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Content List of 2012 20th Mediterranean Conference on Control & Automation (MED)

Technical Program for Wednesday July 4, 2012

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Romagnoli, Raffaele	Univ. Pol. delle Marche	
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Fernando		
del-Muro-Cuellar, Basilio	ESIME-Culhuacán IPN	
Sename, Olivier	INPG	
Velasco-Villa, Martin	CINVESTAV-IPN	
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Stoica, Cristina	Supelec	
Dumur, Didier	Ec. Superieure d'Electricite	
Alamo, Teodoro	Univ. de Sevilla	
Camacho, Eduardo F.	Univ. of Sevilla	
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Valenzuela, Patricio Esteban	Univ. Técnica Federico Santa María	
Salgado, Mario E.	Univ. Técnica Federico Santa María	
Silva, Eduardo I.	Univ. Técnica Federico Santa María	
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Chair: Salgado, Mario E.	Univ. Técnica Federico Santa María	
Co-Chair: Nejari, Fatiha	Univ. Pol. de Catalunya	

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Yuz, Juan I.	Univ. Técnica Federico Santa María	
Creixell, Werner	Univ. Tecnica Federico Santa María	
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Ltaief, Majda	National School of Engineering of Gabes Tunisia	
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Ustoglu, Ilker	Yildiz Tech. Univ.	
Cicek, Elif	Yildiz Tech. Univ.	
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Djemai, Mohamed	LAMIH	

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Co-Chair: Sarrate, Ramon	Univ. Pol. de Catalunya	
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Rincon, Amilcar	Inter American Univ. of Puerto Rico - Bayamon Campus	
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Abdel-geliel, Mostafa	Arab Acad. for Science and Tech.	
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Djeziri, Mohand	Lab. des Sciences de l'Information et des SystèmesLSIS	
Benmoussa, Samir	LAGIS,	
Ould Bouamama, Belkacem	Pol. Lille	
Ouladsine, Mustapha	Univ. d'aix marseille III	
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Sarrate, Ramon	Univ. Pol. de Catalunya	
Nejjari, Fatiha	Univ. Pol. de Catalunya	
Rosich, Albert	Tech. Univ. of Catalonia	
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Co-Chair: Vilas, Carlos	IIM-CSIC	
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Dzitac, Pavel	School of Engineering and Built Environment,CQUniversityAustrali	
Mazid, Abdul Md	School of Engineering and Built Environment, CQ Univ.	
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Fareh, Raouf	ETS	
Saad, Mohamad	Univ. du Québec en Abitibi-Témiscamingue	
Saad, Maarouf	Ec. de Tech. Superieure	
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Tzes, Anthony	Univ. of Patras	

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Tamas, Levente	Tech. Univ. of Cluj-Napoca	
Goron, Lucian Cosmin	Tech. Univ. of Cluj-Napoca	
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Espelosín, Jesús	Univ. de La Laguna	
Acosta, L.	Univ. of La Laguna	
Hamilton, Alberto	Univ. de La Laguna	
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Chair: Albertos, Pedro	Univ. Pol. de Valencia	
Organizer: Vande Wouwer, Alain	Univ. de Mons	
Organizer: Moreno, Jaime	Univ. Nacional Autonoma de Mexico-UNAM	
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Li, Xiao-Dong	INRIA	
Chaves, Madalena	INRIA	
Gouze, Jean-Luc	INRIA	
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Rocha-Cozatl, Edmundo	Univ. Nacional Autonoma De Mexico (UNAM)	
Vande Wouwer, Alain	Univ. de Mons	
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Telen, Dries	Katholieke Univ. Leuven	
Logist, Filip	Katholieke Univ. Leuven	
Van Derlinden, Eva	KULeuven	
Van Impe, Jan F.M.	Katholieke Univ. Leuven	
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Vilas, Carlos	IIM-CSIC	
Balsa-Canto, Eva	IIM-Spanish National Res. Council	
Banga, Julio R.	IIM-CSIC (Spanish Council for Scientific Res.	
Alonso, Antonio A.	IIM-CSIC	
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Sieber, Jan	Univ. of Portsmouth	
Rapaport, Alain	INRA	
Rodrigues, Serafim	CN-CR, Univ. of Plymouth	
Desroches, Mathieu	EPI SISYPHE, INRIA Rocquencourt	

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Gershon, Eli	Tel Aviv Univ.
Shaked, Uri	Tel-Aviv Univ.
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de Prada, Cesar	Univ. of Valladolid
Camacho, Eduardo F.	Univ. of Sevilla
Antsaklis, Panos J.	Univ. of Notre Dame
Baras, John S.	Univ. of Maryland
Patton, Ron J.	Univ. of Hull
WeB1	Salón Llimona
Linear Systems (II) (Regular Session)	
Chair: Usevich, Konstantin	Univ. of Southampton
Co-Chair: Yuz, Juan I.	Univ. Técnica Federico Santa María
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Smith, Monty	Arkansas Tech. Univ.
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Papadopoulos, Konstantinos	ABB Switzerland Ltd.
Tselepis, Nikolaos	Aristotle Univ. of Thessaloniki
Margaris, Nikolaos	Aristotle Univ. of Thessaloniki
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Czornik, Adam	Silesian Tech. Univ.
Nawrat, Aleksander	Silesian Tech. Univ.
Niezabitowski, Michal	Silesian Univ. of Tech. of Automatic Control
Szyda, Aneta	Silesian Univ. of Tech. Department of Automatic Control
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Usevich, Konstantin	Univ. of Southampton
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Avanessov, Sergei	Tallinn Univ. of Tech.
Nurges, Ulo	Tallinn Univ. of Tech.
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Chair: de Prada, Cesar	Univ. of Valladolid
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Simao, Tiago	INESC-ID
Barão, Miguel	Inesc-id
Marques, Jorge S.	Inst. Superior Técnico
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Graziani, Salvatore	Univ. degli studi di Catania
Xibilia, Maria G.	Univ. of Messina
Umana, Elena	Univ. of Catania
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Toussaint, Clément	ONERA
Le Moing, Thierry	ONERA
Poquillon, Eric	DGA
Coquet, Yves	DGA
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Nejjari, Fatiha	Univ. Pol. de Catalunya
Rotondo, Damiano	UPC
Puig, Vicenc	UPC
Innocenti, Mario	Univ. of Pisa
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Harmati, Istvan	Budapest Univ. of Tech. and Ec.
Kovács, Gábor	Budapest Univ. of Tech.
Kiss, Bálint	Budapest Univ. of Tech. and Ec.
Vámos, Gábor	Budapest Univ. of Tech. and Ec.
Fodor, József	ELMŰ Network Distribution Ltd.
16:40-17:00	WeB2.6
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Bruna, Ondrej	Department of Control Engineering, Faculty of Electrical Engineering
Vana, Zdenek	Department of Control Engineering, Faculty of Electrical Engineering
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Chair: Schwartz, Howard M.	Carleton Univ.
Co-Chair: Kubalcik, Marek	Tomas Bata Univ.
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Al Faiya, Badr M.	Carleton Univ.
Schwartz, Howard M.	Carleton Univ.
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Fedele, Giuseppe	Univ. of Calabria

Ferrise, Andrea	Univ. della Calabria, Dip. Elettronica, Informatica e Siste		
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Bohn, Christian		TU-Clausthal	
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Druaux, Fabrice		Univ. LE HAVRE	
Lefebvre, Dimitri		Univ. Le Havre	
Kamel, Abderrahim		National School of Engineers of Gabes	
Ben Abdennour, Ridha		National school of engineering of Gabes	
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Alkorta, Patxi		Univ. of the Basque Country	
Gonzalez de Durana, Jose Maria		Univ. of the Basque Country	
Kremers, Enrique		Karlsruhe Inst. of Tech.	
WeB4		Salón 4	
Fault Diagnosis (II) (Regular Session)			
Chair: Witczak, Marcin		Univ. of Zielona Gora	
Co-Chair: Gershon, Eli		Tel Aviv Univ.	
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Mustafa, Mohammed Obaid		Luleå Univ. of Tech.	
Nikolakopoulos, George		Luleå Univ. of Tech. Sweden	
Gustafsson, Thomas		Luleå Univ. of Tech.	
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Kourd, Yahia		Faculty of science and engineer. Mohamed Khider Biskra	
Lefebvre, Dimitri		Univ. Le Havre	
Guersi, Noureddine		Univ. Badji-Mokhtar	
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Ghorbel, Hana		National School of engineers of Sfax	
Souissi, Mansour		Engineering school of Sfax,	

