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Date: 13/12/2023 Slot 1 (1st Half)

### Parallel Session 1(S1): Power Electronic Converters

SI no	Paper id	Paper title	Authors	Time slot
1	77	A New Impedance Source Network based Dual Output Inverter	Kanugula, Mohan Kumar; Kumar Yadav, Gulshan; Suthar, Anvi; Jammala, Venkataramanaiah*	9.50 AM
2	118	Modeling and Control of Digitally Controlled Series Resonant Converter using Software Frequency Response Analysis	Kesava, Sai*; C, Nagesha; Lakshmi Narasamma, N.	10.05 AM
3	120	Energy efficient Onboard EV Charger Employing Partial Power Processing DC-DC Converter	Veerakgoundar, Veeramani*; Subramaniam, Senthil Kumar	10.20 AM
4	182	A Switched-Capacitor based Multilevel Inverter with Extendable Levels having Enhanced Voltage Gain for Renewable Energy Applications	Alhitmi, M.A.; Iqbal, Atif; Islam, Shirazul*; Hussan, Md Reyaz; AWADELSEED, AHMED	10.35 AM
5	205	An Improved Electrothermal Modeling of Two-Level Inverter for Electric Vehicle Applications	R, Raja Singh*; Raju, Manikandan	10.50 AM

Date: 13/12/2023 Slot 1 (1<sup>st</sup> Half)

### Parallel Session 2 (S2): Vehicle Architecture & Safety

Time: 9.30 am to 11.00 am Session Chairs: ................... Venue: Session Hall 2

SI	Paper id	Paper title	Authors	Time slot
no				
1	91	Impact of single pedal braking on braking performance of electrified heavy road vehicle for urban applications	K, Meena Priya*; Krishnadass, Karthick; Subramanian, Shankar C	9.50 AM
2	159	Improve energy efficiency of hybrid electric tractor drivetrain using centralized control	Kulkarni, Punamchandra Mr.*	10.05 AM

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3	234	CARBON NEUTRALITY	Ramaiah, Pandian*;	10.20 AM
		APPROACH, STANDARDS,	Muthusamy, Ramesh;	
		REGULATIONS, POLICIES &	Nallathambi,	
		CIRCULAR ECONOMY	Gopalakrishnan	
4	279	Homomorphic Encryption	Abichandani, Neetigya*;	10.35 AM
		Technique in Over the Air (OTA)	ARUNAGIRI, LAKSHMANAN	
		update in ECUs	SORAKKA	
5	301	Integrating System Engineering	Keloth, Pradeep Kumar*;	10.50 AM
		Principles in Electric Vehicle	VENUGOPAL., SHANKAR	
		Design		

Date: 13/12/2023 Slot 1 (1<sup>st</sup> Half)

### Parallel Session 3 (S3): Fuel Cell vehicles

SI	Paper id	Paper title	Authors	Time slot
no				
1	14	Performance Study On 100kW	Subramanian, Karthikeyan*;	9.50 AM
		Proton Exchange Membrane	M, Gopi Sankar	
		Fuel Cell for Commercial		
		Vehicle Applications		
2	103	High Power Density Fuel Cell	Rechberger, Juergen*;	10.05 AM
		Systems for Commercial	Macherhammer, Josef;	
		Vehicles	Schenk, Alexander	
3	239	Sustaining Steady Voltage in	T M, Navinkumar*; C,	10.20 AM
		Hybrid Fuel Cell and Battery	bharatiraja	
		Power Systems Amid		
		Fluctuating Load Conditions		
4	295	Isolated DC Microgrid	Prajapati, Ashish*;	10.35 AM
		Operation with Hybridization	Bharadwaj, Vineet;	
		of PV, FC, and Battery	Chaudhary, Kalpana	
5	240	Designing functional safety	Muthusamy, Sugantha*	10.50 AM
		architecture for FCEV vehicles		

Date: 13/12/2023 Slot 1 (1st Half)

