

LDIA2005 Program (Tentative, as of Jun. 13, 2005)

September 26 (Mon) 9:00-9:20 Opening Ceremony (Main Hall)

September 26 (Mon) 9:20-10:00 Keynote Speech I (Main Hall)

A26K-1	Levitation Linear Motors for Precision Positioning Trumper, D., <i>Massachusetts Institute of Technology, USA</i>
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September 26 (Mon) 10:00-10:40 Keynote Speech II (Main Hall)

A26K-2	MEMS-based Micro Linear Drives to Bio-based Nanoactuation Fujita, H., <i>The University of Tokyo, Japan</i>
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September 26 (Mon) 11:00-12:40 Micromachine (Oral: Main Hall)

A26A1-1 (A064)	3D Numerical Model of Subcutaneous Insulin Micro-Pump Infusion System Stefanini, I.S., Markovic, M., Perriard, Y., <i>Ecole Polytechnique Fédérale de Lausanne, Switzerland</i>
A26A1-2 (A095)	Design and Simulation of Voice Coil Motors for Micro-contact Imprint Wang, P.-J., Tseng, K.-J., <i>National Tsing Hua University, Taiwan</i> , Wang, L.-Y., <i>National United University, Taiwan</i> , Lin, H.-Y., <i>ITRI, Taiwan</i>
A26A1-3 (A087)	Development of a Linear Microconveyer for Microfactory Yanagi, T., Komori, M., <i>Kyushu Institute of Technology, Japan</i>
A26A1-4 (A013)	Micro-machined Actuators for Friction Driven Linear Micro-motors Legrand, B., Buchaillot, L., Collard, D., <i>Institut d'Electronique, de Microélectronique et de Nanotechnologie, France</i>
A26A1-5 (A090)	A Numerical Study on Suspension of Molecules by Microcantilever Probe Hikihara, T., Yamasue, K., <i>Kyoto University, Japan</i>

September 26 (Mon) 11:00-12:40 Analysis (Oral: Amphitheater)

B26A1-1 (A032)	A Novel High Performance Linear Magnetic Gear Atallah, K., Wang, J., Howe, D., <i>University of Sheffield, UK</i>
B26A1-2 (A112)	Dynamic Analysis of Vacuum Interrupter with Linear Actuator Nakagawa, T., <i>Mitsubishi Electric Corporation, Japan</i> , Muramatsu, K., Koda, K., <i>Saga University, Japan</i>
B26A1-3 (A009)	Simulated Analysis of Linear Permanent Magnet Brushless DC Motor Deliang, L., <i>Xi'an Jiaotong University, China</i> , Junyong, L., <i>Naval University of Engineering, China</i>

B26A1-4 (A146)	Analysis of High-Speed Linear Induction Motors Using An Exact Analytical Method Mirzayee, M., Mirsalim, M., Ghodsi, M., <i>Amirkabir University of Technology, Iran</i>
B26A1-5 (A029)	A Novel Network Topological Method for Thermal Analysis of PM Linear Motor Liu, Y., Tang, C., Ho, S.Y., <i>ASM Assembly Automation Ltd., Hong Kong</i>

September 26 (Mon) 13:40-15:40 Electromagnetic Linear Motors and Actuators I (Poster)

L26P1-1 (A133)	The Reliability Compliance Test of Linear Induction Motor Fang Y., Fan, C., Ye, Y., Lu, Q., <i>Zhejiang University, China</i>
L26P1-2 (A039)	A Method to Calculate the Speed Characteristics of Linear Induction Motors Using Operational Impedances Yamamoto, S., Lerdsuwanont, P., <i>Polytechnic University, Japan, Ara, T.</i>
L26P1-3 (A046)	Thrust Characteristics of Linear Oscillatory Actuator for Liquid Pump Mison, N., Wong, J.-H., Mariun, N., <i>Universiti Putra Malaysia, Malaysia, Wakiwaka, H., Shinshu University, Japan, Hirama, Y., Inst. of Professional Engineers, Japan</i>
L26P1-4 (A071)	Improvement of Power Density in Double Type Transverse Flux Linear Motor Lee, J.-Y., Hong, J.-P., <i>Changwon National University, Korea, Jang, J.-H., Kang, D.-H., Korea Electrotechnology Research Institute, Korea</i>
L26P1-5 (A101)	The Examination of the High Speed Drive and the Stability of Surface Motor Misu, D., Watada, M., Torii, S., Domeki, H., <i>Musashi Institute of Technology, Japan, Ebihara, D., Shin-Etsu Chemical Co., Ltd. Japan, Aoyama, Y., Ohashi, K., Musashi Institute of Technology, Japan</i>
L26P1-6 (A116)	An Advanced Model for a Linear Tubular Switched Reluctance Stepping Motor Ben Saad, K., Elamraoui, L., <i>Ecole nationale d'ingénieurs de Tunis, Tunisia, Gillon, F., Ecole Centrale de Lille, France, Ben Salah, B., Benrejeb, M., Ecole nationale d'ingénieurs de Tunis, Tunisia, Brochet, P., Ecole Centrale de Lille, France</i>
L26P1-7 (A001)	Circle Diagrams of an Oscillating Synchronous Linear Motor Roubíček, O., <i>MECHATRONIKA Prague, Czech Republic, Peřina, J., Technical University, Czech Republic</i>
L26P1-8 (A036)	Design of a Modular Tubular Permanent Magnet Generator for a Free-Piston Energy Converter Wang, J., Howe, D., <i>University of Sheffield, UK</i>
L26P1-9 (A049)	Lateral Force of a Linear Synchronous Reluctance Motor Ogawa, K., <i>Oita University, Japan</i>
L26P1-10 (A057)	Electrical Time Constant Reduction of Two-phase Moving-coil LSM Watanabe, T., Homma, K., <i>FDK Corporation, Japan</i>
L26P1-11 (A065)	Research of Tubular Linear Motor for Vacuum Switch Drive Fan, C., Dong, X., Ye, Y., <i>Zhejiang University, China</i>