			Tunisia
El Hajjaji, Ahmed		Univ. de Picardie-Jules Verne	
Chaabane, Mohamed		National Engineering school of Sfax, Tunisia	
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Jozefowicz, Rafal		Univ. of Zielona Gora	
Witczak, Marcin		Univ. of Zielona Gora	
Puig, Vicenc		Univ. Pol. de Catalunya	
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Robotics (II) (Regular Session)			
Chair: Dumur, Didier		Ec. Superieure d'Electricite	
Co-Chair: Abe, Akira		Asahikawa National Coll. of Tech.	
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Abe, Akira		Asahikawa National Coll. of Tech.	
Yoshida, Kohei		Asahikawa National Coll. of Tech.	
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<i>Design and Development of a Hyper-Redundant Binary Active Laparoscopic Manipulator</i> , pp. 327-332.			
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Tzorakoleftherakis, Emmanouil		Univ. of Patras	
Tzes, Anthony		Univ. of Patras	
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Andriot, Claude		CEA, LIST	
Dumur, Didier		Ec. Superieure d'Electricite	
Colledani, Frédéric		CEA, LIST	
Niculescu, Silviu-Iulian		UMR CNRS 8506, CNRS-SUPELEC	
Boucher, Patrick		Ec. Superieure d'Electricite	
16:00-16:20		WeB5.4	
<i>Hierarchical Fuzzy Controller for a Nonholonomic Mobile Robot</i> , pp. 341-347.			
Boujelben, Maïssa		Sfax Engineering School	
Rekik, Chokri		Sfax Engineering School	
Derbel, Nabil		Professor	
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Li, Xiaodong		Cranfield Univ.	
Aouf, Nabil		Cranfield Univ.	
Nemra, Abdelkrim		EMP	
WeB6		Salón 7	
Nonlinear Modeling, Estimation and Control of Biological Systems (II) (Invited Session)			

Chair: Moreno, Jaime	Univ. Nacional Autonoma de Mexico-UNAM
Co-Chair: David, Robert	Univ. catholique de Louvain
Organizer: Vande Wouwer, Alain	Univ. de Mons
Organizer: Moreno, Jaime	Univ. Nacional Autonoma de Mexico-UNAM

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David, Robert	Univ. catholique de Louvain
Dochain, Denis	Univ. Catholique de Louvain
Vande Wouwer, Alain	Univ. de Mons

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Acuna, Gonzalo	Univ. de Santiago de Chile
Ramirez, Cristian	Departamento de Ingenieria Informatica, Univ. deSantiago d
Curilem, Millaray	Departamento de Ingenieria Electrica, Univ. de laFrontera

15:40-16:00	WeB6.3
<i>Particle Filtering for the Chemostat (I)</i> , pp. 364-371.	
Benyahia, Boumediene	Tlemcen Univ.
Campillo, Fabien	UMR ASB bât 29
Cherki, Brahim	Tlemcen Aboubekr Belkaid Univ.
Harmand, Jérôme	INRA

16:00-16:20	WeB6.4
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Rault, Jonathan	INRIA
Gouze, Jean-Luc	INRIA

16:20-16:40	WeB6.5
<i>On Optimal Strategies for Feeding in Minimal Time a SBR with Several Species (I)</i> , pp. 378-385.	
Gajardo, Pedro	Univ. Técnica Federico Santa Maria
Ramirez, Hector	Univ. de Chile
Rodriguez, Julio C.	Univ. de Valparaiso

WeC1	Salón Llimona
Nonlinear Systems (I) (Regular Session)	
Chair: Bokor, Jozsef	Hungarian Acad. of Sciences
Co-Chair: Rodrigues, Luis	Concordia Univ.

17:20-17:40	WeC1.1
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Aranovskiy, Stanislav	Umea Univ.
Bobtsov, Alexey	Saint Petersburg National Res. Univ. of Information Tec

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Labisch, Daniel	Tech. Univ. Darmstadt
Mandlera, Maximilian	Tech. Univ. Darmstadt
Konigorski, U.	Tech. Univ. Darmstadt

18:00-18:20	WeC1.3
<i>Modeling and Twin Nonlinear Controller Design for Ac/dc Voltage Source Converters Driven Dc Series Motors</i> , pp. 398-403.	
Konstantopoulos, George	Univ. of Patras
Alexandridis, Antonios	Univ. of Patras

18:20-18:40	WeC1.4
<i>Stability Analysis on Manifolds Via Continuous Positive Definite Proper Functions</i> , pp. 404-409.	
Nakamura, Nami	Tokyo Univ. of Science
Nakamura, Hisakazu	Tokyo Univ. of Science

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<i>Almost Sure Asymptotic Stabilizability for Deterministic Systems with Wiener Processes</i> , pp. 410-415.	
Nishimura, Yuki	Kagoshima Univ.
Tanaka, Kanya	Yamaguchi Univ.
Wakasa, Yuji	Yamaguchi Univ.

19:00-19:20	WeC1.6
<i>Lyapunov Stability of Pseudo Euler-Lagrange Systems</i> , pp. 416-420.	
Rodrigues, Luis	Concordia Univ.

WeC2	Salón 1
Modelling and Simulation (III) (Regular Session)	
Chair: Schultze, Martin	Helmut-Schmidt-Univ. Hamburg
Co-Chair: Pujol, Gisela	Univ. Pol. de Catalunya

17:20-17:40	WeC2.1
<i>Building Modeling and Control Using Multi-Step Ahead Error Minimization</i> , pp. 421-426.	
Zacekova, Eva	Department of Control Engineering, Faculty ofElectricalEngineeri
Ferkl, Lukas	Czech Tech. Univ. in Prague

17:40-18:00	WeC2.2
<i>LPV Modelling and Identification of an Open Canal for Control</i> , pp. 427-432.	
Blesa, Joaquim	Univ. Pol. de Catalunya (UPC)
Puig, Vicenc	Univ. Pol. de Catalunya
Bolea, Yolanda	Tech. Univ. of Catalonia

18:00-18:20	WeC2.3
<i>An Artificial Intelligence Approach to Forward Kinematics of Stewart Platforms</i> , pp. 433-438.	
Morell, Antonio	Univ. de La Laguna
Acosta, L.	Univ. of La Laguna
Toledo, Jonay	Univ. of La Laguna

18:20-18:40	WeC2.4
<i>PEM Fuel Cell System Power Control Based on a Feedback Linearization Approach</i> , pp. 439-444.	
Schultze, Martin	Helmut-Schmidt-Univ. Hamburg
Horn, Joachim	Helmut-Schmidt-Univ.

18:40-19:00	WeC2.5
<i>An Actuated Platform FEA Model Used for Precision Pointing Control</i> , pp. 445-450.	
Zarate, Gerardo	SPACE Center, Cal State Los Angeles, California, USA
Diaz, Eric	Univ. of Southern California
Alvarenga, Jessica	SPACE Center, Cal State Los Angeles, California, USA

Rad, Khosrow	California State Univ. Los Angeles
Boussalis, Helen	California State Univ.
19:00-19:20	WeC2.6
<i>Experimental Study of an Active Control for a Faulty Perturbed Flexible Structure</i> , pp. 451-456.	
Acho, Leonardo	Univ. Pol. de Catalunya-EUETIB
Pujol, Gisela	Escola Univ. d'Enginyeria Tecnica Industrial
Rossell, Josep M.	Univ. Pol. de Catalunya

WeC3	Salón 3
Adaptive Control (II) (Regular Session)	

Chair: Lemos, Joao M.	Inesc-id
Co-Chair: Ansari, Uzair	Inst. of Space Tech.

17:20-17:40	WeC3.1
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Trajectory Optimization and Adaptive Fuzzy Based Launch Vehicle Attitude Control, pp. 457-462.

Ansari, Uzair	Inst. of Space Tech.
Alam, Saqib	Inst. of Space Tech.
Jafri, Syed Minhaj un Nabi	Inst. of Space Tech.

17:40-18:00	WeC3.2
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Predictive Adaptive Control of Neuromuscular Relaxation, pp. 463-468.

Costa, B.Andrade	INESC-ID/DEEC/IST/ Tech. Univ. of Lisbon
Lemos, Joao M.	Inesc-id

18:00-18:20	WeC3.3
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Multiple-Model Adaptive Control of an Air Heating Fan Using Set-Valued Observers, pp. 469-474.

Rosa, Paulo Andre Nobre	Inst. for Systems and Robotics - Inst. Superior
Simao, Tiago	INESC-ID
Lemos, Joao M.	Inesc-id
Silvestre, Carlos	Inst. Superior Tecnico

18:20-18:40	WeC3.4
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Adaptive Locally Homogeneous Control of Input Affine Nonlinear Systems and Its Application to Magnetic Levitation System Control, pp. 475-480.

Nakamura, Hisakazu	Tokyo Univ. of Science
Nakamura, Nami	Tokyo Univ. of Science
Katayama, Hitoshi	Shizuoka Univ.

18:40-19:00	WeC3.5
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A Comprehensive Evaluation of Three Robust Adaptive Control Methodologies, pp. 481-486.

Hassani, Vahid	Inst. Superior Técnico
Pascoal, Antonio Manuel	Inst. Superior Tecnico

19:00-19:20	WeC3.6
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A Synchronous Coordinates Approach in Position and Speed Estimation for Permanent Magnet Synchronous Machines, pp. 487-492.

Tilli, Andrea	Univ. of Bologna
Cignali, Giovanni	Univ. of Bologna - Engineering Faculty
Conficoni, Christian	Univ. of Bologna
Rossi, Carlo	Univ. of Bologna

WeC4	Salón 4
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Fault Tolerant Control (I) (Regular Session)	
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Chair: Patton, Ron J.	Univ. of Hull
Co-Chair: Escobet, Teresa	Univ. Pol. de Catalunya

17:20-17:40	WeC4.1
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Directional Change in Lq Control with Actuator Failure, pp. 493-497.