### Parallel Session 4 (S4): Renewable Integration, Smart Grids, and V2G

SI	Paper	Paper title	Authors	Time slot
no	id			

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1	150	Vehicle-to-Grid (V2G) and Renewable Energy (RE) Technologies for Grid Peak Load	VISWANATH, BELAGAVI*; Padhy, Narayana Prasad; Khatod, Dr Dheeraj K	9.50 AM
		Management and Sustainability: A State-of-the-Art Survey		
2	176	Optimal Sizing of Renewable Generation and Battery Energy Storage System for Electric Vehicles considering Energy Management Strategy	Iqbal, Atif*; Ahmad, Fareed; Bilal, Mohd; ALAMMARI, RASHID; AL-WAHEDI, ABDULLAH; Islam, Shirazul	10.05 AM
3	305	North West America Mackenzie Valley Wolf Population Updating during Hunting inspired Optimization and Quasi-Opposition based Indian Leopard Cat Swarm Algorithm for Real Power Loss Diminution in Electrical Grid Transmission System for Smart City	Kanagasabai, Dr Lenin*	10.20 AM
4	309	Grid-Integrated Bidirectional EV Charger for G2V-V2G Mode with Optimized Power Quality	Sachan, Shailu*; Keshari, Rajat Kumar; Swarnkar, Pankaj	10.35 AM
5	338	Hybrid Energy Input Based EV Charging System with Multi- Mode Power Flow and Adaptive Optimal Power Management Scheme	Jena, Priyatosh *; Singh, Rajeev Kumar; Lal, Dr. V. N	10.50 AM

Date: 13/12/2023 Slot 2 (2<sup>nd</sup> half)

### Parallel Session 5 (S5): Power Electronic Converters

SI	Paper	Paper title	Authors	Time slot
no	id			
1	221	Transformerless Dual Input Dual	C, bharatiraja*; R, ARAVIND	4.50 PM
		Output DCDC Converter for		
		Electric Vehicle Application		
2	256	A Non-Linear Voltage Controller	Singh, Prateek *; Bhule,	5.05 PM
		for Grid Voltage Sensor-less	Deeksha; Kaarthik,	
		Power Factor Correction	Sudharshan	
		Converters		
3	275	Coupled Inductor Based SIDO-	MS, Kamalesh*; C,	5.20 PM
		Buck Converter with Self-	bharatiraja; Cherukupalli,	
		Adaptive Digital PWM Control for	Kumar; S, Sanal Kumar; S,	

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		12V/24V On-Board Lighting and	Chandrasekar	
		Dashboard System for 48V-EV		
4	187	An Isolated Three-Port Converter	Tiwari, Akhilesh K*	5.35 PM
		with Multi- Level PFC Converter		
		for Hybrid Charging Application		
5	340	A Multifunction Multioutput On-	Maurya, Virendra Prasad*;	5.50 PM
		board Power Processor for	Singh, Rajeev Kumar	
		Electric Vehicles		

Date: 13/12/2023 Slot 2 (2<sup>nd</sup> half)

## Parallel Session 6 (S6): Electrical Machines & Drives

Time: 4:30 pm to 6:00 pm Session Chairs:.....

SI	Paper id	Paper title	Authors	Time slot
1	40	A Model-Based Lumped Parameter Thermal Network for Online Temperature Estimation of IPMSMs in	Reddivari, Reddiprasad *; Savant, Vishal; Eldeeb, Hassan	4.50 PM
2	170	Automotive Applications  Model Predictive Torque Control for Enhanced Switched Reluctance Motor Drive With Low Torque Ripple	M, DEEPAK*; G, JANAKI; C, bharatiraja	5.05 PM
3	163	Performance Analysis of Various PWM Strategies for Control of PMSM in High Voltage EV Applications	Sheshadri , Vishnu*; Mishra, Ramashis Kumar; Kamath, Rohith	5.20 PM
4	233	Influence of Different Direct Cooling Systems on Interior Permanent Magnet Traction Machine Performance	Banerjee, Anaugh*; Soulard , Juliette ; Ma, Xiyun; Nair, Sreeju S; Senthilnathan, SP	5.35 PM
5	124	Ripple test and impedance analysis procedures for normative evaluation of HVDC busses in EVs	Platzer, Thomas*; Winklhofer, Ernst; Leidorfer, Daniel; Rosenkranz, Thomas Christian	5.50 PM

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Date: 13/12/2023 Slot 2 (2<sup>nd</sup> half)

### Parallel Session 7 (S7): Wireless Chargers

Time: 4:30 pm to 6:00 pm Session Chairs:.....

SI	Paper id	Paper title	Authors	Time slot
no				
1	198	Enhancement of misalignment tolerance in multi-transmitter wireless Electric Vehicle charging system through an optimal transmitter stimulation	Ramakrishnan, Venkatesan*; A, Dominic Savio; Palanisamy, Thirumoorthy; Chandrasekar, Balaji; R, Narayanamoorthi; K, Srinivasan	4.50 PM
2	219	Isolated Single Switch High Frequency Inverter for Wireless Charging of Light Electric Vehicles	R, Venugopal; Chandrasekar, Balaji*; şehirli, erdal	5.05 PM
3	223	Wireless Power Transfer Based Vehicle to Two Vehicle (V22V) Charging	C, bharatiraja*; R, Nakkeeran	5.20 PM
4	225	Fault Tolerant Multi-leg Inverter Fed Roadway Wirelessly Powered Charging System	C, bharatiraja*; Aganti, Mahesh	5.35 PM
5	232	A Dual Receiver and Inherent CC-CV Operated Wireless EV Charging System with High Misalignment Tolerance Couplers	R, Narayanamoorthi*; J, Rahulkumar; C, Balaji; A, Dominic Savio	5.50 PM

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Date: 13/12/2023 Slot 2 (2<sup>nd</sup> half)

## Parallel Session 8 (S8): Renewable Integration, Smart Grids, and V2G

Time: 4:30 pm to 6:00 pm Session Chairs:.....

