

AISM 2010 Program

Day 1: Wednesday December 15, 2010

09:30 AM	Registration Desk Opens	
10:00 AM - 12:00 PM	Welcome Reception + Lab Tours	
12:00 PM - 13:30 PM	Lunch	
13:30 PM - 14:30 PM	Keynote	
Time / Venue	Engineering Auditorium	EA-02-11
14:30 PM - 16:10 PM	Modeling and Design	Robotics
	<p>WP1-A-1 (Paper -id : 186) Design of Safe Joint Module for Safe Robot Arm based on Passive and Active Compliance Methods <i>Hwi-Su Kim, In-Moon Kim, Jae-Bok Song</i></p> <p>WP1-A-2 (Paper -id : 154) A Further Step toward System Autonomy and Intelligence <i>Michel Cotsaftis</i></p> <p>WP1-A-3 (Paper -id : 158) Neural Networks Based System Identification for an Unmanned Helicopter System <i>Syariful Syafiq Shamsudin</i></p> <p>WP1-A-4 (Paper -id : 160) Learning user preferences for top-k querying - improving learning of the higher ranked objects <i>Peter Vojtas, Alan Eckhardt</i></p> <p>WP1-A-5 (Paper -id : 183) System Identification for AC Servo Motor and Dynamometer using ARX model and NNARX model <i>Sarun Umpavan, Seelawat Chankaew, Waree Kongprawechnon</i></p>	<p>WP1-B-1 (Paper -id : 165) Towel Mark Recognition System for Washing Cloth Handling System <i>Seiji Hata, Tatsuya Hojoh, Jun'ichiro Hayashi, Toshihiro Hamada, Hiroataka Hojoh</i></p> <p>WP1-B-2 (Paper -id : 131) Generalized Taylor Series Expansion for Contour Error Compensation <i>Feng Huo, Aun-Neow Poo</i></p> <p>WP1-B-3 (Paper -id : 134) Obstacle Avoidance and Path Planning Using Color Information for a Biped Robot Equipped with a Stereo Camera System <i>Masaaki kitaoka, Atsushi Yamashita and Toru Kaneko</i></p> <p>WP1-B-4 (Paper -id : 150) Proposal of Dust Sensor for Cleaner Robot System Using Laser Scattering <i>Takuya Asano</i></p> <p>WP1-B-5 (Paper -id : 254) Warehouse Inventory Automation using an RFID Scanner Robot <i>Yongtae Do, Minhyuk Son</i></p>
16:10 PM – 16:40 PM	Tea Break	
Time / Venue	Engineering Auditorium	EA-02-11
16:40 PM – 18:00 PM	Modeling and Control	Machine Vision, Image Processing, and Sensing
	<p>WP2-A-1 (Paper -id : 98) A Caution Cognition for Driving Control in Steer-by-Wire Based Tractor-Trailer Vehicle System <i>Yuki Katayama and Toshiyuki Murakami</i></p> <p>WP2-A-2 (Paper -id : 84) Virtual Force Field Based Force-Feedback of Road Condition for Driving Assistant Design in Electric Vehicle. <i>Jerome CARLIER</i></p> <p>WP2-A-3 (Paper -id : 86) Study on the Dynamic Characters of A PWA Subject to Harsh Environment <i>J.F. Ren</i></p> <p>WP2-A-4 (Paper -id : 94) Deformed Model Analyses of Slot Array Antenna <i>Fei Zheng</i></p>	<p>WP2-B-1 (Paper -id : 181) Communication Robot Based on the Image Processing and Voice Recognition <i>Noriyuki kawarazaki</i></p> <p>WP2-B-2 (Paper -id : 193) Simulation of Confocal Microscopy with Structured Illumination and Signal Evaluation <i>Philipp Heidingsfelder</i></p> <p>WP2-B-3 (Paper -id : 143) Real-time human tracking in stereoscopic environments using subtraction stereo <i>Kenji Terabayashi</i></p> <p>WP2-B-4 (Paper -id : 235) Misalignment-Robust Facial Expression Recognition <i>Haibin Yan, Marcelo H. Ang Jr, Aun Neow Poo</i></p>