Horla, Dariusz	Poznan Univ. of Tech.
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17:40-18:00	WeC4.2
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A Multiple-Model Approach to Fault Tolerant Tracking Control for Nonlinear Systems, pp. 498-503.

Shaker, Montadher Sami	Univ. of Hull, Department of Engineering
Patton, Ron J.	Univ. of Hull

18:00-18:20	WeC4.3
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Risk-Averse Feedback for Stochastic Fault-Tolerant Control Systems with Actuator Failure Accommodation, pp. 504-511.

Pham, Khanh	U. S. Air Force Res. Lab.
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18:20-18:40	WeC4.4
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Fault-Tolerant Flight Control for Nonlinear-UAV, pp. 512-517.

Tang, Yimeng	Univ. of Hull
Patton, Ron J.	Univ. of Hull

18:40-19:00	WeC4.5
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Methodology for Actuator Fault Tolerance Evaluation of Linear Constrained MPC: Application to the Barcelona Water Network, pp. 518-523.

Robles Guillén, Deneb	Inst. Tecnológico y de Estudios Superiores de Monterrey
Puig, Vicenc	Univ. Pol. de Catalunya
Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia (UPC)
Garza-Castañón, Luis	ITESM Campus Monterrey

19:00-19:20	WeC4.6
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FTC Design for Polytopic LPV Systems Subject to Actuator Saturations, pp. 524-529.

Rotondo, Damiano	UPC
Nejjari, Fatiha	Univ. Pol. de Catalunya
Puig, Vicenc	UPC

WeC5	Salón 5
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Robotics (III) (Regular Session)	
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Chair: Papanikolopoulos, Nikos	Univ. of Minnesota
Co-Chair: Creuze, Vincent	LIRMM, Univ. Montpellier 2, CNRS

17:20-17:40	WeC5.1
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G-SLAM: A Novel SLAM Method, pp. 530-535.

Zikos, Nikos	Aristotle Univ. Thessaloniki, Greece.
Petridis, Vassilios	Aristotle Univ. of Thessaloniki

17:40-18:00	WeC5.2
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Serpentine Motion Control of Snake Robots for Curvature and Heading Based Trajectory - Parameterization, pp. 536-541.

Kelasidi, Eleni	Univ. of Patras
Tzes, Anthony	Univ. of Patras

18:00-18:20	WeC5.3
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State Feedback Control of an Underwater Vehicle for Wall Following, pp. 542-547.

Maalouf, Divine	LIRMM, Univ. Montpellier 2, CNRS
Creuze, Vincent	LIRMM, Univ. Montpellier 2, CNRS
Chemori, Ahmed	LIRMM, Montpellier
18:20-18:40	WeC5.4
<i>A Novel Algorithm for Following of Moving Target in Outdoor Mobile Robot Environment Based on Inverse Matching</i> , pp. 548-554.	
Velagić, Jasmin	Univ. of Sarajevo
Šiljak, Harun	Faculty of Electrical Engineering Sarajevo
18:40-19:00	WeC5.5
<i>A Solution with Multiple Robots and Kinect Systems to Implement the Parallel Coverage Problem</i> , pp. 555-560.	
Min, Hyeun Jeong	CSE, Univ. of Minnesota
Fehr, Duc	Univ. of Minnesota, Minneapolis
Papanikolopoulos, Nikos	Univ. of Minnesota

WeC6 Salón 7
Nonlinear Modeling, Estimation and Control of Biological Systems (III) (Invited Session)

Chair: Bernard, Olivier	Inria
Co-Chair: Vande Wouwer, Alain	Univ. de Mons
Organizer: Vande Wouwer, Alain	Univ. de Mons
Organizer: Moreno, Jaime	Univ. Nacional Autonoma de Mexico-UNAM

17:20-17:40	WeC6.1
<i>Interaction between Time Scales in Microalgae Based Processes (I)</i> , pp. 561-566.	
Hartmann, Philipp	INRIA
Béchet, Quentin	Center for Environmental Tech. and Engineering
Bernard, Olivier	Inria

17:40-18:00	WeC6.2
<i>Adaptive Interval Observer with Application to the Estimation of Biofuel Production by Microalgae (I)</i> , pp. 567-572.	
Mairet, Francis	Univ. Técnica Federico Santa María
Moisan, Marcelo	EMEL
Bernard, Olivier	Inria

18:00-18:20	WeC6.3
<i>Towards a Systematic Approach to Reduce Complex Bioprocess Models – Application to the Anaerobic Digestion Model No.1 (ADM1) (I)</i> , pp. 573-578.	
Hassam, Sonia	Aboubekr Belkaid Univ. of Tlemcen
Cherki, Brahim	Tlemcen Aboubekr Belkaid Univ.
Ficara, Elena	Pol. di Milano
Harmand, Jérôme	INRA

18:20-18:40	WeC6.4
<i>Minimal Time Control of Fed-Batch Bioreactor with Product Inhibition (I)</i> , pp. 579-585.	
Bayen, TERENCE	Univ. Montpellier 2
Gajardo, Pedro	Univ. Técnica Federico Santa María
Mairet, Francis	Univ. Técnica Federico Santa María

18:40-19:00	WeC6.5
<i>Nonlinear Predictive Control for Continuous Chlorella Vulgaris Culture in a Photobioreactor (I)</i> , pp. 586-591.	
Filali, Rayen	SUPELEC
Tebbani, Sihem	Supélec
Dumur, Didier	Ec. Supérieure d'Electricite
Diop, Sette	CNRS
Pareau, Dominique	Lab. de Génie de Procédés et Matériaux, Ec. Pa
Lopes, Filipa	Lab. de Génie de Procédés et Matériaux, Ec. Pa

Technical Program for Thursday July 5, 2012

ThPT1	Salón Llimona
Plenary Session (Th) (Plenary Session)	
Chair: Quevedo, Joseba	Tech. Univ. of Catalonia
09:00-10:00	ThPT1.1
<i>Identification and Control: The Two Inseparable Friends Cooperating for the Solution of Automation Problems Over More Than Five Decades*</i> .	
Bittanti, Sergio	Pol. di Milano
ThA1	Salón Llimona
Nonlinear Systems (II) (Regular Session)	
Chair: Zivanovic, Rastko	The Univ. of Adelaide
Co-Chair: Boussaada, Islam	Lab. des Signaux et Systèmes
10:30-10:50	ThA1.1
<i>H[∞] Observer Design for Uncertain Discrete-Time Nonlinear Delay Systems: LMI Optimization Approach</i> , pp. 592-597.	
Sayyad Delshad, Saleh	Luleå Univ. of Tech.
Gustafsson, Thomas	Luleå Univ. of Tech.
Johansson, Andreas	Luleå Univ. of Tech.
10:50-11:10	ThA1.2
<i>Robust Positive Invariance and Ultimate Boundedness of Nonlinear Systems</i> , pp. 598-603.	
Bitsoris, Georges	Univ. of Patras
Vassilaki, Marina	Univ. of Patras
Athanasopoulos, Nikolaos	Eindhoven Univ. of Tech.
11:10-11:30	ThA1.3
<i>Parameter Estimation by Solving Multivariate Polynomial System: A Synchronous Machine Example</i> , pp. 604-609.	
Zivanovic, Rastko	The Univ. of Adelaide
11:30-11:50	ThA1.4
<i>Analysis of Drilling Vibrations: A Time-Delay System Approach</i> , pp. 610-614.	
Boussaada, Islam	Lab. des Signaux et Systèmes
Mounier, Hugues	Univ. Paris Sud 11
Niculescu, Silviu-Iulian	UMR CNRS 8506, CNRS-SUPELEC
Cela, Arben	Groupe ESIEE
11:50-12:10	ThA1.5
<i>Position Funnel Control for Rigid Revolute Joint Robotic Manipulators with Known Inertia Matrix</i> , pp. 615-620.	
Hackl, Christoph M.	Tech. Univ. of Munich
Kennel, Ralph	Tech. Univ. München
ThA2	Salón 1
Fuzzy Systems (I) (Regular Session)	
Chair: Maquin, Didier	Univ. de Lorraine
10:30-10:50	ThA2.1
<i>On the Stabilization of Continuous Fuzzy Models Using Their Discretized Forms</i> , pp. 621-626.	
Ellouze, Ameni	ICOS, ENIS Sfax
Lauber, Jimmy	Univ. of Valenciennes
Delmotte, François	LGI2A, Univ. of Lille North of France, Univ.