L26P1-12 (A069)	Optimization of Slotless-type PMLSM for High Precision Driving Kim, S.-I., Hong, J.-P., <i>Changwon National University, Korea</i> , Kim, Y.-K., <i>Samsung Electronics Co. Ltd., Korea</i> , Nam, H., <i>LG Electronics Co. Ltd., Korea</i> , Jo, H.-I., <i>OTIS-LG Elevator Company, Korea</i>
L26P1-13 (A072)	Design and Control of Improved Dual Servo VCM Lee, H.-K., Oh, J.-H., Kwon, B.-I., <i>Hanyang University, Korea</i>

September 26 (Mon) 13:40-15:40 Control Technologies for Linear Drives I (Poster)

L26P2-1 (A130)	Simultaneous Motion and Normal Forces Control of Flat Permanent Magnet Linear Synchronous Motors employed as Actuators Martínez, G., Martínez-Iturralde, M., Castelli, M., García Rico, A., Flórez, J., <i>Tecnun (University of Navarra), Spain</i> ,
L26P2-2 (A143)	Non-Sinusoidal Electromotive Force Compensation of a PMLSM with Multiple-Frequency Resonant Controller Remy, G., Zeng, J., Barre, P.-J., Hautier, J.-P., <i>ENSAM Lille (EEA), France</i>
L26P2-3 (A155)	Coordinated Position Control for Double Linear Synchronous Motors in Conveying System Shi, L., Yang, J., Li, Y., Xu, S., <i>Chinese Academy of Sciences, China</i>
L26P2-4 (A047)	The Efficiency Optimized Speed Control for PM-LSM included Transient State under Consideration of Iron Core Loss Takayama, N., Ito, Y., <i>Hokkaido University, Japan</i>
L26P2-5 (A033)	H_{∞} Robust Control for the Permanent Magnet Linear Synchronous Motor Feeding Drive Xu, Y.-T., Chen, Z.-C., <i>Zhejiang University, China</i>
L26P2-6 (A054)	Simultaneous High Precision Control of the Position and an Oscillatory Mode of a Vacuum Air Bearing Linear Drive Stadler, P.A., <i>University of Applied Sciences Berne, Switzerland</i> , Dodds, S.J., <i>University of East London, UK</i> , Wild, H.G., <i>University of Applied Sciences Berne, Switzerland</i>
L26P2-7 (A135)	Simple and Robust Indirect Thrust Control for Positioning of Linear Induction Motors Martínez-Iturralde, M., Martínez, G., Castelli, M., García Rico, A., Flórez, J., <i>TECNUN. University of Navarra, Spain</i>
L26P2-8 (A004)	Direct Force Control of Linear Permanent Magnet Synchronous Motors Faiz, J., Tabatabaei-Ardakani, I., Mohseni-Zoonozi, S. H., <i>University of Tehran, Iran</i>
L26P2-9 (A003)	Analysis of Motor Driver Uncertainties in Linear Permanent Magnet Motor Control Systems Gan, W.-C., Tam, M.S.W., Chan, K.K.-C., Widdowson, G. P., <i>ASM Assembly Automation Ltd., Hong Kong</i> ,

September 26 (Mon) 13:40-15:40 Non-electromagnetic Linear Motors and Actuators (Poster)

L26P3-1 (A017)	Prediction of Static Thrust Characteristics of a Linear Solenoid by using Response Surface Methodology Nirei, M., Takizawa, Y., <i>Nagano national College of Technology, Japan</i>
L26P3-2 (A081)	Design of the Stator for a Novel Traveling Wave Type Linear Ultrasonic Motor Tang, H.-W., Tsai, M.-C., <i>National Cheng Kung University, Taiwan</i>
L26P3-3 (A022)	Electrostatic Controlled Linear Inchworm Actuator for Precise Step and Parallel Motion Konishi, S., Oshima, A., Kinoshita, N., Kumagaya, I., Kishi, T., <i>Ritsumeikan University, Japan</i>
L26P3-4 (A091)	Status of Tubular Linear Brushless Machines Gieras, J. F., <i>United Technologies Research Center, USA</i>

September 26 (Mon) 13:40-15:40 Analyses of Electromagnetic Field and Force Field (Poster)

