OVERVIEW

Time	**Monday, October 26**
Afternoon	
17 :15-18 :30	**Registration**
18 :30-20 :00	**Welcome Cocktail**

OVERVIEW

Time	**Tuesday, October 27**			
Morning				
8 :00-8 :45	**Registration**			
8:45-9:15	**Room B00 - Opening Session**			
9:15-10:00	**Room B00 Keynote 1 : "Charging Ahead: Lessons from the Indiana Dynamic Wireless Power Transfer Pilot"**			
10:00-10:30	***Coffee Break***			
Rooms	*A001*	*A002*	*B00*	*C002*
10:30-12:30	*SHIP 1*			*RAILWAY 1*
12:30-13:45	***Lunch***			
Afternoon				
13:45-14h30	**Room B00 Keynote 2 : "Towards a holistic maritime electrification plan for both ports and ships"**			
Rooms	*A001*	*A002*	*B00*	*C002*
14:40-16:00	*SHIP 2*	*ROAD VEHICLES 1*	*ENERGY STORAGE 1*	*RAILWAY 2*
16:00 - 16:30	***Coffee Break***			
16:30-18:00				*WORKSHOP « On-board Chargers for EV, Control & Design »*

OVERVIEW

Time	**Wednesday, October 28**			
Morning				
8:45-9:30	**Room B00 Keynote 3 : "Smart Electric Power Management for Next-Generation Aircraft"**			
9:30-10:00	***Coffee Break***			
Rooms	*A001*	*A002*	*B00*	*C002*
10:00-12:00	*AIRCRAFT 1*	*BATTERY CHARGERS 1*	*INFRA E_MOBILITY 1*	*RAILWAY 3*
12:00-13:30	***Lunch***			
Afternoon				
13:30-14h15	**Room B00 Keynote 4 : "Power Converters for AC Railway Electrification System"**			
Rooms	*A001*	*A002*	*B00*	*C002*
14:20-15:40	*ROAD VEHICLES 2*	*SHIP 3*	*ENERGY STORAGE 2*	*RAILWAY 4*
15:45 - 16:15	***Coffee Break***			
16:20-18:00	*ROAD VEHICLES 3*	*AIRCRAFT 2*	*ENERGY STORAGE 3*	*WORKSHOP "Strategies of decarbonization in the Railway Sector"*
20 :00 – 00 :00	***Gala Diner***			

OVERVIEW

Time	Thursday, October 29			
Morning				
8:45-9:30	**Room B00 Keynote 5 : "Power Electronics Technologies bringing the Innovation to Railway Vehicle Traction System"**			
9:30-10:00	***Coffee Break***			
Rooms	*A001*	*A002*	*B00*	*C002*
10:00-12:00	*INFRA E_MOBILITY 2*	*AIRCRAFT 3*	*ROAD VEHICLES 4*	*RAILWAY 5*
12:00-13:30	***Lunch***			
Afternoon				
13:30-14h15	**Room B00 Keynote 6 : Optimization of High Performance WBG-Based Power Drive Systems for Aircraft Applications**			
Rooms	*A001*	*A002*	*B00*	*C002*
14:20-15:40	*INFRA E_MOBILITY 3*	*BATTERY CHARGERS 2*		*AIRCRAFT 4*
15:45 - 16:15	***Coffee Break***			
16:15-16:45	**Room B00 Closing Session**			

Time	Friday, October 30
Morning	
8:30-12:00	**Technical Visits**

Tuesday, October 27

Room : B00	
8 :45 – 9 :15	Opening Session

Room : B00	
9:15 – 10 :00	**Keynote 1 - Charging Ahead: Lessons from the Indiana Dynamic Wireless Power Transfer Pilot**
	Presenter : Prof. Aaron Brovont and Prof. Steven Pekarek, Purdue University, USA
	Chairperson : Babak Fahimi, Univ. of Texas, Dallas (USA)

