

Technical Program Day 3 - 27 October

Time	PID	Title
10:45 AM - 12:25 PM	Session 31, RT5-4	Co-Chairs: Sylvain Pagerit (Argonne National Labs, USA) & Namwook Kim (Hanyang University, South Korea)
	2023002227	Digital Battery Passport as an Enabler of Environmental Impact Assessment in Electric Vehicle Applications Cyrine Soufi, Tedjani Mesbahi, Ahmed Samet, Electrical Engineering , INSA Strasbourg, France
	2023002104	Prognostic and Health Management of an Aircraft Turbofan Engine Using Machine Learning Unnati Thakkar, Hicham Chaoui, Electronics, Carleton University, Canada
	2023002195	Frequency-Dependent Evaluation of the Voltage Stability in Vehicular Power Systems Christoph Mayer, Hans-Georg Herzog, Institute of Energy Conversion Technology, Technical University of Munich (TUM), Germany; Martin Baumann , Research & Development, BMW Group, Germany
	2023002135	Impact of riding posture and regenerative braking on electric motorcycle energy consumption Shilei Zhou, Truong Quang Dinh, Tao Zhu, Mehmet Cagin Kirca, Andrew McGordon, WMG, University of Warwick, United Kingdom
	2023001980	MPS Analysis of Magneto-Rheological Fluid Magnetization Anisotropies Giovanni Imberti, Henrique De Carvalho, Massimiliana Carello, DIMEAS, Politecnico di Torino, Italy
	Session 32, RT4-4	Co-Chairs: Bedatri Moulik (Amity University, India) & Marie Hebert (University of Quebec at Trois-Rivières, Canada)
	2023002015	An Optimal Approach to Energy Management of a Hybrid Fuel-Cell Competition Vehicle Francesco Cerrito, Massimo Canale, Department of Control and Computer Engineering, Politecnico di Torino, Italy; Massimiliana Carello, Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Italy
	2023002298	A Proposed Strategy For The Optimal Control Of Regenerative Braking In Electric Vehicle Based On Driving Style Juan Valladolid, Azuay, Universidad Politecnica Salesiana, Ecuador; Jose Macas, Azuay, Universidad Politecnica Salesiana, Ecuador
	2023002248	Design of Energy Management System and Software Validation for Series-Hybrid Tractor Powertrain Marziyeh Hemmati, Giambattista Gruosso, Prateek Pati, Giancarlo Storti Gajani, Dipartimento di Elettronica, Informazione e Bioingegneria, politecnico di milano, Italy
	2023004444	Energy Management Strategy based on Reinforcement Learning for Fuel Cell Hybrid Vehicle with A New Reward Function Approach Antoine Bäumlér, Benterki Abdelmoudjib, Jianwen Meng, Azib Toufik, Moussa Boukhnifer
	2023002066	Intelligent power management of E-fleets using V2X-disseminated updates of route driving cycle Ahmed Ali, Mohamed Tawfik, Mostafa Asfour, Automotive Engineering, Military Technical College, Egypt; Bedatri Moulik, Electric and Electronic Enigneering, Amity University, India; Ahmed Abdel-Rahim, Transportation Engineering, University of Idaho, United States
	Session 33, RT8-2	Co-Chairs: Federica Foidelli (Politecnico di Milano, Italy) & Clément Mayet (University of Lille, France)
	2023002045	Active Collaborative Recovery Method of Regenerative Braking Energy by Multiple Energy Storage Systems in Urban Railway Kaiqi Sun, Zhongping Yang, Fei Lin, Luqing Jiang, Haocheng Guo, Hailiang Zhang, School of Electrical Engineering, Beijing Jiaotong University , China
2023005555	Experimental study of wear rate between copper impregnated graphite and copper	

Theo Kziazyk, Pierre-Henri Cornuault, Eric Gavignet, Univ. Franche-Comte; Philippe Baucour, Didier Chamagne, University of Franche-Comte

2023002207 **Substation Voltage Optimization Strategy in Traction Power Supply System with Bidirectional Converter Devices**