Chtourou, Mohamed	Res. unit on Intelligent Control, design & Optimization of c
Ksontini, Mohamed	ICOS, ENIS Sfax
10:50-11:10	ThA2.2
<i>Design of an Interval Type-2 Fuzzy Logic Controller Based on Conventional PI Controller</i> , pp. 627-632.	
Aliasghary, Mortaza	Istanbul Tech. Univ.
Eksin, İbrahim	Istanbul Tech. Univ.
Müjde, Güzelkaya	Istanbul Tech. Univ.
Kumbasar, Tufan	Istanbul Tech. Univ.
11:10-11:30	ThA2.3
<i>PSO to Design Decentralized Fuzzy PI Controllers Application for a Helicopter</i> , pp. 633-637.	
Boubertakh, Hamid	Univ. of Jijel
Labioud, Salim	Faculty of Science and Tech. Univ. of Jijel
Tadjine, Mohamed	Ec. Nationale Pol.
11:30-11:50	ThA2.4
<i>Microcontroller Based Fuzzy-PI Approach Employing Control Surface Discretization</i> , pp. 638-645.	
Velagić, Jasmin	Univ. of Sarajevo
Kurić, Muhamed	Faculty of Electrical Engineering Sarajevo
Dragolj, Edin	Faculty of Electrical Engineering Sarajevo
Ajanović, Zlatan	Faculty of Electrical Engineering Sarajevo
Osmić, Nedim	Faculty of Electrical Engineering Sarajevo
11:50-12:10	ThA2.5
<i>Leakage Localization in Water Networks Using Fuzzy Logic</i> , pp. 646-651.	
Sanz, Gerard	UPC
Perez, Ramon	UPC (Univ. Pol. de Catalunya)
Escobet, Antoni	UPC
ThA3	Salón 3
Predictive Control (Regular Session)	
Chair: Serra, Maria	Univ. Pol. de Catalunya
Co-Chair: Van Impe, Jan F.M.	Katholieke Univ. Leuven
10:30-10:50	ThA3.1
<i>Nonlinear Model Predictive Substrate Feed Control of Biogas Plants</i> , pp. 652-657.	
Gaida, Daniel	Cologne Univ. of Applied Sciences
Wolf, Christian	Cologne Univ. of Applied Sciences
Bäck, Thomas	Leiden Univ.
Bongards, Michael	Cologne Univ. of Applied Sciences
10:50-11:10	ThA3.2
<i>Robust Nonlinear Extended Prediction Self-Adaptive Control (NEPSAC) of Continuous Bioreactors</i> , pp. 658-664.	
Dutta, Abhishek	Ghent Univ.
De Keyser, Robin M.C.	Univ. of Gent
Nopens, Ingmar	BIOMATH - Ghent Univ.
Dutta, Abhishek	Ghent Univ. BIOMATH, Department of Mathematical Modelling,
11:10-11:30	ThA3.3

A Nonlinear Model Based Predictive Control Strategy to Maintain Thermal Comfort Inside a Bioclimatic Building, pp. 665-671.

Castilla, Maria Del Mar	Univ. OF ALMERÍA
Álvarez Hervás, José Domingo	Univ. OF ALMERÍA
Normey-Rico, Julio Elias	Federal Univ. of Santa Catarina
Rodríguez-Díaz, Francisco	Univ. of Almería

11:30-11:50 ThA3.4

Model Predictive Control of Distributed Energy Resources, pp. 672-678.

Mehleri, Evgenia	NATIONAL Tech. Univ. OF ATHENS
Sarimveis, Haralambos	National Tech. Univ. of Athens
Papageorgiou, Lazaros	Univ. Coll. LONDON
Markatos, Nikolaos	NATIONAL Tech. Univ. OF ATHENS

11:50-12:10 ThA3.5

Implementation and Experimental Validation of Classic MPC on Programmable Logic Controllers, pp. 679-684.

Huyck, Bart	KU Leuven
Callebaut, Lennert	KaHo St-Lieven
Logist, Filip	Katholieke Univ. Leuven
Ferreau, Hans Joachim	KU Leuven
De Brabanter, Jos	K.U.Leuven
Diehl, Moritz	KU Leuven
Van Impe, Jan F.M.	Katholieke Univ. Leuven
De Moor, Bart L.R.	Katholieke Univ. Leuven

ThA4 Salón 4
Fault Tolerant Control and Fault Tolerant Systems (Regular Session)

Chair: Lamanna, Rosalba Univ. Simon Bolivar

10:30-10:50 ThA4.1

Parity Space Hybrid System Diagnosis under Model Uncertainty, pp. 685-690.

Vento, Jorge	Univ. Pol. de Catalunya (UPC)
Puig, Vicenc	Univ. Pol. de Catalunya
Sarrate, Ramon	Univ. Pol. de Catalunya

10:50-11:10 ThA4.2

Health Aware Control and Model-Based Prognosis, pp. 691-696.

Escobet, Teresa	Univ. Pol. de Catalunya
Puig, Vicenc	UPC
Nejjari, Fatiha	Univ. Pol. de Catalunya

11:10-11:30 ThA4.3

Adaptive Fading Kalman Filter with Q-Adaptation for Estimation of AUV Dynamics, pp. 697-702.

Hajiyev, Chingiz	Istanbul Tech. Univ.
Vural, Sitki Yenal	ITU (Istanbul Tech. Univ.)
Hajiyeva, Ulviyya	Haliç Univ.

11:30-11:50 ThA4.4

Fault Tolerant Adaptive Estimation of Nonlinear Processes Using Redundant Measurements, pp. 703-709.

Miranda, Moira	Univ. of Los Andes
Edelmayer, András	HungarianAcademy of Sciences

11:50-12:10 ThA4.5

Resilient Planning of PowerLine Communications Networks Over Medium Voltage Distribution Grids, pp. 710-715.

Canale, Silvia	Univ. of Rome
Delli Priscoli, Francesco	Univ. Di Roma
Di Giorgio, Alessandro	Univ. of Rome
Lanna, Andrea	Univ. of Rome Sapienza
Mercurio, Andrea	Univ. of Rome Sapienza
Panfilii, Martina	Univ. of Rome Sapienza
Pietrabissa, Antonio	Univ. of Rome Sapienza

12:10-12:30 ThA4.6

Trust-Based Multi-Agent Filtering for Increased Smart Grid Security, pp. 716-721.

Matei, Ion	Univ. of Maryland
Baras, John S.	Univ. of Maryland
Srinivasan, Vijay	NIST

ThA5 Salón 5
Decentralised Control (Regular Session)

Chair: Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia (UPC)
Co-Chair: Vilanova, Ramon	UAB

10:30-10:50 ThA5.1

Distributed LQG Control of a Water Delivery Canal with Feedforward from Measured Consumptions, pp. 722-727.

Lemos, Joao M.	Inesc-id
Pinto, Luis Filipe	INESC-ID
Rato, Luís	Univ. de Évora
Rijo, Manuel	Univ. of Évora

10:50-11:10 ThA5.2

Lead-Time Identifi Cation for Inventory Control of the Supply Chain, pp. 728-733.

Garcia Salcedo, Carlos Andres	Univ. Autonoma de Barcelona
Ibeas, Asier	Univ. Autonoma de Barcelona
Vilanova, Ramon	UAB
Herrera Cuartas, Jorge Aurelio	Univ. Autònoma de Barcelona

11:10-11:30 ThA5.3

Centralized Inventory Control Approach for Supply Chain Systems, pp. 734-739.

Garcia Salcedo, Carlos Andres	Univ. Autonoma de Barcelona
Ibeas, Asier	Univ. Autonoma de Barcelona
Vilanova, Ramon	UAB
Herrera Cuartas, Jorge Aurelio	Univ. Autònoma de Barcelona

11:30-11:50 ThA5.4

Hierarchical Temporal Multi-Layer Decentralised MPC Strategy Fordrinking Water Networks: Application to the Barcelona Case Study, pp. 740-745.

Puig, Vicenc	Univ. Pol. de Catalunya
Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia (UPC)
Montes de Oca, Saúl	UPC

11:50-12:10 ThA5.5

Constrained Power Control in Mobile Wireless Networks Using Nonlinear Control Techniques, pp. 746-751.

Cistelean, Mihaela	Tech. Univ. of Cluj-Napoca
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ThA6 Salón 7
Modeling, Operation and Control of Waste Water Treatment Processes (Invited Session)