Day 2: Thursday December 16, 2010

08:30 AM - 09:30 AM	Breakfast	
Time / Venue	Engineering Auditorium	EA-02-11
09:30 AM - 11:10 AM	Sensing and Control 1	Modeling
	<p>TA1-A-1 (Paper -id : 202) Three Dimensional Attitude Control of an Underactuated Satellite with Thrusters <i>Yasuhiro Yoshimura, Shinji Hokamoto, Takashi Matsuno</i></p> <p>TA1-A-2 (Paper -id : 153) Control of Plant Growth by Electrostatic Field <i>Hiroyuki Abe</i></p> <p>TA1-A-3 (Paper -id : 167) Wearable Pneumatic Control Valves Driven by Small Power <i>Shujiro Dohta, Tetsuya Akagi, Hirofumi Ueda</i></p> <p>TA1-A-4 (Paper -id : 168) Development of Flexible Sensors for Measuring Human Motion and Displacement of Novel Flexible Pneumatic Actuator <i>Tetsuya Akagi, Shujiro Dohta, Hiroaki Kuno, Akimasa Fukuhara</i></p> <p>TA1-A-5 (Paper -id : 169) Development and Attitude Control of Flexible Robot Arm with Simple Structure Using Flexible Pneumatic Cylinders <i>Takahiro Fujikawa, Shujiro Dohta, Tetsuya Akagi, Feifei Zhao</i></p>	<p>TA1-B-1 (Paper -id : 104) Study of the influence mechanism of mechanical structure factors on unloaded Q value of resonant cavity <i>Changwu xiong, Yong Wang, Gangying Feng and Lintao He</i></p> <p>TA1-B-2 (Paper -id : 192) Modeling and Validation of a Single-Cell PEMFC <i>Chaiwat Pumchat</i></p> <p>TA1-B-3 (Paper -id : 222) Petri Net Based Modeling and Distributed Implementation of Robotic Manufacturing Systems <i>Gen'ichi Yasuda</i></p> <p>TA1-B-4 (Paper -id : 238) Examination of robots simulation using LEGO MINDSTORMS <i>Keiichi Shimamura</i></p> <p>TA1-B-5 (Paper -id : 230) Lightweight Electromechanical Tool Changer with Integrated Power and Signal Interfaces for Service Robot Applications <i>David Gyimothy, Andras Toth, Richard Wohlfart, Mihaly Jurak</i></p>
11:10 AM - 11:20 AM	Tea Break	

