:30 - 15:50	70	Effect of alcoholic fuel blends on performance, combustion, emission, and vibration analysis of a variable compression ratio diesel engine
15:55-16:15	79	Study of Induction Heating in Minimizing Cold Start Emissions in Catalytic Converter
16:20-16:45	83	Thermal stratification characteristics in a reduced scale toroidal suppression pool
16:50-17:10	120	Comparative Analysis of Performance Parameters of Hydrogen Fuel, Conventional Fuels and Hydrogen Enriched Fuels in an IC Engine
17:15-17:35	129	Evaluation performance of a solar photovoltaic thermoelectric collector under hot climatic conditions
15:30 - 17:35	Technica	Il Session 6: Energy policy, Economics and Management
15:30 - 17:35 15:30 - 15:50	Technica 30	Analysis of the impact of the energy recourses cost on the selection of heat pump capacity at TPPs
		Analysis of the impact of the energy recourses cost on the
15:30 - 15:50	30	Analysis of the impact of the energy recourses cost on the selection of heat pump capacity at TPPs Power play or prudent policy? An analysis of the lifeline
15:30 - 15:50 15:55-16:15	30 68	Analysis of the impact of the energy recourses cost on the selection of heat pump capacity at TPPs Power play or prudent policy? An analysis of the lifeline electricity scheme in Delhi Comparative thermal performance analysis of the RCC envelope with a low thermal transmittance (U-value)





Day 2, 8 July 2022

Time	Paper Id	Title
9:45 - 10:00		Day 2 Start
10:00 - 10:30	Invited Talk 5: End	ergy Systems Modelling (Prof. Rangan Banerjee, Director, IIT Delhi)
10:35 - 11:05		Energy sector in South Asia (Mr. Pankaj Batra, Project grated Research and Action for Development (IRADe))
11:05 - 11:15		Tea Break
11:15 - 12:50	Te	chnical Session 1 : Biomass and Biofuels 1
11:15 - 11:35	63	Comparative Analysis of Power Density in Plant MFC System using various Grass species
11:40 - 12:00	104	Effect of Operating Parameters on Biodiesel Yield from Transesterification of Cotton Seed Oil
12:05 - 12:25	136	Biodiesel process derived crude glycerol- Recovery and its purification
12:30 - 12:50	168	High Pressure Water based Biogas Scrubbing for Bio-CNG Production and CO2 Capture: Effect of Flash Units
11:15 - 12:50	Techn	ical Session 2: Grid Integration of Renewables
11:15 - 11:35	4	Clear Sky and Real Sky Solar Radiation Modelling for Locations in India
11:40 - 12:00	109	Modelling and Economic Optimization of Residential Load Based Microgrid in HOMER Pro by Dispatch Strategy
12:05 - 12:25	123	Application of Neural Networks in Reliability Evaluation of Distribution Networks Integrated with Distributed Generation





12:30 - 12:50	130	3Ds for Clean Energy Transition: Decarbonization, Digitalization and Decentralization
11:15 - 12:50	Ted	chnical Session 3: Thermal Energy Storage 2
11:15 - 11:35	80	Thermal Properties of Nano-Sio2/Paraffin Composite Phase Change Material for Thermal Energy Storage
11:40 - 12:00	114	Thermal Performance Analysis of Phase Change Material- Based Plate Finned Heat Sinks for Thermal Management Applications
12:05 - 12:25	122	CFD Simulation of Portable Thermal Storage Device for Solar Cooking System
12:30 - 12:50	197	Experimental Investigation on Phase Change Material Enhanced Pin Finned Heat Sinks for Thermal Management Applications
11:15 - 12:50	Technic	al Session 4: Energy, Environment, and Society 2
11:15 - 11:35	94	A parametric optimization for decision making of building envelope design: A case study of high-rise residential building in Jaipur (India)
11:40 - 12:00		
	99	Life cycle assessment of a hybrid solar based electric vehicle charging station using SimaPro
12:05 - 12:25	99 173	·
		vehicle charging station using SimaPro Experimental study on catalytic pyrolysis of waste
12:05 - 12:25	173	vehicle charging station using SimaPro Experimental study on catalytic pyrolysis of waste polypropylene at different temperatures Potential use of paddy stubble as an energy source in
12:05 - 12:25	173 185	vehicle charging station using SimaPro Experimental study on catalytic pyrolysis of waste polypropylene at different temperatures Potential use of paddy stubble as an energy source in
12:05 - 12:25 12:30 - 12:50	173 185	vehicle charging station using SimaPro Experimental study on catalytic pyrolysis of waste polypropylene at different temperatures Potential use of paddy stubble as an energy source in Indian cement industry