L26P4-1 (A068)	Variable Reluctance Linear Actuator Dynamics Analysis Based on Co-energy Maps for Control Optimization Espírito Santo, A.V., Calado, M.R.A., Cabrita, C.P., <i>University of Beira Interior, Portugal</i>
L26P4-2 (A075)	Shape Optimization of Teeth Structure in Tubular-Type Linear Generator Lim, J.-W., Choi, H.-Y., Jung, H.-K., <i>Seoul National University, Korea</i> , Hong, S.-K., <i>Hoseo University, Korea</i> , Lee, C.-G., <i>Dong-Eui University, Korea</i>
L26P4-3 (A137)	Design Optimization of Air-Core Linear Permanent Magnet Synchronous Motors for Improved Performance and Cost Vaez-Zadeh, S., Hassanpour Isfahani, A., <i>University of Tehran, Iran</i> ,
L26P4-4 (A002)	Analysis of Reciprocating Self-Excited Induction Generator Using Harmonic Balance Finite Element Method Faiz, J., <i>University of Tehran, Iran</i> , Rezaeealam, B., Yamada, S., <i>Kanazawa University, Japan</i>
L26P4-5 (A025)	Modeling of Flux Distribution in Linear PMS Motors for Design Applications Vaez-Zadeh, S., Hassanpour Isfahani, A., <i>University of Tehran, Iran</i>
L26P4-6 (A060)	Harmonic Balance Hybrid Finite Element-Boundary Element Method Including Linear Time Periodic Movement Rezaeealam, B., Yamada, S., <i>Kanazawa University, Japan</i> , Faiz, J., <i>University of Tehran, Iran</i> ,
L26P4-7 (A156)	Analysis of High Speed Linear Induction Motors With Slotted Secondary Mirzayee, M., Mirsalim, M., Ghodsi, M., <i>Amirkabir University of Technology, Iran</i>

L26P4-8 (A123)	Analysis of Linear Induction Motors for HSST and Linear Metro using Finite Difference Method Nozaki, Y., Koseki, T., Masada, E., <i>Tokyo University of Science, Japan</i>
L26P4-9 (A136)	A Modified Unified Analytical Method for PMLSM and Comparison in FEM Wang, X., Yuan S., <i>Henan Polytechnic University, China</i>
L26P4-10 (A144)	Finite-Element Analysis of Non-Sinusoidal Electromotive Force in a Permanent Magnet Linear Synchronous Motor Remy, G., <i>Ecole Nationale Supérieure d'Arts et Métiers, France</i> , Tounzi, A., <i>Université des Sciences et Techniques de Lille, France</i> , Barre, P.-J., <i>Ecole Nationale Supérieure d'Arts et Métiers, France</i> , Piriou, F., <i>Université des Sciences et Techniques de Lille, France</i> , Hautier, J.-P., <i>Ecole Nationale Supérieure d'Arts et Métiers, France</i>
L26P4-11 (A158)	Linear Motor's Cogging Minimization Using Quality Engineering and Finite Element Method Ohto, M., Kawahara, A., <i>Yaskawa Electric Corp., Japan</i> , Miyamoto, Y., Tsutsui, Y.
L26P4-12 (A066)	Induction Heating Calculation in Consideration of Moving and Forming of Heated Body Yamada, T., <i>Nittetsu Plant Designing Corp., Japan</i> , Fujisaki, K., <i>Nippon Steel Corp., Japan</i>
L26P4-13 (A079)	Dynamic Performance of Electromechanical Shakers – Application of Duality Hamdi, E., <i>Chalmers University of Technology, Sweden</i> , Al-Yadoumi, M.A., <i>Sana'a University, Yemen</i>
L26P4-14 (A008)	Calculation of Reactive Linear Synchronous Motor Transient Performance Deliang, L., Shikun, C., <i>Xi'an Jiaotong University, China</i>
L26P4-15 (A138)	A Coupled Dynamic Modeling of a Three Phase Axisymmetric Linear Actuator Missaoui, W., Elamraoui Ouni, L., <i>Ecole Nationale d'Ingénieurs de Tunis, Tunisia</i> , Gillon, F., <i>Ecole Centrale de Lille, France</i> , Benrejeb, M., <i>Ecole Nationale d'Ingénieurs de Tunis, Tunisia</i> , Brochet, P., <i>Ecole Centrale de Lille, France</i>

September 26 (Mon) 13:40-15:40 Materials (Poster)

L26P5-1 (A082)	Development of a Soft Magnetic Composite Core for a Stirling Cooler Linear Motor Pennander, L.-O., Nord, G., <i>Höganäs AB, Sweden</i> , Maezawa, K., Saito, M., <i>Twinbird Corporation, Japan</i>
L26P5-2 (A153)	The Magnetic Characteristic of the Arrangement Bulk HTS Sample on Some Permanent Magnet Arrays Suzuki, H., Ito, A., <i>Fukushima National College of Technology, Japan</i>

September 26 (Mon) 13:40-15:40 Subsystems for Linear Drives (Poster)