Time / Venue	Engineering Auditorium	EA-02-11
11:20 AM - 12:40 PM	Medical Mechatronics TA2-A-1 (Paper -id : 243) Dynamics of Quiet Standing - Human and Robotic Sensory Systems to Compensate Delay Effects <i>Gabor Stepan, Tamas Insperger</i> TA2-A-2 (Paper -id : 159) Evaluation of Patient Exercise for Motion Advice by Rehabilitation Instruction Robot <i>kazuyoshi Yoshino</i> TA2-A-3 (Paper -id : 211) Evolution of a Manipulator Model Using Linear Graphs and Genetic Algorithms <i>Ahmad Suryo Arifin</i> TA2-A-4 (Paper -id : 229) Geometric Analysis and Modelling of Microfluidic Contact Angles for Design and Manufacturing of Micro Bio-Device <i>Yuan-Shin Lee</i>	Micro-and Nano-Mechatronics TA2-B-1 (Paper -id : 78) Design of MEMS Dual-Band Microstrip Antenna Array Based on High Resistivity Silicon Substrate <i>Jinghui wei, xiaoming liu and zhonggan zhu</i> TA2-B-2 (Paper -id : 209) Development of micro hardness and stiffness testing systems by micro robot for bio materials <i>Montree Pakkratoke</i> TA2-B-3 (Paper -id : 224) Tele-operated Nano-Manipulation in Liquid Environment with AFM <i>Soliman esmaeilzadehha</i> TA2-B-4 (Paper -id : 197) Drop-on-Demand Printer for Micro Ion-Selective Electrode Fabrication <i>Mana Saedan</i>
12:40 PM – 13:50 PM	Lunch	
13:50 PM -15:50 PM	Panel Discussion: Some Important Future Directions in Mechatronics R&D	
15:50 PM – 16:20 PM	Tea Break	
Time / Venue	Engineering Auditorium	EA-02-11
16:20 PM - 18:00 PM	Sensing, Actuation and Control TP2-A-1 (Paper -id : 182) Swing-Up Fuzzy Controller and Adaptive State Controller for Inverted Pendulum on Cart System <i>Phuchong Kheawchaoom, waree Kongprawechnon</i> TP2-A-2 (Paper -id : 187) A novel approach in instantaneous orientation sensing of spherical actuator <i>Chee Kian Lim, I-Ming Chen, Liang Yan, Zhiqiang Luo , Chao Bi</i> TP2-A-3 (Paper -id : 191) A Drive Unit Actuated by SMA Springs under Temperature Control to Operate a Powered Glove <i>Shunji Moromugi, Tsunaki Ikeda, Yukiharu Yoshimi, Kazuhiro Kitamura, Takakazu</i> TP2-A-4 (Paper -id : 244) Design & Development of a Self Balancing Bicycle Robot <i>Yuan Lam Pom</i> TP2-A-5 (Paper -id : 221) Measuring of Number-of-Chewing Using Flexible Capacitive Sensor <i>Takakazu ishimitsu</i>	Control of Electro-Mechanical Systems TP2-B-1 (Paper -id : 180) SCARA Robot Locomotion Control by Two-Degree-of-Freedom Simple Servo Adaptive Controller <i>Taworn Benjanarasuth</i> TP2-B-2 (Paper -id : 146) Fuzzy I-PD Controller for Two-Inertia Systems <i>Suriya Dadpant, Taworn Benjanarasuth, Jongkol Ngamwiwit, Nariyuki Komine, Songmoung Nundrakwang</i> TP2-B-3 (Paper -id : 147) A Cooperative Integral Resonant Control and Integral Control for Two-Inertia Systems <i>Akenarong Jaiyong, Taworn Benjanarasuth</i> TP2-B-4 (Paper -id : 148) Simplified Design of CDM Controllers for Speed Control of Two-Inertia Systems <i>Pantane Boonyoung, Taworn Benjanarasuth</i> TP2-B-5 (Paper -id : 175) Performance Measurement of Dynamic Characteristic in Motor of Electric Motorcycle <i>Satoshi Tamura</i>

Day 3: Friday December 17, 2010		
08:30 AM - 09:30 AM	Breakfast	
Time / Venue	Engineering Auditorium	EA-02-11
09:30 AM - 11:10 AM	Sensing and Control 2 FA1-A-1 (Paper -id : 152) Bilateral Grasping Control with Multiple-Master/Single-Slave System <i>Nobuhiro Iwase</i> FA1-A-2 (Paper -id : 208) Hand Waving Recognition System Using Skin Detection Method by Near-IR Light <i>Mariko Takeuchi, Kunihito Kato, Kazuhiko Yamamoto</i> FA1-A-3 (Paper -id : 215) Comparing of PSO,AFSA and hybrid PSO_AFSA methods for optimization of fuzzy logic controller of DC motor <i>Hamed Khoshhravan, Ahmad Naebi</i> FA1-A-4 (Paper -id : 226) Optimizing Ping-Pong Player Robot Arm Path Based on PSO Algorithm with new initializing method <i>Hamed Khoshhravan, Ahmad Naebi</i> FA1-A-5 (Paper -id : 231) A Simple Switching Control Structure for Improving the Steady-State Error of a Full-Digital Water-Hydraulic Cylinder Position Control <i>Jyh-Chyang Renn</i>	
11:10 AM - 11:20 AM	Tea Break	