12:05 - 12:25	190	Rice Straw Derived Sustainable Activated Carbon Electrode for Supercapacitor Applications
12:30 - 12:50	198	Experimental Investigation of Bubble Rising in Newtonian and Non-Newtonian Fluids: A Comparative Assessment
11:15 - 12:50	Techr	nical Session 6 : Industry Innovation in Energy
11:15 - 11:35	65	Fault classification of Dry type transformer using Pattern Recognition Neural Network
11:40 - 12:00	91	On The Primary Design of Axial Compressor Impellers
12:05 - 12:25	110	Recovery Of Aluminium Metal from Sodium Aluminate Obtained As By-Product In Hydrogen Generation Process.
12:55 - 14:10		Lunch Break
	Landa al Talla 7. Ada	
14:15 - 15:10		vanced Combustion (LTC) and Future of Mobility System in on (Dr. Simhachalam Juttu, General Manager, ARAI)
14:15 - 15:10 15:15 - 15:25		
		on (Dr. Simhachalam Juttu, General Manager, ARAI)
15:15 - 15:25		on (Dr. Simhachalam Juttu, General Manager, ARAI) Tea/Coffee Break
15:15 - 15:25 15:30 -17:30	Transportati	Tea/Coffee Break Technical Session 1: Solar Thermal 3 Design and Development of Artificial Neural Network based prediction model for Truncated Pyramid Type Solar





16:45 - 17:05	82	Performance analysis of a s-CO2 based solar flat plate collector
17:10 - 17:30	87	Productivity Improvement of Solar Still using Cemented Blocks
15:30 -17:30		Technical Session 2: Solar PV 2
15:30 - 15:50	117	Demystifying the Potential of BIPV in Achieving India's Intended NDC
15:55 - 16:15	121	Machine learning based prediction of Solar Power plant performance under the impact of natural dust accumulation
16:20 - 16:40	131	Modelling and Simulation Analysis and Parametric Study of Bifacial Solar PV System for Building Application
16:45 - 17:05	132	The potential of Agri-voltaic system in hot arid western regions of India
17:10 - 17:30	158	Performance Analysis of Bifacial Module in different Climatic Zones of India
17:10 - 17:30	158	·
17:10 - 17:30 15:30 -17:30	158	·
	158	Climatic Zones of India
15:30 -17:30		Climatic Zones of India Session 3: Fuel Cells Electricity Production from Different Effluent Using
15:30 -17:30 15:30 - 15:50	61	Climatic Zones of India Session 3: Fuel Cells Electricity Production from Different Effluent Using Microbial Fuel Cell Design and Development of Emulated Fuel Cell Based
15:30 -17:30 15:30 - 15:50 15:55 - 16:15	61	Session 3: Fuel Cells Electricity Production from Different Effluent Using Microbial Fuel Cell Design and Development of Emulated Fuel Cell Based Hierarchical Controlled DC Microgrid System Parameters Extraction of PEMFC Model Using Evolutionary





15:30 -17:30	Technical Session	4: Thermochemical, Electrochemical, Hydrogen Storage 2
15:30 - 15:50	162	Hydrodynamics study of electrode intrusion effects in hierarchical interdigitated flow field design for Vanadium redox flow batteries
15:55 - 16:15	163	Investigation of Structural and Electrochemical properties for orange peel derived carbon
16:20 - 16:40	178	Enhanced electrochemical performance of Si by CNF material for Li-ion battery
16:45 - 17:05	184	Heat Transfer Enhancement of Metal Hydride based Hydrogen Storage Device using Nano-Fluids
17:10 - 17:30	196	Study of Compatible Anode for Silicate-based Cathode Material
15:30 -17:30	Technical S	ession 5: Advanced Conventional Energy Technology 3
15:30 - 15:50	154	Comparison of different types of coal powerplants in India retrofitted with calcium looping based CCS system
15:55 - 16:15	165	Thermal analysis of ceramic coated piston crown used in a diesel engine
16:20 - 16:40	183	Optimization of Circulation Power in First Wall of Breeding Blanket using He-CO2 Gas Mixture as a Replacement of Helium
16:45 - 17:05	193	Technique of utilization of coal waste in an efficient and effective way
17:10 - 17:30	235	Comparative Analysis of Performance Parameters of Hydrogen Fuel, Conventional Fuels and Hydrogen Enriched Fuels in an IC Engine