**Venue: Session Hall 4** 

SI	Paper id	Paper title	Authors	Time slot
no				
1	342	Solar-to-Vehicle Charging	Soni, Dr. Sandeep Kumar*;	4.50 PM
		with Maximum Power	Singh, Saumya; Kumar,	
		Point Tracking using Super-	Sunil; Sahu, Himanshu	
		Twisting Controller	Sekhar; RK, Saket	
2	276	A G2V and V2V	C, bharatiraja*; R,	5.05 PM
		Competency Bidirectional	Nakkeeran	
		Dual Active Bridge		
		Converter		
3	306	Low distortion multilevel	Prabhu, Omer*	5.20 PM
		inverter for efficient solar		
		PV generation for EV		
		Application		
4	128	A seven-level single-phase	Yadav, Gulshan; Kanugula,	5.35 PM
		shared leg toroidal	Mohan Kumar; Suthar, Anvi;	
		transformer based inverter	Jammala,	
		for grid-connected	Venkataramanaiah*	
		applications		
5	311	Design of a Bi-Directional	Rajender, Jatoth*; Dubey,	5.50 PM
		Dual Active Bridge	Manisha; Kumar, Dr.	
		Converter for Electric	Yogendra	
		Vehicle Battery Charging		

Date: 14/12/2023 Slot 3 (1<sup>st</sup> half)

### Parallel Session 9 (S9): Electrical Machines & Drives

Time: 9.30 am to 11.00 am Session Chairs:.....

SI	Paper id	Paper title	Authors	Time slot
no				
1	236	Drive Cycle-based Loss Minimization Strategies for Induction Motor Drives in Electrified Vehicles	Shinde, Hrishil A; Sridharan, Srikanthan*	9.50 AM
2	238	Analytical modeling and Optimization of an Outer Rotor-Five Phase Switched	Rayeen, Zeeshan*; Payami, Saifullah	10.05 AM

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				·
		Reluctance Motor for In-		
		Wheel Drive Applications		
3	271	An Improved ANPC-based	Hussan, Md Reyaz*;	10.20 AM
		7-level Inverter with	Siddique, Marif Daula;	
		Reduced Component and	Islam, Shirazul; Iqbal, Atif;	
		Low TSV for EV	Sarwar, Adil	
		Applications		
4	278	Inner loop Current Control	JAIN, CHESHTA*; Jain, Amit	10.35 AM
		Techniques for Speed	Kumar	
		controlled Double Inverter		
		fed Wound Rotor Induction		
		Motor Drive		
5	300	Harmonic Minimization in	Singh, Arya*; Lal, Dr. V. N;	10.50 AM
		Switched Capacitor	Mahanty, Ranjit	
		Multilevel Inverter Using		
		Improved Grey Wolf		
		Optimization		

Date: 14/12/2023 Slot 3 (1<sup>st</sup> half)

#### Parallel Session 10 (S10): Battery & Thermal Management System

SI no	Paper id	Paper title	Authors	Time slot
1	25	Smart Thermal System	Shahul Hameed, Hassain*; Veerabhadrachar, Rudresh; Kodur, Chethan	9.50 AM
2	34	Design for Disassembly: A Key to Achieving a Circular Economy for EV Battery Systems	Chakravorty, Buddhabrata*; Rao, Pathi Mohan	10.05 AM
3	46	System Validation with Battery-in-the-Loop Configuration using a Virtual Testing Toolchain	Kolar, Ales; Sammer, Gerlad; santiago, Prabhu*	10.20 AM
4	75	BMS Fusa - How to achieve FuSa compliance for a wireless BMS design	Tamas, Daniel; Miedl, Christian*	10.35 AM
5	81	Study on optimization of ultrasound welding of Al-Cu bimetallic busbar for battery EV	Choudhary, Prashant Kumar*; Chauhan, Shiv; Chengalvarayan, Raja	10.50 AM

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Date: 14/12/2023 Slot 3 (1st half)

### Parallel Session 11 (S11): Advanced Simulation, and Computational Intelligence tools

#### (AI / ML / Data Analytics)

Time: 9.30 am to 11.00 am Session Chairs:.....