Room : xx	
10:00 – 10:30	**Coffee Break**

Room : A001			
Shipboard Electrical Applications – Session 1			
Chairperson : Andrea Vicenzutti – Univ. of Trieste (Italy)			
Time	Paper ID	Title	Authors
10:30	183	**Method for Development of Equivalent Circuits for Conducted-Emissions Analysis of Naval Power Systems**	Brovont, Aaron; Helton, Jared; Lemmon, Andrew
10:50	173	**Short-Circuit Current Calculation in DC Shipboard Microgrid Using Operational Admittances**	Cepollini, Pietro; D'Agostino, Fabio; Silvestro, Federico; Chiarelli, Antonio
11:10	141	**Asynchronous Augmented EKF for Online Parameter Estimation in DC-DC Converters**	Winchell, Ethan; Pundt, Dustin; Balsara, Poras; Fahimi, Babak
11:30	220	**Frequency-Dependent Impedance Specification For Shipboard DC-Microgrid Load-Side Subsystems: Robust Stability Perspective**	Almawu, Endalkachew Degarege; Tan, Nadia
11:50	200	**Linear Modeling of Hybrid Shipboard Power Systems under Pulsed Power Load Operation**	Roncagliolo, Daniele; Cepollini, Pietro; D'Agostino, Fabio; Gallo, Marco; Silvestro, Federico
12:10	180	**Mitigating Grid Stability Problems via Shore Connection Port Distribution Systems**	Kotsampopoulos, Panos; Prousalidis, John

Room : C002			
Energy storage for the railway sector			
Chairperson : Prof. Mario Pagano, Univ of Naples (Italy)			
Time	Paper ID	Title	Authors
10:30	189	**Decarbonizing Non-Electrified Regional Railways through the Replacement of Diesel Based HMU with BEMU**	Fratelli, Luigi; Pelliccia, Andrea; Porrino, Antonio; Sacchi, Marco; Ambrogio, Stefano; Manno, Vincenzo; D'Eusebi...
10:50	181	**Adapting Energy Simulation Tools to Battery- Powered Trains Project Phases: From Sizing to Operational Exploitation**	EL GAIED, Hamdi; CHAMRET, André-Pilippe; aALONSO, Luis; FRUGIER, Didier
11:10	132	**Dual Battery System for the Catenary/Battery Hybrid LRV "Type LH02"**	Taguchi, Yoshiaki; Watanabe, Aruto; Kadowaki, Satoshi
11:30	164	**Limitations of Droop Control as an Energy Storage Control Method for the Harvesting of Excess Braking Energy in Traction Grids**	Tsitouridis, Yiannis; Diab, Ibrahim; Bauer, Pavol
11:50	174	**State of charge management impact on BEMU's battery lifetime**	Juston, Maxime; Vanbutsel, Michael; Grah, Philippe; Munoz Varga, Juan José; Alonso, Luis-Maria; vulturescu, bogdan
12:10	136	**Energy supervision for wayside ESS in DC railway smart grids**	Shmaysani, Mhamad; Almaksour, Khaled; Latif, Abdul; Caron, Hervé; Saudemont, Christophe; Robyns, Benoit

Room : xx	
12:30 – 13:45	Lunch

Room : B00	
13:45 – 14 :30	**Keynote 2 - "Towards a holistic maritime electrification plan for both ports and ships"**
	Presenter : Prof. John Prousalidis *(National Technical University of Athens - Greece)*
	Chairperson : Giorgio Sulligoi – Univ. of Trieste (Italy)

Room : A001			
Shipboard Electrical Applications – Session 2			
Chairperson :			
Time	Paper ID	Title	Authors
14:40	124	**A Multi-Objective EMS for Shipboard Microgrids Balancing Efficiency and Durability**	La Tona, Giuseppe; Fazzini, Paolo; Di Piazza, Maria Carmela
15:00	122	**Reinterpreting Metropolitan Underground Secondary AC Networks for Shipboard MVDC Distribution Systems: Reliability Assessment**	Deroualle, Jacques; Vicenzutti, Andrea; Bosich, Daniele; Sulligoi, Giorgio
15:20	152	**Online Adaptive Neuro-Fuzzy Control of a DC–DC Buck Converter**	Pundt, Dustin; Winchell, Ethan; Balsara, Poras; Fahimi, Babak
15:40	153	**Luenberger Observer-Based Voltage Estimation for Active Damping in MVDC Shipboard Power Systems**	Sbuelz, Samuele; Tavagnutti, Andrea Alessia; Vicenzutti, Andrea; Bosich, Daniele; Sulligoi, Giorgio

Room : A002			
Electrical Systems in Road Vehicles – Session 1			
Chairperson : Prof. Luigi Rubino,·Univ. of Campania, Aversa (Italy)			
Time	Paper ID	Title	Authors
14:40	211	**Optimization of Linear Three-Phase Coil Topology for Dynamic Wireless Power Transfer with Reduced Stray Field**	Brovont, Aaron; Pekarek, Steven; Aliprantis, Dionysios
15:00	225	**Vehicle-to-Grid as a Distributed Resilience Resource for Future Low-Inertia Power Systems**	Franzese, Pasquale; Dannier, Adolfo; Brando, Ginluca; Spina, Ivan; Coppola, Marino; Iannuzzi, Diego
15:20	213	**Analysis of the Impact of Current-Sensor Faults on Losses in PMSM Drives for Electric Vehicles**	Attaianese, Ciro; D'Arpino, Matilde; Di Monaco, Mauro; Di Noia, Luigi Pio
15:40	161	**Disturbance Observer and Rotor Flux Shielding Strategy for Fault-Tolerant Control of a Multiphase Electrically Excited Synchronous Machine**	Crescenzio, Filippo; Mangels, Michael; Kammermann, Jörg

