

ICEM'2018 (September 3-6, Alexandroupoli)

Updated July 26

Monday September 3	08:00	17:00			
	10:00	12:30	Registration		
	12:30	13:30	Free time for lunch		
	13:30	16:00		Tutorial	Tutorial
	16:00	16:30	Coffee Break (Exhibition & Poster Area)		
	16:30	19:00		Tutorial	Tutorial
	19:30	20:30	Welcome Reception		

Tuesday September 4	08:00	17:00	Registration				
	09:00	09:30	Opening Ceremony				
	09:30	11:00	Plenary Session I - Plenary Session II				
	11:00	11:30	Coffee Break				
	11:30	12:30	Poster Session I				
	12:30	14:00	Lunch				
	14:00	16:00	SS Non-conventional synchronous machines - 1 (Room D)	TT4 Electrical machine losses (Room E)	TT5 - Control of IPM Synchronous Machines (Room C)	TT1 Induction motors (Room B)	TT2 - Design and models of special machines (Room A)
			AF-007005, Synchronous Reluctance Motor with Dual Three-Phase Winding for Fault-Tolerant Applications, Cristian Babetto, Nicola Bianchi, Italy	AF-001201, Iron Loss Evaluation of an Ultrathin Electrical Steel Sheet for a High-speed Motor Stator Core under PWM Excitation, Mohachiro Oka, Masato Enokizono, Daisuke Wakabayashi, Japan	AF-000264, Comparison of IPM, VPM, SMPM and PM-Assisted SRM Generator used as a WEC generator, Pinar Tokat, Torbjorn Thiringer, Sweden	AF-001538, Efficient Numerical Optimization of Induction Machines by Scaled FE Simulations, Martin Nell, Jonas Lenz, Kay Hameyer, Germany	AF-000515, Improved Transverse Flux Directly - Driven Wind PM Generator: Optimal Design with Key FEM Validation, Ovidiu Flaviu Andonie, Lucian Nicolae Tutelea, Ana Popa Moldovan, Ion Boldea, Romania
			AF-006408, Design of a Synchronous Reluctance Machine for a Flywheel-Based Energy Storage System, L. Castellini, M. D'Andrea, G. Fabri, D. Macera, M. Villani , Italy	AF-003638, IM Loss Evaluation using FEA and Measurements, Pia Lindh, Lassi Aarniovuori, Hannu Kärkkäinen, Markku Niemelä, Juha Pyrhönen, Finland	AF-001732, Performance Prediction of a Dual Inverter Open Winding IPMSM Drive Considering Machine's Saturation and Losses, Gayan Watthewaduge, Mohammad Sedigh Toulabi, Shaahin Filizadeh, Canada	AF-004243, A Fast and Direct Analysis of Three-Phase Induction Motors Using Finite Element, Matteo Carbonieri, Nicola Bianchi, Luigi Alberti, Italy	AF-006718, A Light-Weight Rotor Design for Brushless Doubly Fed Machines Salman Abdi, Ehsan Abdi, Richard McMahon, UK
			AF-005401, Large wind turbine generators: State-of-the-art review, Amina Bensalah, Mohammed Ali Benhamida, Georges Barakat, Yacine Amara, France	AF-001643, A Proposed Method of AC Copper Loss Reduction in Axial Flux Machine with Soft Magnetic Composite Core, Nasiru Aliyu, Glynn Atkinson, Nick Stannard, UK	AF-006491, Flux-Weakening Control for IPMSM Employing Model Order Reduction Mehrnaz Farzam Far, Bilal Mustafa, Florian Martin, Paavo Rasilo, Anouar Belahcen, Finland	AF-003964, Analytical Method to Consider the Slot Opening Effects in Nonlinear Magnetic Equivalent Circuits of Induction Machines, Jannik Rituper, Christian Alteheld, Jan Güdelhöfer, Raimund Gottkehaskamp, Germany	AF-004324, A Review on Magnetic Gears: Topologies, Computational Models and Design Aspects Yawei Wang, Mattia Filippini, Nicola Bianchi, Piergiorgio Alotto, Italy
			AF-008044, Comparison of Permanent Magnet Motor Configurations for Electric Vehicle Applications, Ioannis Kakoudakis, Eleftherios Karamanis, Ioannis Kikidis, Antonios Kladas, Greece	AF-004197, Rotor Iron Losses in High-Speed Synchronous Reluctance Motors, Emanuel Castagnaro, Giacomo Bacco, Nicola Bianchi, Italy	AF-006513, Minimization of torque ripple in an Inset type Magnet Reluctance Motor with square wave current Yuki Ito, Kan Akatsu, Japan	AF-002771, Characterization of a High Speed 24 kW Class Squirrel-cage Induction Motor for Electric Vehicles, Miwa Tobita, Kenichi Ikeda, Shingo Ito, Taketune Nakamura, Gyoo Ma, Japan	AF-002046, Magnetic Equivalent Circuit Model of a Permanent Magnet Electrical Variable Transmission, Florian Verbelen, Joachim Druant, Adriaan De Kock, Kurt Stockman, Peter Sergeant, Belgium
			AF-001686, Electromagnetic Performance Comparison between 12-Phase Switched Flux and Surface-Mounted PM Machines for Direct-Drive Wind Power Generation, Lingyun Shao, Wei Hua, Juliette Soulard, Z. Q. Zhu, Zhongze Wu, Ming Cheng, China	AF-001279, Loss Model for The Effects of Steel Cutting in Electrical Machines, Ravi Sundaria, Devi Geetha Nair, Antti Lehtikoinen, Antero Arkkio, Anouar Belahcen, Finland	AF-008214, A Novel Newton-Raphson-Based Searching Method for the MTPA Control of PMSynRM Considering Magnetic and Cross Saturation, Shuo Wang, Jinsang Kang, Michele Degano, Alessandro Galassini, Chris Gerada, UK	AF-005355, Effect of Rotor Bar Number on Performance of Five-Phase Induction Machine for Traction, Abdelhak Mekahlia, Eric Semail, Franck Scullier, Tahar Hamiti, Raouf Benlamine, France	AF-000841, Force and Vibration Analysis of Magnetic Gears Charles Agenbach, Daniel Els, Rong-Jie Wang, Stiaan Gerber, South Africa
			AF-001627, Comparative Analysis of High Torque Density PM Machines Kangfu Xie, Dawei Li, Ronghai Qu, Yuan Pan, China	AF-003093, Engineering Approach to Calculate the Additional Losses in Inverter Fed RSM and SPMSM, Richard Steckel, Johannes Germishuizen, Andreas Kremser, Germany	AF-000175, Power Perturbation based Virtual Signal Injection Control of MTPA for IPMSM Drive System, Jun Wang, Xiaoyan Huang, Youtong Fang, Feng Niu, Lijian Wu, China	AF-004332, Mid-Complexity circuital model of Induction motor with rotor cage: A numerical resolution, Alessandro Marfoi, Paolo Bolognesi, Luca Papini, Chris Gerada, UK	AF-002739, Design and Analysis of a Magnetically Geared Induction Machine, Badr-El-Boudour Bidouche, Thierry Lubin, Smail Mezani, France
	16:00	16:30	Coffee Break				
16:30	18:30	SS Thermal management of non-conventional Electrical machines (Room E)	TT6 - Fault detection in induction machines (Room D)	TT5 - Sensorless control and parameter identification of electric drives (Room C)	TT1 Permanent magnet machines 1 (Room B)	TT2 - Electric machines for traction and propulsion applications (Room A)	
		AF-002844, Thermal Management of a racing E-Machine, Giuseppe Volpe, Yew Chuan Chong, David Alan Staton, Mircea Popescu, UK	AF-003867, Micro Zero Padding for the Reduction of Spectral Leakage in the Diagnosis of Rotor Asymmetries Faults in Large Induction Machines, Ruben Puche-Panadero, Jordi Burriel-Valencia, Javier Martínez-Roman, Angel Sapena-Bano, Manuel Pineda-Sanchez, Juan Perez-Cruz, Martin Riera-Guasp, Spain	AF-000213, Position Sensorless Control of Synchronous Reluctance Machines based on Magnetic Saturation depending on Current Phase Angles Tetsuya Kojima, Toshiaki Suzuki, Moriyuki Hazeyama, Shinsuke Kayano, Japan	AF-001139, On the effects of advanced end-winding cooling on the design and performance of electrical machines, Vincenzo Madonna, Paolo Giangrande, Adam Walker, Michael Galea, UK	AF-005983, Output Maximization of Claw-Pole Alternators for Automobile Applications by Analyzing 3D Flux Paths in Rotors, Katsumi Yamazaki, Yuki Shibamoto, Motoharu Nuka, Makoto Masegi, Japan	

