

Sunday September 1	8:00	19:00	<b>Registration</b>			
			Tutorial 1	Tutorial 2	Tutorial 3	-
	9:30	12:00	Jean Le Besnerais, Eomys Engineering  <i>Influence of Permanent Magnet Synchronous Machines control parameters on acoustic noise and vibrations due to Maxwell forces</i>	Romain DELPOUX, INSA Lyon Lubin KERHUEL, Microchip Technology Inc. Hiba HOUMSI, INSA Lyon  <i>Embedded Rapid Control Prototyping (RCP) for electric motors: Open Source experimental approach for the user</i>	Paolo Pescetto, Politecnico di Torino Shafiq Odhano, Newcastle University Marko Hinkkanen, Aalto University Luca Peretti, KTH Royal Institute of Technology  <i>Self-commissioning Techniques for AC Motor Drives</i>	
	12:00	13:00	<b>Lunch</b>			
			Tutorial 4	Tutorial 5	Tutorial 6	Tutorial 7
	13:00	15:30	Ahmed Selema, Ghent University Peter Sergeant, Ghent Univeristy  <i>Advanced Manufacturability of Electrical Machines Enabled by 3D Printing Technology</i>	Mircea Popescu, Ansys Inc. Matteo Carbonieri, Ansys Inc.  <i>Advancements in Digital Design of Rare Earth Free Electric Traction Motors</i>	Feng He, Mathworks Simone Ferrari, Politecnico di Torino  <i>From Geometric Model to System Simulation: Physical Modeling and Control of Electric Motors with Simulink and Simscape</i>	Sandro Rubino, Politecnico di Torino  <i>High-Performance Torque Controllers for Multi-Three-Phase Motor Drives</i>
	15:30	16:00	<b>Coffee Break</b>			
			Tutorial 8	Tutorial 9	Tutorial 10	Tutorial 11
	16:00	18:30	Takashi YAMADA, JSOL Corporation Hiroyuki SANO, JSOL Corporation Shafiq NATEGH, SEDRIVE  <i>Advanced Massive Simulation and Optimization of Electrical Machines for E-mobility Segment</i>	Tobias Geyer, ABB System Drives  <i>Industrial medium-voltage drives: from components to systems and applications</i>	Beat Arnet, PLEXIM Inc  <i>Embedded Code Generation from PLECS for Electric Drives</i>	Thomas Jahns, Univeristy of Wisconsin Madison  <i>Past, Present, and Future of Fault-Tolerant Modular Motor Drives for Safety-Critical Applications</i>
	18:00	20:00	<b>Welcome Reception</b>			

	07:30	18:00	<b>Registration</b>							
	08:00	10:00	<b>Plenary Session 1</b>							
	08:00	08:30	Welcome of the Rector of Politecnico di Torino and of the General Chairs of ICEM 2024							
	08:30	09:00	Keynote1: Peter SAVAGIAN, Principal and Founder of Electrified Future Inc <b>Electrifying Horizons: Navigating the Future of Mobility and Transportation: Segments, Metrics, Challenges, Enablers</b>							
	09:00	09:30	Keynote 2: Tim WOOLMER, Cto and founder of YASA Motors <b>The wheel reinvented: how YASA established a new standard in axial-flux emotors</b>							
	09:30	10:00	ICEM 50th year anniversary, address by Prof. Gerard Capolino							
	10:00	10:40	<b>Transfer to Oral Session Rooms for Coffee Break</b>							
	10:40	12:20	<b>ROOM 11</b> Rotating machines 1 Chairs: Kamper Maarten, Tapia Juan A	<b>ROOM 31</b> Design issues (optimization, modeling, simulation) 1 Chairs: Knight Andrew, Giulio De Donato	<b>ROOM 51</b> Thermal Analysis of High-Reliability Motor Drives for EV Applications 1 Chairs: Payam Shams Ghahfarokhi, Antonio J. Marques Cardoso	<b>ROOM 71</b> Innovative magnetic materials for 3D printing and sustainability of electromagnetic devices Chairs: Luca Ferraris, Carole Henaux	<b>ROOM 91</b> Electrical Drives 1 Chairs: Radu Bojoi, Odhano Shafiq Ahmed	<b>ROOM 21</b> Electrical machines and drives for renewable energy generation 1 Chairs: Ferreira Fernando J. T. E., Giraud Alexandre	<b>ROOM 41</b> Diagnostics and condition monitoring 1 Chairs: Lee Sang Bin, Gerard Capolino	
	10:40	11:00	ICEM24-000374 Converter-fed Induction Motor Efficiency Measurements – IEC 60034-2-3 Matias Tiihonen, Hannu Kärrkäinen, Lassi Aarniovuori, Markku Niemelä, Dong Liu, Jan Barta Finland	ICEM24-000465 High-speed induction-machine squirrel-cage rotor mechanical design evaluation Juuso Narsakka, Tuho Choudhury, Juha Pyrhönen, Jussi Sopanen, Janne Nerg Finland	ICEM24-000336 Characterization of a Thermal FEA Model for Electrical Machine Akif Karayel, Niklas Damhorst, Daniel Keller, Uwe Schaefer Germany	ICEM24-000241 Performance Comparison of Conventional and Amorphous AM-built PMSM Carsten Klein, Lena Thorsson, Christopher May, Matthias Nienhaus Germany	ICEM24-000290 Sensorless Control with Indirect Field Oriented Speed Estimation for Seven-Phase Induction Machines Yixuan Wu, Luca Vancini, Michele Mengoni, Luca Zari, Luca Peretti Sweden	ICEM24-000031 Influence of the Stator Winding on the Mechanical Eigenfrequencies of Hydro Generators Allan de Barros, Wilhelm Weber, Amir Ebrahimi, Babette Schwarz, Bernd Ponick Germany	ICEM24-000356 On the Utilization of Radial Vibration Transient Signals for Induction Machine Misalignment Diagnosis Jose E. Ruiz-Sarrio, Vicente Biot-Monterde, Carlos Madariaga, Angela Navarro, Jose Antonino Daviu Spain	
	11:00	11:20	ICEM24-000079 Indirect Efficiency Measurement of Outer-Rotor Inverter-Fed PM Synchronous Machines Daniel Dietz Germany	ICEM24-000397 Current Distribution in the Damper Bars of the Synchronous Turbo-Generator Gojko Joksimovic, Cesare Ciriani, Aldin Kajević Serbia and Montenegro	ICEM24-000476 Experimental Comparison of Three Direct Winding Cooling Methods Ilya T'Jollyn, Simon Willemarck, Jasper Nonneman, Michel De Paepe Belgium	ICEM24-000364 Synchronous reluctance motors: opportunities in the era of new materials, additive manufacturing, and machine learning. Davide Angrilli, Enzo Chiricozzi Italy	ICEM24-000490 Impact Analysis of FOC-based Synchronous PWM Strategy on Traction Induction Motor Drives Performance Claudio Nevoloso, Antonino Oscar Di Tommaso, Rosario Miceli, Giocchino Scaglione, Salvatore Foti, Antonio Testa Italy	ICEM24-000452 Performance Analysis of a 5-MW Design-Optimized Triple-Three-Phase Wound Rotor Synchronous Wind Generator for DC Grids Lucky Dube, Karen Garner, Maarten Kamper South Africa	ICEM24-000474 Effects of the Inter-Turn Short-Circuit Fault in the Stator Winding of a 5-phase Induction Motor Mahmoud Masoud, Giorgos Skarmoutsos, Wenyue Mu, Zihao Song, Konstantinos Gytakis, PANAGIOTIS PANAGIOTOU United Kingdom	
	11:20	11:40	ICEM24-000331 Recyclable Electrical Machine Designs: Possibilities and Limitations Ecem Kasagga, Ayman EL-Rafaie United States	ICEM24-000321 FEA Augmented Equivalent Circuit for Accurate Performance Prediction of Induction Machines Matteo Carbonieri, Daniel Bachinski, Jonathan Godbehere, Mircea Popescu Italy	ICEM24-000486 Multiphysics Thermal Digital Twin of a High Power Density Motor for Automotive applications Filippo Conte, Riccardo Torchio, Francesco Toso, Jacopo Ferretti, Lorenzo Fazzini, Nicola Matteazzi, Paolo Bolognesi, Luca Papini Italy	ICEM24-000520 Innovative Rotor Winding Geometry for Synchronous Machine By Means of Additive Manufacturing Giada Sala, Claudio Bianchini, Nicola Bianchi, Nicola Giannotta, Ambra Torreggiani Italy	ICEM24-000458 Unified Flux Observer for Asynchronous and Permanent Magnet Synchronous Machines Rashad Ghassani, Zohra Kader, Maurice FADEL, Pascal COMBES France	ICEM24-000530 Flux Weakening and Flux Strengthening Capabilities of Rotary Hybrid Excited Flux Switching Generator for Wave Energy Applications Himayat Jan, Markus Mueller United Kingdom	ICEM24-000078 Broken Rotor Bar Fault Detection Using Machine Learning: Optimal Frequency Resolution Semen Koveshnikov, Nada El Bouharroui, Karolina Kudelina, Muhammad Usman Naseer, Toomas Vaimann, Anour Belahcen Finland	
	11:40	12:00	ICEM24-000425 Synchronous Reluctance Rotor Geometry for High-Speed Applications Ville Kivela, Andrea Beraldi, Riccardo Colombo, Alessandro Castagnini, Giulio Secondo Italy	ICEM24-000347 Multi-Objective Bayesian Optimization of Squirrel-Cage Induction Machine Vladimir Bilek, Jan Barta, Lassi Aarniovuori Czech Republic	ICEM24-000286 Investigation Performance Characteristics of the Flat Fan Nozzle on the Oil Spray Cooling System Payam Shams Ghahfarokhi, Andrejs Podgornovs, Antonio J. Marques Cardoso Finland	ICEM24-000428 Rare earth magnets recycling: study of a safer and cost-effective technique Luca FERRARIS, Emir Poskovic, Fausto Franchini, Andrea Caneschi Italy	ICEM24-000462 A Comprehensive Review of Restarting Strategies for Free Running Induction Motor Drives Hamidreza Mosaddegh, Mojtaba Ayaz, Simon Caron, Kamal Al-Haddad Canada	ICEM24-000008 Permanent magnet assisted synchronous reluctance machine for a power-split flywheel storage system Tobias Heidrich, Andreas Möckel, Hendrik Fehr, Albrecht Gensior Germany	ICEM24-000129 Induction Machine End-Winding Leakage Flux Monitoring using FBG Magnetostrictive Composite Flux Sensor for Broken Rotor Bar Fault Detection Asep Suryandi, Paul Tuohy, Sinisa Durovic United Kingdom	
	12:00	12:20	ICEM24-000362 Design of a Synchronous PM Motor for e-Bike Applications Chiara Conto, Nicola Bianchi Italy	ICEM24-000363 Investigation of Discrepancies Between Induction Motor Test Results and Design Simulation Georgios Falekas, Zafeirios Kolidakis, Athanasios Karlis Greece	ICEM24-000449 Transient Quality Assessment of a Novel Thermal Modelling Methodology for Electric Machines Jasper Nonneman, Michel De Paepe, Ilya T'Jollyn Belgium	ICEM24-000298 Development of an Axial Flux SRM Through Additive Manufacturing Shahid Hussain, Ants Kallaste, Muhammad Usman Naseer, Hans Tiismus, Toomas Vaimann Estonia	ICEM24-000404 Medium Voltage Sensorless Induction Motor Drive for Submarine Applications Lorenzo Carbone, Mario Marchesoni, Massimiliano Passalacqua, Luis Vaccaro Italy	ICEM24-000316 Improved Electrical Braking of Synchronous Machines in Pumped Hydro Storage Plants Kumar Mahtani, Ruben Pascual Jimenez, Jose Manuel Guerrero Granados, Carlos A. Platero, Juan Ignacio Perez-Diaz, María López Spain	ICEM24-000050 Vibration-based Detection and Classification of Mechanical Defects in Induction Motor-driven Systems during the Starting Transient Byambasuren Battulga, Muhammad Faizan Shaikh, Taner Goktas, Muslum Arkan, Sang Bin Lee Korea, Republic of	
	12:20	14:20	<b>Lunch, Poster Session 1 and Student Forum Posters</b>							
	14:20	16:00	<b>ROOM 11</b> Rotating machines 2 Chairs: Luca Ferraris, Henke Markus	<b>ROOM 31</b> Design issues (optimization, modeling, simulation) 2 Chairs: Ferrari Simone, Tutelea Lucian	<b>ROOM 51</b> Thermal and losses issues- Magnetic and insulation materials 1 Chairs: Krings Andreas, Wrobel Rafal	<b>ROOM 71</b> Motor and Generator Windings - Design, Manufacturing, and Maintenance Chairs: Fernando J. T. E. Ferreira, Stjepan Stipetić	<b>ROOM 91</b> Electrical machines and drives for sustainable transportation 1 Chairs: Zhu Zi-Qiang, Kladas Antonios	<b>ROOM 21</b> Highly reliable electrical drives: controls, modulation and architectures for reliability Chairs: Giovanni Miglizza, Giampaolo Buticchi	<b>ROOM 41</b> : Diagnostics and condition monitoring 2 Chairs: Antonio Cardoso, Antonino-Daviu Jose	<b>ROOM 10</b> Industrial session 1
	14:20	14:40	ICEM24-000232 Evaluation of Pole-Changing Wound Rotor Synchronous Wind Generator Topologies Ryno Gerber, Maarten Kamper South Africa	ICEM24-000063 Material distribution optimisation applied to the design of the stator of a synchronous machine Stephane VIVIER, Céline BERGERON France	ICEM24-000273 About the Evolution of the Iron Losses: from Sinusoidal to PWM Inverter Supply Aldo Boglietti, Fabio Mandrie, Sandro Rubino, Marco Villani Italy	ICEM24-000205 Validation of Electrostatic Shieldings in Traction Motors to Mitigate Capacitive Bearing Currents Silvan Scheuermann, Peter Lego, Martin Doppelbauer Germany	ICEM24-000005 System Analysis of a Braking Energy Recovery Axle of Truck Trailer Tobias Zeller, Tudor Prisca, Patrick Cujic, Dennis Bank, Martin Doppelbauer Germany	ICEM24-000429 Torque Ripple Compensation with Minimum Loss Vasyil Varvolic, Paolo Pescetto, Simone Ferrari, Shuo Wang, Michele Degano, Giampaolo Buticchi, Gianmarco Pellegrino China	ICEM24-000204 3D Multibody Simulation of Realistic Rolling Bearing Defects for Fault Classifier Development Milla Vehviläinen, Mikko Tahkola, Janne Keränen, Nada El Bouharroui, Pekka Rahkola, Jari Halme, Jenni Pippuri-Mäkeläinen, Anour Belahcen Finland	Next Generation MCBs Actuator
	14:40	15:00	ICEM24-000543 A Single-Phase Outer-Rotor Generator Featuring Permanent Magnets and Conductive Shield Paolo Bolognesi, Luca Papini Italy	ICEM24-000493 Surface vs. Embedded Magnets in Permanent Magnet Outer Rotor Synchronous Motors Danil Zadorozhniuk, Pia Lindh, Arash Allahyari, Ilya Petrov, Juha Pyrhönen Finland	ICEM24-000538 Density Analysis based on Normalized Process Diagrams: A Comparative Review of Iron-Silicon Magnetic Alloys produced by Selective Laser Melting Abilio Andres Velasquez Salazar, Yuyang Li, Luis Alejandro Ospina Vargas, Meher ZAIED, Nour-Eddine FENINECHE, Jérôme FAVERGEON, Thierry BAFFIE, Salima Bouvier France	ICEM24-000320 Experimental-based model for turn-to-turn PDIV prediction dependent on temperature Leire Eiorza Azpiazu, Ariz Egea, GAIZKA ALMANDOZ, Gaizka Ugaldé, Izaskun Sarasola Spain	ICEM24-000303 Design Strategies for Scalable and Modular Aerospace Electrical Machines Mostafa Ahmadi Darmani, Muhammed Murataliyev, David Gerada, Chris Gerada United Kingdom	ICEM24-000433 Power Losses and THD Analysis of Current Source Inverters in Motor Drive Applications: A Comparative Study of Control Schemes Giovanni Luca Fidone, Giovanni Miglizza, Emilio Carfagna, Fabio Immovaliti, Dario Benatti, Emilio Lorenzani Italy	ICEM24-000434 Effect of Controllers Bandwidth on the Diagnosis of PMSM: Application to Bearing Faults Sara JAMMOUL, Remus Pusca, Raphael ROMARY, Nicolas Voyer France	Reduction of Measuring Time using Highly Dynamic Power Approximation
	15:00	15:20	ICEM24-000156 Combination Method and Comparative Analysis of Parallel Hybrid Excitation Machines with Integrated Armature Winding Xiangpei Gu, Nicola Bianchi, Zhuoran Zhang China	ICEM24-000147 Spline-Based Rotor and Stator Optimization of a Permanent Magnet Synchronous Motor Michael Wiesheu, Theodor Komann, Melina Merkel, Sebastian Schöps, Stefan Ulbrich, Idolia Cortes Garcia Germany	ICEM24-000373 Investigating PWM Scheme Effects on Power Loss in a Hairpin-Wound Traction Drive Unit Yaohui Gai, Richard McMahon, Juliette Soulard Jewell United Kingdom	ICEM24-000351 Identification of Thermal Failure Profiles in Stator Winding Insulation by Impedance Spectroscopy Edward Stone, PANAGIOTIS PANAGIOTOU, Johannes Mühlthaler, Andrew Mills, Alexis Lambourne, Geraint Praveen Kumar, Robin Wilson, Towhid Chowdhury, Ayman EL-Rafaie United States of America	ICEM24-000329 Electromagnetic and Mechanical Design Optimization of High-Speed PMSM Utilizing Different Magnet Combinations for EV Application Praveen Kumar, Robin Wilson, Towhid Chowdhury, Ayman EL-Rafaie United States of America	ICEM24-000457 Extended MTPA-FW Control Technique for PM Electrical Machines with CSI Giada Sala, Claudio Bianchini, Matteo Frigieri, Mattia Vogni, Nicola Giannotta, Elena Macrelli Italy	ICEM24-000093 Supervised Contrastive Learning for Electric Motor Bearing Fault Detection Hengrui Zhang, Bingnan Wang United States	Numerical and Experimental study of E-Motor Rotor Shaft Jacket Cooling System
	15:20	15:40	ICEM24-000409 Analysing the performance of a High-Speed Solid Rotor Induction Machine with Copper Coating Felipe Ortiz-Bustos, Janne Nerg, Aki Gronman, Michele Degano, Pia Lindh, Tokzhan Toleukaiyr, Juan Tapia, Juha Pyrhönen Finland	ICEM24-000359 Effect of Rotor Step Skew on the Demagnetization Ratio of Permanent Magnet Synchronous Machines Daniel Keller, Akif Karayel, Robin Krüger, Christian Naumoski, Uwe Schaefer, Nejila Parspour Germany	ICEM24-000142 Comparative Analysis of Electric Motor Designs: Traditional Steel Laminations vs. Soft Magnetic Composite Materials Branko Ban, Anton Kersten, Stefan Skoog, Lars Sjöberg, Stjepan Stipetić, Tushar Batra Croatia	ICEM24-000547 Experimental Comparison of Dual-Winding Configurations in Induction Motors Under Two Different Types of Supply Voltage Unbalance Fernando J. T. E. Ferreira, José Alberto, Anibal T. de Almeida Portugal	ICEM24-000472 Assessing Thermal and Efficiency Aspects of Aluminum Hairpin Motors in Passenger Cars Gregorio Cutuli, Stefano Nuzzo, DAVIDE BARATER, Michelangelo Raimondo Italy	ICEM24-000315 Alternative Test System for High Specific Power PMSM Using Passive Rectification and Compensating Capacitors Hüseyin Cansever, Ilya Petrov, Juha Pyrhönen Finland	ICEM24-000194 Multisensory approach to diagnosing bearing fault using Cohen class bilinear distributions AVYNER VITOR, Clayton Graciola, Alessandro Goedtel, Wesley Souza, Marcelo Castoldi, Daniel Morinigo-Sotelo, Oscar Duque-Perez, TOMAS GARCIA-CALVA Brazil	Using AI to Optimize E-Motor
	15:40	16:00	ICEM24-000461 Rotor Stray Currents in Large Salient-Pole Generators Joël Pedneault-Desroches, Kamal Al-Haddad Canada	ICEM24-000190 Investigation on Stator Core Losses in High-Speed PMSM Considering Current Harmonics Chendong Liao, Nicola Bianchi, Zhuoran Zhang China	ICEM24-000319 Equivalent Resistance Model of the Permanent-Magnet Motor for Predicting Electromagnetic Losses Li Zhao, Kai Bin Liu, Peter Fransson, Luca Peretti Sweden	ICEM24-000280 A comparative study of manufacturing technologies for coreless axial flux stator windings Federico Marcolini, Giulio De Donato, Fabio Giulli Capponi, Federico Caricchi Italy	ICEM24-000068 Design and Scaling Effects of Permanent Magnet Synchronous Machines for Propeller Direct Drives Jonas Franzki, Markus Henke Germany	ICEM24-000309 A System-level Design for Reliability of Integrated Motor Drives Soroush Ahooye Atashin, Saeed Peyghami, Pooya Davari, Amol Ramesh Chopade, Norbert Hanigowski, Frede Blaabjerg Denmark	ICEM24-000215 Multi-Rate Vibration Signal Analysis for Enhanced Data-Driven Monitoring of Bearing Faults in Induction Machines Nada El Bouharroui, Semen Koveshnikov, TOMAS GARCIA-CALVA, Milla Vehviläinen, Karolina Kudelina, Muhammad Usman Naseer, Toomas Vaimann, Anour Belahcen Finland	Magneto-Mechanical Optimization of Synchronous Reluctance Machines
	16:00	16:20	<b>Coffee Break</b>							