Room : C002			
Railway modeling and simulation			
Chairperson : Prof. Philippe Ladoux, Univ. Toulouse, LAPLACE (France)			
Time	Paper ID	Title	Authors
14:40	123	**Enhanced Insulation Coating Strategy for Rails Centered on Traction Substations**	Li, Songyuan; Liu, Wei; Tian, Zhongbei; Yang, Zhuoxin; Liu, Feilong; Yang, Shuangrui
15:00	204	**Time-Frequency Feature Tracing and Coupling Analysis of Metro Stray Current Intrusion into Urban Power Grids**	Wang, Menggiao; Nibishaka, Erneste; Hou, Jiefu; Song, Xiao
15:20	190	**Fault Identification of Rotor Bar Damage in Parallel Induction Machines Through Common Feeder Current Monitoring**	Delfa-Baena, Sandra; Terron-Santiago, Carla; Sapena-Bano, Angel; Burriel-Valencia, Jordi
15:40	167	**Energy and Power Requirements for Decarbonizing High-Power Diesel Locomotives: A System-Level Study from the LOCOMOTHYVE Project**	Depature, Clément; Fall, Mouhamadane; Dupleix, Elsa; Zouzou, Nada; Ziani, Smail

Room : B00			
Energy storage and Fuel Cell Systems – Session 1			
Chairperson :			
Time	Paper ID	Title	Authors
14:40	178	**Reduced Modeling of Fuel Cell and Battery Hybrid Systems Using Linear Parameter-Varying and Neural Approaches**	Harb, mahdi; Hernández-Torres, David; Bideaux, Eric
15:00	156	**Fault-Tolerant Baseload for Hydrogen Fuel Cell Aircraft Electrical Network**	FitzPatrick, Ben; Ibrahim, Kingsley; Bailey, Richard; Wright, Nick; Malkin, Peter; Gbadeyan, Adegoke
15:20	197	**Model-based optimal energy management of a fuel cell powertrain for micro-car applications**	Capasso, Clemente; Costa, Michela; Iannucci, Luigi; Migliardini, Fortunato; Veneri, Ottorino
15:40	219	**Fuel Cell System Modelling for Mobility Applications**	Plait, Antony; Dijoux, Etienne; Turpin, Christophe

Room : xx	
16:00 – 16:30	Coffee Break

Room : C002	
16:30 – 18:00	**Workshop "On-board Chargers for EV: Control & Design"**
	Presenters : A. Barrilado (NXP), J. Lachaize (Schaeffler), T. Kein (CIRTEM), A. Fournet (AMPERE)
	Chairpersons :Zohra Kader, Marc Cousineau, Univ. Toulouse, LAPLACE (France)

Room : B00	
8:45 – 9:30	**Keynote 3 - "Smart Electric Power Management for Next-Generation Aircraft"**
	Presenter : Prof. Serhiy Bozhko (Univ Nottingham - UK)
	Chairperson :

Room : xx	
9:30 – 10:00	**Coffee Break**

Room : A001			
Advanced Power Electronic Systems for Aircraft Applications			
Chairperson : Bruno Sareni, Univ. Toulouse, LAPLACE			
Time	Paper ID	Title	Authors
10:00	116	**Mission-Dependent Cooling in 500kW Electrified Aircraft Powertrains: Impact on Two-Level and Three-Level Inverter Reliability**	Keilmann, Robert; Nozinski, Marius; Franzki, Jonas; Radomsky, Lukas; Henke, Markus; Kabelac, Stephan; Mallwitz, Regine
10:20	193	**CHB-Boost Modular Strategy for Maintaining Output Voltage in Electric Propulsion Systems**	Loureiro, Pablo Henrique; dos Santos, Kristian Pessoa; Ferreira, Gabriela Torllone; Pomilio, Jose Antenor
10:40	110	**Driving Methods with Loss Comparison for Parallel IGBT-Based Solid State Circuit Breakers**	Rubino, Guido; Rubino, Luigi; Cousineau, Marc
11:00	212	**Highly Efficient Integrated Resonant Structures Using Foil Windings**	Apte, Pramod; Friebe, Jens
11:20	185	**Minimization of DC-Link Capacitor Ripple Current in Hybrid Aircraft Power Systems via Carrier Shift Control**	Hussaini, Habibu; Mangkhala, Nonthakan; Hebala, Osama; Yeoh, Seang Shen; Areerak, Kongpol; Bozhko, Serhiy
11:40	111	**Comparative Evaluation of Analog and Digital Control for a 280 W Two-Phase Interleaved Boost Converter in Aerospace Applications**	Ortak, Ahmet Eren; Mutlu, Mert; Uysal, Arda Sercan; Kocabaş, Derya Ahmet; Ekinci, Umut Baran