L26P6-1 (A083)	Photoelectric Distributed System of Energy Supply for Magnetolevitative Vehicle Plaxin, S., Shkil', Y., <i>National Academy of Sciences of the Ukraine, Ukraine</i>
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L26P6-2 (A006)	Sensors for Displacements and Vibrations Kaplan, B.-Z., <i>Ben-Gurion University of the Negev</i> , Israel, Suissa, U., <i>Sami Shamoon College of Engineering</i> , Israel
L26P6-3 (A148)	Measurement of Pull-in Thrust Characteristics of Small Linear Synchronous Motor Using Pneumatic Cylinder Wakiwaka, H., Seki, K., Shimogawa, K., <i>Shinshu University</i> , Japan, Yajima, H., Fujiwara, N., <i>SMC Co. Ltd.</i> , Japan

September 26 (Mon) 13:40-15:40 Related Topics and New Technologies (Poster)

L26P7-1 (A051)	A CMOS Rotary Encoder System Using Magnetic Sensor Arrays Takahashi, T., <i>NTN Corporation</i> , Japan, Nakano, K., Kawahito, S., <i>Shizuoka University</i> , Japan
L26P7-2 (A044)	Basic Study of Suitable Linear Generator Configuration for Wave Power Generation Sanada, M., Matsushita, T., Morimoto, S., Takeda, Y., <i>Osaka Prefecture University</i> , Japan
L26P7-3 (A077)	A Conceptual Design of Linear Actuator for Fish Robot Zuo, F., Nishii, M., Mishima, N., Yamamoto, S., Azukizawa, T., <i>Kobe University</i> , Japan

September 26 (Mon) 13:40-15:40 Office & Home Automation (Poster)

L26P8-1 (A127)	Design, Construction and Control of a High Performance XY Positioner Castelli, M., Martínez-Iturralde, M., Martínez, G., García Rico, A., Florez, J., <i>TECNUN (University of Navarra)</i> , Spain
L26P8-2 (A134)	Efficiency of the Linear Electric Drive of Engine Valves Kudarauskas, S., Didziokas, R., <i>Klaipeda University</i> , Lithuania
L26P8-3 (A113)	The Development of Linear Synchronous Motor for Home Automation Maruyama, K., Kim, Y., Watada, M., Torii, S., Dohmeki, H., Ebihara, D., <i>Musashi Institute of Technology</i> , Japan

September 26 (Mon) 16:00-17:40 Linear Drive Application (Oral: Main Hall)

A26P1-1 (A114)	Steering Guidance Control in SLIM Drives of Air-Suspended Hybrid LIM Vehicle Yoshida, K., <i>Kyushu University</i> , Japan, Oshima, K., Suganuma, M., <i>Nippon Otis Elevator Company</i> , Japan, Yoshida, T., Takami, H., <i>Kyushu University</i> , Japan, Kawai, T., <i>Nippon Otis Elevator Company</i> , Japan
A26P1-2 (A035)	A Tubular Permanent Magnet Machine Equipped With Homopolar Windings Wang, J., Howe, D., <i>University of Sheffield</i> , UK

A26P1-3 (A058)	Dynamic Characteristics of the Superconducting Maglev under Unusual Particular Operation Takeuchi, Y., Yamanaka, A., Kitano, J., Nakanishi, T., Mine, Y., <i>Central Japan Railway Company, Japan</i>
A26P1-4 (A037)	SWISSMETRO: Polarized Linear Motors Combined With Levitation Actuators Cassat, A., <i>EPFL-STI-IPR-LAI, Switzerland</i> , Espanet, C., <i>University of Franche-Comité, France</i> , Bourquin, V., <i>Numexia, Switzerland</i> , Jufer, M., <i>EPFL-STI-IPR-LAI, Switzerland</i>
A26P1-5 (A096)	General Atomics Urban Maglev Test Track Status Gurol, H., Baldi, R.W., <i>General Atomics, USA</i>

September 26 (Mon) 16:00-17:40 Multidimensional Drive (Oral: Amphitheater)

B26P1-1 (A059)	Development of a Spherical Motor Type Laser Tracker for the Portable 3D position measurement system Yano, T., Takatujji, T., Osawa, <i>National Institute of Advanced Industrial Science and Technology, Japan</i> , S., Motomura, Y., Itabe, T., Suzuki, T., <i>Yasukawa Electric Co. Ltd., Japan</i>
B26P1-2 (A030)	Development of an Arrayed Multi-Degree-of-Freedom Ultrasonic Motor Otokawa, K., <i>Keio University, Japan</i> , Takemura, K., <i>Tokyo Institute of Technology, Japan</i> , Maeno, T., <i>Keio University, Japan</i>
B26P1-3 (A048)	Magnetic Levitated 2D Fast Drive Etxaniz, I., Izpizua, A., San Martin, M., Arana, J., <i>Fundación Tekniker, Spain</i>
B26P1-4 (A111)	Development of the Two-Dimensional Oscillatory Actuator Honda, Y., Torii, S., Ebihara, D., <i>Musashi Institute of Technology, Japan</i> , Hasegawa, Y., Hirata, K., <i>Matsushita Electric Works, Ltd., Japan</i>
B26P1-5 (A107)	Positioning Characteristics of a Coreless Surface Motor using Halbach Permanent Magnet Array Ueda, Y., Kawamoto, Y., Ohsaki, H., <i>The University of Tokyo, Japan</i>