AF-006602, Application of Conjugate Heat Transfer Simulations for the Development of Ventilation and Cooling Systems for Large Hydro Generators, Axel Walter-Krause, Germany	AF-002615, FEM Study of Induction Machines Suffering from Rotor Electrical Faults Using Stray Flux Signature Analysis, Panagiotis A. Panagiotou, Ioannis Arvanitakis, Neophytos Lophitis, Konstantinos N. Gyftakis, Greece	AF-004707, Off-Line Auto-Tuning of a Microcontroller-Based PMSM Servo Drive, Meltem Tetik, Yusuf Ulu, Onur Gurleyen, Turkey	AF-000159, Permanent Magnet Vernier Machines: A Review Fan Wu, Ayman EL-Refaie, USA	AF-003042, Design of a Double-Stage Magnetic Gear for High-Speed Electric Propulsion Systems, Andrea Floris, Alessandro Serpi, Mario Porru, Giuseppe Fois, Alfonso Damiano, Italy
AF-000957, Ventilation - Thermal Calculation of the 40 MW Synchronous Machine, J. Franc, R. Pechanek, Czech Republic	AF-003212, Detection of Bar Breakages in Induction Motor via Spectral Subtraction of Stray Flux Signals, Miguel Enrique Iglesias-Martínez, Pedro Fernández de Córdoba, Jose A. Antonino-Daviu, J. Alberto . Conejero, Cuba	AF-004723, Robust Position Sensorless Control against Inductance Variations of Synchronous Reluctance Motors in Low-Speed Region Using High-frequency Current Control, Takato Hatanaka, Toshiya Mabuchi, Mutuwo Tomita, Masaru Hasegawa, Shinji Doki, Shinji Kato, Japan	AF-001619, Thermal Overload Capability of Permanent Magnet Synchronous Motors Employing Scaling Laws, Florian Pauli, Andreas Ruf, Kay Hameyer, Germany	AF-006726, Eddy Current Losses in a Hairpin Winding for an Automotive Application Christian Du-Bar, Oskar Wallmark, Sweden
AF-003611, Coupled 3-D thermal and electromagnetic modelling of a liquid-cooled transverse flux traction motor, Sonja Tidblad Lundmark, Alessandro Acquaviva, Anders Bergqvist, Sweden	AF-005746, Using the Goertzel Algorithm over Disjoint Narrow Frequency Bands for Fault Diagnosis of Induction Motors, Angel Sapena-Bano, Zeljko Kanovic, Jordi Burriel-Valencia, Javier Martinez-Roman, Juan Perez-Cruz, Ruben Puche-Panadero, Martin Riera-Guasp, Manuel Pineda-Sanchez, Spain	AF-005916, Improved Current Control Structure for the Brushless Doubly-Fed Machine Based on a New Equivalent Circuit Model, Philipp Löhdefink, Armin Dietz, Andreas Möckel, Germany	AF-004715, Investigation of AC Copper and Iron Losses in High-Speed High-Power Density PMSM, Ahmed Al-Timimy, Paolo Giangrande, Michele Degano, Michael Galea, Chris Gerada, UK	AF-000698, Evaluation of Energy Cost Index for an Electric Vehicle Motor over a particular Drive Cycle with Recycled Magnet Concept, Pranshu Upadhayay, Adolfo G. Garcia, Zwei Li, Amit K. Jha, Peter O. Rasmussen, Afef Kedous-Lebouc, Jean-Claude Mipo, France
AF-008273, Coupled Electromagnetic and Thermal Design-Optimisation of a Traction IPM Machine with High-Torque Overload Capability, Haipeng Liu, Rafal Wrobel, Sabrina Ayat, Chengning Zhang, UK	AF-006254, Broken Rotor Bar Fault Diagnosis in Induction Motors Using a Goertzel Algorithm Dionysios Spyropoulos, Epaminondas Mitronikas, Evangelos Dermatas, Greece	AF-006262, Analytical Model Including Rotor Eccentricity for Bearingless Synchronous Reluctance Motors, Seppo E. Saarakkala, Victor Mukherjee, Maksim Sokolov, Marko Hinkkanen, Anouar Belahcen, Finland	AF-003859, Performance Analysis of Direct-Drive PM Synchronous Wind Generator for Maximum Power Point Direct Battery Charging, Casper J. J. Labuschage, Maarten J. Kamper, South Africa	AF-005789, Comparison of PM and Hybrid Excited Machines for Marine Vessel Hybrid-Electric Propulsion, Mehdi Hendijanizadeh, Suleiman M. Sharkh, A. Ali Qazalbash, UK
AF-002496, Thermal Modeling of Slotless PM Motor for Industrial Hand Tools Jonas Millinger, Oskar Wallmark, Juliette Soulard, Sweden	AF-002364, Embedded System to Detect Bearing Faults in Line-Connected Induction Motors, Wylliam Gongora, Alessandro Goedel, Marcelo Castoldi, Clayton Graciola, Sergio Oliveira da Silva, Ivan Nunes da Silva, Brazil	AF-000523, Neutral Point Voltage Model of Stator Windings of Permanent Magnet Synchronous Motors with Magnetic Asymmetry, Takafumi Hara, Shigehisa Aoyagi, Toshiyuki Ajima, Yoshitaka Iwaji, Ryoichi Takahata, Yoshitaka Sugiyama, Japan	AF-000019, Electromagnetic Design of an Interior Permanent Magnet Motor for Vehicle Traction, Francesco Papini, Mohamed Osama, Italy	AF-006564, A Practical BLDC Motor Design Procedure for Diver Propulsion Vehicle Applications, Yannis Karnavas, Ioannis Chasiotis, Demetrios Stravoullellis, Greece

Wednesday September 5	08:00	12:00	Registration					
	09:00	10:00	Poster Session II					
	10:00	10:30	Coffee Break					
	10:30	12:30	SS Electrical machines for extreme environments (Room E)	SS Non-conventional synchronous machines -2 (Room D)	TT5 - Generators for renewable energies and energy harvesting (Room C)	TT1 Synchronous reluctance machines (Room B)	TT2 - Finite element method and design tools (Room A)	
			AF-000604, Thermal Modelling of Totally Enclosed Fan Cooled Motors, Kristian Ronnberg, Minos Beniakar, Sweden	AF-001988, Line-Start Permanent Magnet Motors with Variable Coil Turns Mengxuan Lin, Dawei Li, Yu Zhao, Xiang Ren, Ronghai Qu, China	AF-002593, DC Current and Torque Ripple Mitigation in Modular PMSG Drives for Multi-MW WECSs with Linear PWM Inverter Modulation, Khaled El Shawarby, Antonino Di Gerlando, Roberto Perini, Giovanni Maria Foglia, Matteo Felice Iacchetti, Italy	AF-001651, Operation Strategy and Efficiency Map Calculation of a Synchronous Reluctance Motor, Sascha Neusüs, Andreas Binder, Germany	AF-006238, Stepped versus fixed rotor position FEA solutions for 2D flux linkage maps in machine design, Johannes Germishuizen, Ronald Tanner, Germany	
			AF-001872, Review and Trends in Traction Motor Design: Primary and Secondary Insulation Systems, Shafiqh Nategh, Daniel Barber, David Lindberg, Aldo Boglietti, Ola Aglen, Sweden	AF-004863, Reduction of Torque Ripple in Synchronous Reluctance Machines through Flux Barrier Shift, Simone Ferrari, Gianmario Pellegrino, Matteo Davoli, Claudio Bianchini, Italy	AF-000361, Control of a Small-Scale Variable Speed Wind Turbine Using Assisted Reluctance Synchronous Technology, Christoff D Botha, Maarten J Kamper, South Africa	AF-007714, Design Aspects of Direct-On-Line Synchronous Reluctance Motors Valerii Abramenko, Ilya Petrov, Juha Pyrhönen, Lassi Aarnivuori, Finland	AF-000167, A High-Performance Open-Source Finite Element Analysis Library for Magnetics in MATLAB, Antti Lehtikainen, Timo Davidsson, Antero Arkkio, Anouar Belahcen, Finland	
			AF-004499, Thermal Performance of Induction Motors for Washdown Environment, Eric Armando, Aldo Boglietti, Enrico Carpaneto, Alessandro Castagnini, Marco Seita, Italy	AF-001171, High-Efficiency Line-Start Synchronous Reluctance Motor for Fan and Pump Applications, Marco Villani, Marco Santececca, Francesco Parasiliti, Italy	AF-004227, Generator Speed Control and Experimental Verification of Tidal Undersea Kite Systems, Georgios Mademlis, Yujing Liu, Peiyuan Chen, Eric Singhroy, Sweden	AF-002127, A parallel analytical computation of synchronous reluctance machine, Carlos Lopez-Torres, Giacomo Bacco, Nicola Bianchi, Antonio Garcia Espinosa, Luis Romeral, Italy	AF-000434, A Non-Conformal Mapping to avoid Mesh Deformation or Remeshing in 2D FEM-Simulation of Electrical Machines with Rotor Eccentricity, Felix Boy, Hartmut Hetzler, Germany	
			AF-004111, Comparing Different Materials for Rotor-Can in Flooded Generators, Faisal Wani, Jianning Dong, Avinash Yadav, Henk Polinder, Netherlands	AF-008184, Magnetization regulation in variable flux PM-assisted Synchronous Reluctance Machines, Iakovos Manolas, Antonios Kladas, Dmitry Svechkarenko, Robert Chin, Sweden	AF-006769, Torque and Current Ripple Reduction in PM Generator based Multi Modular – Multi MW WECSs with Extended PWM Inverter Modulation, Antonino Di Gerlando, Khaled El Shawarby, Giovanni Maria Foglia, Roberto Perini, Italy	AF-005835, Design Methodology for Series of IE4/IE5 Synchronous Reluctance Motors Based on Radial Scaling, Stjepan Stipetic, Damir Zarko, Niksa Cavar, Croatia	AF-006386, Pylecan: an open-source Python object-oriented software for the multiphysics design optimization of electrical machines, Pierre Bonneel, Jean Le Besnerais, Emile Devillers, Raphaël Pile, France	
			AF-003301, Core Loss Reduction for High-Speed Motor, Masato Enokizono, Daisuke Wakabayashi, Yuji Tsuchida, Shohei Ueno, Naoya Soda, Japan	AF-008079, Double Rotor Synchronous Reluctance Machine: Analysis towards Torque Capability Improvement Mahir Al-ani, Hanafy Mahmoud, Michele Degano, Chris Gerada, UK	AF-008141, Resonance Tuning in Linear Alternator Drives via Direct-Current Amplitude Modulation, Matteo F. Iacchetti, Min Zhang, Roger Shuttleworth, UK	AF-000981, Rotor Design of a Line-Start Synchronous Reluctance Machine with Respect to Induction Machine for Industrial Application, Anton Kersten, Yujing Liu, Daniel Pehrman, Sweden	AF-003182, 3D Electromagnetic and Thermal Analysis for an Optimized Wound Rotor Synchronous Machine, Huong Thao Le Luong, Frédéric Messine, Carole Hénaux, Guilherme Bueno Mariani, Nicolas Voyer, Stefan Mollov, France	
			AF-007358, Comprehensive Investigation of Harmonic Signatures Resulting from Inter-Turn Short-Circuit Faults in DTC Driven IM Operating in Harsh Environments, Osama Mohammed, Hassan Eldeeb, Alberto Berzoy, USA	AF-007226, A Review of the Volumetric Torque Density of Rotary Magnetic Gear Designs, Kang Li, Jonathan Bird, USA	AF-004219, Comparative Study of the Torque Ripple and Iron Losses of a Permanent Magnet Synchronous Generator Driven by Multilevel Converters, Georgios Mademlis, Yujing Liu, Jian Zhao, Sweden	AF-001414, Transient Model of Direct On Line Induction and Synchronous Reluctance Motors with Inter-bar Currents, Jan Guedelhoefer, Raimund Gottkeschamp, Andreas Möckel, Germany	AF-006599, A comparative investigation of iron loss models for electrical machine design using FEA and experimental validation, Thiago Akinaga, Tiago Staudt, Wagner Hoffmann, Claudio Soares, Aleandro Espindola, João Bastos, Brazil	
		12:30	Lunch					
		14:00	Poster Session II					
		15:00	Coffee Break					
		15:30	17:30	SS Electrical machines fault diagnosis during transient operation (Room E)	TT4 Electrical machine efficiency (Room D)	TT5 - Induction motor drives (Room B)	TT1 Permanent magnet machines 2 (Room A)	SS Non-conventional synchronous machines - 3 (Room C)
				AF-001708, Detection of Induction Motor Coupling Unbalance and Misalignment via Advanced Transient Current Signature Analysis, Jose Antonino-Daviu, Peter Popaleny, Spain	AF-005681, In-situ measurement of iron loss distribution in the stator core of electric machines, Stefan Lahres, Germany	AF-001104, Space Vector Control of Asymmetrical Single-Phase Induction Motors, Jose Aller, Julio Viola, Jose Restrepo, Marco Fajardo, Antonio Ginart, Johnny Rengifo, Juan Loja, Juan Ochoa, Ecuador	AF-000035, On the design of a PMSM rotor with ferrite magnets to substitute a rare earth permanent magnet system, Aryanti Kusuma Putri, Martin Nell, Marco Hombitzer, David Franck, Kay Hameyer, Germany	AF-005371, Fault Tolerant Performances of a Double Star Permanent Magnet Synchronous Machine under an IGBT Short-Circuit Fault, Abed Al Kader Al Asmar, Ferhat Chabour, Georges Barakat, Yacine Amara, Finland