Day 3, 9 July 2022

Time	Paper Id	Title
9:45 – 10:00		Day 3 start
10:00 - 10:30	Invited talk 9: Using gaseous fuels to drive the transition to sustainable transportation (Dr. Gordon McTaggart-Cowan, Professor, Simon Fraser University)	
10:35 - 11:05	Invited talk 10: Energy Efficient and Environment Friendly Porous Radiant Burners for Cooking and Industrial Applications (Dr. P. Muthukumar, Professor, IIT Tirupati)	
11:05 – 11:15	Tea/Coffee break	
11:15 – 12:40	Te	echnical Session 1: Biomass and Biofuels 2
11:15 – 11:35	1	Experimental investigation on corrosive nature of acid oil biodiesel on selected automotive materials
11:40 – 12:00	21	Modeling and comparative thermal performance analysis of a biomass gasifier using different gasifying agents
12:05 – 12:25	25	The Corrosion Analysis of Diesel Engine Parts on Application of Dual Biodiesel Blend
12:30 – 12:50	31	Numerical investigation of the thermal and emissions performance of a hybrid draft biomass cookstove
11:15 – 12:40		Technical Session 2: Solar PV 3
11:15 – 11:35	179	After lifetime reliability and performance analysis of PV modules
11:40 – 12:00	180	Broadband optoelectronic properties of p-CuCrO2/n-Si Heterojunction prepared by Pulsed Laser Deposition





12:05 – 12:25	195	Enhancement of the performance of Dye-sensitized solar cell by integrating with Ternary Photonic crystal
12:30 – 12:50	212	Effect of phase change material on thermal management of photovoltaic system
11:15 – 12:40	Тес	hnical Session 3: Microgrids and Smart Grids
11:15 – 11:35	43	Real Power loss minimisation and Energy cost saving with DG and Capacitor using JAYA Algorithm in radial distribution system
11:40 – 12:00	96	A Novel Hybrid Islanding Detection Technique In Multi DG Microgrid System
12:05 – 12:25	145	Feasibility Assessment of the Smart Grid in Uganda
12:30 – 12:50	160	Application of Metaheuristic Techniques in Optimal Parameter Estimation of Solid Oxide Fuel Cell
11:15 – 12:40	Те	chnical Session 4: Thermal Energy Storage 3
11:15 – 12:40 11:15 – 11:35	Te 6	Chnical Session 4: Thermal Energy Storage 3 Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM
		Thermal analysis of corrugated-single pass solar air heat- er
11:15 – 11:35	199	Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM Experimental Study of PCM Based Latent Heat Thermal
11:15 – 11:35 11:40 – 12:00	199 204	Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM Experimental Study of PCM Based Latent Heat Thermal Energy Storage System Using Fins Performance Investigation of Superheat Recovery Water
11:15 - 11:35 11:40 - 12:00 12:05 - 12:25	199 204 211	Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM Experimental Study of PCM Based Latent Heat Thermal Energy Storage System Using Fins Performance Investigation of Superheat Recovery Water Heater Integrated in Cold Storage Numerical investigation of discharging performance of paraffin based dual shell configuration for latent heat
11:15 - 11:35 11:40 - 12:00 12:05 - 12:25	199 204 211 215	Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM Experimental Study of PCM Based Latent Heat Thermal Energy Storage System Using Fins Performance Investigation of Superheat Recovery Water Heater Integrated in Cold Storage Numerical investigation of discharging performance of paraffin based dual shell configuration for latent heat
11:15 - 11:35 11:40 - 12:00 12:05 - 12:25 12:30 - 12:50	199 204 211 215	Thermal analysis of corrugated-single pass solar air heat- er integrated with PCM Experimental Study of PCM Based Latent Heat Thermal Energy Storage System Using Fins Performance Investigation of Superheat Recovery Water Heater Integrated in Cold Storage Numerical investigation of discharging performance of paraffin based dual shell configuration for latent heat storage



8^{TH} International conference on advances in energy research



12:50-13:25 Closing Ceremony