September 27 (Tue) 9:00-10:40 Linear Motor & Actuator I (Oral: Main Hall)

A27A1-1 (A027)	Linear or Rocking Actuators for Camless Systems ? Yonnet, J.-P., <i>Institut National Polytechnique De Grenoble, France</i> , Fageon, C., <i>ITlink System, France</i> , Baldi, C., <i>PSA Peugeot Citroën, France</i>
A27A1-2 (A122)	Study on Armature End Structure of Cylindrical Linear Synchronous Motors Iwata, A., Lee, T., Maki, N., <i>Tokai University, Japan</i>
A27A1-3 (A149)	Fast Response Design of Linear Electromagnetic Solenoid for Injection Nozzle by Magnetic Field Analysis Wakiwaka, H., Keduka, T., Kodani, M., <i>Shinshu University, Japan</i> , Matsumoto, K., Saito, N., <i>Marktec Co. Ltd., Japan</i>

A27A1-4 (A120)	Long Stator Transverse Flux Linear Motor(LSTFLM) with the Contact-less Power Transfer System(CPS) Kang, D.-H., Kim, J.-M., <i>Korea Electrotechnology Research Institute, Korea</i>
A27A1-5 (A038)	High Acceleration Applications: Design Optimization and Comparison between Different Toothless Motors Chevailler, S., Cassat, A., Jufer, M., <i>Ecole Polytechnique Fédérale de Lausanne, Switzerland</i>

September 27 (Tue) 9:00-10:40 Levitation I (Oral: Amphitheater)

B27A1-1 (A140)	Optimal Design Strategy for a Novel Linear Electromechanical Actuator Lebedev, A., Lomonova, E., <i>Eindhoven University of Technology, The Netherlands</i> , Laro, D., <i>Delft University of Technology, The Netherlands</i>
B27A1-2 (A157)	Improvement of control method in an Induction Bearingless Motor with a Squirrel Cage Rotor Hiromi, T., Chiba, A., <i>Tokyo University of Science, Japan</i> , Fukao, T., <i>Musashi Institute of Technology, Japan</i>
B27A1-3 (A152)	Air gap Disturbance Attenuation of Magnetic Levitation Systems using Discrete Kalman Filter Sung, H.-K., Jho, J.-M., Cho, H.-J., Kim, B.-S., <i>Korea Institute of Machinery & Materials, Korea</i>
B27A1-4 (A109)	The Self-Gap-Detecting Electromagnetic Suspension System with Robustness against Variation of Coil Resistance Morishita, M., Itoh, H., <i>Toshiba Corp., Japan</i>
B27A1-5 (A161)	Robust H_{∞} DIA Control of Levitated Steel Plates Namerikawa, T., Mizutani, D., <i>Nagaoka University of Technology, Japan</i>

September 27 (Tue) 11:00-12:20 Linear Motor & Actuator II (Oral: Main Hall)

A27A2-1 (A150)	Sensor-less Combined Vertical and Lateral Magnetic Damper by Using Linear Generator for EDS Maglev Murai, T., Sakamoto, Y., Kashiwagi, T., <i>Railway Technical Research Institute, Japan</i>
A27A2-2 (A052)	A Novel Concept of a Transverse Flux Linear Free-Piston Generator Cosic, A., Sadarangani, C., Carlsson, F., <i>Royal Institute of Technology, Sweden</i>
A27A2-3 (A117)	Development of Flat-type Linear Generator for Free-Piston Engine Choi, H.-Y., Lim, J.-W., Jung, H.-K., <i>Seoul National University, Korea</i> , Hong, S.-K., <i>Hoseo University, Korea</i> , Cho, D.-H., Hwang, S.-Y., <i>Hyosung Co., Korea</i>
A27A2-4 (A094)	Control of a Surface Acoustic Wave Motor Using PID Controller Suzuki, T., Kurosawa, M., <i>Tokyo Institute of Technology, Japan</i> , Asai, K., <i>Matsushita Electric Industrial Co.,Ltd., Japan</i>

September 27 (Tue) 11:00-12:20 Levitation II (Oral: Amphitheater)

B27A2-1 (A085)	Dynamic Test for General Atomics Urban Maglev Test System Kim, I.-K., Doll, D., <i>General Atomics, USA</i>
B27A2-2 (A089)	Prototype of Self-sensing Magnetic Bearing for Liquid Nitrogen Pump Eguchi, S., Okuhata, T., Komori, M., <i>Kyushu Institute of Technology, Japan</i>
B27A2-3 (A105)	Possibility of a Stable Levitation in the System Composed of Two Permanent Magnets and Diamagnetic Materials Without any Control Yokoyama, T., Ohashi, K., <i>Shin-Etsu Chemical Co.Ltd., Japan</i>
B27A2-4 (A093)	Preliminary Investigations on a Diamagnetically Levitated Linear Conveyor Barrot, F., Loehr, B., Sache, L., Chapuis, D., Moser, R., Bleuler, H., <i>Ecole Polytechnique Fédérale de Lausanne, Switzerland</i>