Chair: Fuente, Maria Jesus Univ. De Valladolid. Q4718001C

Co-Chair: Alvarez, Hernan	Univ. Nacional de Colombia
Organizer: Alvarez, Hernan	Univ. Nacional de Colombia
Organizer: Vega, Pastora	Univ. of Salamanca
Organizer: Lamanna, Rosalba	Univ. Simon Bolivar
10:30-10:50	ThA6.1
<i>Environmental Analysis of Wastewater Treatment Plants Control Strategies (I)</i> , pp. 752-757.	
Concepción Gómez, Henry Rafael	UAB
Meneses Benitez, Montse	UAB
Vilanova, Ramon	UAB
10:50-11:10	ThA6.2
<i>Fault Detection in a Wastewater Treatment Plant Based on Neural Networks and PCA (I)</i> , pp. 758-763.	
Fuente, Maria Jesus	Univ. De Valladolid. Q4718001C
Garcia, Diego	Univ. of Valladolid. Q4718001C
Sainz, Gregorio	Univ. de Valladolid
Vega, Pastora	Univ. of Salamanca
11:10-11:30	ThA6.3
<i>Comparisons of Nonlinear Estimators for Wastewater Treatment Plants (I)</i> , pp. 764-769.	
Wahab, Hamimi	Univ. of Strathclyde
Katebi, Reza	Univ. of Strathclyde
Vilanova, Ramon	UAB
11:30-11:50	ThA6.4
<i>Automation Strategies for Dissolved Oxygen Control in Real Activated-Sludge Plants (I)</i> , pp. 770-775.	
Alvarez, Hernan	Univ. Nacional de Colombia
Lamanna, Rosalba	Univ. Simon Bolivar
Revollar, Silvana	Univ. Simón Bolívar
11:50-12:10	ThA6.5
<i>State Controllability Analysis and Re-Design for a Wastewater Treatment Plant (I)</i> , pp. 776-781.	
Calderón, Juan Camilo	Univ. Nacional de Colombia Sede Medellin
Alzate, Alex	Univ. Nacional de Colombia Sede Medellin
Gómez Echavarría, Lina María	National Univ. of Colombia
Alvarez, Hernan	Univ. Nacional de Colombia
12:10-12:30	ThA6.6
<i>An Activated-Sludge-Process Application of Integrated Design and Predictive Control with Instantaneous Linearization (I)</i> , pp. 782-787.	
Guerra, Ismelda	Univ. Simón Bolívar
Lamanna, Rosalba	Univ. Simon Bolivar
Revollar, Silvana	Univ. Simón Bolívar
Francisco, Mario	Univ. of Salamanca
ThB1	Salón Llimona
Discrete Event Systems and Hybrid Systems (Regular Session)	
Chair: Kovács, Gábor	Budapest Univ. of Tech.
14:00-14:20	ThB1.1
<i>A Unifying Decision-Making Framework to Study Secrecy in Discrete Event Systems</i> , pp. 788-793.	
Khoumsi, Ahmed	Univ. of Sherbrooke
Ouedraogo, Lucien	Univ. de Sherbrooke
14:20-14:40	ThB1.2

<i>Resolution of Initial-State in Security Applications of DES</i> , pp. 794-799.	
Hadjicostis, Christoforos	Univ. of Cyprus
14:40-15:00	ThB1.3
<i>A Component-Based Approach for Supervisory Control</i> , pp. 800-805.	
Kovács, Gábor	Budapest Univ. of Tech.
Piétrac, Laurent	INSA Lyon
Kiss, Bálint	Budapest Univ. of Tech. and Ec.
15:00-15:20	ThB1.4
<i>Practical Dwell Time Approach for Stability Analysis of Hybrid Systems</i> , pp. 806-812.	
Seroka, Ewelina	Cardinal Stefan Wyszynski Univ. in Warsaw
Socha, Leslaw	Cardinal Stefan Wyszynski Univ.
15:20-15:40	ThB1.5
<i>Exponentially Contractive Invariant Sets for Discrete-Time Switching Linear Systems</i> , pp. 813-818.	
Matcovschi, Mihaela-Hanako	Tech. Univ. Gh. Asachi of Iasi
Pastravanu, Octavian-Cezar	Tech. Univ. Gh. Asachi of Iasi
ThB2	Salón 1
Fuzzy Systems (II) (Regular Session)	
Chair: El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
14:00-14:20	ThB2.1
<i>Discrete Fuzzy Polynomial Observers</i> , pp. 819-823.	
Pitarch, Jose Luis	Univ. Pol. de Valencia
Sala, Antonio	Univ. Pol. de Valencia
14:20-14:40	ThB2.2
<i>Optimal Gains Tuning of PI-Fuzzy Controllers</i> , pp. 824-829.	
Lucena, Catarina	DEE-FCT/UNL
Brito Palma, Luis F. F.	Univ. Nova de Lisboa
Cardoso, Alberto	Univ. of Coimbra
Gil, Paulo	Univ. of Coimbra
14:40-15:00	ThB2.3
<i>H_{∞} Control for Time-Delay T-S Fuzzy Systems with Actuator Saturation</i> , pp. 830-835.	
Gassara, Hamdi	Univ. of Picardie Jules Verne
El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
Benzaouia, Abdellah	Faculty of Science Semlalia
Chaabane, Mohamed	Univ. of Sfax
15:00-15:20	ThB2.4
<i>Study on Observer-Based Robust Control of the Vehicle Lateral Dynamics Via TS Model with Unmeasurable Premise Variables</i> , pp. 836-841.	
Daraoui, Daraoui	Univ. de Picardie Jules Verne
Pages, Olivier	Univ. of Picardie Jules Verne
El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
15:20-15:40	ThB2.5
<i>Nonlinear Stable PID Controller Design Using Local Model Networks</i> , pp. 842-847.	
Mayr, Christian H.	Vienna Univ. of Tech.
Hametner, Christoph	Vienna Univ. of Tech.
Kozek, Martin	Vienna Univ. of Tech.
Jakubek, Stefan M.	Vienna Univ. of Tech. Austria
15:40-16:00	ThB2.6

Advances in Observer Design for Takagi-Sugeno Systems with Unmeasurable Premise Variables, pp. 848-853.

Ichalal, Dalil	IBISC Lab. Univ. Evry
Marx, Benoit	Centre de Recherche en Automatique de Nancy
Ragot, Jose	Univ. de Lorraine
Maquin, Didier	Univ. de Lorraine

ThB3 Salón 3
Process Control (I) (Regular Session)

Chair: Popescu, Dumitru Pol. Univ. of Bucharest

14:00-14:20 ThB3.1

Experimental Model for a DMC-Based Control Applied to a PEM Fuel Cell, pp. 854-859.

Feroldi, Diego	Consejo Nacional de Investigaciones Científicas y Técnicas
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Allue, Miguel	CSIC - Centro superior de Investigaciones científicas
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Riera, Jordi	Univ. Pol. de Catalunya
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Serra, Maria	Univ. Pol. de Catalunya
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Basualdo, Marta S.	CIFASIS (CONICET) UTN-FRRO
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14:20-14:40 ThB3.2

Gain Scheduling Control of Dissolved Oxygen Concentration in a Wastewater Treatment Process, pp. 860-865.

Vlad, Ciprian	Dunarea de Jos Univ. of Galati
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Caraman, Sergiu	Dunarea de Jos Univ. of Galati
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Carp, Daniela	Dunarea de Jos Univ. of Galati
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Minzu, Viorel	Dunarea de Jos Univ. of Galati
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Barbu, Marian	Dunarea de Jos Univ. of Galati
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14:40-15:00 ThB3.3

Flood Lamination Strategy Based on a Three-Flood-Diversion-Area System Management, pp. 866-871.

Nouasse, Houda	ENIT
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Charbonnaud, Philippe	ENIT
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Chiron, Pascale	Ec. Nationale d'Ingénieurs de Tarbes (ENIT)
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Murillo, Javier	UNIZAR
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Morales, Mario	UNIZAR
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Garcia-Navarro, Pilar	Unizar
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Perez, Guillermo	CHEbro
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15:00-15:20 ThB3.4

Performance Analysis of Model-Reference Robust Tuned 2DoF PI Controllers for Over Damped Processes, pp. 872-877.

Alfaro, Victor M.	Univ. of Costa Rica
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Vilanova, Ramon	UAB
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15:20-15:40 ThB3.5

An Optimal Control Strategy of Ballast Systems Used in Ship Stabilization, pp. 878-883.

Bara, Catalin	"Pol. Univ. of Bucharest
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Cornoiu, Mihai	Pol. Univ. of Bucharest
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Popescu, Dumitru	Pol. Univ. of Bucharest
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ThB4 Salón 4
Automotive Control (I) (Regular Session)

Chair: Alt, Benedikt Univ. of the German Armed Forces

14:00-14:20 ThB4.1

Analysis and Experimental Verification of Faulty Network Modes in an Autonomous Vehicle String, pp. 884-889.

Rödönyi, Gábor	Comp. and Automation Res. Inst.
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Gaspar, Peter	Computer & Automation Inst. of HAS
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Bokor, Jozsef	Hungarian Acad. of Sciences
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Aradi, Szilárd	Budapest Univ. of Tech. and Ec.
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Hankovszki, Zoltán	Budapest Univ. of Tech. and Ec.
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Kovács, Roland	Knorr-Bremse Brake-systems GmbH.
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Palkovics, László	Knorr-Bremse Hungary
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14:20-14:40 ThB4.2

Switching Model Predictive Control for an Articulated Vehicle under Varying Slip Angle, pp. 890-895.

Nayl, Thaker	Luleå Univ. of Tech.
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Nikolakopoulos, George	Luleå Univ. of Tech. Sweden
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Gustafsson, Thomas	Luleå Univ. of Tech.
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14:40-15:00 ThB4.3

Recent Advances on the Energy Management of a Hybrid Electric Vehicle, pp. 896-901.

Efstathiou, Dimitrios	Tech. Univ. of Crete
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Petrou, Anastasios	Tech. Univ. of Crete
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Spanoudakis, Polychronis	Tech. Univ. of Crete
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Tsourveloudis, Nikos	Tech. Univ. of Crete
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Valavanis, Kimon	Univ. of Denve
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15:00-15:20 ThB4.4

Power-Oriented Graph in Automotive Application: VVT Modeling on Lamborghini V12 Engine, pp. 902-908.

Corvino, Christian	Automobili Lamborghini SpA
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Zanasi, Roberto	Univ. of Modena and Reggio Emilia
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15:20-15:40 ThB4.5

Sensorless Control of Electric Power Assisted Steering System, pp. 909-914.