Monday  
 September 2  
 EXPO OPEN - 10:00 AM - 6:00 PM

16:20	18:00	<b>ROOM 11</b> Rotating machines 3 Chairs: Nicola Bianchi, Barta Jan	<b>ROOM 31</b> Design issues (optimization, modeling, simulation) 3 Chairs: Sergeant Peter, Di Gerlando Antonino	<b>ROOM 51</b> Thermal and losses issues- Magnetic and insulation materials 2 Chairs: Stipetic Stjepan, Sandro Rubino	<b>ROOM 71</b> Advanced Manufacturability of Electrical Machines Enabled by 3D Printing Technology Chairs: Ahmed Selema, Peter Sergeant	<b>ROOM 91</b> Electrical Drives 2 Chairs: Hinkkanen Marko, Mengoni Michele	<b>ROOM 21</b> Special machines, linear machines, actuators and sensors 1 Chairs: Bird Jonathan, Maurizio Repetto	<b>ROOM 41</b> Fault Tolerant Machines and Drives Chairs: Michele Mengoni, Luca Vancini	
16:20	16:40	ICEM24-000522 Fast Procedure for the Electromagnetic Sizing of Axial Flux PM Motors Matias Jimenez, Federica Graffeo, Silvio Vaschetto, Andrea Cavagnino, Alberto Tenconi Italy	ICEM24-000367 Topology optimization of a complete reluctance machine with no initial information on its geometry Théodore Chérière, Sami HLILOUJ, Luc Laurent, François Louf, Mohamed Gabsi, Hamid Ben Ahmed France	ICEM24-000059 A Methodology for Experimentally Deriving Thermal Parameters in Design of Electrical Machines for Short-Duty Transient Operation Rafal Wrobel United Kingdom	ICEM24-000384 Indirect End Turn Heat Exchanger for Additively Manufactured Electric Machine Conductors James Pecotich, David Klink, Greg Heins, Behrooz Bahrani Australia	ICEM24-000034 Analysis and Optimization of Polarity Detection Methods for Electric Vehicle Traction IPMSM Andras Holczér, Francisco Freijedo, Radu Bojoi Germany	ICEM24-000183 Achieving Greater Efficiency in Long-Distance Applications: The Novel Implementation and Validation of a Linear Flux-Switching Permanent Magnet Motor Joep Raithel, Pieter van Zweeken, Ben Cornelisse, Arnout Dourleijn, Kristian Blokhuis Netherlands	ICEM24-000513 Impact of an Open-Switch Fault in T-Type Five-Phase Inverters for Induction Motor Drives Luca Vancini, Michele Mengoni, Gabriele Rizzoli, FABIO CRESCIMBINI, Luca Zarrì, Angelo Tani Italy	
16:40	17:00	ICEM24-000103 Parametric Analysis of a Double-Stator Single-Rotor Coreless Axial Flux Machine Victor Ballestin-Bernad, Guillermo Sanz-Sánchez, JESUS SERGIO ARTAL-SEVIL, José Antonio Dominguez-Navarro Spain	ICEM24-000361 Optimizing an Interior-Permanent-Magnet Tooth-Coil-Winding Traction Motor for its Entire Operating range Arash Allahyari, Emine Bostancı Özkan, Gamze Odabas, Pia Lindh, Lassi Aarniovuori, Juha Pyrhönen Finland	ICEM24-000302 Hairpin winding with direct oil cooling Ilya Petrov, Ilkka Martikainen, Ilkka Poutainen, Juzer Rangwala, Juha Pyrhönen Finland	ICEM24-000456 Toward an Accessible Electrical Conductivity Characterisation Method for Additively Manufactured Conductors Nick Simpson, Dominic North, Anna Ermakova, Priya Munagala United Kingdom	ICEM24-000305 Comparative Stability Analysis of IPMSM and SPMSM Machines under Flux-Weakening Control Kejin Lu, Zi-Qiang Zhu United Kingdom	ICEM24-000004 Performance Comparison of Direct Drive Linear Motors: Tubular and Flat Permanent Magnet Vernier Machines Alessandro Acquaviva, Sebastiano Acquaviva Italy	ICEM24-000252 Assessment of Magnet Manufacturing Tolerances and Their Effects on an Interior Permanent Magnet Traction Machine Xiyun Ma, Juliette Soulard United Kingdom	
17:00	17:20	ICEM24-000196 Extension of Analytical Methods for AC Copper Loss Estimation in High-Speed Axial Flux Machines with Concentrated Flat Wire Coils Yiwen Ma, Kurt Reutlinger, Alin Stirban, Martin Doppelbauer Germany	ICEM24-000313 Advanced Methodology for Magneto-Mechanical Topology Optimization of a Synchronous Reluctance Machine Alessandro Silvestrini, Maya Hage Hassan, Guillaume Krebs, Xavier Mininger, Philippe Dessante France	ICEM24-000092 A Feasibility Study of Oil Spray Cooling on the Stator Core Outer Surface of Electric Motors for Automotive Applications Yufeng Guo, Yaohui Gai, Edward Griffin, Ali Sadeghianjahromi, Juliette Soulard United Kingdom	ICEM24-000117 Optimization of Printed Synchronous Reluctance Rotor Based on Bézier Curves Daniele Michieletto, Luigi Alberti, Anouar Belahcen Italy	ICEM24-000289 Rotor Position Error Compensation in Sensorless IPMSM Motor Drives Salvatore Foti, Antonio Testa, Claudio Nevoloso, Antonino Oscar Di Tommaso, Rosario Miceli Italy	ICEM24-000318 Modeling and Control of a Levitating Linear Motion Platform Atte Putkonen, Sadjad Madanzadeh, Viktor Dodonov, Andrei Zhuravlev, Leonid Chechurin, Rafal Jastrzebski Finland	ICEM24-000440 On the Effect of Permanent Magnet Eddy Currents during Dynamic Short-Circuits in Traction Motors Fabian Eichin, Maarten Kamper, Rong-Jie Wang, Stiaan Gerber South Africa	
17:20	17:40	ICEM24-000274 A Review of Recent Topologies of Variable Flux Machines Hesham Badahdah, Ayman EL-Refai United States	ICEM24-000437 Parametric Optimization of Flux Barriers for Torque Ripple and NVH Minimization in Permanent Magnet Synchronous Machines Andreas Carlsson, Viktor Josefsson, Johan Fagerberg, Kristoffer Ahlgren, Christian Sandström, Gabriele Puccio Sweden	ICEM24-000391 Numerical Analysis of the Local Heat Transfer Coefficient in a Rotating Hollow Rotor Shaft Liquid Cooling System for Electric Traction Motors Matthew Lee, Ofelia Janu, Narayan Kar Canada	ICEM24-000002 Detection and Mitigation of Hotspots in Electrical Machine Windings using 3D Printing Technology Ahmed Selema, Hendrik Vansompel, Mohamed Ibrahim, Peter Sergeant Belgium	ICEM24-000484 Geometry Optimization of an Interior Permanent Magnet Machine for Minimal Life Cycle Cost in City, Rural and Highway Driving Elisabet Jansson, Torbjörn Thiringer, Emma Arfa Grundtitz Sweden	ICEM24-000134 Analytical Model of Single-Sided Linear Induction Motors for High-Speed Applications Simone Rametti, Lucien Pierrejean, André Hodder, Mario Paolone Switzerland	ICEM24-000308 A Fault Tolerant Electric Propulsion Unit Based on Bipolar Coils Tadele Lijalem Yirisa, Andreas Reeh, Wolfram Birkmayer, Yves Burkhardt Germany	
17:40	18:00	ICEM24-000234 A Design of outer-rotor Flux-Switching Motor with Segmented Rotors to improve torque density Yudai Koishi, Hiroki Goto Japan	ICEM24-000089 An Interpolation Based Meshed Magnetic Equivalent Circuit for Interior Permanent Magnet Synchronous Machines Ahmed Hemeida, Baocheng Guo, Osaruyi Osemwinyen, Florian Martin, Paavo Rasilio, Ayman Abdel-Khalik, Anouar Belahcen Finland	ICEM24-000518 Evaluation of Convection Heat Transfer Coefficients in Totally Enclosed PMSMs Ankan Dey, Dawei Liang, Zi-Qiang Zhu, Liang Chen, Lei Yang United Kingdom	ICEM24-000463 Opportunities for AC Loss Reduction in Metal Additive Formed Hairpin Windings Philip Mellor, Nick Simpson, Mircea Popescu United Kingdom	ICEM24-000338 A new hybrid control strategy in Flux-Weakening region for high performance traction IPMSM Stefano Montemurro, Matteo Felice Iacchetti, Juri Tessaro, Denny Chiono, Jean Paul Junod Italy	ICEM24-000128 Modelling Framework and Insights about a Novel Low-Velocity Segmented Linear Motor Design Taiji Endo, Yi Chen Mazumdar, Poul Nielsen, Bryan Ruddy New Zealand	ICEM24-000312 Six-Phase Induction Machines: State of the Art on Design, Modeling, Control and Diagnostic Mehdi TAHERZADEH, Humberto Henao, Gerard-Andre Capolino France	
18:00	19:30	<b>IES Electrical Machines Technical Committee meeting</b>							