Room : B00			
Smart Charging, V2G and Energy Management for E-Mobility			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	168	**Comparative Analysis of Vehicle-to-Grid Smart Charging Strategies**	Penta, Marco; Iannuzzi, Diego; Dannier, Adolfo; Chandra Mouli, Gautham Ram
10:20	188	**Comparative Assessment of Electric Vehicle Charging Infrastructure in Europe, the United States and Brazil**	Labigalini, Marcio; Rodrigues, Matheus; Castellano, Ubiratan; Moitinho, Gabriel
10:40	206	**Integrating Vehicle-to-Grid into a MATSim-Pandapower co-simulation: A Sensitivity Study of Agent Behaviour under DSO Compensation and Range-Anxiety Variation**	Hu, SiZhong; Stadler, Andreas; Schulz, Detlef
11:00	217	**Performance Analysis of MMDC-MAB-based EV Charging Station with Multi-Chemistry Batteries**	Martino, Giovanni; Beiranvand, Hamzeh; Porpora, Francesco; Groon, Fabian; Votava, Martin; Di Monaco, Mauro; Liserre...
11:20	227	**Preliminary Sizing of Permanent Magnet Synchronous Generators for Selecting the Most Suitable Configuration in Mini Wind Energy Conversion System**	IANNUZZI, DIEGO; Coviello, Vincenzo; Del Pizzo, Andrea; Grauso, Giuseppe

Room : C002			
Railway Power Supply and Energy Saving			
Chairperson : Didier Frugier, Rolling Stock Engineering Center, French Railways (SNCF)			
Time	Paper ID	Title	Authors
10:00	151	**Study on the Reinforcement of a 120km 1.5 kV DC Double-Track Railway Line by a 9 kV Feed-Wire for Heavy Freight Traffic**	Flumian, Didier; Ladoux, Philippe
10:20	155	**An Innovative Modular Voltage Booster for 25 kV Railway Electrification System**	Ladoux, Philippe; Flumian, Didier
10:40	146	**Charging Control Method to Reduce Internal Resistance Losses in EDLCs for Wayside Energy Storage Systems Combined with High-Voltage Receiving Substations on DC-electrified Railways**	Kawasaki, Soya; Kondo, Keiichiro; Kobayashi, Hiroyasu; Tokuda, Kouichirou
11:00	145	**Energy-saving Effect in Regenerative Braking Methods using a Train Automatic Stop-position Controller in DC electrified Train**	Kagaya, Yuji; Kondo, Keiichiro; Kobayashi, Hiroyasu; Ando, Toshiya; Hosaka, Toshio; Nagashima, Takumi
11:20	222	**Optimal Virtual Resistance Selection for Inverter-Based Traction Substations Using a Traction Power Flow Framework**	Di Pasquale, Antonio; Oppio, Andrea; Pagano, Mario; de Notaristefani di Vastogirardi, Giulio; Andreotti, Amedeo
11:40	170	**Stacked Connections, Unstacked Benefits: A Case Study Analysis of the Performance Limits of Using Traction Grids as Auxiliary DC Distribution Grids**	Diab, Ibrahim

Room : A002			
Battery Chargers – Session 1			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	192	**Inductive Charging for Electric Vehicles: A Study on LCC Compensation Networks and Active Rectification with Efficiency Evaluation**	Hölzel, Stephen; Hepp, Heiko; Bohn, Christian
10:20	215	**Generalized Design Methodology for High-Power Single-Stage Matrix-type On-Board Charger**	Iannetta, Mattia; Porpora, Francesco; Gennaro, Francesco; Di Monaco, Mauro; Tomasso, Giuseppe
10:40	216	**System-Oriented Design and Charging-Profile Optimization of a 22 kW Single-Stage Matrix-Type DAB-based On-Board Charger**	Iannetta, Mattia; Porpora, Francesco; Gennaro, Francesco; Di Monaco, Mauro; Tomasso, Giuseppe
11:00	140	**Ultra-Wide Voltage-Gain LLC Resonant Converter with Adjustable-Turns-Ratio Transformer for CC/CV Battery Charging**	Askari Abolverdi, Shirin; Trochimiuk, Przemyslaw; Rąbkowski, Jacek
11:20	112	**Dual-Stage Power Extraction Architecture for Enhanced Operational Flexibility in Free Piston Linear Generators**	Mostacciuolo, Elisa; Rubino, Luigi; Baccari, Silvio; Iannelli, Luigi; Beatrice, Carlo; Capasso, Clemente; Veneri...
11:40	196	**Dynamic Junction Temperature Measurement of a Power Module Under a Realistic 50 Hz Power Dissipation Profile for EV Onboard Charging**	KARRAME, Khalil; Marie, Alexandre; Helie, Jérôme; Cannenterre, Stephanie; Fradin, Jean-Pierre

