

12th International Workshop on "Research and Education in Mechatronics"

REM2011

Kocaeli University, Kocaeli, Turkey



Time		Programme for Day 1, Thursday, September 15, 2011	
09:00	09:30	Conference Registration at the Entrance of İhlamur Congress Center, Umuttepe Campus, Kocaeli University	
09:30	09:40	Conference Opening by Professor Sezer Sener Komsuoğlu, Rector of Kocaeli University	
09:40	09:50	Welcome Speech and REM History by Professor Reiner Dudziak, Honorary President of REM	
09:50	10:00	Welcome Speech by Professor Muharrem Yılmaz, Chairman of Mechatronics Engineering Dept., Kocaeli University	
10:00	10:15	Group Photo Taking	
10:15	11:00	Keynote Presentation by Professor Philippe Lutz	
11:00	11:15	Coffee Break and Freshment	
11:15	12:00	Keynote Presentation by Professor Metin Sitti	
12:00	13:15	Lunch	
13:15	15:15	Session 1A - New Technologies, Courses and Teaching Methods in Mechatronics Room Akdeniz, Prof. Dr. Baki Komsuoğlu Congress Center	Session 1B - Projects in Mechatronics Room Karadeniz, Prof. Dr. Baki Komsuoğlu Congress Center
		Internationalization of Mechatronics Engineering Study Courses – Experiences with China, Korea and Singapore Dudziak, R.	Force Sensor for Haptic Devices: Design and Experimental Tests Righettini, P. & Strada, R. & Oldani, A. & Ginammi, A.
		The Science Of "Micronanomechatronics" Integrated In Research Gheorghe, G. I. & Istrateanu, S. & Bratu, V. & Despa, V.	Implementation Of Walking Gaits On Robot Walking Test Bench: Use Of Central Pattern Generators Zadeh, M.H. G. & İrfanoğlu, B. & Ankan, K. B.
		An Incremental Approach To Teach Mechatronics Design at the Sophomore Level of Mechatronics Engineering Education Erden, Z. & Erden, A.	Technology for the Implementation Of Rapid Prototyping In Mechatronics Nastase-Dan, C. & Gheorghe, G. I. & Moldovanu, A.
		Experience with International Students' Project Work in Model Based Design Březina, T. & Lohöfener M.	Development of an automated legionella detection system -A student project Consrubach, J. & Klauth, P. & Büddefeld J.
		On the Impact of Software Architecture for Mechatronic Systems Meyer, D.	Design of a FPGA Controller for a Robotic Arm Selim, E. & Tarhan, Ü. & Akin, Ö. & Alan, I.
Blended-Learning in Teaching Model-Based Design of Mechatronic Systems Hahn, M.	Development of x-By-Wire Algorithms for Chassis Control Pohl, M.		
15:15	15:30	Coffee Break and Freshment	
15:30	17:50	Session 2A - Industrial Applications of Mechatronics, Medicine and Robotics Room Akdeniz, Prof. Dr. Baki Komsuoğlu Congress Center	Session 2B - Automotive Industry Room Karadeniz, Prof. Dr. Baki Komsuoğlu Congress Center
		Confocal Microscopy with Structured Illumination and Increased Depth Of Focus Heidingsfelder, P. & Gao, J. & Ott, P.	Magnetorheological Fluid Brake in an Haptic-device Peters, N. & Roskam, R. & Haevescher, R.
		Modeling and Control of A Rigid-Link Flexible Joint Robot Manipulator Akyüz, H. I. & Yuksel, A. & Bingul, Z.	Thermal Management of Electric Vehicles Bretfeld, L. & Rohkämper, S. & Hain, C. & Pautzke F.
		A Type Synthesis Analysis For Generalized Stewart Platforms Toz, M. & Küçük, S.	Directions and Standards for Electric Vehicles Pautzke, F. & Henneke, S. & Kolf, C.
		Automatic Storage and Retrieval System (AS/RS) Based On Cartesian Robot For Liquid Food Industry Fenercioğlu, A. & Soyslan, M. & Közkurt, C.	Model-Based Design of the Steer-By-Wire Modules for an electric Vehicle with All-Wheel Steering Buchta, B. & Liu-Henke, X.
		Polimodular Mechatronic Orthotic System for Recovery of Lower Limbs in Paediatric Orthopaedics Burnei, Gh. & Gavrilu, S. & Lata, I. & Lung, I. & Moldavanu, A.	Car and Truck Tires Control Area Automation Turan, M. & Erdil, A.
Automation Solutions for Human Labor Intensive tasks in wiring harness manufacture Tavsel, O. & Gürün, S.	Development of an Autonomous Tracking Assistance System For Aerial and Water Vehicles Büddefeld, J. & Klauth, P. & Renner, J. & Stebani, S. & Mell, W.-D.		
Impedance Spectroscopy as a Battery State Of Health Indicator Tjus, M. & Berg, M. & Stentenbach, N.	A Novel Diagnostic Approach for Automotive Systems Condition Monitoring Selig, M. & Shi, Z. & Ball, A. & Schmidt, K.		
18:00	19:30	City Tour	
19:30	22:00	Conference Dinner	
22:30	23:00	Transport to the Hotels	