	07:30	18:00	Registration							
	08:00	10:00	Plenary Session 2							
	08:00	08:30	Smart driving systems for e-mobilities applications. G. Guanzhong - Wolong							
	08:30	09:00	Keynote 2: Ayman El Refaie, Werner Endowed Chair for Energy Sustainability, Marquette University							
	09:00	09:30	Advanced Electrical Drivetrains for Propulsion and Traction Applications							
	09:30	10:00	Keynote 4: Lukasz Mierczak, Managing Director of Brockhaus Polska							
	09:30	10:00	Inferior performance of electric motors caused by manufacturing-induced degradation of stator magnetic properties							
	10:00	10:40	Transfer to Oral Session Rooms for Coffee Break							
	10:40	12:20	ROOM 11 Rotating machines 4 Chairs: De Donato Giulio, Galea Michael	ROOM 31 Electrical machines and drives for sustainable transportation 2 Chairs: Nuzzo Stefano, Ortiz Felipe	ROOM 51 Diagnostics and condition monitoring 3 Chairs: Romary Raphael, Lucia Frosini	ROOM 71 Design issues (optimization, modeling, simulation) 4 Chairs: Simpson Nick, Credo Andrea	ROOM 91 Sustainable Electric Drives for E-mobility 1 Chairs: Md Jahiril, Stefano Nuzzo	ROOM 21 Special machines, linear machines, actuators and sensors 2 Chairs: Ito Makoto, Papini Luca	ROOM 41 Data-driven Design for Electrical Machines: Methodology, Modelling, and Multidisciplinary Optimization Chairs: Yang Xiao, Yiming Ma	
	10:40	11:00	ICEM24-000494 Analysis of Transient Locked-Rotor Current and Torque of Line-Starting Permanent Magnet Synchronous Motors Johann Pecho, Wilfried Hofmann Germany	ICEM24-000431 Application of Structural Composite Materials in Synchronous Reluctance Motors Jacopo Brunetti, Francesco Parasiliti, Andrea Credo, Giuseppe Fabri Italy	ICEM24-000405 Critical Analysis of Inter-Turn Fault Related Harmonics in the Line Current Jorge Bonet Jara, Marcello Minervini, Lucia Frosini, Joan Pons-Llinares Spain	ICEM24-000470 Robustness of Grounded-Electrode Approach to Mitigate Bearing Currents in Electric Machines with Semi-Closed Slots Konstantin Vostrov, Ilya Petrov, Juha Pyrhönen Finland	ICEM24-000568 A Scaling Procedure for Electrically-Excited Synchronous Machines Utilizing Flux and Loss Maps Federica Graffeo, Simone Ferrari, Sandro Rubino, Silvio Vaschetto, Gianmario Pellegrino Italy	ICEM24-000278 Active bearing life-time extension for linear permanent magnet machines Florian Poltschak, Richard Thalhammer Austria	ICEM24-000169 Robust Optimization of a Stator Tooth Chamfering IPMSM for Electric Power Steering Applications Liyang Liu, Yiming Ma, Ruichi Wang, Zequan Li, Lu Sun, Hang Zhao United Kingdom	
	11:00	11:20	ICEM24-000158 Analytical Model for Predicting Output Voltage Distortion of Salient Pole Synchronous Generators under Linear Load Lukas Malfait, Colin Debruyne, Jan Desmet, Jos Knockaert Belgium	ICEM24-000507 Insulation Thickness Estimation and Filter Selection for Electric Aircraft Motors: A Multi-Objective Optimization Approach Jundong Wang, Jianning Dong, Mohamad Niasar, Gangwei Zhu, Pavol Bauer Netherlands	ICEM24-000082 Investigation on Insulation Failure Mechanisms of Stators used for E-Mobility Laureen Stahl, Javier Torres, Peter Werle Germany	ICEM24-000025 Comparison of Time and Frequency Domain Methods for High Frequency Voltage Distribution Simulations in Concentrated Windings Daan Deruyter, Mehmet Gulec, Peter Sergeant Belgium	ICEM24-000261 A Comprehensive Study on Different Motor Topologies Used in Passenger Car EV Segment Shafiqh Nategh, Aldo Boglietti, Mohammad Jahiril Islam Sweden	ICEM24-000562 Design Aspects of Winding for Variable Reluctance Resolver Valerii Abramenko, Juhani Stenback, Ilya Petrov, Juha Pyrhönen Finland	ICEM24-000365 Multi-Objective Optimisation of an Axial Flux Permanent Magnet Motor for Super-Car Application Jorge Lora, Bharadwaj Raghuraman, Bruno Marques, Dragos Postariu, Gianmario Pellegrino Italy	
	11:20	11:40	ICEM24-000451 Rewinding of Old 44 MVA Hydro Generator Considering Vibrational Forces Nail Tosun, Ozan Keysan, M. Sarnet Yakut, Gorkem Gulletutan United Kingdom	ICEM24-000027 Demagnetisation and Performance study of neodymium and ferrite assisted SynRM Nikhil Manakshya, Torbjörn Thiringer, Zhe Huang Sweden	ICEM24-000350 Qualitative Predictive Model of the Insulation Condition of HV Electrical Machines through a Combination of Diagnostic Techniques and NNs Dimosthenis Verginadis, Athanasios Karlis, Michael Danikas, Jose Antonino Daviu Greece	ICEM24-000042 Modeling Voltage Distribution along the Hairpin Windings of an Electrical Machine Using Impedance Fitting Hujun Peng, Ze Luo, Yue Yu, Kay Hameyer Germany	ICEM24-000342 Sub-optimal Flux-Weakening Control of Synchronous Reluctance Motors Andrea Credo, Federico Centi, Giuseppe Fabri, Marco Tursini Italy	ICEM24-000003 2-D FEA Design of a Low-Cost and Self-Powered Sin/Cos Sensor Giada Sala, Claudio Bianchini, Ambra Torreggiani, Andrea Sala, Nicola Giannotta, Matteo Davoli Italy	ICEM24-000245 Investigation of Worst-Scenario Rotor Tolerances in Halbach Machines Yang Li, Zi-Qiang Zhu, Simon Brockway, Maximilian Manss, Jonathan Lea, Yuan Ren United Kingdom	
	11:40	12:00	ICEM24-000450 Utilising the Core Capacitance Achieved through Ultra-Thin Soft Magnetic Sheets and Insulators Nail Tosun, Barrie Mecrow, Glynn Atkinson United Kingdom	ICEM24-000552 Optimization and Comparative Analysis of Magnet Shapes in 5 MW PMVMs for Marine Propulsion Nima Arish, Maarten Kamper, Rong-Jie Wang South Africa	ICEM24-000081 An Investigation of the Impedance Spectroscopy Suitability for Traction Motor Windings Insulation Health Assessment Dimitrios Chronopoulos, Dimitrios Glykos, Konstantinos Gyftakis Greece	ICEM24-000167 A Method for Modelling High Frequency Effects in Electrical Machine Windings for the Use in Circuit Simulation Programmes Jannik Ulbrich, Wilfried Holzke, Amir Ebrahimi Germany	ICEM24-000024 Exploring the Potential of Synchronous Reluctance Machines for Electric Vehicle Application: A Feasibility Study César Gallardo, Carlos Madariaga, Juan Tapia, Michele Degano Chile	ICEM24-000211 Flat integration of a segmented linear motor direct drive to activate an active stick system façade Florian Poltschak, Richard Haider Austria	ICEM24-000245 Investigation of Worst-Scenario Rotor Tolerances in Halbach Machines Yang Li, Zi-Qiang Zhu, Simon Brockway, Maximilian Manss, Jonathan Lea, Yuan Ren United Kingdom	
	12:00	12:20	ICEM24-000492 Parameter Estimation of Five-Phase Induction Motors from Unbalanced Steady-State Tests Luis Pereira, Matheus Perin, Luis Fernando Pereira, Guilherme Nicol Brazil	ICEM24-000256 Optimizing Mid-Drive Electric Motor Performance and Cost for Electric Bike Applications Santiago Gonzalez Garcia, Irving S. Aguilar-Zamorate, Renato Galluzzi, Enrico Cesare Zenerino, Andrea Tonoli Mexico	ICEM24-000186 Comparison of impedance spectroscopy and PD analysis as insulation health diagnosis techniques Leire Elorza Azpiazu, Yerai Moreno, Ariz Egea, GAIZKA ALMANDOZ, Ainara Angulo Rebollo Spain	ICEM24-000097 Improved Methodology For Considering The Frequency-Dependent Behaviour Of Electrical Machine Windings in Transient Simulation KAPTOUN KUATE Loic Cabrel, ABDELLI Abdenour, Stéphane Duchesne, François Balavoine, Ralph Sindjui France	ICEM24-000206 Rotor optimization of a synchronous reluctance machine for railway applications Antonio Fiorito, Mukhammed Murataliyev, Lorenzo Carbone, Mauro Di Nardo, Michele Degano, Stefano Nuzzo Italy	ICEM24-000491 Eddy Brake Reaction at Bus Structures of Medium-Large Caliber Electromagnetic Launchers Nail Tosun, Ozan Keysan, Gorkem Gulletutan United Kingdom	ICEM24-000387 Multi-Objective Optimization of Electromagnetic-thermal Coupling Performance for High-torque-density PMSM based on Multi-dimensional Correction Techniques Zequan Li, Jin Wang, Lu Sun, Haoyu Kang, Liyang Liu, Libing Zhou China	
	12:20	14:20	Lunch and Poster Session 2							
	14:20	16:00	ROOM 11 Rotating machines 5 Chairs: Giulii Capponi Fabio, Dutta Rukmi	ROOM 31 Thermal Analysis of High-Reliability Motor Drives for EV Applications 2 Chairs: Payam Shams Ghahfarokhi, Antonio Cardoso	ROOM 51 Diagnostics and condition monitoring 4 Chairs: Karlis Athanasios, Wolbank Thomas	ROOM 71 Design issues (optimization, modeling, simulation) 5 Chairs: Espanet Christophe, Barater Davide	ROOM 91 Sustainable Electric Drives for E-mobility 2 Chairs: Md Jahiril, Stefano Nuzzo	ROOM 21 Special machines, linear machines, actuators and sensors 3 Chairs: Bianchini Claudio, Poskovic Emir	ROOM 41 Use of Artificial Intelligence for Optimized Design of Electrical Machines and Drives Chairs: Fabio Crescimbin, Michele Quercio	ROOM 101 Industrial Session 2
	14:20	14:40	ICEM24-000051 Modeling and Tuning of Electric Drive Train Capturing Horizontal Mode Resonance Omer Ikram ul Haq, Rahul Kanchan Sweden	ICEM24-000544 Improving motor torque estimation and energy efficiency for an electric vehicle by compensating the influences of initial permanent magnet temperature Hrishikesh Joshi, Markus Seilmeier, Yves Burkhardt, Wilfried Hofmann Germany	ICEM24-000102 Investigation of Demagnetization in Halbach Machines Yang Li, Zi-Qiang Zhu, Simon Brockway, Maximilian Manss, Jonathan Lea, Yuan Ren United Kingdom	ICEM24-000029 Intensified Pole Winding Heat Transfer Through Triggered Axial Flow in Radial-Radial Ventilated Large Hydro Generators With Interpolated Air Guides Bastian Diebel, Thilo Dauch, Roland Jester-Zuerker Germany	ICEM24-000033 Assessing the impact of stator yoke on the electromechanical energy conversion performance of switched reluctance machines Vincenzo Madonna, Cesare Maria Meano, Ken Friis Hansen Italy	ICEM24-000023 Discretization Study for 2D Axisymmetric Modeling of an Ultrafast Thomson Coil Actuator Philipp Wienkamp, Simon Kimpeler, Frederik Mingers, Tim Ballweber, Willem Leterme Germany	ICEM24-000100 A comparative analysis on different deep neural network models for magnetic hysteresis with distorted excitation waveforms Gabriele Maria Lozito, MICHELE QUERCIO, Lorenzo Sabino, Antonino Laudani Italy	CHT Analysis on Brushless motor applied on Blower 56V
	14:40	15:00	ICEM24-000035 Similarity Numbers for the Scaling of Hydroelectric Generator Ventilation Flow David Noelle, Veit Hildebrand, Bastian Diebel, Thilo Dauch, Harald Pfifer Germany	ICEM24-000353 Influence of the shaft cooling system on the performances of a high speed wound rotor motor: a CFD – thermal network coupled approach Francesco Nascimben, Giovanna Cavazzini, Nicola Bianchi Italy	ICEM24-000116 A New Approach for Diagnosis Demagnetization in a Permanent Magnet Synchronous Motor for different Fault severities using Current Signals Pedram Quseiri Darbandeh, Christian Kreischer Germany	ICEM24-000464 High-speed electric machine frame design process using topology optimization Topi Kainulainen, Juuso Narsakka, Jussi Sapanen Finland	ICEM24-000557 Thermal modelling improvement aspects for automotive physically-integrated drives Christian Dalli, Michael Galea, Joseph Cilia Malta	ICEM24-000327 A Study on Electrical Stress Distribution of Racetrack Coils Used in Ironless Linear Actuators Using a Hybrid Modeling Approach Arvin Pourebrahim Shishavan, Siamak Pourkeivannour, Mitrofan Curti, Elena Lomonova Netherlands	ICEM24-000346 Development of a Neural Network approach to evaluate Magnetic Losses in Nanocrystalline Transformers Vittorio Bertolini, Lorenzo Sabino, Marco Stella, Antonio Faba, Francesco Riganti Fulginei, FABIO CRESCIMBINI, Ermanno Cardelli Italy	Development of a methodology for the modelling of BEV powertrains in GT-SUITE
	15:00	15:20	ICEM24-000041 Numerical validation of a thermal ROM of a hydroelectric generator scale model Federico Torriano, Mathieu Kirouac, Anne-Marie Giroux Canada	ICEM24-000138 Consideration of Thermal Ageing in Digital Twins of Automotive-Grade Electric Motors Jon Garcia Urbieto, Unai Linazasoro, Pablo Diaz, Iñigo Garcia, Alejandro Garcia, Sergio Armentia, Antonio J. Rodriguez, Francisco González Spain	ICEM24-000054 Demagnetization Detection, Misdiagnosis and Impact in Permanent Magnet Generators Alexandros Sergakis, Giorgos Skarmoutsos, Markus Mueller, Konstantinos Gyftakis Greece	ICEM24-000460 A Holistic Optimization Method for the Electromagnetic Design of Radial-Flux, High-Power-Density Synchronous Reluctance Machines Fernando J. T. E. Ferreira, André Silva, Miguel Aires, Filipe Correia, Carlos Henggele Antunes Portugal	ICEM24-000398 Performance and Efficiency Mapping of Externally Excited Synchronous Machines Andreas Carlsson, Felix Andersson, Irene Santantonio, Viktor Josefsson, Gabriele Puccio, Sandro Rubino Sweden	ICEM24-000146 Verification of load angle characteristics of a novel counter-rotating twin harmonic PM machine using locked-rotor measurements Michiel Desmedt, Robert Nilssen, Arne Nysveen Norway	ICEM24-000107 A Semi-Supervised Method for Key Performance Indicator Prediction of Electrical Machines under a Self-Training Framework Nuo Chen, Christian Digel, Martin Doppelbauer Germany	Innovations in conductor forming for more power density in stator windings