September 27 (Tue) 13:20-15:20 Electromagnetic Linear Motors and Actuators II (Poster)

L27P1-1 (A086)	Motor Characteristics of Moveing-Iron Linear Oscillatory Actuator Basis on New Magnetic Circuit Muraguchi, Y., Fukunaga, T., Nakagawa, H., <i>Shinko Electric Co. Ltd, Japa,</i>
L27P1-2 (A099)	Characteristics of Linear Induction Motor with Magnet Rotator Type of Compensator Fujii, N., Ito, Y., Yoshihara, T., <i>Kyushu University, Japan,</i>
L27P1-3 (A100)	Analytical Study of Linear Induction Motor with Single-phase Primary and Two-phase Secondary Winding Fujii, N., <i>Kyushu University, Japan,</i> Mizuma, T., <i>National Traffic Safety & Environment Laboratory, Japan</i>
L27P1-4 (A102)	Development and Characteristic Analysis of New Type Actuator, Electro Magnetic Driven Force Actuator Applicable to High Voltage Circuit Breaker Kang, J.-H., Shin, D.-K., Jung, H.-K., <i>Seoul National University, Korea,</i> Kim, H.-K., <i>Korea Electrotechnology Research Institute, Korea</i>
L27P1-5 (A028)	Compact Actuators for Camless Systems Chillet, C., Yonnet, J.-P., <i>Institut National Polytechnique de Grenoble, France,</i> Fageon, C., <i>ITlink System, France,</i> Baldi, C., <i>PSA Peugeot Citroën, France</i>
L27P1-6 (A042)	Proposal of Linear Oscillatory Actuator Using DC Motor Hasegawa, Y., Hirata, K., <i>Matsushita Electric Works, Ltd., Japan,</i> Yamaguchi, T., Kawase, T., Shamoto, T., Kodama, H., <i>Gifu University, Japan</i>
L27P1-7 (A061)	Static Response of Linear Actuator With Transverse Flux Linear Motor for a Household Electric Applications Woo, B.-C., Hong, D.-K., Kang, D.-H., Kim, J.-M., <i>Korea Electrotechnology Research Institute, Korea</i>

L27P1-8 (A063)	Static Thrust Analysis of a Moving Magnet Linear Oscillatory Actuator for Vibration Cancel System Mizuno, T., Bu, Y., Tsuchiya, F., <i>Shinshu University, Japan</i> , Yamada, H., <i>Doctoral International Collaboration Institute, Japan</i> , Kato, R., Muramatsu, A., Guo, S., <i>Tokai Rubber Industries Ltd., Japan</i>
L27P1-9 (A076)	Direct Linear Electromechanical Actuator for Gear Shift Control in Automotive Transmissions Turner, A., Ramsay, K., <i>Ricardo Driveline and Transmission Systems, UK</i> , Clark, R. Howe, D., <i>University of Sheffield, UK</i>
L27P1-10 (A118)	Design of Tubular-type Linear Generator for Free-Piston Engine Choi, H.-Y., Lim, J.-W., Jung, H.-K., <i>Seoul National University, Korea</i> , Hong, S.-K., <i>Hoseo University, Korea</i> , Cho, D.-H., <i>Hyosung Co., Korea</i>
L27P1-11 (A139)	Design and Research on a Cylindrical Moving-iron Linear Actuator for Reciprocating Applications Inoue, M., Kakuda, M., Hara, S., <i>Mitsubishi Electric Corporation, Japan</i>

September 27 (Tue) 13:20-15:20 Control Technologies for Linear Drives II (Poster)

L27P2-1 (A005)	Adaptive Backstepping Sliding-Mode Control Using RBF Network for Two-Axis Motion Control System Lin, F.-J., Shen, P.-H., <i>National Dong Hwa University, Taiwan</i>
L27P2-2 (A018)	Design and Implementation of a Load Observer for Linear Servo Systems Cheng, C.-W., <i>Industrial Technology Research Institute, Taiwan</i> , Tsai, M.-C., <i>National Cheng Kung University, Taiwan</i>
L27P2-3 (A050)	Position Control of Linear Induction Motor with Cage-type Secondary Using Direct Thrust Control and IP Controller Kim, K.-M., Park, S.-C., <i>Dongyang University, Korea</i>
L27P2-4 (A056)	Toque Ripple Control of Long Stator Linear Synchronous Motor Ge, Q., Li, Y., Kong, L., <i>Chinese Academy of Sciences, China</i>
L27P2-5 (A067)	Suitability of various force control techniques for a modular-stator linear synchronous motor Lines, C., Cruise, R., Wigdorowitz, B., Pritchard, C., <i>University of the Witwatersrand, South Africa</i>
L27P2-6 (A124)	Characteristic Investigation of the Discontinuous Permanent Magnet Linear Synchronous Motor by Constant Load Angle Control Kim, Y., Suzuki, K., Watada, M., Torii, S., Dohmeki, H., Ebihara, D., <i>Musashi Institute of Technology, Japan</i>

September 27 (Tue) 13:20-15:20 Levitation Technologies (Poster)