		<b>~</b>	11.11.5	
ven	ue:	Session	Hall 3	

SI	Paper id	Paper title	Authors	Time slot
1	55	Lumped parameter thermal model for IPMSM motors including housing, bearing and endcap for vehicle applications	Mittal, Pushkin M*	9.50 AM
2	61	A statistical approach to estimate transient torsional load on EV driveline due to sudden vehicle wheel slip grab event.	De, Subhadeep*; Kulkarni, Ninad	10.05 AM
3	69	Artificial Intelligence Based Model for Vehicle Cooling System	KIRAN, INAPAKURTHI RAVI*; Hallikeri, Jeevan	10.20 AM
4	71	A Mechanism to Determine Fast Charging Protocol of Battery	KIRAN, INAPAKURTHI RAVI*; Kadali, Madhuri	10.35 AM
5	89	Harnessing the Power of Right Data Over Big Data for Autonomous Driving using Data Analytics	Selvaraj, Surendhar*; Banerjee, Jaydeep	10.50 AM

Date: 14/12/2023 Slot 3 (1st half)

Parallel Session 12 (S12): Wireless Chargers

SI	Paper id	Paper title	Authors	Time slot
no				
1	246	A Multi-leg Powered	R, Narayanamoorthi*;	9.50 AM
		Constant Voltage On-Road	Shanmugam, Yuvaraja; C,	
		Charging System With an	Balaji; A, Dominic Savio	
		LCC-S compensation		
2	252	Enhancement of Power	Ramakrishnan,	10.05 AM
		Transfer efficiency in	Venkatesan*; A, Dominic	
		wireless charging of	Savio; B, Partheeban; R,	
		electric vehicles by	Narayanamoorthi;	
		Positioning system with	Chandrasekar, Balaji; R,	
		sensor-based technology	Venugopal	
3	254	Power Control and	R, Narayanamoorthi*; J,	10.20 AM

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		Efficiency Enhancement	Rahulkumar	
		Topology for Dual Receiver		
		Quasi-Dynamic Wireless		
		Power Transfer EV		
		Charging		
4	255	Power Factor Correction in	R, Narayanamoorthi*;	10.35 AM
		Bidirectional Wireless	Venkatesan, Murugan	
		Power Transfer System		
		Using Primary Side Phase		
		Shift Control Technique		
5	260	Design and performance	Chandrasekar, Balaji*; R,	10.50 AM
		study of LCC-LCC and LCC-S	Venugopal; selvaraj,	
		Compensation Network for	jayachitra; Balasundaram,	
		Wireless Charging of EV	G; A, Dominic Savio; Lim,	
		Battery	Wei Hong	

Date: 14/12/2023 Slot 3 (1<sup>st</sup> half)

## Parallel Session 13 (S13): EV Tech Capability Building

Time: 9.30 am to 11.00 am Session Chairs:......
Venue: Meeting Room A

SI	Paper id	Paper title	Authors	Time slot
no				
1	125	Prediction of Sealant	Brahma, Anupam Kumar;	9.50 AM
		Performance Parameters	Duddu, Varaprasad*; Sahu,	
		using Kriging model	Abhishek; Ch, Bhaskara;	
			Mallu, Venkata Reddy	
2	126	Single electric motor full	Satapathy, Subhasish*	10.05 AM
		hybrid solution for		
		developing markets		
3	136	A Systematic Approach to	Kulkarni, Mandar; G C,	10.20 AM
		Mitigate Semiconductor	Pooja; Thangavel,	
		Chip Shortage: Insights and	Prithiviraj*; M,	
		Solutions for the Future	Vijayalakshmi	
		Automotive Industry		
4	241	A Pragmatic Model-Based	RAJENDRAN,	10.35 AM
		Design approach to	VIJAYALAYAN*; Rao,	
		accelerate and scale the EV	Rashmi; VENUGOPAL.,	
		Skills development	SHANKAR	
5	299	Enhanced Technical	Malani, Shekhar*; Inamdar,	10.50 AM
		Capability Building for EV	Javed; VENUGOPAL.,	
		and SDV through AI –	SHANKAR	
		based Functional		
		Competency Assessment		

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Date: 14/12/2023 Slot 4 (2<sup>nd</sup> half)

#### Parallel Session 14 (S14): Electrical Machines & Drives

Time: 2:00 pm to 3:30 pm Session Chairs:.....