EXPO OPEN - 10:00 AM - 5:00 PM

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	15:20	15:40	<p>ICEM24-00084 Magnetic Hysteresis Impact on HF Signal Injection Pascal COMBES France</p>	<p>ICEM24-00056 The Development and Application of Impingement Jet Cooling in the Small Traction Synchronous Machine with Permanent Magnets Lukas Veg,Roman Pechanek,Martin Skalicky Czech Republic</p>	<p>ICEM24-000382 Comparative Behavior Study of various PMSM Topologies under Demagnetization Conditions Jérémy CREUX,Najla Haje Obeid,Thierry BOILEAU,Farid Meibody-Tabar France</p>	<p>ICEM24-000460 A Holistic Optimization Method for the Electromagnetic Design of Radial-Flux, High-Power-Density Synchronous Reluctance Machines Fernando J. T. E. Ferreira,André Silva,Miguel Aires,Filipe Correia,Carlos Henggeler Antunes Portugal</p>	<p>ICEM24-000136 Life Cycle Assessment of in-wheel and on-board electric motors and drivetrains for sustainable transport Antonella Accardo,Ezio Spessa,Alejandro Robles Martin,Julia Essl,Moritz Duft,Johann Bachler Italy</p>	<p>ICEM24-000090 Analysis of AC Winding Resistance considering different Conductor Materials in Transverse Flux Permanent Magnet Synchronous Machines Benedikt Kaiser,Andreas Gneiting,Martin Schmid,Nejila Parspour Germany</p>	<p>ICEM24-000372 Modelling of magnetization processes of 3D-printed Fe-Si components by means of an artificial neural network implemented in a FEM scheme Marco Stella,Antonio Faba,Vittorio Bertolini,Francesco Riganti-Fulginei,Lorenzo Sabino,Hans Tiismus,Ants Kallaste,Ermanno Cardelli Italy</p>	<p>Comparison between PI and MPC techniques for Synchronous Motor Current control: A study case</p>	
	15:40	16:00	<p>ICEM24-000236 Design and Optimization of a 4-6 Brushless Doubly fed Reluctance Generator Stefan Botha,Nkosinathi Gule South Africa</p>	<p>ICEM24-000132 Thermal Analysis of an Oil Jet Cooled Electric Motor with Hairpin Windings Steven Vanhee,Jaywant Pawar,Frederik Desmet,Jasper Nonneman,Michel De Paepe Belgium</p>	<p>ICEM24-000192 Improved Support Vector Classifier for Multiple Incipient Faults Diagnosis of a Permanent Magnet Synchronous Generator Tanzir Ahamed,Thien-Phuoc Nguyen,Khang Huynh,Kjell G Robbersmyr Norway</p>	<p>ICEM24-000140 Traction Motor 2D Models with End Winding Leakage Inductance Consideration Sonja Karin Tidblad Lundmark,Torbjörn Thiringer,Emma Arfa Grundtitz Sweden</p>	<p>ICEM24-000224 Optimal Design of Cost-effective E-Machines for Traction: A Case Study of 150KW V-shaped PMSM Taha EL HAJJI,Antti Lehtikoinen,Ahmed Hemeida,Anouar Belahcen Finland</p>	<p>ICEM24-000170 A novel structure fan to reduce noise and mechanical loss of motors Makoto Ito,Shinji Sugimoto,Akeshi Takahashi,Shuichi Tamiya Japan</p>	<p>ICEM24-000527 Data-Driven Approaches for Electromagnetic Analysis of Traction Electrical Motors: a Proposal for a Benchmark Problem Luigi Solimene,Simone Ferrari,Costanza Anerdi,Fabio Freschi,Luca Giaccone,Gianmarco Lorenti,Francesco Lucchini,Riccardo Torchio,Piergiorgio Alotto,Gianmario Pellegrino,Maurizio Repetto Italy</p>	<p>European targets and experiences in next generation traction motor development</p>	
	16:00	16:20	<b>Coffee Break</b>								
	16:20	17:30	<b>Galileo Ferraris Memorial Session by Prof. A. Boglietti - room 11</b>								
	17:30	18:30	<b>ICEM NPO General Meeting - room 11</b>								
	18:30	19:30	<p><b>Time on your own</b>  <b>Transfer to MAUTO on your own</b>  <b>Return transfer to Politecnico or City Center by bus at 23:00</b></p>								
	19:30	21:00	<p><b>Visit to MAUTO</b>  <b>(Museum of Automobiles, Corso Unità d'Italia, 40, Torino)</b></p>								
	21:00	23:00	<b>Gala Dinner at MAUTO</b>								

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OPEN - 10:00 AM - 5:00 PM

07:30	18:00	Registration							
08:00	10:00	Plenary Session 2							
08:00	08:30	Multiphysics Modeling and Optimization of Electric Motors. L. Kvale, Comsol							
08:30	09:00	ETEL: 50 Years of Precision and Experience in Direct Drive Motion. A. Fasolo - Etel							
09:00	09:30								
09:30	10:00	Design for Post Assembly Magnetisation. M. Swallow - Bunting Magnetics							
10:00	10:40	Transfer to Oral Session Rooms for Coffee Break							
10:40	12:20	<b>ROOM 11</b> Design issues (optimization, modeling, simulation) 6 Chairs: Castagnini Alessandro, Gerd Bramerdorfer	<b>ROOM 3I</b> Electrical machines and drives for sustainable transportation 3 Chairs: Fabri Giuseppe, Thiringer Torbjörn	<b>ROOM 5I</b> Thermal and losses issues- Magnetic and insulation materials 3: Chairs: Mellor Philip, Silvio Vacshetto	<b>ROOM 7I</b> Diagnostics and condition monitoring 5 Chairs: Wolbank Thomas, Panagioutou Panagiotis	<b>ROOM 9I</b> High Efficiency Electrical Machines for Transportation Electrification Chairs: Antonios Kladas, Michael Galea	<b>ROOM 2I</b> Electrical Drives 3 Chairs:Tornello Luigi Danilo, Chomat Miroslav	<b>ROOM 4I</b> High Torque Density Flux Modulation Machines and Drives Chairs: Shaofeng Jia, Tianjie Zou	
10:40	11:00	ICEM24-000223 Towards Data-Driven Strand Transposition Simulation of Multistrand Random Windings Joshua Hoole, Philip Mellor, Nick Simpson United Kingdom	ICEM24-000332 Comparative Analysis and Optimization of Iron Nitride Enabled 800-V PM-assisted Synchronous Reluctance Traction Motor with Varying Poles for Extended Operating Speed Range Robin Wilson, Praveen Kumar, Ayman EL-Refaei United States	ICEM24-000164 Considerations on matrix-based, analytical temperature prediction tools for electrical machines Xuewen Lian, Robert Camilleri, Michael Galea China	ICEM24-000395 Stray Fluxes Amplitude and Phase Shift Monitoring for Interturn Short Circuits Detection in Induction Motors Marcello Minervini, Jorge Bonet Jara, Vanesa Fernandez-Cavero, Lorenzo Mantione, Lucia Frosini Italy	ICEM24-000048 High Efficiency Closed-Loop Startup Strategy for Sensorless Permanent Magnet Motor Drive Nektarios Karakasis, Athanasios Sarigiannidis, Nikolaos Tsakalakis, Steve Bartz Greece	ICEM24-000115 Extended HF Inductance Model of Multi-Salient Motors for HF and Pulse Voltage Signal Injection Eduardo Rodriguez Montero, Markus Vogelsberger, Thomas Wolbank Austria	ICEM24-000187 Estimation of PM Temperature Distribution for Flux-switching PM Machine by Synergy of Lumped-parameter and Analytical Thermal Models Dawei Liang, Zi-Qiang Zhu, Zhitong Ran, Yang Chen United Kingdom	
11:00	11:20	ICEM24-000259 Mechanical modelling of electric-machine core laminated stack Guilhem Drouet, Delphine Brancherie, Pierre Feissel, Ferdinand Frabolot, Edouard Negre France	ICEM24-000178 PM and PM-less Motors for Electric Vehicles: a Comparative Analysis Fabio Filippini, Nicola Bianchi, Marco Pastura Italy	ICEM24-000407 Thermal Modelling of Advanced Rotor Cooling Solutions for Traction Applications Alessandro Guiducci, Rafal Wrobel, Stefano Nuzzo, DAVIDE BARATER, Giovanni Franceschini Italy	ICEM24-000549 Comparison of Field Winding Inter-Turn Short Circuit Fault Identification Methods in a Salient Pole Hydro Generator Yongdong Lu, Andy Knight, Om Malik Canada	ICEM24-000180 Vertical Vibration Control for Half-Vehicle with In-Wheel Motor-Suspension Integrated System under Braking Condition Chao Xing, Nicola Bianchi, Jiaying Wang, Yueying Zhu, Yier Lin, Marco Pastura	ICEM24-000124 Parasitic Parameters Effect on the Operation of High Frequency Electric Drive System Fawzy Abdo, Kotb B. Tawfiq, Peter Sergeant Belgium	ICEM24-000296 Analytical Calculation of the Airgap Flux in PM Vernier Machine Considering Pole Transition Over Slots Effect Yien Liu, Hailin Huang, Tianjie Zou, Tonghao Pei, Ronghai Qu, Dawei Li China	
11:20	11:40	ICEM24-000066 Thermal Conductance Phenomena between Two Solids: A Model-Based Analysis in Traction Motors Vaclav Fiala, Roman Pechanek Czech Republic	ICEM24-000176 Development of an Ultra-Lightweight PM Electrical Motor for Solar-Powered High-Altitude Platform Applications Rafal Wrobel, Tom Werner, Xu Deng, Daniel Noal United Kingdom	ICEM24-000417 Hollow direct air cooled rotor windings: Experimental verification Samuel Estenlund, Avo Reinap Sweden	ICEM24-000524 Detection of Inter-Turn Short-Circuits in PM Machines based on Rogowski & Search Coil Based Monitoring Johannes Mühlthaler, Bastian Lehner, Andreas Reeh Germany	ICEM24-000445 Efficiency improvement in PMSMs considering alternative Rotors for Elevator Applications Savvas Maiopoulos, Georgios Sakkas, Antonios Kladas Greece	ICEM24-000326 Systematic Approach for EMI Equivalent Model Derivation of Three Phase DC-Fed Motor Drives Pooja Babu, Zhongting Tang, Saeed Peyghami, Frede Blaabjerg, Nicklas Christensen, Pooya Davari Denmark	ICEM24-000207 Duty-Ratio-Based Direct Torque Control Strategy for a Novel Dual-Armature Winding Dual-PM Machine With Array Torque Components Dongxu Yang, Shaofeng Jia, Pengcheng Sun, Deliang Liang China	
11:40	12:00	ICEM24-000006 Flux Density Waveform Reconstruction Method for Efficient Finite Element Analysis of Electric Motors Alessandro Capitanio, Giacomo Sala, Stefano Nuzzo, Gabriele Rizzoli, DAVIDE BARATER, Giovanni Franceschini Italy	ICEM24-000534 Demagnetization Risk Mitigation for a Traction IPMSM Using Mixed-Magnet Configurations Bipana K.C., Andrew Botham, Hossain Mohammadi, Reza Nasirizarandi, Narayan Kar Canada	ICEM24-000426 A Single-Platform Analysis of Selected Cooling Variants of Electric Machines Zaynah Ahmad, Rafal Wrobel, Thomas Werner, Volker Pickert United Kingdom	ICEM24-000053 Ground Fault Detection Method for Doubly-Fed Induction Generators with Crowbar Circuits Jose Manuel Guerrero Granados, Aitor Blazquez Campanon, Jesus Mauricio Pérez-García, Kumar Mahtani, Aritz Iturregi, Marene Larruskain Spain	ICEM24-000250 Impact of SMC Property on Axial Flux Machine Employing Ferrite PM in Traction Applications Ren Tsunata, Masatsugu Takemoto, Jun Imai, Tatsuya Saito, Tomoyuki Ueno Japan	ICEM24-000558 Analysis of Machine Inductance Variation on Loss Minimization Control Minghao Gao, Guoyu Chu, Abdur Rahman, Rukmi Dutta Australia	ICEM24-000238 Analytical Electromagnetic Force of Vernier Permanent Magnet Machine Considering Stator-Tooth Dual Modulation Effects Yongjian Hao, Xianglin Li, Haoyu Wang, Xianzeng Xu, Kai Wang, Wei Hua China	
12:00	12:20	ICEM24-000020 Stator Slot Design Guidelines for Concentrated Windings with Direct Liquid Cooling Channels for Electrified Aviation Norman Blanken, Ralf Johannes Keuter, Bernd Ponick Germany	ICEM24-000444 Design of a Hybrid Magnet IPM Machine for Traction Applications Satoshi Ghibha, Rishabh Raj, Shayan Halder, Kim Bergsro, Simone Ferrari, Gianmario Pellegrino Sweden	ICEM24-000355 A Sensor Fusion Based Temperature Estimation Model for Oil-Cooled Windings Juri Tessaro, Matteo Iacchetti, Stefano Montemurro, Samuele Barachetti, Marco Cossale, Luca Favre Italy	ICEM24-000481 Line-Start Permanent Magnet Synchronous Motors Stator Fault Diagnostics Immune to Unbalanced Supply Voltages D. S. B. Fonseca, Hugo R. P. Antunes, Antonio J. Marques Cardoso Portugal	ICEM24-000345 Comparative Study of Synchronous Reluctance Motor and Switched Reluctance Motor for Forklift Applications Yuan Yujie, Yawei Wang, Yuhang Cheng, Jianbo Sun, Kai Guo, Nicola Bianchi, Ronghai Qu China	ICEM24-000525 PWM-Induced Losses Estimation in Electrical Motor Driven with GaN-Based Inverter Fausto Stella, Fabio Mandrile, Salvatore Musumeci, Vincenzo Barba, Marco Palma, Alessandro Acquaviva Italy	ICEM24-000086 Design and Prototype Tests of Magnetic-Geared Switched Reluctance Motor Keigo Iwaki, Kenji Nakamura Japan	
12:20	13:20	Lunch							
13:20	15:00	<b>ROOM 11</b> Design issues (optimization, modeling, simulation) 7 Chairs: Durovic Sinisa, Graffeo Federica	<b>ROOM 3I</b> Electrical machines and drives for sustainable transportation 4 Chairs: Takahashi Akeshi, Paolo Pescetto	<b>ROOM 5I</b> Thermal and losses issues- Magnetic and insulation materials 4 Chairs: Marco Cossale, Nategh Shafigh	<b>ROOM 7I</b> Diagnostics and condition monitoring 6 Chairs Koutrakos Konstantinos, Lucia Frosini	<b>ROOM 9I</b> Off-highway vehicle electrification: electric and hybrid powertrains and components Chairs: Stefano Nuzzo, Tatiana Minav	<b>ROOM 2I</b> Electrical Drives 4 Chairs: Michele Pastorelli, Geiger Andreas	<b>ROOM 4I</b> Switched Reluctance Machines and Drives Chairs: Hao Hua, Lefe Ge	<b>ROOM 10I</b> Industrial session 3
13:20	13:40	ICEM24-000556 An Electrical Machine Design Procedure Based on Thermo-Electromagnetic Coupling Xuewen Lian, Robert Camilleri, Michael Galea China	ICEM24-000442 High-Frequency Modeling of Bearing and Transmission Currents in Electric Vehicles Yusa Tombul, Jian Zhang, Jakob Andert Germany	ICEM24-000260 Quantitative analysis of magnetic flux density spectrum influence on iron losses in electrical machine steel sheets Alexandre Giraud, Franck Vangraef France	ICEM24-000174 Online fault diagnosis for multiple open-circuit faults in multiphase drives with current harmonics René Lenz, Andreas Kugi, Wolfgang Kemmetmüller Austria	ICEM24-000175 Pressure Controller Design in Electrified Hydraulics for Off-Highway Machinery Matteo Beligoi, Luigi Alberti, Marco Zava, Alessandro Termini Italy	ICEM24-000567 Experimental Identification of the dq-theta Flux Maps of Synchronous Machines ANDREI BOJOI, Paolo Pescetto, Simone Ferrari, Gianmario Pellegrino Italy	ICEM24-000032 Switched reluctance machines in 800-V powertrains - a focus on voltage distribution and electrical stress Vincenzo Madonna, Cesare Maria Meano, Ken Friis Hansen Italy	Optimization of Production for High-Performance Electric Motors: A Case Study of Assembly Lines for 6-Wire Stators with Hairpin Technology
13:40	14:00	ICEM24-000168 Topology Optimization for Enhancing Electric Machine Performance: A Review Mohamed Reda Mahmoud, Mohamed Ibrahim, Peter Sergeant Belgium	ICEM24-000539 Design Comparison of Wrapped and non-Wrapped Interior Permanent Magnet Synchronous Machines Roberto Acquaviva, Simone Ferrari, Mario Silvagni, Andrea Tonoli, Gianmario Pellegrino Italy	ICEM24-000057 Core loss tracking of stator core testing via inverse Jiles-Atherton hysteresis model Leonardo Colombo, Avo Reinap, Jason Ryan, Pontus Fyhr Sweden	ICEM24-000021 Hybrid open-circuit fault detection algorithm for two-level three-phase automotive IPMSM drives Esther Altemir, Andres Sierra-Gonzalez, Elena Trancho, Fernando Alvarez-Gonzalez, Edorta Ibarra Spain	ICEM24-000265 A Unified Design Theory and Approach for AC Hairpin Windings Shaohong Zhu, Krzysztof Paciura United Kingdom	ICEM24-000485 Temperature Compensation for Measured Efficiency Maps of an Electric Drive Unit Jonas Gschnell, Edmund Marth, Gerd Bramerdorfer Austria	ICEM24-000376 Two-Phase Commutation Method for Improved Transient Performance of a Dual-Rotor Switched Reluctance Machine Ruben De Croo, Frederik De Belie Belgium	Addressing the E-Motor Trend for the Electrohydraulic System

