

August 18, Wednesday				August 18, Wednesday			
Technical Session 1 - Control Methods I -				Technical Session 2 - Measurement, Sensors, Identification I -			
Chair: Prof. Andres Ortiz Salazar				Chair: Profa. Janaina Gonçalves			
GMT: 02:05 PM - 02:45 PM				GMT: 02:05 PM - 02:45 PM			
Paper #	Title	Authors	Presenter	Paper #	Title	Authors	Presenter
40	Switching Stiffness Control of Lateral Motion in Magnetic Suspension System Using Lateral Displacement Detection with Hall Elements	<i>Taku Egawa, Takeshi Mizuno, Masaya Takasaki, Yuji Ishino, Daisuke Yamaguchi</i>	Takeshi Mizuno	38	Axial Synchronous Current Suppression of Maglev High-speed Motor Using Adaptive Notch Filter	<i>Yue Zhang, Jin Zhou, Xudong Guan, Yuanping Xu, Chaowu Jin, Yingzhe Linu</i>	Yue Zhang
14	Introduction of a Novel Highly Dynamic Thrust Bearing Control Based on a Fractional-Order Flux Estimator	<i>Robert Seifert, Wilfried Hofmann</i>	Robert Seifert	69	A Hall Sensors-Based Position Measurement of the Hybrid Magnetic Levitation System	<i>Xing-Dong Fu, Guang-Zhong Cao, Li-Jia Wang, Su-Dan Huang, J. Zhou, Xiao-Sheng Yang</i>	Li-Jia Wang
66	Model and Control of a Six-Pole Magnetic Bearing	<i>Laura Julia Martins Mothé, Vinicius Ramos Vasco, Yago Pessanha Corrêa, Domingos De Farias Brito David, Afonso Celso Del Nero Gomes</i>	Laura Julia Martins Mothé	88	Monitoring of Active Magnetic Bearings	<i>Bert-Uwe Koehler, Matthias Lang, Kristin Krenek</i>	Bert-Uwe Köhler
104	Simulation comparison of axial magnetic bearing PID control and fractional order PID control	<i>Jinping Chen, Zhang Li</i>		106	A Novel Inductive Sensor Input Circuit with Improved Tolerance to Non-Concentricity with Touch-Down Bearings	<i>Richard Jayawant, Andrea Masala, Nigel Davies, Roy Leung</i>	Richard Jayawant
August 18, Wednesday				August 18, Wednesday			
Technical Session 3 - Control Methods & Special Topics				Technical Session 4 - Materials & Maglev Vehicles			
Chair: Prof. Andres Ortiz Salazar				Chair: Profa. Janaina Gonçalves			
GMT: 03:15 PM - 03:55 PM				GMT: 03:15 PM - 03:55 PM			
Paper #	Title	Authors	Presenter	Paper #	Title	Authors	Presenter
50	A Comparative Study of an Optimal Control Scheme in Different Magnetic Bearings' Geometries	<i>Yago Pessanha Corrêa, Laura Julia Martins Mothé, Vinicius Ramos Vasco, Domingos De Farias Brito David, Afonso Celso Del Nero Gomes</i>	Yago Pessanha Corrêa	16	Comparison Between NdFeB and SmCo Permanent Magnets Regarding Eddy Currents in Bearingless PM Synchronous Machines	<i>Daniel Dietz, Andreas Binder</i>	Daniel Dietz
43	Review About Control and Estimation Strategies Applied to Bearingless Machines	<i>José Álvaro Paiva, Elmer Villarreal, W. Silva, J. M. Ferreira, A. Maitelli, Andrés Salazar</i>	Jossana Ferreira	29	Stability of Electrodynamical Maglev Vehicles Propelled by Permanent-Magnet Linear Electric Motors	<i>Salvatore Circosta, N. Amati, Renato Galluzzi, Andrea Tonoli, Angelo Bonfitto, Torbjörn Lembke, Milan Kertész</i>	Salvatore Circosta
86	Approaches to efficiency and life cycle assessment of magnetic bearing systems	<i>Hubert Mitterhofer, Stefan Fagner</i>	Hubert Mitterhofer	90	Operating a MagLev train prototype with super capacitors and charge by opportunity	<i>Gabriel Pereira, Richard Stephan, Felipe Costa</i>	Richard Stephan
				59	Criticality of rare earths for application in electric vehicles and wind energy in Brazil	<i>Dejair de Pontes Souza, Virgilio José Martins Ferreira Filho, Cristiano Nunes da Silva, Mariana Figueredo Jacques de Souza, J. Souza, S.E.M. Paula Jr</i>	