L27P3-1 (A010)	Development of a Levitation/Propulsion Module for a Magnetically Levitated Conveyor Vehicle Leßmann, M., Van Goethem, J., Hameyer, K., <i>RWTH Aachen University, Germany</i>
L27P3-2 (A043)	Convey System Using High Temperature Bulk Superconductor Ghodsi, M., Ueno, T., Higuchi, T., <i>The University of Tokyo, Japan</i> , Hirano, H., <i>Shin Nippon Steel Co. Ltd., Japan</i>
L27P3-3 (A154)	Improving the Rotational Performance of Magnetic Bearings Using the H_{∞} DIA Control Seto, H., Namerikawa, T., <i>Nagaoka University of Technology, Japan</i>
L27P3-4 (A007)	Force Study of Moving Magnet-type Linear Oscillatory Actuator Lu, Q., Ye, Y., <i>Zhejiang University, China</i>
L27P3-5 (A012)	Dynamic Characteristics of the Hybrid magnetic Levitation System Tongjuan, L., Nengqiang, J., <i>Chinese Academy of Sciences, China</i>
L27P3-6 (A026)	Performance Analysis of Passive Electrodynamic Suspension Vaez-Zadeh, S., Ramtin, S., <i>University of Tehran, Iran</i>
L27P3-7 (A084)	The Design Manual of Voltage-Controlled and Current-Controlled Observer in Sensorless Magnetic Levitation System of Steel Plate Tada, K., Torii, S., <i>Musashi Institute of Technology, Japan</i>
L27P3-8 (A097)	Propulsion Method for the Magnetically Levitated Hybrid Conveyance System Dodo, D., Ohashi, S., <i>Kansai University, Japan</i>
L27P3-9 (A125)	Inverter-Driven Dynamic Characteristics of the Amphibious Linear Motor Maglev Vehicle ME02 Yoshida, K., El-Nemr, M., <i>Kyushu University, Japan</i>
L27P3-10 (A142)	A Study on Lightweight Hybrid Magnet using Divided Iron Cores and Permanent Magnets for Magnetically Levitated Vehicle Kakinoki, T., Yamaguchi, H., Jifuku, Y., <i>Sojo University, Japan</i> , Nomiyama, T., <i>Shinko Electric Co., Ltd, Japan</i> , Shinohara, K., <i>Kagoshima University, Japan</i>
L27P3-11 (A160)	Simulation of Controller Characteristics Applied To Magnetic Levitation for an X-Y LSM Inubushi, N., Inui, S., Ohira, Y., <i>Nihon University, Japan</i>
L27P3-12 (A088)	A Study on Switching Control of Magnetically Suspended and Carried System Based on Hybrid System Theory Hikihara, T., <i>Kyoto University, Japan</i> , Furukawa, Y.
L27P3-13 (A110)	3 Degrees of Freedom Fuzzy Model Based Nonlinear Control of Triple Configuration of U Type Hybrid Electromagnets Erkan, K., Koseki, T., <i>The University of Tokyo, Japan</i>

L27P3-14 (A092)	Experimental Interaction Between Passive HTc Superconducting Plate and Iron-Magnetic Tracks With and Without Side Rims: Comparison of Levitation Performance D'Ovidio, G., Crisi, F., Navarra, A., Lanzara, G., <i>University of L'Aquila, Italy</i>
L27P3-15 (A108)	Study on Static Stability Problem of a Magnetic Levitation Transport System using the Mechanism of Induced Repulsive Force Kawada, N., <i>Ryomei Engineering Co., Ltd., Japan</i> , Morii, S., Aoi, T., <i>Mitsubishi Heavy Industries Ltd., Japan</i>
L27P3-16 (A129)	Linear Induction Motor Control for Simultaneous Propulsion and Levitation of an Aluminium Plate Castelli, M., Martínez-Iturralde, M., Martínez, G., García Rico, A., Florez, J., <i>TECNUN (University of Navarra), Spain,</i>

September 27 (Tue) 13:20-15:20 Linear Drive Applications (Poster)

L27P4-1 (A078)	Electromagnetic Actuator Driving by Secondary Current of Current Transformer Tsukima, M., <i>Mitsubishi Electric Corporation, Japan</i> , Takeuchi, T., Yoshiyasu, H.
L27P4-2 (A080)	TF Linear Motors With Variable Reluctance Secondary for Short Run Low Speed Applications Andriollo, M., <i>Polytechnic of Milan, Italy</i> , Bettanini, G., Martinelli, G., Morini, A., Tortella, A., <i>University of Padova, Italy</i>
L27P4-3 (A106)	Application of Electro-Magnetic Linear Actuator to Structural Controlling Device on High-Rise Building Hirai, J., Tateyama, S., <i>Mitsubishi Heavy Industries, Ltd. Japan</i> , Hayabe, Y., Maseki, R., Nagashima, I., <i>Taisei Corporation Co. Ltd., Japan</i>
L27P4-4 (A145)	Comparative Evaluation of Linear Switched Reluctance Motors for Vertical Propulsion Applications Lobo, N. S., Lim, H.-S., Krishnan, R., <i>Virginia Tech, USA</i>

September 27 (Tue) 13:20-15:20 Transportation (Poster)