EXPO	15:00	15:20	ICEM24-000430 An adapted constrained multi-objective Bayesian optimization under uncertainties: application on a permanent magnet assisted synchronous reluctance motor ADAN REYES REYES, Andre Nasr, Delphine SINOQUET, Sami ICEM24-000480	ICEM24-000181 On Comparing Aluminum and Copper in Wound Field Synchronous Motors for Traction Applications Gaia Petrelli, Gregorio Cutuli, Stefano Nuzzo, DAVIDE BARATER, Tianjie Zou, Chris Gerada Italy	ICEM24-000239 Determination of current transducer phase delay and its effect on PWM-induced losses calculation in laminated ferromagnetic materials Igor Sirotić, Stjepan Stipetić, Marinko Kovačić Croatia	ICEM24-000039 Ground Fault Detection and Faulty Electric Machine Recognition in Parallel-Connected Variable Speed Drives Pablo Eguia, Jose Manuel Guerrero Granados, Jesús Mauricio Pérez García, Aitor Blázquez-Campanon, Victor Valverde	ICEM24-000180 Loss Minimization Control of PMSM for Electrified Non-Road Mobile Machinery Using Flux and Loss Map Chunjie Dai, Hadhiq Khan, Amr Khadr, Paavo Rasilo, Tatiana Minav Finland	ICEM24-000349 Robust Torque Control of Internal Permanent Magnet Motor Using Experimental Flux Maps Ettore Bianco, Fabio Mandrile, Massimiliana Carello, Radu Bojoi Italy	ICEM24-000121 Minimizing Torque Ripple in 5-Phase Switched Reluctance Machines Using Supplying Half-Sinusoidal Current Pulses Ali Akbar Emarloo, Luca Papini, Paolo Bolognesi Italy	Magnetic noise reduction using Manatee collaborative CAE workflow	
	15:20	15:40	Analysis of Externally Excited Synchronous Motors Operation under Joule Losses Minimization Control Alessandro Capitanio, Stefano Nuzzo, Giacomo Sala, DAVIDE BARATER, Giovanni Franceschini Italy	ICEM24-000262 Iron Loss Analysis of an Electrically Excited Synchronous Motor under Space Vector PWM for Automotive Traction Application Ben Wolk, Mohammad Jahirul Islam, Li-Chun Chien, Shafiq Nategh, Aldo Boglietti, Philippe Farah Sweden	ICEM24-000120 Stress-dependent Iron Loss in Segmented Laminations Considering Surface Roughness Yan Zhu, Barrie Mecrow, Glynn Atkinson, Xu Deng, Guohai Liu United Kingdom	ICEM24-000380 Broken Bar Detection of Axial-Flux Induction Machines through Advanced Transient Current Signature Analysis Carlos Madariaga, Jose E. Ruiz-Sarrio, Jose Antonino Daviu, César Gallardo, Juan Tapia Chile	ICEM24-000269 Design of High Power Density IPM Machines with Fractional or Integral Slot for Off-Highway Vehicles Giada Sala, Claudio Bianchini, Nicola Bianchi, Luca Cinti, Matteo Davoli Italy	ICEM24-000505 On the Tuning of Variable Speed Drives Luigi Danilo Tornello, Giacomo Scelba, Giulio De Donato Italy	ICEM24-000179 A Universal Analytical Model of Airgap Field for Double Magnetic Salient Reluctance Machines Considering Tangential Field Rui Zhong, Jinwen Du, Zhongze Wu, Wei Hua, Xingyu Chen, Kaiyuan Zhang China	Magnetization field pattern balancing for multipolar permanent magnets rotor for brushless small motor.	
	15:40	15:00	ICEM24-000043 Overloadability of Multiphase Permanent Magnet Synchronous Machines Zdenek Frank, Jan Laksar, Karel Hruska Czech Republic	ICEM24-000502 High-Frequency Brushless Excitation with Bi-Directional Power Flow for Electrically Excited Synchronous Machine Junfei Tang, Bowen Jiang, Luca Boscaglia, Ruonan LIU, Stefan Lundberg, Yujing Liu Sweden	ICEM24-000233 Computationally Efficient Evaluation of PWM-Induced Losses in Inverter-Fed High Speed Permanent Magnet Machines Jiarui Liu, Xinggang Fan, Dawei Li, Ronghai Qu, Ziyi Liang China	ICEM24-000074 Hydro-generator electrical signature analysis for detection of hydraulic instabilities Ghofril Kahwati, Arthur Favrel, Arezki Merkhouf, Anne-Marie Giroux Canada	ICEM24-000219 Wound Rotor Synchronous Motor Design for a Mining Application Giampaolo Devito, Stefano Nuzzo, DAVIDE BARATER, Mauro Giacalone, Francesco Puglisi, Henrik Grop, Dmitry SvechKarenko Italy	ICEM24-000501 Hysteresis Feedback Linearization Control for Interior Permanent Magnet Synchronous Motors Sadjad Madanzadeh, Wolfgang Gruber, Paolo Pescetto, Rafal P. Jastrzebski Finland	ICEM24-000323 A Primary-Controlled Wireless Switched Reluctance Motor with Receiving Coil Multiplexing Yuxin Liu, Hao Wen, Tianci Wang, Zhengge Chen, Chunhua Liu China		
	15:00	15:20	<b>Coffee Break</b>								
	15:20	17:00	<b>ROOM 11</b> Design issues (optimization, modeling, simulation) 8 Chairs: Bolognesi Paolo, Takorabet Nouredine	<b>ROOM 31</b> Electrical machines and drives for sustainable transportation 5 Chairs: Vincenzo Madonna, Pecotich James	<b>ROOM 51</b> Electrical machines and drives for renewable energy generation 2 Chairs: Garner Karen, Federica Graffeo	<b>ROOM 71</b> Rotating machines 6 Chairs: Ferrari Simone, Mecrow Barrie	<b>Room 91</b> Intelligent Model-Based Design & Simulation Technology of Electrical Machines Targeting E-Mobility Chairs: Sarbajit Paul, Junghwan Chang	<b>ROOM 21</b> Electrical Drives 5 Chairs: Paolo Pescetto, Kerhuel Lubin	<b>Room 41</b> Superconducting Electrical Machines Chairs: Markus Mueller, Fabrizio Marignetti		
	16:20	16:40	ICEM24-000209 Handling torque constraint in electric machine optimization for variable speed noise reduction Martin Glessner, Cédric Marinel France	ICEM24-000163 Early Stage Design of an Electric Drive Train for a Heavy Duty Transport Vehicle Erling Gjeset, Martin Bremer, Pia Lindh, Martin Doppelbauer Germany	ICEM24-000240 Direct-Drive Wind Turbine Generator Vibration Induced by High-Order Air-Gap Nonuniformity Fergus Hall, Alasdair McDonald United Kingdom	ICEM24-000072 Influence of a combined star-delta winding on the operation behavior of a line start permanent magnet synchronous machine Tobias Knapp, Wilfried Hofmann Germany	ICEM24-000153 Topology Analysis of Electric Machines for a Specific Mission Profile in Aviation Applications Arsham Asgari, Markus Henke Germany	ICEM24-000515 Sensorless Control for Six-Phase Permanent Magnet Synchronous Machines Based on Back-EMF Estimation Luca Vancini, Michele Mengoni, Gabriele Rizzoli, Luca Zarri, Angelo Tani Italy	ICEM24-000237 Electromagnetic Impact of the Cryostat Design in Wind Generators with Superconducting Excitation Robin Köster, Laurenz Ziegler, Andreas Binder Germany		
	16:40	17:00	ICEM24-000277 Effect of Eccentricity on PM Synchronous Machines with Different Rotor Geometries Alessandro Acquaviva, Sebastiano Acquaviva Italy	ICEM24-000478 Performance Assessment of Ferrite-Assisted Synchronous Reluctance Motors for Traction Applications Simone Ferrari, Gaetano Dilevrano, Kim Bergsro, Tommaso Bertonecello, Gianmario Pellegrino Italy	ICEM24-000254 Mechanical Design Considerations of a Light-Weight Rotor for Brushless Double Fed Machines Malihe Heidary, Salman Abdi Jalebi, Hamidreza Mosaddegh-Hesar, Xiaodong Liang, Ehsan Abdi, Richard McMahon United Kingdom	ICEM24-000375 Line-Start Permanent Magnet Machines for Low-power Applications Jan Barta, Marek Toman, Petr Losak, Lassi Aarniovuori, Ondrej Vittek Czech Republic	ICEM24-000099 Global Sensitivity and Uncertainty Analysis for Thermal Design of Axially Laminated Synchronous Reluctance Machine SHRUTI SINGH, Eero Scherman, Ilya Petrov, Peter Sergeant, Juha Pyrhönen Finland	ICEM24-000058 Flying Start of a Synchronous Reluctance Machine Based on Opposite Active Voltage Pulses Luka Pravica, Filip Jukic, Damir Sumina, Igor Erceg Croatia	ICEM24-000563 Stationary Wave Flux Pump for Energisation in High Temperature Superconducting Machines Markus Mueller, Hongye Zhang, Zezhao Wen United Kingdom		
	17:00	17:20	ICEM24-000247 Analysis of Multiphase Permanent Magnet Motors via Space-Harmonic Model Beñat Arribas, GAIZKA ALMANDOZ, Aritz Egea, Javier Poza, Ion Iturbe Spain	ICEM24-000532 Comparison of a Direct Drive and a Geared Drive for Electric Light Sport Aircraft Daniel Alban, Lucas Brenner, Dieter Gerling Germany	ICEM24-000533 Design Optimization of Hybrid Excitation Flux Switching Generator for Micro Hydroelectric System Takashi Kosaka, Yasushi Kato, Reo Nagase, Naoki Yamamoto, Yoshiki Yasuda, Akio Yamagiwa Japan	ICEM24-000528 Analytical Design Optimization of Permanent Magnet Assisted Synchronous Reluctance Machines - Part I: Magnetic Model Gianvito Gallicchio, Mauro Di Nardo, Francesco Cupertino Italy	ICEM24-000285 Design of High Efficiency WFSM for Short Distance Electric Mobility in a Given Driving Cycle Tran Vu Khanh, Park Byoung-Gun, Han Pil-Wan, Sarbajit Paul, Chun Yon-Do, Jae-Gil Lee Korea, Republic of	ICEM24-000052 Optimal Damping of Horizontal Mode Resonance of an Electric Drive Train Using Reactive Torque Omer Ikram ul Haq, Rahul Kanchan Sweden	ICEM24-000570 Electromagnetic Forces in an Air-cored Superconducting Machine for Direct Drive Wind Markus Mueller, Danqing Chen, Shuangrong You United Kingdom		
	17:20	17:40	ICEM24-000276 Multipolar halfbach bonded PM rotors: comprehensive experimental analysis of non-ideal field distributions and manufacturing imperfections Alessandro Acquaviva, Alessandro Chiappa, Marco Fracchia Italy	ICEM24-000542 A Sustainable Booster Induction Motor for Dual Axle Automotive Applications Md Jahirul I., Amin Motamedi, Shafiq Nategh, Vedanadam M. ACHARYA, Aldo Boglietti, Dheeraj Bobba Sweden	ICEM24-000064 Improved Equivalent Model-Based Control PMLSG for Maximum Energy Harvesting in Irregular Waves for Direct-Driven Wave Energy Converters Jiyu Zhang, Lei Huang, Jianlong Yang, Haitao Liu, Shiquan Wu, Zihao Mou China	ICEM24-000529 Analytical Design Optimization of Permanent Magnet Assisted Synchronous Reluctance Machines - Part II: Results Gianvito Gallicchio, Mauro Di Nardo, Francesco Cupertino Italy	ICEM24-000113 Direct-Drive System for In-Wheel Motors Akeshi Takahashi, Tetsuya Suto, Makoto Ito, Ryuichiro Iwano, Takafumi Hara Japan	ICEM24-000554 Active IGBT temperature equalization in Filed Oriented Control motor drives by magnetic energy management Salvatore Foti, Antonio Testa, Giuseppe Scarcella, Giacomo Scelba, Luigi Danilo Tornello Italy	ICEM24-000514 Superconducting AC Machines and Cryogenic Power Electronics for Reliable and Power-Dense Energy Conversion Abdallah Uosef, Lorenzo Mantione, Marco Bassani, Ines Peixoto, Lucia Frosini, Carlo Concari, Silvio Vaschetto Italy		
	17:40	17:00	ICEM24-000559 Slot wedges with integrated grounded electrodes for suppression of inverter-induced bearing currents Konstantin Vostrov, Juha Pyrhönen Finland	ICEM24-000402 Comparison of e-NVH Performance of Different PMSMs in Electric Vehicle Powertrain Simone Ferrari, Luca Ciravegna, Giorgio De Donno, Enrico Galvagno, Matteo Iannone, Gianmario Pellegrino Italy	ICEM24-000226 Design and optimization of a 4-6 brushless doubly fed induction generator Stefan Botha, Nkosinathi Gule South Africa	ICEM24-000343 A Saturation Model Based on a Simplified Equivalent Magnetic Circuit for Permanent Magnet Machines Francesco Lelli, Marko Hinkkanen, Fabio Giulii Capponi Italy	ICEM24-000415 Performance Study of Surrogate Models for Large-Scale Optimization Hiroyuki Sano, Ryoma Utsunomiya, Taizo Senda, Koji Tani, Takashi Yamada Japan	ICEM24-000483 Measurement-Based Optimal Current Angle Identification of an Electric Drive Unit Jonas Gschnell, Edmund Marth, Gerd Bramerdorfer Austria	ICEM24-000519 Design of a Cryogen-Free HTS Excitation Coil for a Homopolar Alternator Laurenz Ziegler, Robin Köster, Andreas Binder Germany		
	17:00	17:20	<b>Transfer to main Auditorium</b>								
	17:20	18:30	<b>ICEM Awards and Closing Ceremony</b>								