Venue: Session Hall 1

SI	Paper id	Paper title	Authors	Time slot
no				
1	308	Flux-Barrier Based Rotor	Kumar, Naga Sampath*;	2.20 PM
		Design of Permanent Magnet	Srnivas, Srirama	
		Assisted Synchronous		
		Reluctance Motor with Power		
		Density and Torque ripple		
		Improvement For E-Mobility		
2	315	Small Signal Analysis and	PANDA, ASHISH KUMAR*;	2.35 PM
		Control of High-Speed PMSM	Tripathi, Avanish	
		Drive consisting of LCL filter		
3	328	Linearization of Over-	Kushwaha, Balwant; V,	2.50 PM
		modulation Region for a	Vidya; Kaarthik,	
		Dodecagonal Space Vector	Sudharshan*	
		Structure with a Single DC		
		Source		
4	330	Model Predictive Current	M, DEEPAK*; G, JANAKI; C,	3.05 PM
		Control Improved performance	bharatiraja	
		on Switched Reluctance Motor		
		Drive for Electric Vehicles		
5	283	Versatile On-Board Power	Maurya, Virendra Prasad*;	3.20 PM
		Processor for BLDC & IM	Singh, Rajeev Kumar	
		Driven Electric Vehicles		

Date: 14/12/2023 Slot 4 (2<sup>nd</sup> half)

### Parallel Session 15 (S15): Battery & Thermal Management System

Time: 2:00 pm to 3:30 pm Session Chairs:...... Venue: Session Hall 2

SI	Paper id	Paper title	Authors	Time slot
no				
1	141	Design and Development	Joshi, Ayush M*;	2.20 PM
		of PSA System for Ultra	Chaulamwar, Ninad Sanjay;	
		Purification of Green	Tendolkar, Mandar; Dhore,	
		Hydrogen.	Anil	
2	143	Battery Cooling System	Solomon, Samson*; SV,	2.35 PM
		Optimization for Battery	MasterEniyan; prasad,	
		Electric Bus	Gouri; S, Santhakumar; S,	

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			yuvaraj; D, Govindaraj	
3	164	Effects of Realistic Driving	Kalk, Alexis*; Holocher,	2.50 PM
		Profiles on the Degradation	Marc Clemens; Ohneseit,	
		of Lithium-Ion Batteries	Sebastian; Kupper,	
			Christian; Hiller, Marc	
4	183	Analyzing the Impact of	PRATAP, BHANU*; T V,	3.05 PM
		Lithium-lon Battery	Krishna Mohan; R K, Amit;	
		Recovery Strategy on e-	VENUGOPAL., SHANKAR	
		Mobility Revolution		
5	195	Microstructural and	Waghmare, Asmita Satish*;	3.20 PM
		Compositional analysis of	Pandit, Sachin P;	
		Cyclic Aged Lithium-Ion	Mahagaonkar, Nitin S;	
		18650 Cylindrical Cells	Jambhale, Medha	
		Nickel Manganese Cobalt		
		(NMC) & Lithium Iron		
		Phosphate (LFP)		

Date: 14/12/2023 Slot 4 (2<sup>nd</sup> half)

## Parallel Session 16 (S16): Advanced Simulation, and Computational Intelligence tools

### (AI / ML / Data Analytics)

Time: 2:00 pm to 3:30 pm Session Chairs:.....

		• • • • • • • • • • • • • • • • • • • •	ilac. Session rian S	
SI no	Paper id	Paper title	Authors	Time slot
1	90	Scalable Multi-physics	Reinhard Tatschl*;	2.20 PM
		Simulation to Support	Christoph Pötsch; Anton	
		PEM Fuel Cell System	Markus Reiter; Daniel	
		Development	Ritzberger; Vinay Kumar	
2	166	Optimal Transition of	kumar, Abhay*; Nagar,	2.35 PM
		Fleets to Electric Vehicle	Deepak; Ramanath, Vinay ;	
		using Mathematical	Subbaiah, Smaran	
		Optimization		
3	167	Analysis of Solvers in	Surya, Sumukh*; Chhetri,	2.50 PM
		MATLAB for Power	Ahilya; Mudlapur, Arjun	
		Converter Applications		
4	174	Design Optimization in	ALTHI, TIRUPATHIA RAO*;	3.05 PM
		Automotive Product	reddy, harivardhan; K,	
		Development Using AI/ML	Manu; manuel, Naveen	
		Algorithms		
5	208	Virtual Road Load Data	Patel, Hiralkumar G*;	3.20 PM
		Simulation	Kansagara, Smit M	

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Date: 14/12/2023 Slot 4 (2<sup>nd</sup> half)

#### Parallel Session 17 (S17): Wireless Chargers

Time: 2:00 pm to 3:30 pm Session Chairs:.....