AF-002488, In-Depth Analytical Investigation of Induction Motor Short-Circuit Currents, Ralph M. Burkart, Ioannis P. Tsoumas, Switzerland	AF-002852, Loss Components and Performance of Modern Induction Motors, Lassi Aarniovuori, Markku Niemelä, Juha Pyrhönen, Wenping Cao, Emmanuel Agamloh, UK	AF-008222, Online-Identification of the Induction Machine Parameters Using the Extended Kalman Filter, Oleg Buchholz, Germany	AF-000868, Outer-Ferrite-PM-rotor BLAC motor characterization: FEM assisted optimal design, Andy-Sorin Isfanuti, Lucian Nicolae Tutelea, Ion Boldea, Tiago Staudt, Pyter Ely da Silva, Romania	AF-002208, 1.2 MW, 2-6Krpm BLDC-MRM traction drive: preliminary design with key FEM inquiries, Lucian Nicolae Tutelea, Ileana Torac, Gaspare Giovinco, Fabrizio Marignetti, Ion Boldea, Romania
AF-002704, Broken Rotor Bar Fault Diagnostic of Inverter Fed Induction Motor Using FFT, Hilbert and Park's Vector Approach, Bilal Asad, Toomas Vaimann, Anouar Belahcen, Ants Kallaste, Estonia	AF-006483, Experimental Comparison between Induction and Synchronous Reluctance Motor-Drives, Marco Villani, Marco Tursini, Mircea Popescu, Giuseppe Fabri, Andrea Credo, Lino Di Leonardo, Italy	AF-008354, Control of a Direct-Drive Five-Phase Wound-Rotor Induction Machine for Rotary Platforms in Automation Applications, Gabriele Rizzoli, Michele Mengoni, Angelo Tani, Giovanni Serra, Luca Zarrì, Domenico Casadei, Italy	AF-003387, Electromagnetic, Structural and Thermal Analyses of High-Speed PM Machines for Aircraft Application, Raouf Benlamine, Tahar Hamiti, Franck Vangraefschèpe, Dominique Lhotellier, France	AF-006521, IPM Spoke Motor Performance Improvement Using a Normal Saliency Rotor Design, Michele Fontana, Nicola Bianchi, Italy
AF-004898, Multi-Physical Signature Analysis of Induction Machines under Unbalanced Supply Voltage, Yves Mollet, Matteo Pergolesi, Mathieu Sarrazin, Karl Janssens, Herman van der Auweraer, Paolo Chiarotti, Paolo Castellini, Johan Gyselinck, Belgium	AF-002259, Comparison on the IM efficiency measurement results according to IEC standards, Youn-hwan Kim, Hee-Deuk Jun, Jae-Won Moon, Sang-Yong Jung, South Korea	AF-002224, Partial Non-Zero Fault Response of Grid-Connected DFIG, Graham Pannell, Shady Gadoue, Bashar Zahawi, Dave Atkinson, UK	AF-004502, Design and Comparison of Radial Flux and Axial Flux Brushless DC Motors for Power Tool Applications, Andreas Echle, Andreas Neubauer, Nejila Parspour, Germany	AF-003689, Hybrid Excited Stator Slot PM Machines with Overlapping Windings, Z.Q. Zhu, Han Yang, Shun Cai, Huayang Li, Yue Liu, J.C. Mipo, S. Personnaz, UK
AF-005223, Protection method for synchronous machine during the paralleling connection process, Pengfei Tian, Carlos A. Platero, Francisco Blázquez, Spain	AF-008303, Evaluation of Spoke Type IPM Synchronous Motors for IE4 Efficiency Class, Ozgur Ustun, Duygu Bayram Kara, Turkey	AF-005061, Comparison of different signal processing methods for saliency-based sensorless control of induction machine using optimized excitation sequence, Eduardo Rodriguez Montero, Markus Vogelsberger, Felix Fallmann, Walter Fahrner, Thomas Wolbank, Austria	AF-007625, Multiphysics Design of Triple 3-Phase PMSM for Ultra-High Speed Elevator Applications, Jae-Han Sim, Dong-Gyun Ahn, Dae-Kee Kim, Dong-Kyun Son, Saekyeol Kim, Jung-Pyo Hong, Tae Hee Lee, South Korea	AF-002712, Comparison of Three Prototype Flux-Modulating Permanent Magnet Machines Stiaan Gerber, Rong-Jie Wang, South Africa
AF-005118, Analysis of Stray Flux Spectral Components in Induction Machines under Rotor Bar Breakages at Various Locations, Panagiotis A. Panagiotou, Ioannis Arvanitakis, Neophytos Lophitis, Jose A. Antonino-Daviu, Konstantinos Gyftakis, UK	AF-004901, Full-Load Range In-Situ Efficiency Estimation Method for Induction Motors using only a Direct Start-Up, Johnny Rengifo, Eduardo Albanez, Joseph Benzaquen, Alexander Bueno, Jose Aller, Ecuador	AF-005266, Influence of Magnetic Saturation on Modeling of an Induction Motor, Eemeli Mõlsä, Seppo E. Saarakkala, Marko Hinkkanen, Finland	AF-001546, Design and Analysis of a Water-Cooled Axial Flux Permanent-Magnet Machine for Large Power Direct-Driven Application, Jian Li, Yang Lu, Yun-Hyun Cho, Ronghai Qu, China	AF-008117, Analysis of Fault-Tolerant PM Motors with Independent Phases by Finite Element Method, Marco Tursini, Lino Di Leonardo, Giuseppe Fabri, Italy

19:30 23:00

Gala Dinner

Thursday September 6	08:00	12:00	Registration				
	08:30	10:00	Poster Session III				
	10:00	10:30	Coffee Break				
	10:30	12:30	TT4 Electrical machine thermal analysis (Room C)	TT6 - Fault detection of electric drives (Room D)	SS Motor and generator windings: design, performance and manufacturing (Room E)	TT1 Classical Rotating Field Machines (Room B)	TT2 - Design of PM machines (Room A)
			AF-000221, Calibration Techniques of Electrical Machines Thermal Models, Aldo Boglietti, Marco Cossale, Mircea Popescu, Dave Staton, Italy	AF-000329, Motor Insulation Aging Diagnosis with Pre-Installed Current Sensors for Inverter Control, Tetsuji Kato, Minoru Nagata, Kohji Maki, Hiroaki Kojima, Kenichi Souma, Yoshitaka Iwaji, Japan	AF-002836, Direct Liquid Cooling Method verified with a Permanent-Magnet Traction Motor in a Bus, Pia Lindh, Ilya Petrov, Juha Pyrhönen, Markku Niemelä, Paula Immonen, Eero Scherman, Finland	AF-007757, Experimental investigation of bearing currents in low voltage motors, Kashif Khan, Freddy Gyllensten, Sweden	AF-006122, Stator Teeth Tips Shape Influence in Permanent Magnet Synchronous Motors on a Test Bench, Unai Galfarsoro, Alex McCloskey, Gaizka Almandoz, Xabier Hernandez, Xabier Arrasate, Spain
			AF-003905, Forced Air Cooling of a High-Speed Permanent Magnet Motor, Fredrik Boxberg, Juha Saari, Petri Mäki-Ontto, Finland	AF-001236, Diode Open-Circuit Fault Detection in Rectifier Bridge of The Brushless Synchronous Generator, Mehdi Rahnama, Abolfazl Vahedi, Arta Mohammad Alikhani, Nouredine Takorabet, Iran	AF-006785, Design of 3D Printed High Performance Windings for Switched Reluctance Machines, Fabian Lorenz, Johannes Rudolph, Ralf Werner, Germany	AF-008095, Direct-On-Line Synchronous Reluctance Motor Efficiency Verification with Calorimetric Measurements, Hannu Kärkkäinen, Lassi Aarniovuori, Markku Niemelä, Juha Pyrhönen, Jere Kolehmainen, Tero Kansäkangas, Jouni Ikäheimo, Finland	AF-006548, Two-dimensional analysis for conical permanent magnet motors, Sara Roggia, Francesco Cupertino, Michael Galea, Christofer Gerada, UK
			AF-002445, Impact of the Fan Design and Rotational Direction on the Thermal Characteristics of Induction Motors, Siew Yan Goh, Ahmad Syahid Fawzal, Konstantinos Gyftakis, Antonio J. Marques Cardoso, UK	AF-002437, New Differential Protection for Variable Speed Doubly Fed Induction Machines, M. Ebrahim Zarei, Carlos A. Platero, Carlos Veganzones, Jaime Rodriguez Arribas, Spain	AF-007269, Squirrel-cage Induction Generator with Distributed and Fractional-Slot Concentrated Winding for Small Hydro Generation, Kathleen Mallard, Lauric Garbuio, Vincent Debusschere, France	AF-001295, 3D Fast Calculation of Double Stator Axial Flux PM Machines with Ironless Rotor: experimental validation, Jean-Frédéric Charpentier, Franck Sculler, France	AF-001724, Curvature Effects on Permanent Magnet Harmonic Losses of Surface-Mounted Permanent Magnet Machines, Alberto Tassarolo, Matteo Olivo, Nicola Barbini, Italy
			AF-008206, Model of air cooled windings for traction machine, Samuel Estenlund, Sweden	AF-007382, An Automatic Method for Condition Monitoring of Inverter Fed Induction Motors, George Georgoulas, Lucia Frosini, Ioannis Tsoumas, Theodoros Loutas, Andrea Albini, Italy	AF-006742, Comparisons of Concentrated and Distributed Winding PMSM in MV Power Generation, Jian Zhao, Yujing Liu, Xiangdong Xu, Sweden	AF-004979, Improvements in the hysteresis and cogging evaluation with an innovative methodology, Luca Ferraris, Fausto Franchini, Emir Poskovic, Italy	AF-004006, Hybrid Modeling Method of Magnetic Field of Axial Flux Permanent Magnet Machine, Theo Carpi, Yvan Lefevre, Carole Henaux, France
			AF-005592, Experimental study of oil cooled induction motor for hybrid and electric vehicles, Bassel Assaad, Karim Mikati, Tuan-vu. Tran, Edouard Negre, France	AF-007986, Detection of Rotor Magnet Demagnetization in Asymmetrical Six-Phase Surface Mounted Permanent Magnet Synchronous Motor Drive, Yasser Gritli, Angelo Tani, Claudio Rossi, Domenico Casadei, Italy	AF-006947, Design Guideline of an AC Hairpin Winding, Grazia Berardi, Nicola Bianchi, Italy	AF-003433, Optimisation of Permanent magnet machine topologies suitable for solar powered aircraft, Sana Ullah, Mohammad Kimiabeigi, Benjamin Scholes, Andy Steven, Rafal Wrobel, Willia Davis, James Widmer, UK	AF-006084, The Effect of Design Considerations on the Synchronization Capability Limits of Line-Start Permanent-Magnet Synchronous Motors, Bart Wymeersch, Frederik De Belie, Claus Rasmussen, Lieven Vandeveldel, Belgium
			AF-001252, Reducing the losses of electrical machines under torsional vibration, Antero Arkkio, Eemeli Mölsä, Timo P. Holopainen, Finland	AF-007692, Accurate Fault Diagnosis and Classification Scheme based on Non-Parametric, Statistical-Frequency Features and Neural Networks, Rahul R Kumar, Giansalvo Cirrincione, Maurizio Cirrincione, Andrea Tortella, Mauro Andriollo, Italy	AF-004995, Novel Multiflux, Three-Phase, Dual-Winding Configurations Fernando J. T. E. Ferreira, Portugal	AF-003808, Start-up Performance Prediction of Line-Fed Solid-Rotor Salient-Pole Synchronous Motors, Matteo Olivo, Nicola Barbini, Alberto Tassarolo, Simone Cicutto, Gianfranco Zocco, Italy	AF-007021, Optimization of PMSM Performance with Torque Ripple Reduction and Loss Considerations Cristian A. Lopez, Elias G. Strangas, USA
	12:30	14:00	Lunch				
	14:00	16:00	SS Non-conventional synchronous machines 4 (Room C)	TT6 - Fault detection in synchronous machines and PM brushless machines (Room E)	TT5 - PM Machine Drives (Room B)	TT2 - Design of synchronous reluctance and switched reluctance machines (Room A)	TT4 Thermal, Losses and Efficiency Issues (Room D)
			AF-006092, Comparison of PM Vernier and Conventional Synchronous 15kW Wind Generators, Pushman Tlali, Rong-Jie Wang, Stiaan Gerber, South Africa	AF-002275, Large Salient Pole Synchronous Machines Field Windings Diagnosis by Frequency Response, Asier Mugarra, Carlos A. Platero, Jose A. Martinez, Unai Albizuri, Spain	AF-000884, Current Controller Design in Discrete-time Domain for PMSM/G in Flywheel Energy Storage Systems, Xiang Zhang, Yves Mollet, Jiaqiang Yang, Johan Gyselinck, Belgium	AF-000922, Analysis of Mutual Flux Linkage in Switched Reluctance Machines, Mladen Terzic, Berker Bilgin, Ali Emadi, Serbia	AF-003174, Comparison of Iron Loss Models under Synchronous Generator Waveforms, Maxime Ployard, Aymen Ammar, Olivier de la Barrière, Lionel Vido, Frederic Gllon, France