Poster Session 1	Monday	Session Chairs:	
<b>Superconducting Electrical Machines</b>			
ICEM24-000377	A Slot Model for Loss Estimation in Superconducting AC Electrical Machine Windings	Ines Peixoto,Lorenzo Perilli, Federica Graffeo,João Filipe Pereira Fernandes,Paulo José da Branco,Silvio Vaschetto	Italy
<b>Intelligent Model-Based Design &amp; Simulation Technology of Electrical Machines Targeting E-Mobility</b>			
ICEM24-000287	Nonlinear Analytical Solution For Permanent Magnet Synchronous Machines Using Harmonic Modeling	Duy Tinh Hoang,Manh-Dung Nguyen,Su-Min Kim,Woo-Sung Jung,Kyung-Hun Shin,Yongjoo Kim,Jang-Young Choi	Korea, Republic of
ICEM24-000288	Nonlinear Modeling and Analysis Considering Coupling Stator Flux of Wound-Rotor Synchronous Motors	Manh-Dung Nguyen,Duy Tinh Hoang,Su-Min Kim,Woo-Sung Jung,Kyung-Hun Shin,Yongjoo Kim,Jang-Young Choi	Korea, Republic of
ICEM24-000019	Electromagnetic Design and Structural Analysis of Magnetic-gear Permanent Magnet Synchronous Motor for Unmanned Underwater Vehicle	Park Jang-Hyun,Da-Eun Kim,Do-Kwan Hong	Korea, Republic of
<b>Use of Artificial Intelligence for Optimized Design of Electrical Machines and Drives</b>			
ICEM24-000022	Transfer Learning-Based Modular Neural Network for Multi-Objective Optimization of Interior Permanent Magnet Synchronous Motors	Nuo Chen,Martin Doppelbauer	Germany
ICEM24-000535	CDC-GANs: Bridging Innovation and Efficiency in E-Machine Design with Advanced Generative Models	Amir Akbari,David Lowther	Canada
ICEM24-000070	LCC-S Compensated Wireless Power Transfer: System Optimization using Genetic Algorithms	Matteo Intravaia,Lorenzo Becchi,Marco Bindi,Fabio Corti,Gabriele Maria Lozito,Antonio Luchetta,Cristian Garzon Alfonso,Alberto Reatti	Italy
<b>Off-highway vehicle electrification: electric and hybrid powertrains and components</b>			
ICEM24-000109	A Novel Non-Uniform Air-gap Halbach Magnetic Gear with Modified PM Shape	Mahdi Nafa,Aran Shoaee,Qingsong Wang	Canada
ICEM24-000422	Electrification of Non-Road Mobile Machinery: A Tool for Motor Selection	Marco Ferrari,Chunjie Dai,Daniele Beltrami,Stefano Uberti	Italy
<b>High Efficiency Electrical Machines for Transportation Electrification</b>			
ICEM24-000540	Efficiency improvement in Surface mounted PMSM by appropriate management of both fundamental and switching frequency Iron Losses	Antonios Sideris,Georgios Sakkas,Antonios Kladas	Greece
ICEM24-000446	SPMMs and Enclosures Steady Heat Transfer Modeling Utilizing a 3-D Finite Element Partitioning Technique	Themistoklis D. Kefalas,Antonios Kladas	Greece
ICEM24-000448	Low loss Permanent Magnet Motor design methodology using a particular Infeasibility Driven Genetic Algorithm technique	Ioannis Alonistiotis,Antonios Kladas	Greece
<b>Data-driven Design for Electrical Machines: Methodology, Modelling, and Multidisciplinary Optimization</b>			
ICEM24-000200	Design and Analysis of an Actuator with High Power Density Permanent Magnet motor for Bipedal Robots	Tianran He,Xiaokun Leng,Yangyu Sun,Yucong Wu	China
ICEM24-000152	Nonlinear analytical model of large-scale doubly-fed induction generator-motor based on coefficient transfer	Lu Sun,Jin Wang,Yiming Ma,Haoyu Kang,Zequan Li,Libing Zhou	China
ICEM24-000311	Analysis and Optimization of Unbalanced Magnetic Pull for Eccentric Doubly-fed Induction Motor	Haoyu Kang,Jin Wang,Liyang Liu,Lu Sun,Zequan Li,Libing Zhou	China
ICEM24-000566	Manufacturability Oriented Topology Optimization of Interior Permanent Magnet Synchronous Motor	Meng xia,Jing Li,Yang Xiao	China
ICEM24-000378	Aspect Ratio Optimization for YASA Machines under Thermal Constraints	Hanju Ding,Yu Wang,Weiwei Geng,Jinrong Zhang,Yaojie Sun,Zi-Qiang Zhu	China
ICEM24-000354	Transformer No-Load Losses Calculation Using Machine Learning	Miroslav Mrajca,Vladimír Bílek,Jan Barta,Radoslav Cipín	Czech Republic
ICEM24-000111	Deep Learning-Based Automatic Design System for IPMSM with Variable Magnet Properties	Yuki Shimizu,Kan Akatsu	Japan
<b>High Torque Density Flux Modulation Machines and Drives</b>			
ICEM24-000198	Analysis of Torque Upper Limit of Electrically-Excited Salient Machines by Flux Modulation Theory	Yu Zhao,Dawei Li,Ronghai Qu	China
ICEM24-000062	Performance Comparison of Double- and Single-Rotor Wound-Field Flux Switching Machines with Concentrated and Toroidal Windings	Udochukwu Akuru,Zhongze Wu,Wasiq Ullah,Faisal Khan,Wasiqullah Khan,Karen Garner	South Africa
ICEM24-000213	Analysis of Unbalanced Magnetic Force in DC-Biased Current Vernier Reluctance Machines with Odd Rotor Pole Number	Yuliang Liu,Shaofeng Jia,Deliang Liang	China
ICEM24-000069	Stator Shaping of the Novel Hexane-Type Stator Permanent Magnet Flux Switching Machine	Wasiq Ullah,Udochukwu Akuru,Faisal Khan,Mehroz Fatima	Pakistan
ICEM24-000509	Comparative Study of Flux-Switching PM and EE Machines with Dual Armature Winding Configuration	Hui Wen,Bingtuo Chen,Wenting Wang,Jiongjiong Cai,Lijian Wu	China
ICEM24-000416	Design and Analysis of A Multiple-Torque Components Dual Rotor Axial Flux Permanent Magnet Vernier Machine for Aviation Propulsion Applications	Wenlong Liu,Shaofeng Jia,Zhidong Yuan,Qi He	China
ICEM24-000227	Design and Analysis of High Performance Flux Reversal Motor with Cross-pole Shape Stator	YU YUE,Kenji Nakamura	Japan
ICEM24-000212	Seven-Leg VSI SVPWM Technique for Novel Stator 5-Phase and Rotor 3-Phase Dual-Armature Winding Dual-PM Flux Modulated Machines With Array-Torque Components	Dongxu Yang,Shaofeng Jia,Deliang Liang	China
<b>Switched Reluctance Machines and Drives</b>			



ICEM24-000144	Performance Analysis of Different Skewed Poles Schemes for a 160W Brushless DC Motor	LING LUO,DUAN WANTONG,FEI JIANG,Mingle Jin,SHANGYU REN	China
ICEM24-000521	Development of a 6/4 switched reluctance motor for torque improvement in solar water pumping system	Suraj Chaurasiya,Avik Bhattacharya,Sharmili Das	India
ICEM24-000548	A Consideration of Continuous Conduction Mode of Switched Reluctance Motors based on Vector Control Method	Kyohei Kiyota,Ryo Kokubu	Japan
ICEM24-000419	Design and Thermal Analysis of a Novel Transverse Flux Permanent Magnet Machine	Bowen Zhang,Rundong Huang,Zhiping Dong,Yong Chen,Chunhua Liu	Hong Kong
ICEM24-000162	Design and Optimization of High-Speed Switched Reluctance Machines for Aerospace Applications	Haorui Ge,Hao HUA,Xiaoli Duan,Ruini Li	China
ICEM24-000085	Analytical Prediction of Phase Currents of Switched Reluctance Machines	Haorui Ge,Hao HUA,Wei Hua	China

#### Sustainable Electric Drives for E-mobility

ICEM24-000210	Design Considerations for an In-Hub, Direct Drive Traction Motor for a Formula SAE Race Car.	Christian Dalli,Michael Galea,Joseph Cilia	Malta
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#### Innovative magnetic materials for 3D printing and sustainability of electromagnetic devices

ICEM24-000569	Study of Axial Flux Stator Structures with Additive Manufacturing Material	Pierluigi Amoroso,Emir Poskovic,Hans Tiismus,MICHELE QUERCIO,Luca FERRARIS,Alberto Tenconi	Italy
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#### Fault Tolerant Machines and Drives