August 19, Thursday				August 19, Thursday			
Technical Session 5 - Control Methods II -				Technical Session 6 - Measurement, Sensors, Identification II -			
Chair: Prof. Mechelangelo Viana Mancuzo				Chair: Prof. Antonio Carlos Ferreira			
GMT: 02:05 PM - 02:45 PM				GMT: 02:05 PM - 02:45 PM			
Paper #	Title	Authors	Presenter	Paper #	Title	Authors	Presenter
32	Robust Control of Rigid Rotor Active Magnetic Bearing System Based on Signal Compensation	<i>Yichen Yao, Suyuan Yu, Yixin Su, Tianye Yu, Honglei Sha</i>	Yao Yichen	103	Design and Comparison of Dual-Purpose Stator Windings for Active Chatter Suppression in Milling Spindles	<i>Dennis Guhl, Robin Liebfried, Wilfried Hofmann</i>	Dennis Guhl
112	Space Vector Modulation for High Dynamic Current Control of a Self-Sensing Active Magnetic Bearing	<i>Dominik Wimmer, Markus Hutterer, Manfred Schrödl</i>	Dominik Wimmer	24	Modified excitation signals for AMB identification procedures	<i>Diego Alejandro Godoy Diaz, Fernando Augusto De Noronha Castro Pinto, Thiago Gamboa Ritto, David Julian Gonzalez Maldonado, Vinicius Ferreira Côrtes</i>	Diego Alejandro Godoy Diaz
10	Application of Active Disturbance Rejection Control (ADRC) in The Radial Position Control of a Bearingless Induction Machine with Split Winding.	<i>Werbet Luiz Silva, Andrés Salazar, Elmer Villarreal, Jossana Maria Ferreira, José Álvaro Paiva, André Maitelli</i>	Werbet Luiz Silva	89	Inductor Calculation of Inductive Displacement Sensor for Active Magnetic Bearings	<i>Rundong Yang, Kexiang Li, Zhiquan Deng</i>	
47	Linear Observers Design for a Three-Pole Magnetic Bearing	<i>Vinicius Ramos Vasco, Yago Pessanha Corrêa, Laura Julia Martins Mothé, Domingos De Farias Brito David, Afonso Celso Del Nero Gomes</i>	vinivius ramos vasco	105	Speed Signal Acquisition Algorithm of Magnetically Levitated High-speed Motor	<i>Wenze Pei, Zhiquan Deng, Kexiang Li</i>	
August 19, Thursday				August 19, Thursday			
Technical Session 7 - Hybrid & Passive Bearings				Technical Session 8 - Bearingless Motors			
Chair: Prof. Mechelangelo Viana Mancuzo				Chair: Prof. Antonio Carlos Ferreira			
GMT: 03:15 PM - 03:55 PM				GMT: 03:15 PM - 03:55 PM			
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5	Bearingless Motor with Passive Electrodynamics Axial Suspension	<i>Guilherme Cavalcante Rubio, Yusuke Fujii, Akira Chiba</i>	Guilherme Cavalcante Rubio	25	Radial Motion Control of Axial-Flux Self-Bearing Motor Using Plus and Minus Two-Pole Magnetic Fields	<i>Satoshi Ueno, Yuki Yamamoto, Changan Jiang</i>	Satoshi Ueno
73	Hybrid Active-Passive Operation of a Passively Levitated Self-Bearing Machine	<i>Joachim Van Verdegheem, Eric Severson, Bruno Dehez</i>	Joachim Van Verdegheem	70	Bearingless Induction Motor Design with the DPNV Winding and Reduced Axial Length Pole-Specific Rotor	<i>Eric Severson, Jiahao Chen</i>	Eric Severson
93	Research on the Dynamic Characteristic of Hybrid Axial Magnetic Bearing Considering Eddy Current Effects	<i>Shangsi Chen, Zhiquan Deng, Lei Mei, Chunmin Yu, Kexiang Li</i>		19	Design considerations for 2-level bearingless homopolar motors	<i>Tomislav Strinic, Wolfgang Gruber, Fadil Omeragic</i>	Tomislav Strinic
83	Passive Components Tailored to Application Needs: Shaped Characteristic Magnetic Spring	<i>Branimir Mrak, Guillaume Beckers, Bianca Wex</i>		51	Summary of Machine Design and Current Regulation for the Parallel DPNV Bearingless Motor Winding	<i>Nathan Petersen, Anvar Khamitov, Timothy Slininger, Eric Severson</i>	Nathan Petersen