Room : xx	
12:00 – 13:30	Lunch

Room : B00	
13:30 – 14 :15	**Keynote 4 - "Power Converters for AC Railway Electrification System"**
	Presenter : Tobias Thurnherr (Hitachi Energy – Switzerland)
	Chairperson : Philippe Ladoux, Univ. Toulouse, LAPLACE

Room : A002			
Shipboard Electrical Applications – Session 3			
Chairperson :			
Time	Paper ID	Title	Authors
14:20	159	**Small Modular Reactors for Maritime Applications: Integration Challenges and Operational Potential**	Olivo, Matteo; Vicenzutti, Andrea; Sulligoi, Giorgio
14:40	205	**Climate Impact of a Battery Electric RoPax Ferry - Effect of NMC or LFP Cell C-rate Optimization and Charging Scenarios**	Grunditz, Emma; Willner, Ruben; Alikhanzadehalamdari, Babak; Bensow, Rickard; Brynolf, Selma; Wikner, Evelina; Thiringer...
15:00	169	**A Battery Chemistry and Size Fast-Selection Methodology for Battery-Electric Ferry Applications**	Langelaan, Rens; Diab, Ibrahim
15:20	160	**A Collaborative Droop Control in the Powering of Zonal DC Shipboard Grids**	Tavagnutti, Andrea Alessia; Bosich, Daniele; Vicenzutti, Andrea; Sbuelz, Samuele; Sulligoi, Giorgio

Room : A001			
Electrical Systems in Road Vehicles – Session 2			
Chairperson : Marc Cousineau, Univ. Toulouse, LAPLACE (France)			
Time	Paper ID	Title	Authors
14:20	157	**A Single-phase Integrated Battery Charger with Dual Active Power Filter based on Open-Winding Motor**	**Zhang, Jiate; Wei, Jiadan; Zhang, Zeyu; Wang, Qi; Li, Gaofeng**
14:40	149	**Resonant High-Frequency Power Extraction in Multilevel Inverters for EV 48-V Auxiliary Loads**	**Defretin, Loïck; Gateau, Guillaume; Cousineau, Marc; Dietsch, Jérôme**
15:00	177	**Three Level Boost Converter with Peak Current Balancing Control**	**Greil, Julian; Börngen, Hannes; Christ, Thomas; Galek, Marek**
15:20	134	**Electric multi-motor powertrain definition for a solar vehicle**	Popescu, Liviu

Room : C002			
Optimization Methods for Railway Applications			
Chairperson : Dr. Didier Flumian, Univ. Toulouse, LAPLACE, (France)			
Time	Paper ID	Title	Authors
14:20	119	**Data-Driven Identification of Multi-Service Energy Optimization Opportunities in French Railway Traction Networks**	wu, peizhe; letrouvé, tony; caron, hervé
14:40	108	**Rail E-transport: present status, challenges & opportunities**	Boldea, Ion; Tutelea, Lucian; Muntaen, Nicolae; Ali, Salman; Qadeer, Neelam; Marignetti, Fabrizio
15:00	107	**A Study on an Energy Distribution Method Using Wayside Energy Storage for Minimizing Evacuation Running Time under Power Outage**	Tsutsumi, Yuhi; Kondo, Keiichiro
15:20	118	**Timetable Optimization for Energy Saving and Delay Suppression in DC-Electrified Railways**	Oyama, Tomoki; Kagaya, Yuji; Suzuki, Takashi; Kondo, Keiichiro