ICEM24-000119	Design and optimization of PMaSynRM with short-circuit fault tolerance	Vitaliy Sizonenko,Ondřej Vitek,Petr Klima,Nicola Bianchi	Czech Republic
ICEM24-000560	Open Switch Fault Diagnosis and Localization for Voltage Source Inverters in Synchronous Reluctance Motor Drives	Muhammad Salman,Pericle Zanchetta,Sejir KHOJET EL KHIL,Chiara Boccaletti	Italy
ICEM24-000149	Inter-Turn Short Circuit Faults and Mitigation Measures for Dual-Three Phase Machines	Daniel Walch,Andreas Geiger,Christian Sültrop	Germany
ICEM24-000413	Influence of Inter-Turn Short Circuits on Clamp Parameters	Michael Ebnicher,Hans-Georg Herzog	Germany
ICEM24-000283	A review of modelling and control of multi-phase Induction Motor during the machine fault	Abdulrahman Alharbi,Shafiq Odhano,Xu Deng,Barrie Mecrow,Andrew Smith	United Kingdom
ICEM24-000016	Overview and Challenges of Fault Detection Methods in Electrical Motors for EV Applications	Marco Pastura,Mauro Zigliotto	Italy
ICEM24-000242	Open-Phase Natural Fault-Tolerant Scheme Based on Deadbeat Predictive Current Control for Symmetrical Six-Phase Vernier PM Motor	Wenbo Dai,Xianglin Li,Jun Dai,Yujian Zhao,Kai Wang,Wei Hua	China

#### Design issues (optimization, modeling, simulation)

ICEM24-000135	Model Order Reduction Based DQ Axis Parameter Extraction Method for IPMSMs	Yuan Cheng,Yao Wang,Haodong Sun,Bo Gao,Yi Wang,Shumei Cui	China
ICEM24-000297	Design Optimization of a Hybrid Rare Earth and Ferrite Magnet Axial Flux Motor Considering Demagnetization	Farshid Mahmouditabar,Nick Baker,Mohammad Bapiri,Abolfazl Vahedi	United Kingdom
ICEM24-000046	Finite Difference Model for the Calculation of Eddy Current Losses in Foil Windings of Distribution Transformers	Marija Vuković,Damir Zarko	Croatia
ICEM24-000248	Modelling of Dual-Core Phase Shifting Transformer in ATP-EMPT	Gabriele Tresso,Luca Buono,Franco Di Bona,Daniele Difino,Francesco Palone,Lorenzo Papi,Simone Sacco,Pierluigi Vacante,Gaia Leone	Italy
ICEM24-000083	Reduction of Stator Tooth Magnetic Saturation in	Runar Mellerud,Robert Nilssen,Zi-Qiang Zhu	Norway
ICEM24-000388	Impact of Model Fidelity on Control and Performance Analysis of Interior Permanent Magnet Synchronous Machines	Matteo Pizzuto,Narayan Kar,Aiswarya Balamurali,Hossain Mohammadi	Canada
ICEM24-000334	Research on Harmonic Optimization to Reduce UMP Induced by Rotor Eccentricity in PMSMs	Xinjie Wen,Haiyang Fang,Dawei Li,Ronghai Qu	China
ICEM24-000017	Revised Correction Factors in the Specht's Model for Calculation of the Transformer Inrush Current	Damir Zarko,Zlatko Hanic	Croatia
ICEM24-000310	Moving from a 3D Axial Flux Machine Model to 2D Considering the Impact of End Leakage Flux	Vineetha Puttaraj,Sonja Karin Tidblad Lundmark,Torbjörn Thiringer	Sweden
ICEM24-000468	Investigation of the Effect of Flux Concentration On Flux Switching Machines	Mohammad Afrank,Mohammad Amirkhani,Ehsan Farmahini Farahani,Mojtaba Mirsalim,Nick Baker	United Kingdom
ICEM24-000396	Topology Optimization of Coaxial Magnetic Gear based on Reluctance Network Analysis	Ming YIN,Mohammed NAIDJATE,Nicolas BRACIKOWSKI,Antoine PIERQUIN,Didier Trichet	France
ICEM24-000214	A Synergistic Suppression Method of Noise and Torque Ripple for PM Motor with Axial Heterogeneous Structure	Yu Wang,Haiyang Fang,Zicheng Liu,Wendi Pan,Dawei Li,Ronghai Qu	China
ICEM24-000040	Novel Stator Topology with Adjustable Stator Tooth Tips to Reduce Partial Losses at High Speeds in a PMSM	Maximilian Clauer,David Bauer,Nejila Parspour	Germany
ICEM24-000340	Multi-objective Hierarchical Optimization of Variable Flux Memory Machines with Diverse Operation Conditions	Hao HUA,Haorui Ge,Dalin Li,Wei Hua	China
ICEM24-000030	Permanent Magnet Cogging Motor, from concept to prototype	Tomasz Lerch, Szczepan Milewski, Michał Drewniak, Krzysztof Łukawski, Tomasz Kołacz	Poland
ICEM24-000381	The Evaluation of Optimal Ratio of Outer Diameter to Axial Legth on Torque Density for the External Rotor PMSM	Zicheng Yin,xiaoyan Huang,Ye Ma,Ang Liu,Xuanyuan Huang,Zhuo Chen	China
ICEM24-000171	Robust Design of Six-Phase Segmented Switch Reluctance Motor Considering Punching Effect	Farshid Mahmouditabar,Nick Baker	United Kingdom
ICEM24-000495	Effect of Independent Interior and Exterior Tooth Tips in U-shape Modular Permanent Magnet Machines	Joaquín Andrés Valenzuela Herrera,Julio Patricio,Werner Jara,Carlos Madariaga,Juan Tapia	Chile
ICEM24-000272	3D Numerical Modeling of Displacement due to Magnetostriction in Silicon steel laminated core	Yanhui Gao,Shengze Gao,Hiroki Fujita,Weimin Guan,Kazuhiro Muramatsu	Japan
ICEM24-000122	Analysis of Cogging Torque of a PMSM Drive and its Mitigation via Hybrid Static-Active Filtering & Proportional-Integral Control	Kevin Hui Chun Cheung,Dunant Halim,Giampaolo Buticchi,Adam Rushworth	Hong Kong

ICEM24-000435	Claw pole -single magnet rotor small synchronous actuator motor: optimal design via 3D-MEC with 3D FEM validation	Lucian Tutelea,Tiago Staudt,Ion Boldea	Romania
ICEM24-000403	Influence of Slot-Pole Combination on Electromagnetic Performance and Efficiency of axial flux permanent magnet motor for electric vehicles	chaohui tang,Weiwei Geng,hao chen,Yu Wang,jianfu Zhang,shuai Wang	China

<b>Student forum</b>			
1	AI-Driven Multiphysics Design for Advanced Electrical Machines	Amir Akbari	Canada
2	Design of axial flux superconducting machine for aerospace applications	Muhammad Bin Younas	UK
3	Fault detection in soft-started induction motors analyzing the stray-flux signals	Vicente Biot Monterde	Spain
4	Design and analysis of Brushless Doubly Fed Machines (BDFMs)	Stefan Botha	South Africa
5	Design and Testing Challenges in High-Speed, High-Specific Power Machines	Hüseyin Tayyer Canseven	Finland
6	Iron loss modeling and manufacturing effects	Leonardo Colombo	Sweden
7	Modelling of Magnetic Forces and Vibrations in the Stator of Hydro Generators	Allan de Barros	Germany
8	Magnetic myocytes: liquid metal-cooled, bioinspired linear motors	Taiji Endo	New Zealand
9	Enhancement of Diagnostic Techniques for Industrial Electrical Machines	Georgios Falekas	Greece
10	Multi-physics Analyses of High-Speed Wound-Field Electrical Machines	Alessandro Guiducci	Austria
11	Sensorless Control of Electric Vehicle Traction IPMSM Drives	Andras Holczer	Germany
12	Advancements in Dual Air-gap Bearingless Motors	Sadjad Madanzadeh	Finland
13	Design of Synchronous Reluctance Motor for Additive Manufacturing Technology	Daniele Michieletto	Italy
14	Fault diagnosis of synchronous reluctance motors based on advanced analysis of electrical quantities	Angela Navarro-Navarro	Spain
15	Demagnetization Analysis of Direct Drive Permanent Magnet Generators	Alexandros Sergakis	Greece
16	Topology Optimization of Electrical Machines considering Electromechanical and NVH performances	Alessandro Silvestrini	France
17	Identification and Control for High-performance Synchronous Reluctance Motor Drives	Vasyl Varvolik	Austria
18	Research on Key Issues of Electromagnetic Vibration in PMSMs	Xinjie Wen	China
19	System Analysis of a Braking Energy Recovery Axle of Truck Trailer	Tobias Zeller	Germany

<b>Poster Session 2</b>	<b>Tuesday</b>		<b>Session Chairs:</b>
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### Motor and Generator Windings - Design, Manufacturing, and Maintenance

ICEM24-000466	Two-Rated-Power, Dual-Winding, Three-Phase Induction Motor	Fernando J. T. E. Ferreira	Portugal
ICEM24-000348	Modelling of Insulation in Concentrated Stator Coils for Characterisation and Material Changes	Edward Stone,PANAGIOTIS PANAGIOTOU,Johannes Mühlthaler,Andrew Mills,Alexis Lambourne,Geraint Jewell	United Kingdom
ICEM24-000018	Evaluation of PCB End-Windings for Low-Voltage Stators of High-Speed Electrical Machines	Sridhar Balasubramanian,Hendrik Schefer,Markus Henke,Regine Mallwitz	Germany
ICEM24-000026	Study on a compact high-efficiency integrated motor using laminating coil ends and a quadruple inverter	Koki Takeuchi,Kan Akatsu	Japan

### Advanced Manufacturability of Electrical Machines Enabled by 3D Printing Technology

ICEM24-000173	Additively Manufactured and Topology Optimized Heatsink for a Propulsion Motor	Martin Sarap,Ants Kallaste,Toomas Vaimann,Payam Shams Ghahfarokhi	Estonia
ICEM24-000104	A Review on Properties of 3D Printed Magnetic Cores for Electrical Machines: Additive Manufacturing Methods and Materials	Akbar Mohammadi Ajamloo,Mohamed Ibrahim,Peter Sergeant	Belgium
ICEM24-000184	Investigation on AC Losses in the End Conductors of Additively Manufactured Hairpin Windings	Riccardo Notari,Stefano Nuzzo,Michele Degano,DAVIDE BARATER	Italy
ICEM24-000408	Triply Periodic Minimal Surfaces Structure for Efficient Heat Dissipation in Motor Housings: A Convective Potential Analysis	SHAHEER-UL-HASSAN -,Mazahir Hussain Shah,Pavel Gruber,Miroslav Chomat	Czech Republic

### Electrical Drives

ICEM24-000098	Six-state Angle Control Strategy for Doubly Salient Electromagnetic Generator System Based on Active Rectifier	Yulong Tao,Huizhen Wang,WEIFENG LIU	China
ICEM24-000352	Compensation of Current Measurement Error in PMSM Drives based on Virtual Windings	Pingyue Song,Enlin Ma,Yuankui Wang,Tao Wang,Hao Li,Lijian Wu	China
ICEM24-000292	A Nonlinear Extended State Observer Design for Torsional Vibrations Estimation in PMSM Drive	Matteo Deponti,Dejan Pejovski,Antonino Di Gerlando,Roberto Perini	Italy
ICEM24-000443	Real-Time Rotor Temperature Estimation in Permanent Magnet Synchronous Motor using Incremental Deep Learning	Elham Shafieeroudbari,Lakshmi Varaha Iyer,Narayan Kar	Canada
ICEM24-000095	A Dual SOGI-PLL Based Position Sensorless Control for Doubly Salient Electromagnetic Generator System With Active Rectifier	Weifeng Liu, Yulong Tao, Huizhen Wang, Long Yu, Tao Chen, Xingwei Zhou	China
ICEM24-000561	A Novel Voltage Vector s Subset Based Model Predictive Control for Six Phase PMSM drives	Claudio Nevoloso,Gioacchino Scaglione,Giuseppe Schettino,Antonino Oscar Di Tommaso,Rosario Miceli,Josef Knobloch,Armin Dietz	Italy
ICEM24-000517	An Efficient Open-Loop Approach to Reliable Starting of Synchronous Reluctance Motor Drives	Devjyoti Roy,Kamalesh Hatua	India
ICEM24-000368	Encoderless Field Oriented Control (FOC) with I-F starting for a super-high speed SPMSM (125krpm, 30 kW) compressor drive	Andy-Sorin Isfanuti,Mihaela Codruta Ancuti,Ana-Adela Popa,babak fahimi,Ion Boldea	Romania
ICEM24-000047	Real Time Stator and Magnet Fluxes Estimation Based on Kalman Filters of PMSynRel Motor	Fabien Vidal-Naquet,Ismail ZEIN,Najla Haje Obeid,Ngoc-Tu TRINH	France

### Special machines, linear machines, actuators and sensors

ICEM24-000469	Proposal of a Linear Double-Stack Scattered Permanent Magnet Flux Switching Motor	Ehsan Farmahini Farahani,Nick Baker	United Kingdom
ICEM24-000282	Design and Resonance Analysis of Tubular Structured Dual Stator Linear Oscillating Actuator	Zahoor Ahmad,Ants Kallaste,Toomas Vaimann,MUHAMMAD USMAN SARDAR	Estonia
ICEM24-000487	A Magnetic Constant Torque Mechanism	Gozde Sivka, Jonathan Bird, Dawei Che, Bert Dechant, Colton Bruce	United States
ICEM24-000038	Design and Analysis of a Linear-Rotary Permanent Magnet Motor with Orthogonal Windings	Yunnan Feng, Yanxin Li, Qinfen Lu, Youtong Fang	China
ICEM24-000306	Synchronization Process Analysis of Line Start Permanent Magnet Synchronous Machine	Junli Huang,Shanming Wang,Wenmao Liu	China
ICEM24-000423	Multi-Monopole Surface Permanent Magnet Bearingless Motor with DC Suspension Current	Hiroya Sugimoto,Shoma Kono,Takahiro Noguchi	Japan
ICEM24-000536	Analysis and Enhanced Modeling of Inductive Displacement Sensor in Active Magnetic Bearing	Mohammad Ali Salahmanesh,Hossein Abootorabi Zarchi,Hamidreza Mosaddegh-Hesar,Salman Abdi, Jalebi Gholamreza Arab Markadeh, Ali Akbar	Iran, Islamic Republic Of
ICEM24-000151	Magnetic suspension principle of a bearingless axial flux hysteresis motor	Bo Gao,Yuan Cheng,Haodong Sun,Shumei Cui	China