**Venue: Session Hall 4** 

SI no	Paper id	Paper title	Authors	Time slot
1	303	An Improved Vehicle-To- Vehicle Wireless Power Transfer System for Electric Vehicle Applications Using Reconfigurable Two-Phase Transmitter	Ramakrishnan, Venkatesan*; A, Dominic Savio	2.20 PM
2	310	Feasibility Study of Wide Bandgap Devices for Parallel Hybrid Wireless Charging Systems	Tiwari , Gyanendra ; KARNEDDI, HARISH; Ronanki, Deepak *; Dekka, Apparao	2.35 PM
3	343	Influence of Charging-Pad Design Parameters on Self- Inductance Variation with Air-Gap and Coupling Coefficient for IPT in Low Clearance EVs	Prasad, Kavita Kiran*; Agarwal, Vivek	2.50 PM
4	230	LCC-LCC Compensation based Dual Active Bridge Bidirectional WPT for Electric Vehicle Application	R, Narayanamoorthi*; Venkatesan, Murugan; A, Dominic Savio; C, Balaji	3.05 PM

Date: 14/12/2023 Slot 4 (2<sup>nd</sup> half)

### Parallel Session 18 (S18): Cabin comfort, Charging behavior, Shared mobility, Decision

**Planning, and Pricing** 

SI	Paper id	Paper title	Authors	Time slot
no				
1	28	Application of Structural	Srinivasan, Karthik*; Kumar	2.20 PM
		Equation Models to	GVV, Ravi; TP, Anand	
		Analyse Barriers for		
		Sustainable Adoption of		
		Hydrogen Fuel Cell Electric		
		Vehicles in India		
2	41	Handling and Stability	Suresh, Nilai*; Baviskar,	2.35 PM
		Comparison of Three-	Shreyas; Nikam, Ameya;	
		Wheeled Vehicle with	Thakur, Sunil Kumar; Wagh,	

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		Delta and Tadpole Design	Sachin	
3	60	DSM Based In-Vehicle User	Venkat, Kavya*; P,	2.50 PM
		Cabin Setting	Sugapriya; P, Sugapriya	
4	122	Improving cabin comfort	T, Ganesh; SELVAM, Dinesh	3.05 PM
		with smart auto-flap HVAC	Kumar; Raut, Nidhi*;	
		control	Lakshmanan,	
			Radhakrishnan; Reddy,	
			Ravindranatha	
5	202	IoT based Electric Vehicle	A, Dominic Savio*;	3.20 PM
		Battery Parameters	Ramakrishnan, Venkatesan;	
		Monitoring for Battery	balakrishnan, partheeban; I,	
		Swapping	William Christopher;	
			Chandrasekar, Balaji; R,	
			Narayanamoorthi	

Date: 15/12/2023 Slot 5 (1<sup>st</sup> half)

### Parallel Session 19 (S19): Battery & Thermal Management System

SI	Paper id	Paper title	Authors	Time slot
no				
1	201	Optimal Design and Feasibility	Amir, Mohammad*; Sadar,	9.50 AM
		Study of Electric Vehicle	Aakash; Mohammad, Noor;	
		Battery Thermal Management	Iqbal, Atif	
		System		
2	206	Improving Battery	challa, nowneswara reddy *	10.05 AM
		performance using OptisLang		
		based Model Calibration of		
		Newman P2D model.		
3	267	Single-Particle model with	Jawle, Bharat Sanjay *;	10.20 AM
		thermal and Electrolyte	Selvakumar, Ashwin;	
		dynamics for lithium-lon cell	Subramanian,	
			Jagadeeswaran; Kumar,	
			Nagaraj; Kumaran, Ajith	
4	269	Experimental and numerical	Paramadayalan,	10.35 AM
		studies on Battery	Thiyagarajan*; Sarkar,	
		temperature distribution.	Madhusree; Prasad,	
			Chandrashekar; Gowda,	
			Bore; Kothamasi, Sumithra	
			Raju; Damodaran,	
			Vijayakanthan	
5	296	A review on electric vehicle	Hindustani, Mahommed	10.50 AM
		battery modeling methods	Toufiq Mr.*	

### **International Transportation Electrification Conference-ITEC INDIA 2023**

13<sup>TH</sup> TO 15<sup>TH</sup> DEC 2023

(jointly organized by SAEINDIA and IEEE IAS since 2015)

Date: 15/12/2023 Slot 5 (1st half)

### Parallel Session 20 (S20): Advanced Simulation, and Computational Intelligence tools

(AI / ML / Data Analytics)

Time: 9.30 am to 11.00 am Session Chairs:.....