Room : B00			
Energy storage and Fuel Cell Systems – Session 2			
Chairperson :			
Time	Paper ID	Title	Authors
14:20	203	**Thermal Resilience of an Immersion Cooled Battery Pack under High-Pulse Dynamic Loading in Wheel-Loader Y-Cycle Operation**	Wahab, Abdul; Kemper, Hans; Khayyam, Hamid
14:40	191	**Power Converters for Managing Battery Module Heterogeneity**	Łatka, Karol; Fontès, Guillaume; Lacressonnière, Fabien
15:00	150	**Integrated fuse functions in laminated bus bar design for cell-level protection in Li-ion batteries**	Bernardino, Kévin; Goulmane, Abdelilah; Fouet, Thomas
15:20	165	**Output Current Balancing Control for a Fast-Switching DC/DC Converter in ISOPP Configuration**	Lars, Lindner; Lübbering, Timo; Dragomir, Anda-Alexandra; Haake, Daniel; Sprunck, Sebastian; Jung, Marco

Room : xx	
15:45 – 16:15	Coffee Break

Room : C002	
16:15 – 17:45	**Workshop Railway**
	Presenters : T. Yamada (RTRI – Japan), C. Dautel (Hitachi Rail – Italy), C. Foncin (SNCF – France), G. Buffarini (Italfer – Italy)
	Chairpersons : Laurent Frechede (SNCF – France)

Room : A001			
Electrical Systems in Road Vehicles – Session 3			
Chairperson : Prof. Babak Nahid-Mobarakeh,·McMaster University, Hamilton (Canada)			
Time	Paper ID	Title	Authors
16:20	148	**Low-Complexity Modulation for Single-Stage Three-Phase Dual-Active-Bridge AC-DC Converter intended for On-Board Bidirectional Chargers**	CHAVEZ, Daniel; SAL Y ROSAS, Damian; COUSINEAU, Marc
16:40	223	**A Torque-Speed-Adaptive Hybrid SVM Strategy for Zero-Sequence Current Mitigation in Dual-Inverter Open-End Winding PMSM Drives**	Di Cristo, Luca; Fedele, Emanuele; Di Noia, Luigi Pio; Preindl, Matthias; Meo, Santolo; Rizzo, Renato
17:00	128	**Automated Timing Analysis of ECU Signals in Automotive Data**	Camacho Molina, Samantha; Bethke, Florian; Ayeb, Mohamed
17:20	129	**Simulator-Trained Black-Box Energy Consumption Model for Electric Vehicles: Machine Learning-Based Cross-Domain Validation on Real-World Trip Data**	Abro, Muhammad Arsalan Jalees; Al Reshan, Mana Saleh; Alalhareth, Mousa; Rajab, Adel; Almansour, Hamad; Shaikh, Asadullah

Room : A002			
Motor Drive and control Systems for Aircraft Applications			
Chairperson :			
Time	Paper ID	Title	Authors
16:20	182	**Differential-Mode Active Power Filtering for Motor Control Units in Aircraft Applications**	DIVAN, Israel; Cougo, Bernardo; Drummond, Rodrigo; M. F. Morais, Lenin
16:40	184	**Modeling and Optimization of Aircraft Power Drive Systems for Reduced Fuel Consumption**	Drummond, Rodrigo; Cougo, Bernardo; Vangraefschepe, Franck; Roux, Nicolas; Sareni, Bruno; Girinon, Sylvain
17:00	109	**Electric Grid Assessment of All Electric Flight Control for Gust Loads Alleviation**	Mali, Rushikesh; Reindl, Andrea; van der Linden, Franciscus
17:20	218	**Temperature-Adaptive Loss-Minimization Control for Single-Inverter Multi-PMSM Drives Under Stator Resistance Asymmetries**	spina, ivan; brando, gianluca; dannier, adolfo; ribera, mattia
17:40	162	**Systematization of Failure Statistics for Reliability Modeling of Traction Electric Drives**	Kammermann, Jörg; Bolvashenkov, Igor

Room : B00			
Energy storage and Fuel Cell Systems – Session 3			
Chairperson :			
Time	Paper ID	Title	Authors
16:20	125	**Impedance Spectrum Reconstruction from Partial Frequency Data and Operating Conditions**	Barisione, Andrea; Bianchi, Federico; Colnago, Silvia; Barcellona, Simone
16:40	137	**Accuracy of physics-based degradation models in Electric Vehicle applications**	Linders, Koen; Chandra Mouli, Gautham Ram
17:00	198	**Data-driven State-of-Health estimation of high-power batteries based on partial charging paths**	Chianese, Giovanni; Veneri, Ottorino; Capasso, Clemente

Toulouse Matabiau Railway Station	
20:00 – 23:30	Gala Diner

Room : B00	
8:45 – 9:30	**Keynote 5 - "Power Electronics Technologies bringing the Innovation to Railway Vehicle Traction System"**
	Presenter : Prof. K. Kondo (Waseda University – Japan)
	Chairperson :