Time		Programme for Day 2, Friday, September 16, 2011	
09:00	11:00	Festo - Trends in Applied Mechatronics by Fikret Kemal Akyüz Tegev - New Mechatronic Standards and Implementation in Applied Science University Education by Hayrettin Karçı CbyT - Accreditation and Certification of Applied Science Education on Mechatronics by M. Lale Bauer	
11:00	11:15	Coffee Break and Freshment	
11:15	13:15	Session 3A- Projects in Mechatronics, Robotics Room Akdeniz, Prof. Dr. Baki Komsuoğlu Congress Center	Session 3B - New Technologies and Projects in Mechatronics Room Karadeniz, Prof. Dr. Baki Komsuoğlu Congress Center
		Cogging Torque Simulation Focused On Automated Preprocessing Stebner, E. G. & Hartwig, C.	Realtime Simulation Based Control Development of Machine Tool Controls Krabbes, M. & Schlicker, R. & Zimmer, P.
		Parametric Analysis of Mechatronic System Performance using SysML models: a case study Nguyen, N. & Kadima, H.	New Concepts and Solutions of "Micro-Nano-Mechatronics and Micro-Nano-Integratics" Applied in Intelligent Measurement Technique and in the Future Development of the Automotive Industry Gheorghe, I. G. & Bratu, V. & Istrenau, S. & Despa, V. & Cărstoiu, A.
		Analysis of State of the Art in Remote Control Applied on a KUKA KRC2 Robot Control Bartsch, T. & Biesenbach, R. & Koch, A. & Weinert, A.	Solar Powered Vehicle Design Ayççek, E. & Darcin, N. & Aydın, M. A.
		Single Step Optimal Control Of The Half Circular Legged Monopod Aydın, Ö. Y. & Leblebicioğlu, M. K.	"Hands on hybrids" Practical education At The University Of Applied Sciences Hellwig, M. & Skolik, K. & Rohkämper, S.
		Mobile Robot-Based Motion Control and Intelligent Collision Avoidance Souliman, A. & Joukhadar, A.	Development of an Electrical Kart for Education of Systems Engineering In Mechatronics Roskam, R.
Estimation of Velocity and Side Slip Angle for a S[2]tability Control Algorithm of a Vehicle Simulation Model Dorsch, V.	On the Development of a Real-Time Application for Mechatronic Devices Righettini, P. & Oldani, A. & Strada, R. & Ginammi, A.		
13:15	14:30	Lunch	
14:30	16:30	Session 4A - New Technologies and Projects in Mechatronics and Robotics Room Akdeniz, Prof. Dr. Baki Komsuoğlu Congress Center	Session 4B - Mechatronics Components and Systems Room Karadeniz, Prof. Dr. Baki Komsuoğlu Congress Center
		The Innovative Vectors "Mechatronics and Integratics" In Education, Training and Gheorghe, G. I. & Istrateanu, S. & Bratu, V. & Despa, V.	Vision and Known Object Tracking on a Low-end FPGA-based Platform: Ball Retriever Project Gonot, N. & Leiser, M. & Neveu, S. & Pouget, V.
		"FEIN": A PREPROCESSING SOFTWARE FOR FREEFEM++ Bernstein, T. & Kittler, K. & Hübner H. W.	Vibration Analysis based Localized Bearing Fault Diagnosis under Different Load Conditions Ertuğ, H. M. & Ocağ, H. & Merdoğlu, M. & Bayram, S. & Çavuş, M.
		Object Oriented Modelling And Simulation of Mechatronic Systems using Bond Graphs Roddeck, W.	Field Oriented Sensorless Control of Traction Machines Stevens, A. & Stentenbach, J.
		Innovation In Motion-Logic Programming – A Versatile Interface Engels, E. & Krauskopf, S.	Rotor Segmentation for Spoke Type Interior Permanent Magnet Servomotors Ocağ, O. & Aydın, M.
		Robotics As a Flexible Tool for Problem-based Learning Dederichs-Koch, A.	Comparison of Kinect and Bumblebee2 in Indoor Environments Tarçın, S. & Özütemiz, K. B. & Koku, A. B. & Konukseven, E. I.
The Determination of PID Coefficients being at Dead-time Systems at Real-time Mersin, E. & Öztürk, S. & Erdil, A.	Real-Time Bilateral Control of a Nonlinear Teleoperation System Tafur, J. C. & Garcia, C. & Aracil, R. & Saltaren R.		
16:30	16:45	Coffee Break and Freshment	
16:45	18:05	Session 5A - Mechatronic System Design Room Akdeniz, Prof. Dr. Baki Komsuoğlu Congress Center	Session 5B - Mechatronics Components and Systems Room Karadeniz, Prof. Dr. Baki Komsuoğlu Congress Center
		Design of an Active Vibration Control for a Roller System Voicu, M.-C. & Hillbrand, H.-H. & Schmidt, R. & Lammen, B.	Advanced Control of the Hydraulic Asymmetric Actuator Noskiewicz, P.
		Removing Analog Links In Structural Control Casciati, F. & Casciati, S. & Chen, Z. & Yildirim, U.	No-Load Analysis of Permanent Magnet AC Servomotors- A Comparative Study Demir, Y. & Oguzhan Ocağ, O. & Aydın, M.
		Mechatronic Design of a Test bench for Step Motor Drives and Preliminary Tests Righettini, P. & Strada, R. & Oldani, A. & Ginammi, A.	Development of an Assembly Machine Control Using New Algorithms for the Verification of Functional Consistency Kaufmann, M.
Model Based Design of a Vehicle-Trailer Combination Stabilization Quantmeyer, F. & Liu-Henke, X.	Substantial Stabilization of Quadrotor Aircraft, Using Flywheels Kia, M. & Taherkhani, R. & Razzaghi, K.		
18:05	18:15	Closing Session, Closing of the REM 2011 and Invitation to the REM 2012	

Time		Programme for Day 3, Saturday, September 17, 2011	
07:00	18:00	Guided City Tour to Istanbul (Old City)	

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