**Venue: Session Hall 2** 

SI	Paper id	Paper title	Authors	Time slot
no				
1	216	Accelerating Automotive Design: Harnessing Al models for Efficient 3D Design and Development of Automobile Systems and Subsystems	ALTHI, TIRUPATHIA RAO*; Kothamachu, Vikram; Pandita, Rhea	9.50 AM
2	242	3-D CFD Simulation of Oil Flow and Heat Transfer in an e-Drive Unit	Pasunurthi, Shyam Sundar*; Chen, Yawei; Maiti, Dipak	10.05 AM
3	248	Virtual Road Load Data Acquisition using MATLAB for Gearboxes	Patel, Hiralkumar G*; Thambala, Prashanth	10.20 AM
4	264	Mechanical Integrity Simulation of sense-lines in High Voltage Battery module used in Battery Electric Vehicle	Seshadri, Sriram*; GH, Shivaprakash ; Bhavsar, Tejas	10.35 AM
5	297	Role of Machine Learning Approach in the Assessment of Lithium-Ion Battery's SOC for EV Application	Thiyagarajan, Anushalini*; Sri Revathi, B; Sulthan, Sheik Mohammed	10.50 AM

Date: 15/12/2023 Slot 5 (1st half)

## Parallel Session 21 (S21): Fast Chargers and Stations

Time: 9.30 am to 11.00 am Session Chairs:..... **Venue: Session Hall 3** 

SI	Paper id	Paper title	Authors	Time slot
no				
1	304	Analysis and Comparison	Satapathy, Manoranjan*;	9.50 AM
		of Partial Power Processing	Siddhartha, Vishwanatha;	
		Converter Architectures for	SHIVAKUMAR, GUDELLI;	
		EV Fast Charging Station	Edpuganti, Amarendra	
2	320	Analysis of Power Quality	A. N, ARCHANA*; T, Rajeev	10.05 AM
		Issues in Fast Charging		
		Stations on a Real-time		

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		Simulator		
3	11	An Advance model of electric vehicle for off-board charger Evaluation	Joshi, Pawan*; Singh, Shanu; Saraf, Shrihari R	10.20 AM
4	191	Comparative Analysis of Motor and Battery Sizing and Scaling for EV Vehicles	Samani, Jenishkumar Rameshbhai*	10.35 AM

Date: 15/12/2023 Slot 5 (1<sup>st</sup> half)

### Parallel Session 22 (S22): Autonomous/Software Defined Vehicles

SI no	Paper id	Paper title	Authors	Time slot
1	17	A Framework for Low-Cost Autonomous Mobility Platform to Retrofit Electric Vehicles	Karadakal, Veerabhadrappa*; Guptha B P, Sreekanta; Pareekutty, Nahas; G V V, Ravi Kumar	9.50 AM
2	36	Method For Identifying Movements of Vehicle Body	Thomas, Sivaprasad*; Bretzigheimer, Kai; Prakash, Vishnu; A, Rajasekhar	10.05 AM
3	37	Protecting Passengers and Data: The Importance of an consistent process from TARA to testing.	Petschnik, Harald; Lecossec, Morgan; santiago, Prabhu*	10.20 AM
4	108	Security of Connected Cars that Promise Zero Accidents	Kirankumar N Tuppad*; Seela Sainath; Sandhya SC; A Subba Rao	10.35 AM
5	173	Adopting security and privacy risk-based engineering in designing and handling AI/ML based applications for road vehicles	venkatachalapathy, Sreenikethana k*	10.50 AM

Date: 15/12/2023 Slot 6 (2<sup>nd</sup> half)

### Parallel Session 23 (S23): Battery & Thermal Management System

Time: 11:30 am to 1:00 pm Session Chairs:...... Venue: Session Hall 1

SI	Paper id	Paper title	Authors	Time slot
no				
1	50	A Feasibility Study of	Shelke, Manjusha V*;	11.50 AM
		Utilizing Directly Recycled	Melepurakkal, Amrutha;	

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		LiFePO4 Cathodes for	Chaturvedi, Vikash ; Bangal,	
		Second Life Usage in	Ojas ; Parasumanna, Ajeet	
		Stationary Applications	Babu ; Bawase, Moqtik ;	
			Karle, Ujjwala	
2	52	Development of Wire	Singh, Urvashi*	12.05 PM
		Bonding as a Joining		
		Technique in Battery Packs		
3	68	Passive Balancing of	Kulkarni, Manoj R*	12.20 PM
		Battery using Coulomb		
		Counting and Kalman Filter		
		based SoC estimation		
4	73	Passive Cell Equalization &	Khamari, Sadhana S*;	12.35 PM
		State of Charge Estimation	Gaikwad, Anushka P.; Patil,	
		using Coulomb Counting	Apeksha; Argade, Sachin;	
		Approach	MULLA, AABID	
			CHANDBASHA	
5	116	Impact of fast charging on	DAS, SANJIB KUMAR*;	12.50 PM
		life of EV batteries –	Sahoo, Suman	
		battery thermal		
		considerations		