Time / Venue	Engineering Auditorium	EA-02-11
11:20 AM - 12:40 PM	Sensing and Control 2	
	<p>FA2-A-1 (Paper -id : 91) Implementation of a Vision-based Intelligent System in an open architecture controlled machine tool <i>Surya Prabha Upadhyayula, Rishita Allika, Ramesh Ramakrishnan and Poo Aun Neow</i></p> <p>FA2-A-2 (Paper -id : 93) Multi-field Coupled Analysis of Gound Reflector Antennas Under Clear-day Solar Radiation <i>Daren Xu, Fei Zheng and Peng Li</i></p> <p>FA2-A-3 (Paper -id : 97) Driving Support Control by Force Feedback Communication for Steer-By-Wire System <i>Yoshihide Igari and Toshiyuki Murakami</i></p> <p>FA2-A-4 (Paper -id : 83) Deployment Analysis and Control of Deployable Space Antenna <i>Tuanjie Li</i></p>	
12:40 PM – 13:50 PM	Lunch	
Time / Venue	Engineering Auditorium	EA-02-11
13:50 PM - 15:50 PM	Manufacturing and Automation 1	
	<p>FP1-A-1 (Paper -id : 99) On-line Assessment of Drill Wear Using Neuro-fuzzy Systems <i>Tien-I Liu</i></p> <p>FP1-A-2 (Paper -id : 100) Ink Droplet Position Compensation Based on Extended State Observer <i>Zhao Xiaoyang</i></p> <p>FP1-A-3 (Paper -id : 137) Development of the automated burning process <i>Takehiro Fukui and Okitoshi Tsunoda</i></p> <p>FP1-A-4 (Paper -id : 142) Robust Motion Control in Mechanical System with Passivity <i>Shigeru shirouchi</i></p> <p>FP1-A-5 (Paper -id : 151) Experiment Research of Wire-Driven Parallel Mechanism based on Full Workspace <i>Zhiping chen, Jian Sang, Juyong Zhang, Rui Liu</i></p> <p>FP1-A-6 (Paper -id : 144) Simple technique for evaluating for the finish of surface of through-holes using laser diffraction in the shadow region <i>Akihiro Kanamaru, Yuji Yoshino, Kazuyoshi Yoshino, Norikane Kanai</i></p>	
15:50 PM - 16:20 PM	Tea Break	
Time / Venue	Engineering Auditorium	EA-02-11
16:20 PM - 18:00 PM	Manufacturing and Automation 2	Automation
	<p>FP2-A-1 (Paper -id : 149) Image Detection of Seam Line for Laser Welding Robot <i>Akihiko Matsushita, Takafumi Morishita, Shun'ichi Kaneko, Hitoshi Ohfuji, Kaoru Fukuda</i></p> <p>FP2-A-2 (Paper -id : 170) Kinematic Error Models between Milling Spindle and Bottom Turret on Turning-Milling Complex Center <i>Chun Xie, Weimin Zhang</i></p> <p>FP2-A-3 (Paper -id : 176) Design Optimization of a Green Environment Liner-less Thermal Head Printer using Genetic Programming and Linear Graphs <i>yinquan yu, C.W.De Silva, kok kiong Tan, Aun Neow Poo</i></p> <p>FP2-A-4 (Paper -id : 178) Development of Autonomous Mobile Robot by means of the Sound Source Direction Localization for Specific Sound Source <i>Akihiro Kaneshige, Yasuhiro Yamashita, Satoshi Ueki</i></p> <p>FP2-A-5 (Paper -id : 184) The Embedded Control System of the Bath Room Odor Free Ventilation System <i>Hsi-chuan Huang, Chun-Hsien Yang, Ming-Long Wu</i></p>	<p>FP2-B-1 (Paper -id : 156) Manually Guided Robot Manipulator in a Constraint Condition with Small Contact Force <i>Chanhun Park</i></p> <p>FP2-B-2 (Paper -id : 111) The Research of Flexible Electric Conducting Sealing System <i>Jifeng Gu</i></p> <p>FP2-B-3 (Paper -id : 109) Research on Collaborative Simulation Technology of Mechanical Electronic Hydraulic System for Radar Bionic Power Device <i>Guopeng peng</i></p> <p>FP2-B-4 (Paper -id : 95) Study on the Feeds Phase Centre of Distorted Reflector <i>Liwei song</i></p>
19:00 PM - 22:00 PM	Banquet and Farewell Party	
Day 4: Saturday December 18, 2010		
09:30 AM - 12:30 PM	Social Tours	