AF-001694, Methodologies for the Analytical Design of Tubular Linear Vernier Synchronous Generators with Quasi-Halbach-Magnetization, Robert Seifert, Tobias Micklitz, Benjamin Mößner, Wilfried Hofmann, Germany	AF-002925, Study of the demagnetization fault in an AFPM machine in relation with the magnet location, Alexandra Barmatz, Joya Kappatou, Greece	AF-003069, Adaptive Voltage Feedback Controller on the Non-Salient Permanent Magnet Synchronous Machine, Chao Wang, Zi Qiang Zhu, HanLin Zhang, UK	AF-003891, An improved nonlinear analytical model of the PM-assisted synchronous reluctance motor focused on torque behavior accuracy, Ladislav Knebl, Jan Barta, Cestmir Ondrusek, Czech Republic	AF-002372, Surface Eddy Current Loss Reduction in Additively Manufactured Permanent Magnet Rotor Active Parts, Stefan Urbanek, Bernd Ponick, Germany
AF-003131, A New Configuration of a Consequent Pole Linear Vernier Hybrid Machine with V-shape Magnets, Ahmed Almoraya, Nick Baker, Kristopher Smith, Mohammad Raihan, UK	AF-003484, Effects of Demagnetization on Torque Ripples in Permanent Magnet Synchronous Machines with Manufacturing Tolerances, Sergio Zarate, Gaizka Almandoz, Gaizka Ugalde, Javier Poza, Ana Julia Escalada, Spain	AF-006203, Fault Tolerant Control of a Brushless DC Motor with Defective Position Sensors, Dimitrios Papatathanasopoulos, Epaminondas Mitronikas, Greece	AF-002194, A Data-Driven Approach for Design Knowledge Extraction of Synchronous Reluctance Machines using Multi-Physical Analysis, Hossain Mohammadi, Vahid Ghorbanian, David Lowther, Canada	AF-004154, Fast Rotor Loss Calculations in Fractional-Slot Permanent Magnet Machines Faisal Wani, Jianning Dong, Henk Polinder, Netherlands
AF-002089, A Vernier Pseudo-Direct-Drive Permanent-Magnet Machine, Qiong Wang, Xiaojing Qin, Pierre-Daniel Pfister, China	AF-003999, Damper Winding Fault Detection in Synchronous Machines, Subrat Sahoo, Fredrik Holmgren, Pedro Rodriguez, Jose Perez, Urban Lundin, Sweden	AF-004782, Design Consideration of a High-Speed Integrated Permanent Magnet Machine and its Drive System, Xu Deng, Simon Lambert, Barrie Mecrow, Mohamed Mohamed, UK	AF-007102, Mechanical Refinements for the Stress Reduction of High-speed Synchronous Reluctance Machines, Marco Palmieri, Francesco Cupertino, Giuseppe Leonardo Cascella, Italy	AF-005568, Numerical Approach to Determining Windings' Thermal Conductivity, Amal Zeaiter, Matthieu Fénot, Didier Saury, France
AF-006157, Three-dimensional modeling of permanent magnets synchronous machines using a 3D reluctance network, Abdourahman Aden Diriye, Yacine Amara, Georges Barakat, France	AF-005509, Detection of short circuits in the rotor field winding in large hydro generator, Olivier Kokoko, Merkhouf Arezki, AbdelMounaim Tounzi, Mounir Essalhi, Eilin Gullot, Bachir Kedjar, Kamal Al-Haddad, Canada	AF-007013, A Novel Current References Limitation Strategy in Mono-Inverter Dual PMSM Drives, Andrea Cervone, Luigi Pio Di Noia, Renato Rizzo, Ivan Spina, Italy	AF-005924, Analytical Approach for the Identification of an optimal Design Space for Switched Reluctance Machines Roberto Rocca, Fabio Giulii Capponi, Giulio De Donato, Mohamed Rashed, Savvas	AF-006939, Calibration of the State Space Thermal Model of a Directly Cooled Permanent Magnet Synchronous Machine Florian Birmkammer, Johann Mayer, Dieter Gerling, Germany
AF-005304, Design Optimisation and Comparison of Large-Scale Non-Overlap Wound Field Machines, Udochukwu B. Akuru, Karen S. Garner, Maarten J. Kamper, South Africa	AF-007455, Simultaneous Stator Winding and Permanent Magnet Temperature Estimation for Permanent Magnet Synchronous Machines, Guodong Feng, Chunyan Lai, Wenlong Li, Michael Kelly, Narayan Kar, Canada	AF-003077, Fuzzy Logic Speed Controller with Adaptive Voltage Feedback Controller of Permanent Magnet Synchronous Machine, Chao Wang, Zi Qiang Zhu, UK	AF-007676, Comparative Design Analysis of Three-Phase Switched Reluctance Generators for Micro-Wind Power Applications, Marius A. Dranca, Mircea M. Radulescu, Romania	AF-001929, Determination of Measurement Uncertainty of Direct and Indirect Efficiency Measurement Methods in Permanent Magnet Synchronous Machines, Nijan Yogal, Christian Lehmann, Markus Henke, Germany

16:00 16:30
16:30 18:00

Coffee Break

Awards and Closing Ceremony

SS Electrical machines for extreme environments**POSTER TUESDAY 4 SEPT**

AF-000906	High-Speed Starter-Generator for Aerospace Applications. Design and Initial Testing	Flur Ismagilov, Viacheslav Vavilov, Denis Gusakov	Russian Federation
AF-001767	Analysis of Vibration in Modular Fault-tolerant PMSM under One-phase Open-circuit Fault	Zaixin Song, Yulong Pei, Yi Li, Shibo Li, Feng Chai	China
AF-001783	Review and Trends in Traction Motor Design: Electromagnetic and Cooling System Layouts	Shafiqh Nategh, David Lindberg, Ron Brammer, Aldo Boglietti, Ola Aglen	Sweden
AF-003948	Synchronous Reluctance Machines as Drives for Rotary Anode X-Ray Tubes-A Feasibility Study	Christiane Mellak, Klaus Krischan, Annette Mütze	Austria

SS Thermal management of non-conventional Electrical machines**POSTER TUESDAY 4 SEPT**

AF-001597	Thermal Analysis of a SynRM Using a Thermal Network and a Hybrid Model	Payam Shams Ghahfarokhi, Anouar Belahcen, Ants Kallaste, Toomas Vaimann, Levon Gevorkov, Anton Rassölkkin	Estonia
AF-002577	Direct conductor cooling in concentrated windings	Avo Reinap, Francisco J. Márquez-Fernández, Mats Alaküla, Rajesh Deodhar, Keisuke Mishima	Sweden
AF-004014	Lumped-parameter grey-box modelling of traction machines for low-speed operation	Sebastian Hall, Mats Alaküla	Sweden
AF-005495	Power losses and heat extraction in a stator with directly air-cooled laminated windings	Avo Reinap, Conny Högmark, Francisco J. Márquez-Fernández, Mats Alaküla, Mats Andersson	Sweden
AF-005967	In situ evaluation of additional losses by thermal analysis in a wind turbine generator	Aurélie Fasquelle, Pierre-Olivier Jandaud, Souad Harmand	France