Date: 15/12/2023 Slot 6 (2<sup>nd</sup> half)

# Parallel Session 24 (S24): Advanced Simulation, and Computational Intelligence tools

(AI / ML / Data Analytics)

Time: 11:30 am to 1:00 pm Session Chairs:...... Venue: Session Hall 2

SI	Paper id	Paper title	Authors	Time slot
no				
1	172	Active Cell Balancing and	Shinde, Akshay N *;	11.50 AM
		SOC estimation using	Ankushe, Rahul; Kulkarni,	
		coulumb counting in	Aditi ; Chounde, Shravika ;	
		Python	Jadhav, Bhushan	
2	302	Electro-thermal model	Kushwaha, Sudhir K*; Kant,	12.05 PM
		using advanced ECM	Shubham; Poreddy, Kambi	
		approach for automotive	Reddy; Garg, Manish	
		application.		
3	312	Explicit Dynamic	Raj, Saravanakumar*;	12.20 PM
		Optimization for Battery	Subramaniam, Anand;	
		using Equivalent Static	Roffe, Cedric	
		Load method (ESLM)		
4	313	ELECTRIC MOTOR COPPER	SIVASANKAR,	12.35 PM
		WINDING STIFFNESS	SOMASUNDARAM*;	
		CALCULATION METHOD BY	SUBRAMANIAM, ANAND;	
		FEA APPROACH	Ruello, Maxime	
5	314	Life estimation of power	Sampath, Dhinesh Babu*;	12.50 PM

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	electronic components in	Subramaniam, Anand;	
	Electric Vehicle for	Rodrigues, Victor	
	vibration loads		

Date: 15/12/2023 Slot 6 (2<sup>nd</sup> half)

### Parallel Session 25 (S25): Standards, Regulations, Policies & Circular Economy

Time: 11:30 am to 1:00 pm Session Chairs:...... Venue: Session Hall 3

CI	Danie - Id		Audi	Thursday
SI	Paper id	Paper title	Authors	Time slot
no				
1	8	EMC test challenges of	Kothari, Manish*	11.50 AM
		CASE vehicles		
2	78	General Electric Testing:	Kothari, Manish*; JAIN,	12.05 PM
		Simulate and Test Possible	LAVISHA; RASEKAR, MAYUR	
		Failures of Vehicle Electric	SURESH; VERMA, RAJNISH	
		System		
3	222	Powering the Future:	Ravuri, Spurthi*; NC,	12.20 PM
		Harnessing an Ecosystem	Thirumalai; VENUGOPAL.,	
		Approach to Drive Electric	SHANKAR	
		Vehicle Adoption		
4	197	India EV Energy Ecosystem	Sivakumar, Vinodh Prabu*;	12.35 PM
		<ul><li>– Challenges &amp; Future</li></ul>	Chandran, Navaneetha	
		Roadmap	krishnan; Ramaswamy,	
			Sriram	
5	327	Impact of Decarbonization	AMRAN, MUHAMMAD	12.50 PM
		Policies on Electric Vehicle	FAHMI; Dharan, Thinesh;	
		Integration and Carbon	Sivaneasan, Bala Krishnan	
		Emission: A Singapore Case	B*; Klooster, Rens ten;	
		Study	Salet, Tijmen; Rathore,	
			Akshay Kumar; Chakrabarti,	
			Prasun	

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Date: 15/12/2023 Slot 6 (2<sup>nd</sup> half)

### Parallel Session 26 (S26): Autonomous/Software Defined Vehicles

Time: 11:30 am to 1:00 pm Session Chairs:.....

SI	Paper id	Paper title	Authors	Time slot
no				
1	35	A SYSTEM INTEGRATOR	Vinod, Venkateswaran*;	11.50 AM
		PERSPECTIVE FOR NAVIGATING	Guptha, Sreekanta; Soman,	
		THE FUTURE OF MOBILITY	Amit	
		THROUGH SOFTWARE-DEFINED		
		VEHICLES		
2	177	Accelerating the development	Rao, Varada Prashant*;	12.05 PM
		of Software Defined Vehicles	VENUGOPAL., SHANKAR	
		through Innovative		
		Collaboration across the		
		Industry		
3	273	The Practicalities of	Chandran, Deepu*	12.20 PM
		Automotive Software Safety		
		Analysis		
4	290	Financial Impact on Indian	MALIK, VARUN*; Vashist,	12.35 PM
		automotive Industry for	Devendra	
		transition from IC Engine based		
		to EV based technology		
5	250	An Electric Vehicles Based	Misra, Priya*; Saxena, D.;	12.50 PM
		Virtual Inertia Control for	RATHOR, SUMITKUMAR K	
		Frequency Support of Low-		
		Inertia Microgrid		