Marouf, Alaa	UVHC - LAMIIH
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Djemai, Mohamed	LAMIIH
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Sentouh, Chouki	LAMIIH - Univ. of Valenciennes
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Pudlo, Philippe	UVHC - LAMIIH
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15:40-16:00 ThB4.6

Flatness Based Control for Electric and Hybrid Electric Vehicle Drivetrains, pp. 915-920.

Alt, Benedikt	Univ. of the German Armed Forces
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Anritter, Felix	Univ. der Bundeswehr Muenchen
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Svaricek, Ferdinand	Univ. of the German Armed Forces, Munich
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ThB5 Salón 5
Networked Systems (I) (Regular Session)

Chair: Daafouz, Jamal CRAN -INPL

Co-Chair: Sauter, Dominique Nancy Univ.

14:00-14:20 ThB5.1

Chaotic Synchronization of Regular Complex Networks with Fractional-Order Oscillators, pp. 921-927.

Angulo-Guzmán, Sara	UANL
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Posadas-Castillo, Cornelio	Nuevo León Autonomous Univ.
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	(UANL)
Cruz-Hernández, César	Scientific Res. and Advanced Studies Center of Ensenada
López-Gutiérrez, Rosa Martha	Baja California Autonomous Univ. (UABC)
Díaz-Romero, David Alejandro	Univ. Autónoma de Nuevo León
14:20-14:40	ThB5.2
<i>Design, Analysis and Validation of an Observer-Based Delay Compensation Structure for a Network Control System</i> , pp. 928-934.	
Codrean, Alexandru	"Pol. Univ. of Timisoara
Stefan, Octavian	"Pol. Univ. of Timisoara
Dragomir, Toma-Leonida	"Pol. Univ. of Timisoara
14:40-15:00	ThB5.3
<i>State Filtering for Discrete-Time Stochastic Linear Systems Subject to Random Cyber Attacks and Losses of Measurements</i> , pp. 935-940.	
Keller, Jean-Yves	Univ. Henri Poincaré, CRAN
Sauter, Dominique	Nancy Univ.
Chabir, Karim	ENIG
15:00-15:20	ThB5.4
<i>Self-Triggering in Nonlinear Systems: A Small Gain Theorem Approach</i> , pp. 941-947.	
Tolic, Domagoj	Univ. of New Mexico
Sanfelice, Ricardo G.	Univ. of Arizona
Fierro, Rafael	Univ. of New Mexico
15:20-15:40	ThB5.5
<i>Self-Triggered Linear Quadratic Networked Control</i> , pp. 948-953.	
Souza, Matheus	FEEC - Unicamp
Deaecto, Grace S.	UNICAMP
Geromel, Jose C.	UNICAMP
Daafouz, Jamal	CRAN -INPL
15:40-16:00	ThB5.6
<i>\mathcal{H}_∞ Control of Delayed Teleoperation Systems under Polytopic-Type Uncertainties</i> , pp. 954-959.	
Zhang, Bo	LAGIS, Ec. Centrale de Lille
Richard, Jean-Pierre	Ec. Centrale de Lille
Kruszewski, Alexandre	Ec. Centrale de LILLE

ThB6 Salón 7
Innovative Designs in Control and Diagnosis for Engines of the Future (Invited Session)

Chair: Aitouche, Abdel	LAGIS/HEI
Organizer: Aitouche, Abdel	LAGIS/HEI
Organizer: Peng, Zhijun	Department of Engineering and Design, Univ. of Sussex, Brighton
Organizer: Bosche, Jérôme	Univ. of Picardie Jules Verne of Amiens
14:00-14:20	ThB6.1
<i>Control of a Turbocharged Diesel Engine with EGR System Using Takagi-Sugeno's Approach (I)</i> , pp. 960-965.	
Abidi, Ines	Univ. of Picardie Jules Verne, Lab. Syst
Bosche, Jérôme	Univ. of Picardie Jules Verne of Amiens
El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
Aitouche, Abdel	LAGIS/HEI
14:20-14:40	ThB6.2
<i>Hybrid Bond Graph Diagnostic and Localisation - Signal Signature</i>	

<i>Study of Three-Cell Converter (I)</i> , pp. 966-971.	
Uzunova, Milka	Univ. of Valenciennes and Henaut Cambresis
Djemai, Mohamed	LAMIH
Ould Bouamama, Belkacem	Pol. Lille
14:40-15:00	ThB6.3
<i>A Diagnosis Methodology for the Hydromechanical Actuation Loops in Aircraft Engines (I)</i> , pp. 972-977.	
Lamoureux, Benjamin	PIMM, Arts et Métiers Paritech - Safran Snecma
Massé, Jean Rémi	SNECMA
Mechbal, Nazih	Arts et métiers ParisTech
15:00-15:20	ThB6.4
<i>Nonlinear Unknown Input Observer for Intake Leakage Estimation in Diesel Engines (I)</i> , pp. 978-983.	
Djemili, Issam	LAGIS, Hautes Etudes d'Ingenieur, Lille, France
Boukroune, Boulaid	Univ. Libre de Bruxelles
Aitouche, Abdel	LAGIS/HEI
Cocquempot, Vincent	Lille 1 Univ.
15:20-15:40	ThB6.5
<i>Fault Detection and Isolation for a Class of Hybrid Systems: A Dedicated Switched Robust Observer Scheme (I)</i> , pp. 984-989.	
Belkhiat, Djamel Eddine	CRESTIC, Univ. de Reims Champagne Ardenne
Chouaib	Univ. of Reims- Champagne
Manamanni, Noureddine	Univ. de Reims Champagne-Ardenne
Messai, Nadhir	Univ. de Reims Champagne-Ardenne
Djemai, Mohamed	UVHC
15:40-16:00	ThB6.6
<i>Control Strategy for the Air Path Dynamic System (I)</i> , pp. 990-995.	
Djemili, Issam	LAGIS, Hautes Etudes d'Ingenieur, Lille, France
Wang, Haoping	Univ. of Picardie Jules Verne
Aitouche, Abdel	LAGIS/HEI
Cocquempot, Vincent	Lille 1 Univ.
Bosche, Jérôme	Univ. of Picardie Jules Verne of Amiens
El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne

ThC1 Salón Llimona
Nonlinear Control (I) (Regular Session)

Chair: Lefebvre, Dimitri	Univ. Le Havre
16:20-16:40	ThC1.1
<i>Sliding Mode Control for Turbocharged Diesel Engine</i> , pp. 996-1001.	
Ahmed Ali, Sofiane	IRSEEM Rouen
Ndoye, Bada	IRSEEM
Langlois, Nicolas	IRSEEM / ESIGELEC
16:40-17:00	ThC1.2
<i>Necessary Conditions for Solving the Nonlinear MIMO Output Regulation Problem</i> , pp. 1002-1006.	
Udrea, Andreea	Pol. Univ. of Bucharest
Ticlea, Alexandru	Pol. Univ. of Bucharest
Tanasa, Valentin	Univ. Paris 11
Flutur, Cristian	Univ. Pol. of Bucharest
17:00-17:20	ThC1.3
<i>Antiwindup Speed Technique for Sensorless Control of Synchronous</i>	

Machine Using Saturation Feedback, pp. 1007-1012.

Ilioudis, Vasilios Aristotle Univ. of Thessaloniki
Margaris, Nikolaos Aristotle Univ. of Thessaloniki

17:20-17:40 ThC1.4

Approximate Feedback Linearization of the Acrobot Tracking Error Dynamics with Application to Its Walking-Like Trajectory Tracking, pp. 1013-1018.

Anderle, Milan Czech Tech. Univ. in Prague
Celikovský, Sergej Acad. of Sci. of Czech Republic

17:40-18:00 ThC1.5

Feed-Forward Friction Observer (FFFO) for High-Dynamic Motion Control, pp. 1019-1024.

Ruderman, Michael Tech. Univ. Dortmund
Bertram, Torsten Tech. Univ. Dortmund

ThC2 Salón 1
Agents and Agent-Based Systems (Regular Session)

Chair: Peñarrocha, Ignacio Univ. Jaume I, Castelló

16:20-16:40 ThC2.1

3D Position and Attitude Estimation Using Novel Marker Detection Method, pp. 1025-1030.

Regula, Gergely Computer and Automation Res. Inst. S

Gözse, István Computer and Automation Res. Inst. Hungarian Academy of

Soumelidis, Alexandros Comp. and Automation Res. Inst.

16:40-17:00 ThC2.2

Adding and Removing Nodes in Consensus, pp. 1031-1036.

Oliva, Gabriele Univ. degli Studi Roma Tre

Panzieri, Stefano Univ. degli Studi Roma Tre

Priolo, Attilio Univ. degli Studi Roma Tre

Ulivi, Giovanni Univ. degli Studi Roma Tre

17:00-17:20 ThC2.3

Analogies in the Controller Design for Multi-Agent and Physically Interconnected Systems with Identical Subsystems, pp. 1037-1042.