L27P5-1 (A011)	Research of the Elevator Driven by Twin Linear Induction Motor Ye, Y., Shi, J., <i>Zhejiang University, China</i>
L27P5-2 (A016)	Control of a LIM-Driven Elevator Door Zhou, Y., Shen, J.-X., Ye, Y.-Y., <i>Zhejiang University, China</i> , Cui, M., <i>Nantong Zhongyao Ltd., China</i> , Cai, T.-X., <i>Shanghai University, China</i>
L27P5-3 (A053)	Operational Strategies for a Free Piston Energy Converter Hansson, J., Leksell, M., Carlsson, F., Sadarangani, C., <i>KTH, Royal Institute of Technology, Sweden</i>

L27P5-4 (A070)	Elastic Vibration Characteristics of Superconducting Maglev Vehicles Bandou, S., Ohsaki, H., <i>The University of Tokyo, Japan</i>
L27P5-5 (A074)	Control System Design of Superconducting Linear Driver for Electromagnetic Launch Lin, R., Peng, Y., Zhao, L., Sha, C., Ling, J., <i>Chinese Academy of Sciences, China</i> , Yang, T., Yang, T., <i>Harbin Tech-Full Industry Co. Ltd., China</i>
L27P5-6 (A131)	Comparison of Measurements and Calculations of a DC Linear Actuator Designed for Railway Applications Funieru, B., Binder, A., <i>Technische Universität Darmstadt, Germany</i>
L27P5-7 (A132)	Convoy Operation of Linear Motor Driven Railway Vehicles Henke, C., Böcker, J., Fröhleke, N., <i>University of Paderborn, Germany</i>
L27P5-8 (A151)	Levitation and Propulsion Control of Magnetic Levitated Vehicle Using Linear Switched-Reluctance Motor Sung, H.-K., Jho, J.-M., Kim, D.-S., Lee, J.-M., Yoo, M.-H., <i>Korea Institute of Machinery & Materials, Korea</i>

September 27 (Tue) 13:20-15:20 Factory Automation and Machine Tools (Poster)

L27P6-1 (A019)	The Application of Linear Motor in a Novel Laying Alloy Powder Machine Huang, M., Ye, Y., <i>Zhejiang University, China</i>
L27P6-2 (A062)	Design of A Linear Servo System for the Vertical Axis of High Speed Electric Discharge Machining Hsieh, M.-F., Yao, W.-S., Wu, M.-C., <i>National Cheng Kung University, Taiwan</i>
L27P6-3 (A104)	Study on Shape Control and Vibration Absorber of Strip in Steel Process Line Nagai N., Morii, S., Inoue, A., <i>Mitsubishi Heavy Industries, Ltd, Japan</i> , Fujioka, H., <i>Mitsubishi-Hitachi Metals Machinery, Inc., Japan</i>
L27P6-4 (A121)	Solder Bump Height Trimming Equipment for the Super Fine Pitch Semiconductor Hiratsuka, A., Ando, H., Onozaki, J., Kimura, T., Kano, Y., <i>Tamura Corporation, Japan</i>

September 27 (Tue) 15:40-17:00 Control (Oral: Main Hall)

A27P1-1 (A115)	LSM Adaptive Control for Ropeless Elevator Dynamic Operation Sakamoto, T., Yamamura, I., Kobayashi, T., <i>Kyushu Institute of Technology, Japan</i>
A27P1-2 (A141)	A Spherical Linear Motor as Direct Drive of an Airborne Optical Infrared Telescope Anders, M., <i>MACCON GmbH, Germany</i> , Binder, A., <i>Darmstadt University of Technology, Germany</i> , Suess, M., <i>MAN Technologie AG, Germany</i>
A27P1-3 (A031)	Modeling of a Linear Synchronous Motor with Half-Wave Rectified Self Excitation using Circuit Simulator Oyama, J., Higuchi, T., Abe, T., Hirayama, T., <i>Nagasaki University, Japan</i>

A27P1-4 (A023)	Identification of Force Functions for Permanent Magnet Linear Synchronous Motors Roehrig, C., <i>University of Applied Sciences Dortmund, Germany</i>
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September 27 (Tue) 15:40-17:00 Actuator and Sensor (Oral: Amphitheater)

B27P1-1 (A045)	A Development of Eddy Current Sensor for a Linear Oscillatory Actuator Maruyama, A., Kim, T.-H., Higaki, J., Takeuchi, T., Morita, M., <i>Mitsubishi Electric Corp., Japan</i>
B27P1-2 (A128)	Design of Permanent Magnet Latching Actuators for Electromechanical Valve Actuation Systems Rens, J., Clark, R.E., Turner, A., Jewell, G.W., Howe, D., <i>The University of Sheffield, UK</i>
B27P1-3 (A098)	Magnetostrictive/Piezoelectric Materials Composite for Linear Ueno, T., <i>The University of Tokyo, Japan</i> , Higuchi, T.
B27P1-4 (A159)	Noncontact Spinning Mechanism Using Linearly Actuated Magnets Oka, K., Fujiwara, Y., Chen, L., Cui, T.-S., <i>Kochi University of Technology, Japan</i>

September 27(Tue) 17:00-17:15 Closing Ceremony (Main Hall)