### Thermal and losses issues- Magnetic and insulation materials

ICEM24-000473	Comparison of carbonised foam to other testing media for insulation verification of hairpin windings	Max Parker,John Wale,Ben Hunt	United Kingdom
ICEM24-000182	Order Reduction of a Frequency Magnetodynamic Problem for the Calculation of Copper Losses	Rémi Jardot,Guillaume Krebs,Anas Lahlou,Francis Roy,Claude Marchand	France
ICEM24-000094	PDIV Modeling for Rectangular Wire Turn-to-Turn Insulation of Inverter-Fed Motors at Different Cruising Altitudes	Hadi Naderiallaf,Christopher Gerada,Michele Degano,David Gerada	United Kingdom
ICEM24-000411	Semi-analytical calculation of AC copper loss in flat wire windings considering PWM harmonics	Longyu Guo,Yang Lu,Jian Li,Rong-Jie Wang	China
ICEM24-000275	Design of Integrated Radiator for Aviation Propulsion Motor Based on Structural Reuse	Zichen Zheng,Xinggong Fan,Dawei Li,Haiyang Fang,Ronghai Qu,Lihao Huang	China
ICEM24-000511	Impacts of Stator Current Angle and Rotor Current on Solid Losses of Hairpin Windings in Traction Electrically Excited Synchronous Machines	Ruonan Liu,Junfei Tang,Luca Boscaglia,Bowen Jiang,Nimananda Sharma,Yujing Liu	Sweden
ICEM24-000106	Core Loss Model for Non-sinusoidal Excitaitaions Based on Vector Magnetic Circuit Theory	Chengbo Li,Wei Qin,Zheng Wang,Xiang Ma,Wei Wang,Ming Cheng	China
ICEM24-000410	Comparison of Interior Permanent Magnet Machine Designs Aimed for City and Highway Driving - Consequences on Loss and Torque Performance from Degradation Due to Laser Cutting	Sima Soltanipour,Elisabet Jansson,Torbjörn Thiringer,Joachim Lindström	Sweden

ICEM24-000075	Thermal Model Calibration of a Squirrel-Cage Induction Machine	Leon Blumrich, Christian Bergfried, Armin Galetzka, Herbert De Gersem, Roland Seebacher, Annette Mütze, Yvonne Späck-Leigsnering	Germany
ICEM24-000165	Generalized lumped thermal circuit for Synchronous Rotating Machines – The constellation method	Alejandro L. Rodríguez González, Blandine Pollet, Anthony Carpentier, James E. Bruns	France
ICEM24-000400	Influence of Flux Screen and Clamping Materials on Eddy Current Losses in End Region of High-Power Electrical Machines	Walid Mohamed Amine MOHAND OUSSAID, Abdelmounaim Tounzi, Raphael ROMARY, Abdelkader Benabou, Walid BOUGHANMI, Daniel LALOY	France
ICEM24-000028	A Comparative Study of AC Winding Loss Calculation for Axial Flux Permanent Magnet Machines based on Finite Element Analysis	DAEYONG UM, Rajesh Kumar, Tushar Batra, Lars Sjöberg, Glynn Atkinson	United Kingdom
ICEM24-000414	Empirical Study on Heat Transfer Coefficients in Lumped-Parameter-Thermal-Network of Direct-oil Cooled Permanent Magnet Synchronous Motor	Jun-Woo Chin, Seojun Park, Jaeyeob Hwang, Deok-Jin Kim, Ho-Chang Jung	Korea, Republic of

#### Electrical machines and drives for renewable energy generation

ICEM24-000482	Performance Comparison of Static Eccentricity between Squirrel-Cage Induction and Wound-Field Flux Switching Machines	Ogbonnaya Okoro, Chiweta Abunike, Udochukwu Akuru, Uchechi Innocent, Ekom Okpo, Imo Nkan	Nigeria
ICEM24-000488	Analyzing the Performance of Radial-Flux Permanent Magnet Synchronous Generators with different types of Windings for Applications in Wind Turbines	Reynaldo Iracheta Cortez, Ernesto Vásquez, Wilder Durante	Mexico

#### Diagnostics and condition monitoring

ICEM24-000279	Characterization of High-Frequency Impedance Parameters-Based Models in Motor Drive System for Transient Overvoltage Estimation	MUHAMMAD USMAN SARDAR, Toomas Vaimann, Lauri Kütt, Bilal Asad, Ants Kallaste, Karolina Kudelina	Estonia
ICEM24-000060	Experimental Verification of an Intermittent Stator Ground Protection in Large MVA Generators	Nader Safari-Shad, Adama Sawadogo, Robert Fecht, Russ Franklin	United States
ICEM24-000467	Improved Estimation of Stator Resistance and Rotor Flux Linkage in Isotropic PMSMs Based on the Method of the Auxiliary Operating Condition	Elià Brescia, Luigi Pio Savastio, Mauro Di Nardo, Francesco De Musso, Giovanni Conte, Andrea Polichetti	Italy
ICEM24-000125	Influence of Moisture on the Frequency Response Analysis of Poles of Synchronous Machines	Kumar Mahtani, Juan de la Morena Marigorta, Jose Manuel Guerrero Granados, Carlos A. Platero	Spain
ICEM24-000357	Isolation of Induction Motor Rotor Fault Signatures by Stray Magnetic Flux and Torque Monitoring	Zihao Song, PANAGIOTIS PANAGIOTOU, Jonathan Mayo-Maldonado, Ioannis Arvanitakis, Jose Antonino Daviu, Konstantinos Gyftakis	United Kingdom
ICEM24-000294	Advanced Analysis of Armature Currents Signals for Sparking Detection in DC Motors and Generators	Jorge Enrique Salas-Robles, Vicente Biot-Monterde, Jose Antonino Daviu	Spain
ICEM24-000268	Reliable Detection of Non-Adjacent Broken Rotor Bars via the Analysis of the Zero-Sequence Flux	Marios Salinas, Nikolaos Trachalakis, PANAGIOTIS PANAGIOTOU, Konstantinos Gyftakis	Greece
ICEM24-000497	Online Identification of Inductance and Flux Linkage for SPMSMs Decoupled from Resistance Voltage Drop and VSI Nonlinearity	Ang Liu, Xiaoyan Huang, Zhuo Chen, Huanran Wang, Li Zhaokai	China
ICEM24-000370	Data-driven Inter Turn Short circuit Fault Detection of a Segmented SRM based on Multi-Path Convolutional Neural Network and fCWT	Arta Mohammad-Alikhani, Farshid Mahmouditabar, Nick Baker, Babak Nahid-Mobarakeh	United Kingdom
ICEM24-000471	Detection of Stator Asymmetries in Synchronous Reluctance Motors through the Analysis of the Stator Current	Angela Navarro, Vicente Biot-Monterde, Jose E. Ruiz-Sarrio, Jose Antonino Daviu	Spain
ICEM24-000317	Rotor Faults Condition Monitoring in Direct on Line Start Permanent Magnet Motors	Natalia Fatsea, TOMAS GARCIA-CALVA, Daniel Morinigo-Sotelo, Konstantinos Gyftakis	Greece
ICEM24-000067	Training Scheme for Convolutional Neural Network based Multiple Fault Classifier of Permanent Magnet Synchronous Motors under Variable Speed and Load Conditions	du nguyen, Khang Huynh, Kjell Gunnar Robbersmyr	Norway
ICEM24-000185	Fault Detection of Permanent Magnet Synchronous Motors employing DQ Current Features and Isolation Forest	Konstantinos Koutrakos, Epameinondas Mitronikas	Greece
ICEM24-000065	MWFA Model Based Synthetic Data Creation and Utilization for the Training of XGBoost Based Fault Diagnostic Algorithm of a Squirrel Cage Induction Motor	Bilal Asad, Toomas Vaimann, Ants Kallaste, Hadi Raja, Usman Naseer, Muhammad Amir	Estonia
ICEM24-000087	The Usage of Fuzzy Logic for Detecting Mechanical Faults in Gearboxes of Robotic System	Karolina Kudelina, Toomas Vaimann, Anton Rassõlkin, Siarhei Autsou	Estonia
ICEM24-000257	ROBUST SLOT HARMONIC EXTRACTION IN VARYING SPEED OPERATIONS	Dehong Liu, Shinya Tsuruta	United States
ICEM24-000291	Impact of the control strategy of a multiphase non-sinusoidal PMSM with phase-shifted stars on non-intrusive fault indicators	Anthony El Hajj, Eric Semail, Abdelmounaim Tounzi, Jalal Cheaytani	France

#### Electrical machines and drives for sustainable transportation

ICEM24-000166	Optimal Active Short-Circuit Operation of Permanent Magnet Synchronous Machines and Drives for Aerospace Applications	Wei Wang, Jonas Kristiansen Nøland, Pål Keim Olsen, Sondre Westby Johannessen	Norway
ICEM24-000500	Torque and Current Ripple Analysis in Integrated DC-DC Boost Chargers Based on SynRMs and WR-SMs	Gabriele Rizzoli, Luca Vancini, Michele Mengoni, Giacomo Sala, Luca Zarri, Angelo Tani	Italy
ICEM24-000189	Flux switching gerotor pump	Jean-Daniel Alzingre, Christophe Espanet	France
ICEM24-000479	Control Techniques for Dual-Three-Phase SPM Drives Including Voltage Limitation Strategies	Gabriele Antonino Cagliari, Giacomo Sala, ANTONIO FEMIA, Luca Vancini, Gabriele Rizzoli, Michele Mengoni, Luca Zarri, Angelo Tani	Italy
ICEM24-000221	Influence of Current Harmonics on Electromagnetic force and Vibration Noise of Electrical Machines	Haitao Liu, Yue Liu, Yongjiang Liu, Yu Qi, Bin Liu, Hui Wu, Ruirun Luo	United Kingdom
ICEM24-000126	Design of high-speed linear induction motors -- Part I: electromagnetic modelling	Jaime Renedo Anglada, Suleiman Sharkh, Dario Bueno-Baques, Denis Tudor	United States

ICEM24-000127	Design of high-speed linear induction motors -- Part II: end effect reduction	Jaime Renedo Anglada,Suleiman Sharkh,Dario Bueno-Baques,Denis Tudor	United States
ICEM24-000141	A High-Accuracy Torque Estimation Method of IPMSM Based on Search Coils	Kai Yao,Yuan Cheng,Bochao Du,Bo Gao,Qianfan Zhang,Shumei Cui	China
ICEM24-000441	A Novel Segmented-Rotor Hybrid-Excited Synchronous Motor for Electric Vehicle Application	Shovan Dey,Baylon Fernandes	India
ICEM24-000324	Analytical Model of a High Frequency Rotary Transformer in Non-Resonant Topologies	Francesco Tripaldi,Manuele Bertoluzzo,Nicola Bianchi	Italy
ICEM24-000389	Electric Energy Consumption Improvement of Dual-Fluid Power Control System based on Operating Line Shift Strategy for Heavy Duty EV	Seojun Park,Jongin Lee,Deokjin Kim,Ho-Chang Jung,Jun-Woo Chin	Korea, Republic of
ICEM24-000526	An Innovative Electric Motor Topology Developed for 2- and 3-Wheelers	Shafiqh Nategh,Philippe Farah,Stefano Nuzzo	Sweden
ICEM24-000325	A Novel PMSM Rotor Speed and Angle estimation based on a multifunctional sensor	Marjan Faghih,Ludwig Brabetz,Mohamed Ayeb	Germany
ICEM24-000392	Finite Element Analysis of an IPM Machine for Charging Operations in Electric Vehicles	Rishabh Raj,Deepak Singh,Shayan Halder,Michela Diana,Sai Ram Bogavarappu,Yves Thiolere	Sweden
ICEM24-000508	Drive Cycle Comparison of a PMSM and an EESM for a Traction Application Utilizing Modular Stator Manufacturing	Alexandra Tokat,Duc-Khanh Nguyen	Sweden
ICEM24-000418	Study of a dual stator PM Vernier machine with concentrated windings and low torque ripples	Walid GUENDOOUZ,Abdelmounaim Tounzi,Toufik REKIOUA	France
ICEM24-000161	A Novel Torque-Coupled Axial-Flux Permanent Magnet Motor with Magnetic Coupler for Flux Weakening	Zhongxin Wan,Yulong Pei,Feng Chai	China
ICEM24-000531	Study on the Feasibility of Double Cage Induction Motors for Electromobility Applications	Felipe Santacruz,César Gallardo,Carlos Madariaga,Juan Tapia,Harold Díaz	Chile
ICEM24-000091	Influence of High-Frequency Operation on the Efficiency of a PMSM Drive	Paisak POOLPHAKA,Sisuda Chaithongsuk,EHSAN JAMSHIDPOUR,Thierry LUBIN,Lotfi Baghli,Noureddine TAKORABET	France

**Rotating machines**

ICEM24-000546	Suppression of Vibration in PMSM Caused by Time-Varying Load for Reciprocating Compressor	Soo-Hwan Park,Jae-Hyun Kim,Chi-Sung Park,Yun-Jae Won,Myung-Seop Lim	Korea, Republic of
ICEM24-000393	Multi-Physics Design and Analysis of Axial Flux Permanent Magnet Motors for In-wheel Direct-drive	Shuiquan Qiu,Yang Lu,Jian Li	China
ICEM24-000489	Comparison of Unbalance Control for High-speed Active Magnetic Bearing System	Haodong Li,Jian Li,Hongwei Xu,Yang Lu	China
ICEM24-000385	A Modified Standstill Method Based on DC Step Voltage Test for Doubly-Fed Induction Generator- Motor Parameters Identification	Xianzhuo Zhang,Jin Wang,Lin Luo,Jianjun Liu,Libing Zhou	China
ICEM24-000390	Design Optimization of Ferrite-Assisted Synchronous Reluctance Motor with Fluid Flux Barriers and Rectangular Magnets	Vishal M. J.,Baylon Fernandes	India
ICEM24-000056	Workstation of Synchronous Machines and Integrated Modern Technologies for Teaching in Electric Engineering Laboratories	Andres Julian Saavedra-Montes,Carlos Andres Ramos-Paja,Gabriel Jaime Sanchez-Zuluaga	Colombia
ICEM24-000177	Rotor Eccentricity Effect on the Noise of External-rotor PMSM Considering Doppler Effect	Jinwen Du,Rui Zhong,Zhongze Wu,Wei Hua,Zheng Wu,Chao Zhang	China
ICEM24-000077	Design, Construction and Test of a Magnetically Geared Induction Machine	Badr Bidouche,Thierry LUBIN,Smail Mezani,Franck Vangraefschèpe,Tahar Hamiti	France