SS Non-conventional synchronous machines**POSTER TUESDAY 4 SEPT**

AF-002054	Torque Density Optimization of Spoke Array Vernier Permanent-Magnet Machines	Xiaojing Qin, Qiong Wang, Pierre-Daniel Pfister	China
AF-003166	Analytic Design of Multi-Phase Electric Machines with Independent H-Bridge Supply	Jakob Jung, Bernd Cebulski	Germany
AF-003107	Model Order Reduction of Bearingless Reluctance Motor Including Eccentricity	Mehrnaz Farzam Far, Victor Mukherjee, Floran Martin, Paavo Rasilo, Anouar Belahcen	Finland
AF-000671	Modeling of a Dual Three-Phase Flux-Switching Permanent Magnet Machine Using Two Methods	Mingjin Hu, Wei Hua, Jianjian Meng, Guishu Zhao	China
AF-003581	Development and Testing of a Novel Cylindrical Permanent Magnet Linear Generator	Mohammad Abdul Hakim Raihan, Nicholas Baker, Kristopher Smith, Ahmed Almoraya	UK
AF-002607	Torsional Vibration Mitigation by Harmonic Inversion through SPWM Carrier Signal Control	Khaled El Shawarby, Antonino Di gerlando, Giovanni Maria Foglia, Roberto Perini	Italy
AF-006467	Design of Hybrid Excited Asymmetric-Stator-Pole Doubly Salient Machine	Mingjie He, Wei Xu, Caiyong Ye, Wei Hua	China
AF-005541	Field Weakening Methods for Axially Displaceable Brushless DC Machines	Emine Bostanci, Zdeno Neuschl	Turkey
AF-002933	Equivalent magnetic network of a transverse-flux permanent magnet linear motor	Dongshan Fu, Frederic Gillon, Yanliang Xu, Nicolas Bracikowski, Jinling Gong	France
AF-005185	Torque density and efficiency improvement of a Switched Reluctance Motor via low-cost Permanent Magnets	Fuat Kucuk, Taketsune Nakamura	Japan
AF-001198	Torque Characteristics Comparison and Analysis of Surface-Mounted Permanent Magnet Vernier Machines With Different Stator Topologies	Yanlei Yu, Feng Chai, Yulong Pei, Lei Chen	China
AF-001058	Design Guidelines for a Direct Drive Transverse-flux Tidal Power Generator	Jaime Renedo Anglada, Suleiman Sharkh, Michael Yuratich	UK
AF-006017	Performance Comparison of Different Winding Configurations of a Novel Wound-Field Flux Switching Linear Machine	Salim Asfirane, André Nasr, Sami Hlioui, Mohamed Gabsi, Olivier De La Barrière, Yacine Amara, Georges Barakat	France
AF-003794	Investigation of two torque ripple minimization techniques of a HESG in a wind conversion	Amina Mseddi, Sandrine Le Ballois, Helmi Aloui, Lionel Vido	France
AF-006025	Mathematical Modelling and Optimization of Single-Phase High-Speed Flux Reversal Motor	Vladimir Prakht, Vladimir Dmitrievskii, Vadim Kazakbaev, Sergei Sarapulov	Russian Federation
AF-007587	A Novel Structure of Doubly Salient Permanent Magnet Machine	Liu Zhang, L. J. Wu, Xiaoyan Huang, Youtong Fang	China
AF-003697	Performance Comparison of Stator Slot Permanent Magnet Machines with Non-Overlapping and Overlapping Windings	Han Yang, Z.Q. Zhu, Shun Cai, Huayang Li, Yue Liu, J.C. Mipo, S. Personnaz	UK
AF-005673	Design of a Hyperconducting Synchronous Machine for High-Torque Applications	David Filusch, Martin Breiteneder, Hans-Georg Herzog	Germany
AF-005908	Comparison of Different Types of Pole-Changing Line-Start Permanent Magnet Motors	Mengxuan Lin, Dawei Li, Yu Zhao, Xiang Ren, Ronghai Qu	China
AF-007412	3D Finite Element Analysis of Eccentricity in a Tubular Linear Permanent Magnet Machine	Doudou Sarr Lo, Habibou Lawali Ali, Yacine Amara, Georges Barakat, Ferhat Cahbour	France
AF-000388	Designs and Performance Assessments of Permanent-magnet Motors for Personal Mobility-assistive Device Applications	Cheng-Tsung Liu, Kuan Yang, Yu-Cheng Wu, He-Ling Chang, Roger Cheng-Lung Lee	Taiwan
AF-005975	Design and Mathematical Modeling of Gearless SMC Flux Reversal Generator for Wind Turbine	Vladimir Prakht, Vladimir Dmitrievskii, Vadim Kazakbaev	Russian Federation
AF-004677	Vibration Comparison of Current Superimposition Variable Flux Machine and Switched Reluctance Machine	Akira Kohara, Katsuhiko Hirata, Noboru Niguchi	Japan
AF-006963	Output Power Control of a Surface Mounted Permanent Magnet Synchronous Generator Coupled with Electronic Capacitor System	Simon Morel, Lauric Garbuio, Hervé Chazal, Zié Drissa Diarra	France
AF-006319	Modeling a Switched Reluctance Motor with Static Magnetic Hysteresis: Impact on High-Speed Operation	Pedro Melo, Rui Esteves Araújo	Portugal
AF-007366	Design of Poly-Phase Outer Rotor Homo-Polar Transverse Flux machine using Ferrite magnets and Laminations.	Bhaves Rauthod, Gautam Havaladar, Bhalchandra Chaudhari, Priyanka Goltgaonkar, Rajaram Ugale	India
AF-006653	Design, FEA and Dynamic Simulation of a New Unconventional 9-Phase PMSM with Asymmetric Winding	Ersin Yolacan, Yucel Demir, Metin Aydin	Turkey
AF-006165	Low Speed Doubly Salient Excited Machines	Mohammed El Hadi Zaim	France
AF-007307	More Accurate Modeling of Core Loss in Self-Excited Reluctance Generator	Saleh H. Al-Senaidi, Abdulrahman I. Alolah, Majeed A. Alkanhal	Saudi Arabia

TT Classical Rotating Field Machines

POSTER TUESDAY 4 SEPT

AF-000612	Analysis of Different Arrangements of Flux Barriers and Different Pole Pairs in a Stator with Concentrated Winding	Johannes Walter Gerold, Dieter Gerling	Germany
AF-000833	Investigation of Synchronous Generator Underexcited Operation in Isolated Systems	Costas Vournas, Nikolas Tagkoulis	Greece
AF-001031	Opportunities of Advanced Multiphase Concentrated Windings	G. Dajaku, D. Gerling	Germany
AF-001481	Synchronous Reluctance Machine: Combined Star-Delta Winding and Rotor Eccentricity	Bishal Silwal, Mohamed Nabil Ibrahim, Peter Sergeant	Belgium
AF-001953	Analysis of Start-up of Line-Start Permanent Magnet Synchronous Machines with anisotropic rotor reluctance	Johann Pecho, Wilfried Hofmann	Germany
AF-001961	Analysis and Reduction of Vibration of the Permanent Magnet Brush DC motor	Shanming Wang, Jianfeng Hong, Yuguang Sun, Haixiang Cao	China
AF-002097	Analytical Model of Synchronous Reluctance Machines with Zhukovski Barriers	Matthias Pohl, Dieter Gerling	Germany
AF-002267	Reduced-Order Eddy-Current Loss Modelling of Electrical Machines Using Lookup Tables Obtained via 2D Finite-Element	Diogo Emanuel Pinto, Adrian-Cornel Pop, Joachim Kempkes, Johan Gyselinck	Belgium
AF-002291	Design of a low power synchronous motor for high efficiency applications	Luigi Alberti, Grazia Berardi	Italy
AF-002356	Analytical Calculation Model of an Induction Machine with Combined Star-Delta Windings and Analysis of Possible Connections	Christian Alteheld, Raimund Gotthehaskamp, Andreas Möckel	Germany
AF-002429	Effects of Damper Bars on Converter-Fed Operation of Hydropower Generator	Mostafa Valavi, Arne Nysveen, Roy Nilsen	Norway
AF-002534	Halbach Array for an in-wheel traction motor	Iago Martinez Ocaña, Nick Baker, Barrie Mecrow, Chris Hilton, Simon Brockway	UK
AF-002755	Current Simulation of a Controlled PMSM including Skew and Torsional Rotor Vibrations	Markus Jaeger, Sebastian Rick, Kay Hameyer	Germany
AF-002895	Simplified Analytical Circuit Model of Damper Windings Exploiting Symmetries	Stefano Nuzzo, Paolo Bolognesi, Michael Galea	UK
AF-003026	Symbiosis between Torque Ripple and Vibrations of Large Electrically Excited Synchronous Motor	Ahamed Bilal Asaf Ali, David Casado-Valdes	Switzerland
AF-003034	Turbo Generator Concept without Winding Overhang Using a Multiphase Transformer	Henrik Schroeder, Bernd Ponick	Germany
AF-003085	Performance Improvement of Brushless Generator Voltage Regulation by Using a Controlled Non Linear Discharge Resistor	Abdallah Barakat, Seif Eddine Chouaba	Lebanon
AF-003204	Parameters Identification of an Axial Flux Induction Machine using Field Equations	Mario Tapia, Werner Jara, Rogel Wallace, Juan Tapia	Chile
AF-003875	Hybrid Drive of a Variable Flux Reluctance Motor and Switched Reluctance Motor	Noboru Niguchi, Katsuhiko Hirata, Akira Kohara, Kazuaki Takahara, Hironori Suzuki	Japan
AF-003956	Design and Optimization of a Two-Pole Line-Start Ferrite Assisted Synchronous Reluctance Motor	Srinivas Baka, Sashidhar Sampathirao, Fernandes B. G.	India
AF-004286	Numerical and Analytical Analysis of Wave Harmonics under Spatially Intermittent Feeding	Nicolas Erd, Andreas Binder	Germany
AF-004308	Eddy Currents in Solid Rotor under Spatially Intermittent Feeding of the Stator Winding	Nicolas Erd, Andreas Binder	Germany
AF-004375	Continuous Evolution and Modern Approaches of Excitation Systems for Synchronous Machines	Jonas Kristiansen Nøland, Martin Giset, Erick Fernando Alves	Norway
AF-004405	Improved Harmonics Elimination for Stand-Alone Brushless Doubly-Fed Induction Generator with Nonlinear Loads	Wei Xu, Kailiang Yu, Yi Liu, Jianping Gao, Wei Hua	China
AF-004693	Optimisation of Salient-Pole Rotor for Synchronous Generators	A.E.Bell, P. Anpalahan	UK
AF-004804	New Design of High Output Equivalent 4-pole Universal Motor	Kazumi Kurihara	Japan
AF-005193	Design of a Power Plant Emulator for the Dynamic Frequency Stability Studies	Erencan Duymaz, Siamak Pourkevannour, Doğa Ceylan, Ilker Şahin, Ozan Keysan	Turkey
AF-001147	Permanent Magnet-Assisted Synchronous Reluctance Motor Employing a Hybrid Star-Delta Winding for High Speed Applications	Mohamed Nabil Fathy Ibrahim, Bishal Silwal, Peter Sergeant	Belgium
AF-005851	Subsynchronous Resonances in the Shaft Train of Large Turbosets and High Voltage DC Transmission	Sven Exnowski, Matthias Humer	Germany
AF-005878	Adjustment of Rated Current in Design of Synchronous Reluctance Motors Using Axial Scaling and Rewinding	Damir Zarko, Stjepan Stipetic	Croatia (Hrvatska)
AF-006432	Integration of a self-excited induction generator in a low power multisource remote site	Remus Pusca, Raphael Romary, Ezzeddine Touti, Vadim Cazac, Petru Livinti, Ilie Nuca	France
AF-006459	A Study of Soft Magnetic Composite suitable for High Efficiency of an Axial Gap Motor	Keisuke Nakamura, Masatsugu Takemoto, Satoshi Ogasawara, Koji Orikawa, Tatsuya Saito, Asako Watanabe, Tomoyuki Ueno	Japan
AF-007129	Design of Vernier Motor with Modular Winding using Rotor Pole Pair Determination Method	Dae-Woo Kim, Jun-Young Song, Jin-Seok Kim, Yong-Jae Kim, Jong-Suk Ro, Sang-Yong Jung	Korea (South)
AF-007331	Analysis of Damping Models in a Structural Mechanical 3D-FE Stator End-Winding Region Model	Sebastian Lange, Martin Pfost	Germany
AF-007463	Flux Path Design of Synchronous Reluctance Motor to Analyze Torque Characteristic and Operating Region	Jin-Seok Kim, Byeong-Kwan Son, Dae-Woo Kim, Yong-Jae Kim, Jong-Suk Ro, Sang-Yong Jung	Korea (South)
AF-007471	Analysis of Field Modulation Effect in Consequent Pole Permanent Magnet Machines with Concentrated Winding	Ya Li, Hui Yang, Heyun Lin, Shukang Lyu	China