Room : xx	
9:30 – 10:00	**Coffee Break**

Room : A002			
More Electric Aircraft Systems and Energy Management			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	131	**Development of standardized mission profiles for short-haul and regional airplanes for performance evaluation of more- and all-electric aircraft**	Knapp, Tobias; Sturm, Gino; Centner, Matthias
10:20	115	**A novel fault-tolerant energy management strategy for Smart Grid-based More Electric Aircraft**	Di Giorgio, Vincenzo; Kulpa, Sofiya; Guida, Beniamino; Bozhko, Serhiy
10:40	172	**Experimental characterization and numerical investigation of electrical arcs occurring in aeronautical aircraft networks**	Tocaben, Clément; Valensi, Flavien; Cressault, Yann; Teulet, Philippe; El Khaiter, Mustapha; Rivenc, Jean; Doumerg...
11:00	114	**2D Modelling of a Fault Arc in Serial Arc Configuration**	Gouze, Camille; Cressault, Yann; Valensi, Flavien; Benmouffok, Malyk
11:20	166	**Ensuring Source Passivity Under Transmission Delay Influence**	Derrien, Luc; Fadel, Maurice; Kergus, Pauline; Kahalerras, Mohamed Khaled

Room : A001			
e-Mobility : Power Electronics, DC Grids and Protection Technologies			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	147	**High Open State Resistance Fuse for DC application protection**	VIDAL, Barbara; PERUGACHI, Chayak; TOURNIER, Dominique
10:20	176	**Is Fuse Based Active Front End Protection a Barrier for LVDC Grid Selectivity?**	Ravyts, Simon
10:40	179	**Modeling Active Front End Filters for Prospective Fault Current Calculations in Low Voltage DC Grids**	Ravyts, Simon
11:00	201	**Super-Twisting Sliding-Mode Battery Current Control for a CLLLC Resonant Converter**	Baghaei, Sadegh; Kader, Zohra; Fadel, Maurice; Lachaize, Jérôme
11:20	221	**Design and Control of a Double-Star Modular Multilevel Converter for Integrated EV Traction and AC/DC Fast Charging**	Franzese, Pasquale; Brando, Gianluca; Dannier, Adolfo; Spina, Ivan; Iannuzzi, Diego

Room : C002			
Power Electronics in Railway Systems			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	210	**Design, 3D Finite-Element Analysis, and Experimental Validation of a Novel 20 kW X-Core High-Frequency Transformer for a Dual Active Bridge Converter**	Qadeer, Neelam; Ali, Salman; Palazzo, Simone; Marignetti, Fabrizio; Busatto, Giovanni
10:20	143	**EMT modeling of railway static frequency converters emulating rotary frequency converters**	Petta, Carla; Jahn, Ilka; Norrga, Staffan; Östlund, Stefan
10:40	127	**Impact of Thermal Behavior and Non-Linear Protection Strategies on Traction Chain Energy Consumption Modeling in Railways**	Lopez, Victor; Saeed, Mariam; Briz, Fernando; Larrazabal, Igor; Ortega, David
11:00	133	**Modelling of Static Frequency Converters: Grid Support Potential of 50 Hz Railway Electrification**	Klusacek, Jan; Radil, Lukas; Bures, Jan; Pelc, Jiri; Podhradsky, Jiri; Drapela, Jiri
11:20	106	**Non-isolated DCDC boost converters design, volume and efficiency estimation for Fuel Cell system in railway application**	Boulaud, Etienne; Meynard, Thierry; Maneiro, Jose
11:40	135	**Voltage Clamping by Avalanche for SiC High Voltage MOSFETs Switches**	Chatroux, Daniel; Bridoux, Théo

Room : B00			
Electrical Systems in Road Vehicles – Session 4			
Chairperson :			
Time	Paper ID	Title	Authors
10:00	207	**Cycle-Resolved Aging Characterization of Lithium-Ion Batteries Using High-Precision Coulometry**	Fill, Alexander
10:20	195	**Sampling Rate Optimization Framework for Phase Imbalance Detection in Micromobility Motor Digital Twin**	Belolipetskaja, Diana; Võip, Martin; Ibrahim, Mahmoud; Rassõlkin, Anton
10:40	214	**Current-Signature Analysis of Resolver Amplitude Imbalance in IPMSM Drives**	Attaianese, Ciro; Brando, Gianluca; D'Arpino, Matilde; Di Monaco, Mauro; Di Noia, Luigi Pio; Franzese, Pasquale; Rib...
11:00	144	**Control strategy for an Hybrid Dickson 48V-12V – 1kW DC/DC converter to handle the variations of 48V bus voltage for automotive applications**	Tortet, Leo; Castelan, Anne; Cousineau, Marc; Flumian, Didier; Blaquiere, Jean-Marc; Ouadad, Mohammed; Romeo, Dominique
11:20	154	**Smooth Pole Change Control Strategy for Multiphase Induction Motors in the Overmodulation Region**	Matsumoto, Taito; Doki, Shinji; Kobayashi, Masashi