Demir, Ozan Ruhr-Univ. Bochum

Lunze, Jan Ruhr-Univ. Bochum

Otte, Patrick Ruhr-Univ. Bochum

17:20-17:40 ThC2.4

AVLib: A Simulink Library for Multi-Agent System Research, pp. 1043-1048.

Miklic, Damjan Faculty of Electrical Engineering and Computing, Univ.

Bogdan, Stjepan Univ. of Zagreb

Fierro, Rafael Univ. of New Mexico

17:40-18:00 ThC2.5

Distributed Macro Calibration in Sensor Networks, pp. 1049-1054.

Stankovic, Milos Royal Insistute of Tech. (KTH)

Stankovic, Srdjan Univ. of Belgrade, Serbia

Johansson, Karl Henrik Royal Inst. of Tech.

18:00-18:20 ThC2.6

Numerical Studies of Concentration Estimation and Source Tracking of a Gaseous Source Using Multiple Mobile Distributed Sensors, pp. 1055-1060.

Demetriou, Michael A. Worcester Pol. Inst.

Gatsonis, Nikolaos A. Worcester Pol. Inst.

Court, Jeffrey

Worcester Pol. Inst.

ThC3 Salón 3
Process Control (II) (Regular Session)

Chair: Katebi, Reza Univ. of Strathclyde
Co-Chair: Green, Torben Danfoss A/S

16:20-16:40 ThC3.1

Design of Adaptive Sliding Window PI-PCA Controller, pp. 1061-1066.

Brito Palma, Luis F. F. Univ. Nova de Lisboa

Coito, Fernando José Faculty of Sciences and Tech. - Univ. Nova de

Gil, Paulo Univ. of Coimbra (NIF: 501 617 582)

16:40-17:00 ThC3.2

Optimising Performance in Steady State for a Supermarket Refrigeration System, pp. 1067-1072.

Green, Torben Danfoss A/S

Kinnaert, Michel Univ. Libre de Bruxelles

Razavi-Far, Roozbeh Univ. Libre de Bruxelles

Izadi-Zamanabadi, Roozbeh Danfoss A/S.

Niemann, Henrik Tech. Univ. of Denmark

17:00-17:20 ThC3.3

Tuning Rules for Event-Based SSOD-PI Controllers, pp. 1073-1078.

Beschi, Manuel Univ. of Brescia

Dormido, Sebastián UNED

Sánchez Moreno, José UNED

Visioli, Antonio Univ. of Brescia

17:20-17:40 ThC3.4

Model Reference Robust Tuning of 2DoF PI Controllers for Integrating Controlled Processes, pp. 1079-1084.

Alfaro, Victor M. Univ. of Costa Rica

Vilanova, Ramon UAB

17:40-18:00 ThC3.5

Boundary Model Predictive Control of Thin Film Thickness Modelled by Kuramoto-Sivashinsky Equation with Input and State Constraints, pp. 1085-1091.

Yang, Yu Univ. of Alberta

Dubljevic, Stevan Univ. of Alberta

18:00-18:20 ThC3.6

Leader-Follower String Formation Using Cascade Control for Mobile Robots, pp. 1092-1098.

Cristescu, Stefana Miruna Ghent Univ.

Ionescu, Clara Ghent Univ.

Wyns, Bart Ghent Univ.

De Keyser, Robin M.C. Univ. of Gent

Nascu, Ioan Tech. Univ. of Cluj-Napoca

ThC4 Salón 4
Automotive Control and Aerospace Control (Regular Session)

Co-Chair: Saydy, Lahcen Ec. Pol. of Montreal

16:20-16:40 ThC4.1

Influence of the Inverter Control-System to the Mechanical and Electrical Behaviour of an Electric Vehicle Modulated As a Two-Mass-System, pp. 1099-1104.

Dost, Philip Ruhr-Univ. Bochum

Sourkounis, Constantinos	Ruhr-Univ. Bochum
16:40-17:00	ThC4.2
<i>Robust Estimation and Control of Tire Traction Forces</i> , pp. 1105-1110.	
Hsiao, Tesheng	National Chiao Tung Univ.
17:00-17:20	ThC4.3
<i>Design of Variable-Geometry Suspension for Driver Assistance Systems</i> , pp. 1111-1116.	
Nemeth, Balazs	MTA SZTAKI
Gaspar, Peter	Computer & Automation Inst. of HAS
17:20-17:40	ThC4.4
<i>Nonlinear Vehicle Lateral Dynamics Estimation with Unmeasurable Premise Variable Takagi-Sugeno Approach</i> , pp. 1117-1122.	
Yacine, Zedjiga	Univ. of Tizi Ouzou
Ichalal, Dalil	IBISC Lab. Univ. Evry
Ait Oufroukh, Naima	Univ. d'Evry - Lab. IBISC
Mammar, Said	Univ. of Evry
Djennoune, Saïd	Univ. of Mouloud Mammeri, Tizi-Ouzou
17:40-18:00	ThC4.5
<i>Output Feedback Based Pole Confinement for Launch Vehicle Attitude Control</i> , pp. 1123-1128.	
Dubanchet, Vincent	Ec. Pol. de Montréal
Saussie, David	Ec. Pol. de Montreal
Saydy, Lahcen	Ec. Pol. of Montreal
Gourdeau, Richard	Pol. Montreal
Bérard, Caroline	ISAE
ThC5	Salón 5
Networked Systems (II) (Regular Session)	
Chair: Barão, Miguel	Inesc-id
16:20-16:40	ThC5.1
<i>State-Dependent Sampling for Linear Time Invariant Systems: A Discrete Time Analysis</i> , pp. 1129-1134.	
Maalej, Sonia	LAGIS, CNRS, Ec. LILLE
Fiter, Christophe	CNRS - Ec. Centrale de Lille
Hetel, Laurentiu	LAGIS UMR CNRS 8219
Richard, Jean-Pierre	Ec. Centrale de Lille
16:40-17:00	ThC5.2
<i>Model-Based Control of Continuous-Time and Discrete-Time Systems with Large Network Induced Delays</i> , pp. 1135-1140.	
Garcia, Eloy	Univ. of Notre Dame
Antsaklis, Panos J.	Univ. of Notre Dame
17:00-17:20	ThC5.3
<i>Distributed Strategies for Balancing a Weighted Digraph</i> , pp. 1141-1146.	
Hadjicostis, Christoforos	Univ. of Cyprus
Rikos, Apostolos	Univ. of Cyprus
17:20-17:40	ThC5.4
<i>A Survey on Underwater Wireless Sensor Networks and Applications</i> , pp. 1147-1154.	
Gkikopouli, Andrianna	Univ. of Patras
Nikolakopoulos, George	Luleå Univ. of Tech. Sweden
Manesis, Stamatis	Univ. of Patras
17:40-18:00	ThC5.5

<i>Multi-Leak Detection with Wavelet Analysis in Water Distribution Networks</i> , pp. 1155-1160.	
Escalera Avitia, Claudia	Tecnológico de Monterrey
Deniss	
Garza-Castañón, Luis	ITESM Campus Monterrey
Vargas-Martínez, Adriana	Tecnológico de Monterrey (ITESM)
18:00-18:20	ThC5.6
<i>An Algorithm for Cooperative Probabilistic Control Design</i> , pp. 1161-1164.	
Barão, Miguel	Inesc-id
ThC6	Salón 7
Control and Diagnosis Faults in Renewable Energy Systems (Invited Session)	
Chair: Puig, Vicenc	UPC
Organizer: Aitouche, Abdel	LAGIS/HEI
Organizer: Noura, Hassan	United Arab Emirates Univ.
Organizer: Ghorbani, Reza	Renewable Energy Design Lab. Mechanical EngineeringUniversity of
16:20-16:40	ThC6.1
<i>Instrumentation for Electrical Vehicle Model on Road Slope Using Structural Analysis (I)</i> , pp. 1165-1170.	
Megatta, Zine Eddine	Lille Univ.
Bayart, Mireille	LAGIS/Pol.
16:40-17:00	ThC6.2
<i>Fuzzy Fault Tolerant Control for Wind Energy System Subject to Parameters Uncertainties and Unknown Inputs (I)</i> , pp. 1171-1176.	
Kamal, Elkhatib	LAGIS FRE CNRS 3033, Lille, France
Aitouche, Abdel	LAGIS/HEI
Ghorbani, Reza	Renewable Energy Design Lab. MechanicalEngineeringUniver
Bayart, Mireille	LAGIS/Pol.
17:00-17:20	ThC6.3
<i>Fault Tolerant Control of Wind Energy System Subject to Actuator Faults and Time Varying Parameters (I)</i> , pp. 1177-1182.	
Kamal, Elkhatib	LAGIS FRE CNRS 3033, Lille, France
Aitouche, Abdel	LAGIS/HEI
Ghorbani, Reza	Renewable Energy Design Lab. Mechanical EngineeringUniver
Bayart, Mireille	LAGIS/Pol.
17:20-17:40	ThC6.4
<i>Wind Turbine Power Maximisation Based on Adaptive Sensor Fault Tolerant Sliding Mode Control</i> , pp. 1183-1188.	
Shaker, Montadher Sami	Univ. of Hull, Department of Engineering
Patton, Ron J.	Univ. of Hull
17:40-18:00	ThC6.5
<i>Hydrogen Production Based on Bio-Ethanol and Solar Energy for Feeding PEM Fuel Cells</i> , pp. 1189-1194.	
Nieto Degliuomini, Lucas	CIFASIS CONICET
Feroldi, Diego	Consejo Nacional de Investigaciones Científicas y Técnicas
Basualdo, Marta S.	CIFASIS (CONICET) UTN-FRRO
Riera, Jordi	Univ. Pol. de Catalunya

Drivetrain Configurations and Control Strategies for Active Damping of Oscillations in Wind-Energy-Converter, pp. 1195-1199.