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Technical Session 9 - Laboratory Testing & Mechanical Issues				Technical Session 10 - Low Temperature & Special Topologies			
Chair: Prof. Elkin Ferney Rodriguez				Chair: Prof. Jose Andres Santisteban			
GMT: 02:05 PM - 02:45 PM				GMT: 02:05 PM - 02:45 PM			
Paper #	Title	Authors	Presenter	Paper #	Title	Authors	Presenter
84	Dynamic suspension performance of an ultra-compact 5-DOF controlled axial gap type self-bearing motor for use in pediatric ventricular assist devices	Masahiro Osa, Toru Masuzawa, Kiyoshi Yamaguchi, Eisuke Tatsumi	Masahiro Osa	48	Development of Magnetically Levitated Motor Driven at Extremely Low Temperature	Mochimitsu Komori, Hiroisa Kato, Ken-Ichi Asami, Nobuo Sakai,	Mochimitsu Komori
107	Dynamics of Vertical Magnetic Suspension Rotor and Touchdown Bearing: Touchdown Mechanism and Structure Optimization	Zilin Li, Zixi Wang, Congtao Wang, Yuming Wang	Zilin Li	115	Optimization of the guiding stability of a horizontal axis HTS ZFC radial levitation bearing	Antônio José Arsénio, Francisco Ferreira Silva, João Filipe Pereira Fernandes, Paulo José da Costa Branco	Antônio José Arsénio dos Santos Costa
109	Experimental quantification and control of annular rubbing contact in magnetic bearing systems	Fawaz Saket, Patrick Keogh	Fawaz Saket	56	Active Control of Rotating Machines through Magnetic Bearings and New Rotor Topologies Featuring Internal Actuation	Gauthier A. Fieux, Patrick S. Keogh, Nicola Y. Bailey	Gauthier A. Fieux
110	Building A Bench With Magnetic Bearings For Study Of Rotor Dynamics	Jefferson Coelho, Fernando Pinto	Jefferson da Silva Coelho	114	Investigations of a new slotless homopolar permanent magnet active magnetic bearing	Guillaume Colinet, Bruno Dehez	Guillaume Colinet
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Technical Session 11 - Laboratory Testing				Technical Session 12 - Mechanical Issues			
Chair: Prof. Elkin Ferney Rodriguez				Chair: Prof. Jose Andres Santisteban			
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4	Proposal of Surface-Rotating Ball for Wind-Tunnel Using Magnetic Suspension	Takeshi Mizuno, Yonosuke Jibiki, Yuji Ishino, Masaya Takasaki	Takeshi Mizuno	7	Influence of Magnetic Eccentricity in Bearingless PM Synchronous Machines	Daniel Dietz, Andreas Binder	Daniel Dietz
6	Identification of Various Frequency Response Functions for Levitating Rotor System using Active Magnetic Bearings	Michael Kreutz, Johannes Maierhofer, Thomas Thümmel, Daniel J. Rixen	Michael Kreutz	34	Diametral Enlargement of Highly Gyroscopic Outer-Rotors in Active Magnetic Bearings	Timo Hopf, Michael Richter, Benedikt Schüßler, Stephan Rinderknecht	Timo Hopf
17	Experimental Identification of Dynamic Coefficients of Fluid Film Bearings by Using Electro-Magnetic Actuator	Thibaud Plantegenet, Mihai Arghir, Jarir Mahfoud	Thibaud Plantegenet,	39	Drop-Downs of an Outer Rotor Flywheel in Different Planetary Touch-Down Bearing Arrangements	Benedikt Schüßler, Timo Hopf, Stefan Rinderknecht	Benedikt Schüßler
72	Random Vibration Simulation and Testing of a Compact, Magnetic Bearing Supported Blower for Space Applications	Larry Hawkins, Rasish Khatri, Alexei Filatov, Chris Dellacorte, S. Adam Howard	Larry Hawkins	67	Identification of cracks in shafts using magnetic bearings	Cesar Augusto Lampe Linhares da Fonseca, Michael Kreutz, Thommas Thümmel	Cesar Augusto Lampe Linhares da Fonseca