TT Thermal, Losses and Efficiency Issues

POSTER WEDNESDAY 5 SEPT

AF-000248	Evaluation of the the Rotor Eddy-Currents in High-Speed PMSMs with a Shielding Cylinder	Bert Hannon, Peter Sergeant, Luc Dupré	Belgium
AF-000507	Cooling Performance and Loss Evaluation for Water- and Oil-Cooled without Pump for Oil	Shinji Sugimoto, Daisuke Kori	Japan
AF-000639	A narrow-bridge rotor to reduce magnetic flux leakage	Makoto Ito, Shinji Sugimoto, Akeshi Takahashi, Shuichi Tamiya	Japan
AF-000965	Impact of Thermal Conductivity in Axial Direction on the Overall Thermal Model of High-Speed Synchronous Motor	Lukas Veg, Jan Laksar	Czech Republic
AF-001775	3-D FEM Investigation of Eddy Current Losses in Rotor Lamination Steel Sheets	Konstantina Bitsi, Damian Kowal, Reza Rajabi Moghaddam	Sweden
AF-002984	Novel Method for the Determination of Eddy Current Losses in the Permanent Magnets of a High-Speed Synchronous Machine	Gerrit Narjes, Bernd Ponick	Germany
AF-003158	Analysis of additional eddy-current copper losses in large converter-fed hydropower generators	Erlend L. Engevik, Mostafa Valavi, Arne Nysveen	Norway
AF-003441	Analytical and Numerical Calculation of Sub-Conductor Circulating Currents in Roebel Bars of Hydro Generators	Torben Fricke, Alexander Rehfeldt, Babette Schwarz, Eva Bresemann, Bernd Ponick	Germany
AF-003468	Measurement of Sub-Conductor Circulating Currents in Roebel Bars of a Hydro Generator	Alexander Rehfeldt, Torben Fricke, Babette Schwarz, Eva Bresemann, Bernd Ponick	Germany
AF-003603	Effect of Additional Copper Losses on the High-speed Induction Machine Performance	Jan Barta, Nikita Uzhegov, Ladislav Knebl, Cestmir Ondrusek	Czech Republic
AF-003662	Loss Calculation for Electrical Machines based on Finite Element Analysis Considering 3D Magnetic Flux	Samuel Müller, Michael Siegle, Marina Keller, Nejila Parspour	Germany
AF-003786	Analytical Model for AC Loss Calculation Applied to Parallel Conductors in Electrical Machines	Christian Roth, Florian Birnkammer, Dieter Gerling	Germany
AF-003972	Combined Thermofluid and Electromagnetic Optimisation of Stator Vent Cooling	Kevin Bersch, Stefano Nuzzo, Peter Connor, Carol Eastwick, Michael Galea, Rob Rolston, Gaurang Vakil	UK
AF-004022	Thermal and Electromagnetic Modeling for Prototyping Permanent Magnet DC Motors	Lucia Frosini, Matteo Malinverni, Michele Cima, Norma Anglani	Italy
AF-004391	Analysis of AC losses in high-speed permanent magnet motors based on the equivalent modeling method	Feng Chai, Zongyang Li, Yanlei Yu	China
AF-004596	Cage Induction Machine under Voltage Subharmonics Combined with Voltage Deviation	Piotr Gnaciński, Marcin Pepliński, Damian Hallmann	Poland
AF-004871	Analytical Calculation of Winding Overtemperatures and Estimation of Feasible Current Densities for Electrical Machines	Boris Dotz, Matthias Ippisch, Dieter Gerling	Germany
AF-005339	Pressure Loss Modelling in a Water-Cooled Hollow-Shaft Rotor for an Automotive Traction Motor	Yaohui Gai, Kimiabeigi Mohammad, Yew Chuan Chong, James Goss, Mehmet Kulan, James Widmer, Andrew Steven, David Staton	UK
AF-005436	Design of water-cooled calorimeter for electric motor's power loss measurement	Devi Geetha Nair, Shayan Daryabin, Steven Jannasch, Ari Haavisto, Antero Arkkio	Finland
AF-006394	Loss reduction in a salient pole synchronous machine due to magnetic slot wedge and semi-closed stator slots	M. Jahirul Islam, Reja Rajabi Moghaddam	Sweden
AF-007536	Thermal Analysis and Verification of PMSM using LPTN Considering Mechanical Components and Losses	Jun-Woo Chin, Sung-Woo Hwang, Hyeon-Jin Park, Jung-Pyo Hong	Korea (South)
AF-007854	Eddy Current Losses of a Coaxial Magnetic Gear	Valentin Mateev, Iliana Marinova	Bulgaria
AF-008389	Thermal Transients of Induction Machine under Changeable Voltage Unbalance	P. Gnaciński, M. Pepliński, D. Hallmann	Poland