Kuo Wang, Fei Lin, Zhongping Yang, Ping Fu, School of Electrical Engineering, Beijing Jiaotong University, China; Tingting Wang, Xiong Wei, CRRC Qingdao Sifang Vehicle Research Institute Co., Ltd, CRRC Qingdao Sifang Vehicle Research Institute Co., Ltd, China

2023002125 **Robust Control Method for Mitigating Disturbances Caused by Renewable Energy Sources in AC Railway Systems**

Hamed Jafari Kaleybar, Morris Brenna, Federica Foidadelli, Dario Zaninelli, Energy, Politecnico di Milano, Italy

Session 34, RT1-6 Co-Chairs: João Pedro Trovão (University of Sherbrooke, Canada) & Ronan German (University of Lille, France)

2023002003 **A Two-dimensional Spatial Optimization Framework for Vehicle Powertrain Systems**

Jorn van Kampen, Mauro Salazar, Theo Hofman, Mechanical Engineering, Eindhoven University of Technology, Netherlands

2023002299 **Optimal Sizing of Li-ion Capacitor for Off-road Electric Vehicles**

Huy-Ngoc Duong, Bao-Huy NGUYEN, Thanh Vo-Duy, School of Electrical and Electronic Engineering, Hanoi University of Science and Technology, Vietnam; Minh Ta, Joao Trovao, e-TESC Lab, Université de Sherbrooke, Canada

2023002260 **Long-term Forecasting of a Degradation Indicator for Proton Exchange Membrane Fuel Cells**

Diana Sofia Mendoza, Nadia Yousfi Steiner, Damien Chanal, Daniel Hissel, Marie-Cécile Péra, Didier Chamagne, FEMTO-ST, FCLAB, Université Franche Comté, France; Elodie Pahon, FEMTO-ST, FCLAB, Université de technologie de Belfort Montbéliard, France

2023002322 **Optimal multi-criteria management of energy storage systems in a micro-grid**

Nathan CÉLIÉ, Electrical Engineering, INSA Lyon, France; Margot GAETANI-LISEO, Ali SARI, Laboratoire Ampère, Université Claude Bernard Lyon 1, France; Amine LAHYANI, Laboratoire des Systèmes Electriques, INSAT of Tunis, Tunisia

2023002677 **Application of the Theory of Inventive Problem Solving (TRIZ) to Enhance Understanding of Li-Ion Battery Thermal Runaway in Electric Vehicle Applications**

Mourtada Seck, Tedjani Mesbahi, Sébastien Dubois, Hicham Chibane, INSA Strasbourg, ICUBE, France

Session 35, RT2-7 Co-Chairs: Alessandro Serpi (University of Cagliari, Italy) & Paolo Guglielmi (Politecnico di Torino, Italy)

2023002301 **Current Sensor Fault diagnosis of MUPMSM Drive System Using Similarity Learning**

Yutao Du, EE, Tsinghua university, China

2023002275 **Synchronization Control of Dual Motor Driving Steer by Wire System**

Insu Chung, Sunyeop Lee, Kanghyun Nam, School of Mechanical Engineering, Yeungnam University, South Korea; Younghoon Seo, Sehoon Oh, Department of Robotics and Mechatronics Engineering, Deagu Gyeongbuk Institute of Science & Technology, South Korea

2023001931 **Sensorless Field Oriented Control for an Induction Motor Drive using an Ideal Voltage Integration Scheme with a Dynamic Stabilising Feedback**

Kella Srinuprasad, Jose Titus, Electrical Engineering, Indian Institute of Technology Hyderabad, India

2023001998 **Modeling and Measurement of Bearing Voltage in Traction Motor for High Speed Train**

Zhihao Li, Ruifang Liu, Weili Li, School of Electrical Engineering, Beijing Jiaotong University, China; Liangliang Zhang, Jing-Jin Electric Technologies Co. Ltd, Jing-Jin Electric Technologies Co. Ltd, China

2023002091 **Fault Tolerant Control of PMSM Drive based on Voltage Sensor for Electric Vehicle Application**

Bachir Bendjedja, LACOSERE laboratory, University of Amar Thelidji, Algeria; Saad Chouireb, Electromechanical department, University of Amar Thelidji, Algeria; Nassim Rizoug, ESTACA laboratory, ESTACA, France

LUNCH: 12:25 PM - 13:45 PM

Technical Tours Begin