

Speaker Sessions

Thursday 20th April 2017

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08:00 – 16:00	R1	Registration – Trent Building Great Hall		
09:00 – 09:05	WO	Workshop opening - Trent Building Senate Chamber		
09:05 – 09:15	WA	Chair's Welcome Address - Trent Building Senate Chamber	Chris Gerada – University of Nottingham	UK
09:15 – 10:00	K1	Keynote 1 - Trent Building Senate Chamber	Mark Husband – Rolls Royce	UK
Speaker Session 1 - Electrical Machine Design 01 - Trent Building Senate Chamber				
10:00 – 10:30	1.1	TD-000736	An Overview of the Compactness of a range of Axial Flux PM Machines	Dean Patterson, Greg Heins, Matt Turner, Byron Kennedy, Mike Smith, Rafal Rohoza Australia
10:30 – 11:00	C1		Coffee Break - Trent Building Great Hall	
11:00 – 11:30	1.2	TD-000582	A Survey of State-of-the-Art Methods to Compute Rotor Eddy-Current Losses in Synchronous Permanent Magnet Machines	Alberto Tassarolo Italy
11:30 – 12:00	1.3	TD-000787	FE Based Multi-Objective Optimization of a 3.2MW Brushless Doubly-Fed Induction Machine	Xuezhou Wang, Henk Polinder, Domenico Lahaye, Jan A. Ferreira Netherlands
12:00 – 13:30	L1		Lunch - Trent Building Great Hall	
Speaker Session 2 - Electrical Machines Control 01 - Trent Building Senate Chamber				
13:30 – 14:00	2.1	TD-000094	Techniques for Power Sharing Between Winding Sets of Multiple Three-phase Machines	Ivan Zoric, Mikel Zabaleta, Martin Jones, Emil Levi UK
14:00 – 14:30	2.2	TD-001031	Use of the Field Harmonics in Multiphase Induction Motor Drives	Luca Zarri, Michele Mengoni, Angelo Tani, Gabriele Rizzoli, Yasser Gritli Italy
14:30 – 15:00	2.3	TD-000264	Electrical Vehicles – Practical Solutions for Power Traction Drive Systems	James Goss, Mircea Popescu, Dave Staton, Douglas Hawkins, Aldo Boglietti UK
15:00 – 15:30	C2		Coffee Break- Trent Building Great Hall	
Speaker Session 3 - Electrical Machines Diagnosis 01 - Trent Building Senate Chamber				
15:30 -16:00	3.1	TD-000701	Thermal and magnetization state monitoring of PMSM drives using HF signal injection	David Reigosa, Daniel Fernández, Alberto Diez, Juan Manuel Guerrero, Fernando Briz Spain
16:00 – 16:30	3.2	TD-000779	Recent advances in on-line Partial Discharge detection in electric power conversion chains used in aeronautics	Thibaut Billard, Cedric Abadie, Thierry Lebey France
16:30 – 17:00	3.3	TD-000108	Methodology to Study the Demagnetization Risk in Permanent Magnet Machines by Finite Element Method	Iratxo Gomez, Gaizka Almandoz, Gaizka Ugalde, Francisco Javier Poza, Ana Julia Escalada Spain
18:30 – 18:50	Coach		Coach from Orchard Hotel to Nottingham Castle	
19:00 – 23:00	FD		Formal Dinner at Nottingham Castle	