TT Design and Related Problems

POSTER WEDNESDAY 5 SEPT

AF-006289	Design and Comparison of Ferrite Based IPM and NdFeB Based SPM Synchronous Motors for Gearless Elevator Systems	H. Yetiş, E. Meşe and M. Biryıklı	Turkey
AF-004537	Non-circulating bearing currents mitigation approach based on machine stator design options	Konstantin Vostrov, Juha Pyrhönen, Jero Ahola, Markku Niemelä	Finland
AF-005894	Comparative analysis for an electric power steering system	Florin Pop-Piglesan, Mircea Ruba, Adrian-Cornel Pop, Radu-Andrei Martis, Claudia-Steluta Martis	Romania
AF-001457	Analytical and Experimental Investigation of the Frequency Characteristics of an Ultra-Lightweight Motor Based on Magnetic-Resonance Coupling	Kenta Takishima, Kazuto Sakai	Japan
AF-005762	Thermal and Structural Design of Axial Flux Permanent Magnet Generators for Locally Manufactured Small Wind Turbines	Kostas Latoufis, Alexandros Rontogiannis, Vasilis Karatasos, Petros Markopoulos, Nikos Hatziargyriou	Greece
AF-002216	Winding Design Independent Calculation Method for Short Circuit Currents in Permanent Magnet Synchronous Machines	Petter Eklund, Sandra Eriksson	Sweden
AF-007609	Electromagnetic and Thermal Multi-Physics Design of SPMSM for Wearable Robot	Sung-Woo Hwang, Jun-Woo Chin, Myung-Seop Lim, Jung-Pyo Hong	Korea (South)
AF-006424	Permanent-Magnet Machine Selection for Precise Matching with a Wind Turbine	Roberto H. Moncada, Boris J. Pavez, Fernando F. Huenupan, Millaray Curilem, Renato A. Hunter	Chile
AF-002283	A Comparative Study of Optimally Designed Synchronous Reluctance Machines	Indula Prasad Abeyrathne, Mohammad Sedigh Toulabi, Shaahin Filizadeh	Canada
AF-006696	Numerical Analysis of Stator Magnetic Wedge Effects on Equivalent Circuit Parameters of Brushless Doubly Fed Machines	Salman Abdi, Ehsan Abdi, Richard McMahon	UK
AF-002585	Design and Modeling of Multi-Winding Transformers interfacing Inverters and Mains	Antonino Di Gerlando, Khaled El Shawarby, Giovanni Maria Foglia, Roberto Perini	Italy
AF-005312	Influence of Auxiliary Teeth on Performance of a Permanent Magnet Linear Motor	Ayşe Boduroglu, Yucel Demir, Renato Lyra, Metin Aydin	Turkey
AF-007595	Design And Optimization of Reduced Torque Ripple Rotary Voice Coil Motor	Gökhan Çakal, Reza Zeinali, Ozan Keysan	Turkey
AF-007072	Preliminary Design of an Axial Flux Machine with Coreless Stator for Flywheel Applications	Mauro Andriollo, Andrea Tortella	Italy
AF-002461	Design and Analysis of a Fault Tolerant Permanent Magnet Alternator for Aerospace	Mehmet C. Kulan, Nick J. Baker, Simon Turvey	UK
AF-003549	Relation Between Stator Core Shape and Torque Ripple for SPM Motor	Naoya Soda, Masato Enokizono	Japan
AF-004316	Linear Hybrid Reluctance Actuator with Low Detent Force	Jordi Garcia-Ameros, Pere Andrada	Spain
AF-005703	Hybrid Interpolation Approach to Link Currents and Flux Linkages of Induction Machines	Christoph Bals, Dieter Gerling	Germany
AF-000701	Axial Ferrite-Magnet-Assisted Synchronous Reluctance Motor	Paul Akiki, Maya Hage-Hassan, Mohamed Bensetti, Jean-Claude Vannier, Dany Prieto, Mike McClelland	France
AF-005576	Investigation of the Stress Concentration Factor for Estimating Maximum Mechanical Stress of Interior Permanent-Magnet Machines	Guoyu Chu, Rukmi Dutta, Faz Rahman	Australia
AF-000914	M.Terzic,B.Bilgin,A.Emadi-SRM design for forklift traction application	Mladen Terzic, Berker Bilgin, Ali Emadi	Serbia
AF-004367	Pole-Slot Selection Considerations for Double Layer Three-phase Tooth-Coil Wound Electrical Machines	Stefan Koek, Alessandro Acquaviva	Sweden
AF-007765	Design Optimisation and Comparison of Non-overlap Winding PM Wind Generators for Active and Passive Battery Charging Systems	Casper J. J. Labuschagne, Maarten J. Kamper	South Africa
AF-007528	Comparison of PMSMs with Different Rotor Structures for EV application	Chenxi Zhou, Xiaoyan Huang, Youtong Fang, Lijian Wu	China
AF-000116	A Nine-phase Six-Terminal Fractional-Slot-Winding for Interior Permanent-Magnet Machines with Low Space Harmonics	Ayman Abdel-Khalik, Shady Gadoue, Shehab Ahmed	Egypt
AF-005347	Electric Vehicle Acceleration Performance and Motor Drive Cycle Energy Efficiency Trade-Off	Emma Arfa Grundtitz, Torbjörn Thiringer	Sweden
AF-000728	Analytical Electromagnetic Sizing of Inner Rotor Brushless PM Machines Based on Split Ratio Optimization	Alessandro Acquaviva	Sweden
AF-006076	Ultra Premium Efficiency (IE5 Energy-Efficiency Class) Synchronous Reluctance Motor with Fractional Slot Winding	Vladimir Dmitrievskii, Vladimir Prakhit, Vadim Kazakbaev	Russian Federation
AF-006149	Experimental Benchmark for Magnetic Noise and Vibrations Analysis in Electrical Machines	Devillers Emile, Hecquet Michel, Cimetière Xavier, Lecoainte Jean-Philippe, Le Besnerais Jean, Lubin Thierry	France
AF-001287	Sensitivity Analysis of Parameters Affecting the Performance of Radial Flux Low-Speed PMSG	Walid A. M. Ghoneim, Ahmed Hebala, Hamdy A. Ashour	Egypt
AF-006556	A Study on Design and Optimization of High Power Density PMSM for Pod Propulsion System	Ioannis Chasiotis, Yannis Karnavas	Greece
AF-002763	New Concept For a Variable Flow Water Pump With an Eddy-Current Magnetic Coupling	Rodrigo Barbosa Bronzeri, Ivan Eduardo Chabu	Brazil
AF-004766	Parametric Design and Optimization of Magnetic Gears with Differential Evolution Method	Yawei Wang, Mattia Mattia, Giacomo Bacco, Nicola Bianchi	Italy
AF-004529	Design and Experimental Verification of A 48 V 20 kW Electrically Excited Synchronous Machine for Mild Hybrid Vehicles	Junfei Tang, Yujing Liu	Sweden
AF-006106	The efficiency analysis of various structural solutions of the wheel motor cooling systems	Bartłomiej Bedkowski, Piotr Dukalski, Tomasz Jarek, Tomasz Wolnik	Poland
AF-004839	Design of Transformer with Flexible Vector Group Combinations and Adjustable Voltage Levels	Rajaram Ugale, Kedar Mehari, Bhalchandra Chaudhari	India
AF-007048	Investigation of Braking Torque Characteristic for a Double-Stator Single-Rotor Axial-Flux Permanent-Magnet Eddy-Current Brake	Mehmet Gulec, Metin Aydin, Pia Lindh, Juha Pyrhonen	Turkey
AF-000132	Evaluation and Comparison of Resonant Vibration in Switched Reluctance Motor with Different Turn-on and Turn-off Angles	Xiaoqiang Guo, Rui Zhong, Mingshu Zhang, Desheng Ding, Weifeng Sun	China
AF-006327	Low Cost Design of a Motor Characterization Test Bed for Empowering Small-Medium Enterprises of Pakistan	Muhammad Farooq Umar, Muhammad Noman Akbar, Syed Muhammad Raza Kazmi	Pakistan
AF-002038	Robust BLDC motor design optimization and comparison including raw material cost variations	Renaud Pichot, Louis Schmerber, Damien Paire, Abdelatif Miraoui	France
AF-007749	Modelling of Cross Saturation Effect in Interior Permanent Magnet Synchronous Machines Using Magnetic Equivalent Circuits	Damir Vuljak, Zlatko Hanic, Ana Hanic, Damir Zarko	Croatia (Hrvatska)
AF-001759	Novel Structure of Ferrite-Magnet Motor Based on New Criteria for Reluctance Torque Utility	Akeshi Takahashi, Wataru Hatsuse	Japan
AF-006475	A Review of Control Methods for PMSM Torque Ripple Reduction	Cristian A. Lopez, William R. Jensen, Steven Hayslett, Shanelle N. Foster, Elias G. Strangas	USA
AF-008028	Development of a 7.5kW High Speed Interior Permanent Magnet Synchronous Spindle Motor for CNC Milling Machine	Oguzhan Ocak, Murat Onsal, Metin Aydin	Turkey
AF-002801	A Cylindrical Rotor Synchronous Generator Design for Small Hydro Power Plants	Fábio Santos, Mauro Uemori, Edson Bortoni	Brazil
AF-006688	Design and Comparison of Radial Flux Magnetic Levitation Systems Based on Conventional and Buried Permanent Magnet Types Rotors	Mehmet Gulec, Ersin Yolacan, Metin Aydin	Turkey
AF-002968	Investigation of a Linear Induction Machine for a Railway Braking Application	Richard Martin, Nabeel Ahmed, Mohammad Kimiabeigi, Jonathan Powell, Roberto Palacin, James Widmer	UK
AF-003735	Newton's Interpolation applied in the practice of designing a salient synchronous generator	Gabriela Dana Petropol Serb, Ion Petropol Serb	Romania
AF-008109	Analytic Damping and Stiffness Analysis for a 4-DOF Electrodynamic Wheel Maglev Vehicle	Jason D. Wright, Jonathan Z. Bird	USA
AF-003328	Optimization of a Spoke-Type Permanent Magnet Motor by Combination of Genetic Algorithm and Finite Element Method	Shouhui Ni, Uwe Schaefer	Germany
AF-007145	Multipurpose Permanent Magnet Synchronous Machine for Hybrid Autonomous Vehicles	Viktor Tihanyi, Ábel Göntér	Hungary
AF-006181	Modelling an Interior Permanent Magnet Traction Motor based on Current signals Produced in a Space Vector Modulation	Hamidreza GAshtil, Mohammad Kimabeigi, James Goss	UK
AF-002119	Detailed Design Procedures for Low-Speed, Small-Scale, PMSG Direct-Driven by Wind Turbines	Ahmed Hebala, Walid A. M. Ghoneim, Hamdy A. Ashour	Egypt
AF-005452	Optimization of V-shaped synchronous motor for automotive application	Koua Malick Cisse, Sami Hlioui, Yuan Cheng, M'Hamed Belhadi, Mohamed Gabsi	France
AF-000337	Numerical Modelling and Torque Analysis in Brushless Direct Current Motors	Sorin Enache, Aurel Campeanu, Ion Vlad, Monica-Adela Enache	Romania
AF-005738	Design of low power motors with a good compromise between ripple torque and radial forces	Thierry Tollance, Michel Hecquet, Frederic Gillon, Mounaim Tounzi	France

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AF-002917	Discriminating of Rotor Fault and Low Frequency Load Torque Oscillation Using Motor Square Current Signature Analysis	Taner Goktas, Müslüm Arkan	Turkey
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AF-001422	Mechanical behaviour of the cellulosic dielectric materials of windings in power transformers in operation	C. Oria, A. Ortiz, I. Fernández, I. Carrascal, D. Ferreño	Spain
AF-005363	FE-Based Application for the Evaluation of Core-Losses in Distribution Transformers	Themistoklis D. Kefalas, Salvador Magdaleno-Adame	Greece

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AF-003115	Numerical Implementation of Local Degradation Profiles in Soft Magnetic Materials	Gereon Goldbeck, Marco Cossale, Martin Kitzberger, Gerd Bramerdorfer, Dietmar Andessner, Wolfgang Amrhein	Austria
AF-007773	Improved Preisach Model for Modelling Magnetic Hysteresis Effect in Non-Oriented Steels	Reza Zeinali, Davy Krop, Elena Lomonova, Bulent Ertan	Netherlands

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AF-000078	Orbital Eccentricity and Unbalanced Magnetic Pull in Salient Pole Synchronous Machines	Johnny Rocha, Paulo Silva, Edson Bortoni	Brazil
AF-000876	Detection of Broken Rotor Bars Faults in Inverter-Fed Induction Motors	Wagner Godoy, Ivan Nunes da Silva, Alessandro Goedel, Rodrigo Henrique Cunha Palacios, Paulo Rogério Scalassara, Daniel Morifigo-Sotelo, Óscar Duque Pérez	Brazil
AF-000949	M. Terzic, H.Li, B. Bilgin, A. Emadi-Comparison of Experimental Methods for Electromagnetic Characterization of SRM	Mladen Terzic, Haoding Li, Berker Bilgin, Ali Emadi	Serbia
AF-001023	Influence of Single or Multiple Faults Short-circuit, Broken Rotor Bar and Eccentricity on the Torque and Rotor Force in Induction Motors	Virgiliu Fireteanu, Alexandru-Ionel Constantin, Monica Popa	Romania
AF-001554	Off-Line Detection of Static Eccentricity in Salient-Pole Synchronous Machines	Konstantinos N. Gyftakis, Carlos A. Platero, Santiago Bernal	UK
AF-001678	Estimation of the Battery Health by Monitoring the Electric Motor Drive Performance in a Building Application	Evangelos Tsioumas, Nikolaos Jabbour, Christos Mademlis	Greece
AF-002569	Electric motors condition monitoring using currents and vibrations analyses	Peter Popaleny, Jose Antonino-Daviu	Spain
AF-003522	Temporal Envelope Estimation of Stator Current by Peaks Detection for IM Fault Diagnosis	Khalfi Hamid, Hamdani Samir, Nacereddine Kamel, Chibani Youcef	Algeria
AF-003646	On-Line Stator Fault Diagnosis in Line-Start Permanent Magnet Synchronous Motors	D. S. B. Fonseca, Carlos M. C. Santos, Antonio J. Marques Cardoso	Portugal
AF-003727	Bearing Fault Detection for Railway Traction Motors through Leakage Current	Yo Sakaidani, Minoru Kondo	Japan
AF-004413	Multiple Fault Diagnosis of Electric Powertrains under Variable Speeds using Convolutional Neural Networks	Jagath Sri Lal Senanayaka, Huynh Van Khang, Kjell G. Robbersmyr	Norway
AF-004421	Online Fault Diagnosis System for Electric Powertrains using Advanced Signal Processing and Machine Learning	Jagath Sri Lal Senanayaka, Huynh Van Khang, Kjell G. Robbersmyr	Norway
AF-004472	Application of Naive Bayes Classifier Theorem in Detecting Induction Motor Bearing Failure	Shrinathan Esakimuthu Pandarakone, Santhosh Gunasekaran, Yukio Mizuno, Hisahide Nakamura	Japan
AF-004855	Web based Remote and Locally Operated All in One Electrical Machine Laboratory with Data Acquisition, Fault Diagnosis and Protection	Rajaram Ugale, Samrat Gore, Bhalchandra Chaudhari	India
AF-006041	Novel Threshold Calculations for Remaining Useful Lifetime Estimation of Rolling Element Bearings	Andreas Klausen, Huynh Van Khang, Kjell Robbersmyr	Norway
AF-007099	Evaluation of the Detectability of Bearing Faults at Different Load Levels through the Analysis of Stator Currents	Ernesto Martínez Montes, Lorena Jiménez Chillarón, Juan Gilabert Marzal, José Alfonso Antonino Daviu, Alfredo Quijano López	Spain
AF-007315	Bearing Fault Diagnosis Under Time-Varying Speed and Load Conditions via Speed Sensorless Algorithm and Angular Resample	Ming Ye, Jin Huang	China
AF-007617	Vold-Kalman Filtering Order Tracking Based Rotor Flux Linkage Monitoring in PMSM	Min Zhu, Wensong Hu, Guodong Feng, Narayan Kar	Canada