Room : xx	
12:00 – 13:30	Lunch

Room : B00	
13:30 – 14 :15	**Keynote 6 - Optimization of High Performance WBG-Based Power Drive Systems for Aircraft Applications Considering Lifetime and Environmental Impact**
	Presenter : Dr. B. Cougo (IRT Saint Exupery – Toulouse, France)
	Chairperson :

Room : A002			
Battery Chargers – Session 2			
Chairperson :			
Time	Paper ID	Title	Authors
14:20	209	**A Design Framework for Dynamic Wireless Power Transfer-Enabled Electric Motorsport**	Frooninckx, Nick; Pekarek, Steven; Brovont, Aaron
14:40	117	**Impact of Transformer Leakage Inductance on SS-Compensated Modular WPT Systems and Mitigation Measures**	Deng, Zichen; Dong, Jianning; Bauer, Pavol
15:00	208	**Power Loss Analysis for Frequency Optimization of a Dynamic Wireless Power Transfer Roadway**	Abram, Isaac; Frooninckx, Nick; Mehar, Vatan; Pekarek, Steve; Brovont, Aaron; Aliprantis, Dionysios; Swanson, Rob
15:20	187	**Performance Analysis of an Off-Grid Standalone Rooftop Solar to Wireless Power Transfer (WPT) Workplace EV Charging Microgrid**	Hakmi, Sultan

Room : A001			
e-Mobility : Electrification of Heavy-Duty Transport and Charging Infrastructure			
Chairperson :			
Time	Paper ID	Title	Authors
14:20	130	**Integrating PV and Battery Storage into Battery Train Charging Infrastructure: A Pareto Optimization**	Arens, Stefan; Forck, Jonathan; Streuling, Christoph; Schenker, Moritz
14:40	199	**Preliminary Design of a Hybrid 100 kW Wind–PV–Battery System for Offshore Port Charging Infrastructures Based on Darrieus Vertical-Axis Wind Technology**	IANNUZZI, DIEGO; Pagano, Stefano; Pagano, Mario; Coviello, Vincenzo; Grauso, Giuseppe; Timpone, Francesco
15:00	202	**Multi-MW Shore to Ship Charging System with Battery Swapping: Concept, Configuration, and Charging Strategy**	Salvemini, Giorgio; Zadeh, Mehdi
15:20	113	**Estimating Power Supply for Electrification of Ground Support Equipment at Hamburg Airport**	Bubalo, Branko; Stadler, Andreas; Plenz, Maik

Room : C002			
Electrical Machines and Control for Aircraft Applications			
Chairperson :			
Time	Paper ID	Title	Authors
14:20	163	**Initial Position Sensorless Estimation of SPMSM at standstill Based on Voltage Injection**	Saito, Yutaro; Doki, Shinji
14:40	158	**Conflict-Free Speed Synchronization Control of Dual PMSM Systems Based on Virtual Circulating Current Prediction**	Zhang, Zeyu; Wei, Jiadan; Zhang, Jiate; Yao, Yumeng; Yang, Weixi
15:00	224	**Experimental comparison of model based MRAS and SMO sensorless for induction motors in more electrical aircraft**	Brunetti, Lorenzo; De Simone, Davide; Piegari, Luigi; Souza Baquero, Rafael; Wan, Bo
15:20	120	**Finite Element Analysis of a Hybrid Motor Asynchronous - Permanent Magnet Synchronous, Solid-conductor Rotors and Noninvasive Signature of Defects**	FIRETEANU, Virgiliu

Room : xx	
15:45 – 16:15	**Coffee Break**

Room : B00	
16:15 – 16:45	**Closing Session**

FRIDAY, October 30

8h30 – 12:00 – Technical Visits

- ☑**SCLE** : Test Platform for the development of Power Converters for Railway traction Power Supply
- ☑**IRT Saint Exupéry** : Technological platforms for the development of aircraft electrification technologies
- ☑**Hydrogen Platform** (INP Toulouse) : Research and testing facilities dedicated to hydrogen technologies
- ☑**Airbus** : Aircraft Assembly lines (option to register an accompanying person)