Friday 21st April 2017

08:00 – 12:00	R2	Registration - Trent Building Great Hall		
09:00 – 09:45	K2	Keynote 2 - Trent Building Senate Chamber	Neil Brown – Cummins Generator Technologies	UK
Speaker Session 4 - Electrical Machine Design 02 - Trent Building Senate Chamber				
09:45 – 10:15	4.1	TD-000922	CFD Optimisation of the Thermal Design for a Vented Electrical Machine	Kevin Bersch, Peter H. Connor, Carol Eastwick, Michael Galea, Rob Rolston UK
10:15 – 10:45	4.2	TD-000051	An Experimental and Numerical Study of Airflow Behaviour in a Low-Voltage Concentric-Wound Machine	D. Camilleri, R. Rolston, A. Bell, A. Kakade UK
10:45 – 11:15	4.3	TD-001147	Practical Evaluation of a Passive Stator Cooling Concept without Thermal Stacking	Andreas Lindner, Ingo Hahn Germany
11:15 – 11:45	C3	Coffee Break - Trent Building Great Hall		
Speaker Session 5 - Electrical Machines Control 02 - Trent Building Senate Chamber				
11:45 – 12:15	5.1	TD-000817	Sensorless Control of Interior Permanent Magnet Synchronous Motor: An Overview and Design Study	Yoshiaki Kano, Nobuyuki Matsui Japan
12:15 – 12:45	5.2	TD-001198	Analysis of Overload and Sensorless Control Capability of PM-Assisted Synchronous Reluctance Machines	Riccardo Leuzzi, Paolo Cagnetta, Simone Ferrari, Paolo Pescetto, Gianmario Pellegrino, Francesco Cupertino Italy
12:45 – 13:15	5.3	TD-000272	Permanent Magnet Bearingless Motors: Modelling Design and Drive	Blaise Lapôtre, Nouredine Takorabet, Farid Meibody-Tabar France
13:15 – 14:15	L2	Lunch - Trent Building Great Hall		
Speaker Session 6 - Electrical Machines Diagnosis 02 - Trent Building Senate Chamber				
14:15 – 14:45	6.1	TD-000965	Multi-Stress Lifetime Model of the Winding Insulation of Electrical Machines	Davide Barater, Giorgio Pietrini, Giovanni Franceschini, Fabio Immovilli, Andrea Cavallini Italy
14:45 – 15:15	6.2	TD-001279	Survey of Real-Time Fault Diagnosis Techniques for Electromechanical Systems	Shahin Hedayati Kia, Humberto Henao, Gérard-André Capolino France
15:15	WC	Workshop Close		
15:45 – 16:45	OP	Optional -- University of Nottingham Labs Tour		

Poster Sessions

Thursday 20th April 2017

Poster Session 1 -- Display from 09:00 to 17:00 - Trent Building Great Hall

TD-000116	Optimization of the Flux Modulation Poles for Vernier Machines with Concentrated windings	Dominik Raphael Thyroff, Ingo Hahn	Germany
TD-000124	Injection Based Sensorless Performance Optimization of SMPM Motor using PSO	Murat Caner, Chris Gerada	Turkey, UK
TD-000132	Radial Force Control of Multi-Sector Permanent Magnet Machines Considering Radial Rotor Displacement	Giorgio Valente, Luca Papini, Andrea Formentini, Christopher Gerada, Pericle Zanchetta	UK
TD-000167	Effect of Structure Parameters on the Losses and Efficiency of Surface-Mounted PMSM	Rui Yang, Chengming Zhang, Mingyi Wang, Liyi Li	China
TD-000183	Induction Motor Design considerations for LNG Carrier dual fuel Electric Propulsion	Eleni D. Mitsi, Athanasios G. Sarigiannidis, Antonios G. Kladas	Greece
TD-000205	Design and control of segmented triple three-phase SPM machines for fault tolerant drives	Giacomo Sala, David Gerada, Chris Gerada, Angelo Tani	Italy, UK
TD-000256	Design and Comparison of Interior Permanent Magnet Synchronous Traction Motors for High Speed Railway Applications	Dong Yu, Xiaoyan Huang, Youtong Fang, Jian Zhang	China
TD-000345	Design Optimization of Integrated Rotor-less Inductors for High-Speed AC Drive Applications	M. Raza Khowja, Chris Gerada, Gaurang Vakil, Chintanbhai Patel, Pat Wheeler	UK
TD-000353	Saliency and mutual inductance effect in cylindrical wound-rotor synchronous motor	Mkhululi Mabhula, Maarten.J Kamper	South Africa
TD-000663	Design of experiments in electrical engineering: applications in control and modelling	Pascal Maussion	France
TD-000213	Modeling and radial force control on d-q planes for triple three-phase sector SPM machines	Giacomo Sala, David Gerada, Chris Gerada, Angelo Tani	Italy, UK
TD-000035	A New Space Vector Approach to Detect Stator Faults in Induction Motors	Konstantinos N. Gyftakis, Antonio J. Marques Cardoso	UK, Portugal
TD-000159	DC-Link Sensor Fault Detection and Isolation for Railway Traction Drives	Jon del Olmo, Fernando Garramiola, Javier Poza, Txomin Nieva, Leire Aldasoro, Gaizka Almandoz	Spain
TD-001201	Closed-Loop Control Impact on the Detectability of Stator High-Resistance Connection in Doubly-Fed WRIMs Based on Rotor Power Spectral Analysis	Yasser Gritli, Claudio Rossi, Angelo Tani, Domenico Casadei, Fiorenzo Filippetti	Italy