SS The electric platform as a means for green shipping POSTER THURSDAY 6 SEPT

AF-000892	Evaluation of recovery braking capacities on electric vessel	Nacera Bennabi, Hocine Menana, J.F Charpentier, J.Y Billard, B Nottellet	France
AF-002399	Optimal Design of a Novel Doubly Salient Permanent Magnet Motors for high power ship propulsion	Cherif Guerroudj, Rachid Saou, Jean-Frederic Charpentier, Ahcene Boulayoune	Algeria
AF-002518	Investigation of the Behavior of a Marine Grid Emulator During Power Disturbances	Stefanos Dallas, Manolis Pytharoulis, John Prousalidis	Greece
AF-002798	Emulation of a System with a Power Split Device for Hybrid Propulsion of Ships	John Ch. Dermentzoglou, John M. Prousalidis	Greece
AF-005819	Furthering the electricity to ships and ports: the ELEMED project	Polychronis Mertikas, Stefanos Dallas, Dimosthenis Spathis, Theo Kourmpelis, Ilias Georgakopoulos, John Prousalidis, Dimitrios Lyridis, Lambros Nakos, Panos Mitrou, Vasileios Georgiou	Greece

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AF-001074	Design of Permanent Magnet-Assisted Synchronous Reluctance Motors with Maximum Efficiency-Power Factor and Torque per Cost	Burin Kerdsup, Nouredine Takorabet, Babak Nahid-Mobarakeh	Thailand
AF-002062	Influence of the Machine Winding and PM Configuration on the Back-EMF Waveform of PMSM	Jan Laksar, Lukas Veg	Czech Republic
AF-002232	A new flat winding construction for direct liquid cooled axial flux machine with segmented stators	Robert Camilleri, Malcolm McCulloch	Malta
AF-003921	Koils : a tool to design the windings of rotating electric machinery	Luigi Alberti	Italy
AF-004456	Design of a 7-phase Surface-mounted PM machine with tooth-concentrated winding	Franck Scuiller	France
AF-004812	Joint Design of Halbach Segmented Array and Distributed Stator Winding	Sarah Touhami, Yvan Lefevre, Jean-François Llibre	France
AF-005169	A fast and accurate analytical tool to study the winding function	Jerome Marault, Abdelmounaim Tounzi, Michel Hecquet, Frederic Gillon	France
AF-005665	Comparative Study of Consequent Pole Permanent Magnet Machines with Single-Sided and Dual-Sided Magnets	Ya Li, Hui Yang, Heyun Lin, Keyi Wang, Shukang Lyu	China
AF-005827	Novel Method to Minimize the Air-Gap MMF Spatial Harmonic Content in Three-Phase Windings	André Marques Silva, Fernando J. T. E. Ferreira, Gabriel Falcão Paiva Fernandes, Manuel Rodrigues	Portugal
AF-006033	Analysis of Six-Phase Induction Motor with Distributed and Concentrated Windings by Using the Winding Function Method	Ghasem Rezazadeh, Silvio Vaschetto, Farzad Tahami, Gérard-André Capolino, Humberto Henao, Zahra Nasiri-Gheidari	Iran
AF-007803	Investigation of Different Winding Configurations and Displacements of a 9-Phase Permanent Magnet Synchronous Motor with Unbalanced AC Winding Structure	Yucel Demir, Ersin Yolacan, Ayman El-Refaie, Metin Aydin	Turkey
AF-004057	Induction Machine with Combined Star Delta Stator Winding in Parallel Configuration	Miroslav Chomat, Ludek Schreier, Jiri Bendl	Czech Republic

TT Electrical Drives

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AF-000256	Dynamic Performance of Dual-PM Partitioned-primary Hybrid-excited Flux-switching Linear Machine	Zhiqiang Zeng, Jiawen Zhan, Qinfen Lu	China
AF-000272	Controlling the excitation of synchronous generator based on an algorithm with a predictive model	Fedor Mitin	Russian Federation
AF-000345	Discussion on the Control of Wound-Rotor Synchronous Motors for Variable Speed Drives	Daniel Bachinski Pinhal, Markus Julius Stokmaier, Dieter Gerling	Germany
AF-000353	Predictive Current Control vs. PI Control for Surface Mounted Permanent Magnet Machines	Lynn Verkroost, Joachim Druant, Hendrik Vansompel, Frederik De Belie, Peter Sergeant	Belgium
AF-002305	Flux-weakening Control of Novel Hybrid-excited Permanent Magnet Machines	Nattapong Pothi, Ziqiang Zhu, Yuan Ren	UK
AF-002313	Uncontrolled Generator Fault Protection of Novel Hybrid-excited Permanent Magnet Machines Utilizing Field Excitation Current Control	Ziqiang Zhu, Nattapong Pothi, Peilin Xu, Yuan Ren	UK
AF-002453	Torque Ripple Reduction of IPMSM with Concentrated Winding Based on Adaptive Identification of Equivalent Torque Coefficient	Hiroyasu Akatsuka, Masaru Hasegawa	Japan
AF-002542	Adaptive Fading Extended Kalman Filter Based Speed-Sensorless Induction Motor Drive	Emrah Zerdali, Recep Yildiz, Remzi Inan, Ridvan Demir, Murat Barut	Turkey
AF-002887	Experimental Educational System of AC Electric Drives with Internet of Things	Anastasios P. Stamelos, Athanasios Papoutsidakis, Vasilis Vikentios, Stylianos Papazis, Maria G. Ioannides	Greece
AF-002909	Performance of the Intermittent Control for Switched Reluctance Machine on Driving Cycle	Duy-Minh Nguyen, Imen Bahri, Guillaume Krebs, Claude Marchand	France
AF-002941	Wavelet-Fourier Analysis of Audible Signals to Characterize the Vibrations in LSRA	Jose A. Salvado, Maria R. Calado, Antonio E. Santo	Portugal
AF-002976	Calculation of Continuous Power Curves for Electrically Excited Synchronous Machines with Air Cooling	Björn Berweiler, Pauline Frey, Bernd Ponick	Germany
AF-003239	Design Study on Salient Pole Shape of Rotor in SR Motor for Vibration Suppression under 2-Stage Commutation Control	Sungyong Shin, Hikaru Naruse, Takashi Kosaka, Nobuyuki Matsui	Japan
AF-003247	Analytic Model of Switched Reluctance Machine using combined Fourier-polynomial Approximation Technique	Chavana Yoopakdee, Nisai Fuengwarodsakul	Thailand
AF-003476	Study and Design of a Small-Diameter Tubular Linear Motor for Biomedical Applications	José Alberto, Fernando J. T. E. Ferreira, Aníbal T. de Almeida	Portugal
AF-003913	Linear Oscillatory Actuator with Two Independently Drivable Movers	Fumiya Kitayama, Katsuhiko Hirata, Ryou Kondo	Japan
AF-004359	Human-in-the-Loop simulation of an electric vehicle drivetrain	Tamas Gyorgy, Daniel Fodorean	Romania
AF-004545	A Novel Sensorless Multivariable Control of Surface Permanent Magnet Synchronous Generator for Efficient Wind Energy Conversion	Dr. Syed Muhammad Raza Kazmi	Pakistan
AF-004685	Torque Sharing Function and Firing Angle Control of Switched Reluctance Machines – Hysteresis Current Control Versus PWM	Wei Peng, Julien Pelletier, Yves Mollet, Johan Gyselinck	Belgium
AF-005177	Inductance Model-based Sensorless SRM Drive with Torque Ripple Minimization	Qingqing Ma, Jih-Sheng Lai, Ayman EL-Refaie	United States
AF-005207	Investigating Pole Assignment of Full-Order Observer Based on Extended Electromotive Force for Position Sensorless Control of IPMSMs	Toshiya Mabuchi, Takato Hatanaka, Mutuwo Tomita, Masaru Hasegawa, Shinji Doki, Shinji Kato	Japan
AF-005231	Model Predictive Current Control of Synchronous Reluctance Motors, Including Saturation and Iron Losses	Imed Jlassi, Antonio J. Marques Cardoso	Portugal
AF-005258	Homopolar Current's Copper Losses Analysis for Different Modulations in Open-End Winding Five-Phase drives	Tiago José Dos Santos Moraes, Mohamed Trabelsi, Hussein Zahr, Eric Semail	France
AF-005517	Analytical Study of Influence of Carrier Frequency of Inverter on Rotating Performance of Permanent Magnetic Synchronous Motor	Zhao Jiahui, Nakamura Taketsune	Japan
AF-005711	Control Strategy of Commutation Torque-ripple Minimization for Brushless DC Motor Based on Quasi-Z-Source Inverter	Qian Xun, Yujing Liu	Sweden
AF-005797	Test Setup with a Permanent Magnet Synchronous Machine for Efficiency Maps of an Electric Vehicle	Martin Novak, Jaroslav Novak	Czech Republic
AF-006777	Voltage Control of a Switched Reluctance Generator using Discrete Sliding Mode Technique	Haris Ackar, Senad Huseinbegovic, Semsudin Masic, Senad Smaka, Anel Tahirbegovic	Bosnia and Herzegovina
AF-006955	Indirect Position Sensing at Stand-Still and Running State in SRM by Using Distributed Voltage and Voltage Rate for Injected Pulse	Sungyong Shin, Takashi Kosaka, Nobuyuki Matsui	Japan
AF-006971	Design of a GaN Based Integrated Modular Motor Drive	M. Uğur, O. Keysan	Turkey
AF-008281	Model Predictive Torque Control with low Torque Ripple for Interior PM Motor Variable Speed Drives	Athanasios Sarigiannidis, Foteini Karamountzou, Antonios Kladas	Greece