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Poster Session 2 -- Display from 09:00 to 15:15 - Trent Building Great Hall

TD-000515	Analysis of salient-pole synchronous generators operating in single-phase condition	Cosimo Spagnolo, Stefano Nuzzo, Giovanni Serra, Chris Gerada, Michael Galea	UK
TD-000558	Review of Axial Flux Induction Motor for Automotive Applications	Franck Mushid, David Dorrell	South Africa
TD-000639	Sensitivity Analysis for Performance and Power Density Improvements in Salient-Pole Synchronous Generators	Yinli Wang, Gaurang Vakil, Stefano Nuzzo, Michele Degano, Michael Galea, Chris Gerada, Neil Brown	UK
TD-000647	Power Quality Improvement by Pre-Computed Modulated Field Current for Synchronous Generators	Daniel Fallows, Stefano Nuzzo, Alessandro Costabeber, Michael Galea	UK
TD-000906	Salient-Pole Rotor Optimisations for Synchronous Generators Using FEA Software	Anthony James Spargo, Sorin Gabriel Ilie, Jhan Yhan Chan	UK
TD-001023	Comparative study of permanent magnet-synchronous and permanent magnet-flux switching machines for high torque to inertia applications	Ahmed Al-Timimy, Paolo Giangrande, Michele Degano, Michael Galea, Chris Gerada	UK
TD-001058	Influence of Rotor Pole Width on Suspension Performance of a New Bearingless Doubly Salient Electro-magnetic Machine	Li Yu, Zhuoran Zhang, Wenjing Lu, Yuke Shi	China
TD-001163	Comparison of Surface Mounted and Uneven Consequent-Pole PM High-Speed Machines	Luca Papini, Francesco Papini, Paolo Bolognesi, Chris Gerada	UK
TD-000728	uCube: Control Platform for Power Electronics	Alessandro Galassini, Giovanni Lo Calzo, Andrea Formentini, Chris Gerada, Pericle Zanchetta, Alessandro Costabeber	UK
TD-000752	Experimental Verification of Improved Torque and Current Responses of New Flux-Weakening Control of IPMSM	Atsushi Matsumoto, Masaru Hasegawa	Japan
TD-000337	Generator rotating rectifier fault detection method based on Stacked Auto-encoder	Jiang Cui, Junxiang Tang, Ge Shi, Zhuoran Zhang	China
TD-000671	Early Detection and Classification of Bearing Faults using Support Vector Machine Algorithm	Jagath Senanayaka, Surya Kandukuri, Huynh Khang, Kjell Robbersmyr	Norway
TD-000221	Fault tolerant force control for a triple three-phase SPM machine with open winding fault	Giacomo Sala, David Gerada, Chris Gerada, Angelo Tani	Italy, UK