Broy, Alexander

Ruhr-Univ. Bochum

Sourkounis, Constantinos

Ruhr-Univ. Bochum

Technical Program for Friday July 6, 2012

FrPT1	Salón Llimona
Plenary Session (Fr) (Plenary Session)	
Chair: Antsaklis, Panos J.	Univ. of Notre Dame
09:00-10:00	FrPT1.1
<i>Adaptive Control in Neurorobotics*</i> .	
Casals, Alicia	Inst. for Bioengineering of Catalonia and Univ. Pol. de Catalunya, Barcelona Tech.
FrA1	Salón Llimona
Nonlinear Control (II) (Regular Session)	
Chair: Andrade Da Silva, J. M.	Univ. of Leicester
10:30-10:50	FrA1.1
<i>Repetitive Sliding Mode Control for Nondecouplable Multivariable Systems: Periodic Disturbances Rejection</i> , pp. 1200-1205.	
Dehri, Khadija	Univ. of Gabes
Ltaief, Majda	National School of Engineering of Gabes Tunisia
Nouri, Ahmed Said	National school of engineering of Gabes
10:50-11:10	FrA1.2
<i>Sliding Mode Based On-Line Drag Estimation of a Simulated Aircraft Over a Wireless Network</i> , pp. 1206-1210.	
Andrade Da Silva, J. M.	Univ. of Leicester
Alwi, Halim	Univ. of Leicester
Edwards, Christopher	Univ. of Leicester
11:10-11:30	FrA1.3
<i>Dynamic Positioning of a Marine Vessel Using DTVSC and Robust Control Allocation</i> , pp. 1211-1216.	
Benetazzo, Flavia	Univ. Pol. delle Marche
Ippoliti, Gianluca	Univ. Pol. delle Marche
Longhi, Sauro	Univ. Pol. delle Marche
Raspa, Paolo	Univ. Pol. delle Marche
Sørensen, Asgeir J.	Norwegian Univ. of Science and Tech.
11:30-11:50	FrA1.4
<i>A New Saturation Function to Convert an Output Constraint into an Input Constraint</i> , pp. 1217-1222.	
Burlion, Laurent	ONERA
11:50-12:10	FrA1.5
<i>Nonlinear Predictive Control of an Industrial Power Plant Boiler</i> , pp. 1223-1228.	
Katebi, Reza	Univ. of Strathclyde
Abokhatwa, Salah	Univ. of strathclyde
FrA2	Salón 1
Optimisation (Regular Session)	
Chair: Balaguer, Pedro	Univ. Jaime I de Castellon
10:30-10:50	FrA2.1
<i>Animal-Inspired Optimal Foraging Via a Distributed Actor-Critic Algorithm</i> , pp. 1229-1234.	
Paschalidis, Ioannis	Boston Univ.
Lin, Yingwei	Boston Univ.

10:50-11:10	FrA2.2
<i>Gradient Method Optimization of Penicillin Production: New Strategies</i> , pp. 1235-1240.	
Pcolka, Matej	Czech Tech. Univ. in Prague
Celikovsky, Sergej	Acad. of Sci. of Czech Republic
11:10-11:30	FrA2.3
<i>A New Approach to Optimal Energy Management with Discrete Control</i> , pp. 1241-1246.	
Balaguer, Pedro	Univ. Jaime I de Castellon
Alfonso, Jose Carlos	Univ. Jaume I de Castelló
Zhang, Jiangfeng	Univ. of Pretoria
Xia, Xiaohua	Univ. of Pretoria
11:30-11:50	FrA2.4
<i>Initial Conditions Optimization of Nonlinear Dynamic Systems with Applications to Output Identification and Control</i> , pp. 1247-1252.	
Kasac, Josip	Univ. of Zagreb
Milic, Vladimir	Univ. of Zagreb, Faculty of mechanicalengineeringandnaval
Novakovic, Branko	FSB-Univ. of Zagreb
Majetic, Dubravko	Faculty of mechanical engineering and naval architecture
Brezak, Danko	Univ. of Zagreb, Faculty of Mechanical Engineering andNaval
11:50-12:10	FrA2.5
<i>Numerical Algorithm for Nonlinear State Feedback H_∞ Optimal Control Problem</i> , pp. 1253-1258.	
Milic, Vladimir	Univ. of Zagreb, Faculty of mechanicalengineeringandnaval
Bemporad, Alberto	IMT Inst. for Advanced Studies Lucca
Kasac, Josip	Univ. of Zagreb
Situm, Zeljko	Faculty of Mechanical Engineering and Naval Architecture
12:10-12:30	FrA2.6
<i>A Proactive Link-Failure Resilient Routing Protocol for MANETs Based on Reinforcement Learning</i> , pp. 1259-1264.	
Oddi, Guido	Univ. of Rome
Macone, Donato	Univ. of Rome
Pietrabissa, Antonio	Univ. of Rome Sapienza
Liberati, Francesco	Univ. di Roma La Sapienza
FrA3	Salón 3
Power Systems (Regular Session)	
Chair: Matcovschi, Mihaela-Hanako	Tech. Univ. Gh. Asachi of Iasi
10:30-10:50	FrA3.1
<i>Distributed Control Approach for Community Energy Management Systems</i> , pp. 1265-1271.	
Mercurio, Andrea	Univ. of Rome Sapienza
Di Giorgio, Alessandro	Univ. of Rome Sapienza
Quaresima, Alessandra	Sapienza, Univ. of Rome
10:50-11:10	FrA3.2
<i>Robust LMI Control of a Buck-Boost Converter with Low Ripple Propagation</i> , pp. 1272-1277.	
Ingles, Vicens	Univ. Rovira i Virgili
Garcés, Pedro	Univ. Rovira i Virgili
Leyva, Ramon	Univ. Rovira i Virgili

11:10-11:30	FrA3.3
<i>Controller Design for Voltage Regulation and Stabilization in Multimachine Power Systems</i> , pp. 1278-1283.	
Fusco, Giuseppe	Univ. of Cassino
Russo, Mario	Univ. di Cassino
11:30-11:50	FrA3.4
<i>PSO Based Optimal Output Feedback Controller for Two-Area LFC System</i> , pp. 1284-1289.	
Rakhshani, Elyas	Tech. Univ. of Catalonia (UPC)
Luna, Alvaro	Tech. Univ. of Catalonia (UPC)
Sadeh, Javad	Ferdowsi Univ. of Mashhad
Rodriguez, Pedro	Tech. Univ. of Catalonia (UPC)
FrA4	Salón 4
Renewable Energy and Sustainability (I) (Regular Session)	
Chair: Quevedo, Joseba	Tech. Univ. of Catalonia
10:30-10:50	FrA4.1
<i>Predictive Control Oriented Subspace Identification Based on Building Energy Simulation Tools</i> , pp. 1290-1295.	
Privara, Samuel	Czech Technical University in Prague, Faculty of Electrical Engineering
Vana, Zdenek	Department of Control Engineering, Faculty of Electrical Engineering
Cigler, Jiri	Czech Tech. Univ. in Prague, Faculty of Electrical Engineering
Ferkl, Lukas	Czech Tech. Univ. in Prague
10:50-11:10	FrA4.2
<i>Basic Control Concept for a Speed-Variable Wind Energy Converter in a Low-Power Grid</i> , pp. 1296-1302.	
Sourkounis, Constantinos	Ruhr-Univ. Bochum
11:10-11:30	FrA4.3
<i>Distributed Control Approach for Community Energy Management Systems in Presence of Storage</i> , pp. 1303-1308.	
Mercurio, Andrea	Univ. of Rome Sapienza
Di Giorgio, Alessandro	Univ. of Rome Sapienza
Quaresima, Alessandra	Sapienza, Univ. of Rome
11:30-11:50	FrA4.4
<i>Optimal Electric Vehicles to Grid Power Control for Active Demand Services in Distribution Grids</i> , pp. 1309-1315.	
Di Giorgio, Alessandro	Univ. of Rome Sapienza
Liberati, Francesco	Univ. di Roma La Sapienza
Canale, Silvia	Univ. of Rome
11:50-12:10	FrA4.5
<i>Power Analysis in Wind Generation with Doubly Fed Induction Generator with Polynomial Optimization Tools</i> , pp. 1316-1321.	
Peñarrocha, Ignacio	Univ. Jaume I, Castelló
Dolz, Daniel	Univ. Jaume I, Castelló
Aparicio, Néstor	Univ. Jaume I
Sanchis, Roberto	Univ. Jaume I
Vidal, Ricardo	Univ. Jaume I, Castelló
Belenguer, Enrique	Univ. Jaume I
12:10-12:30	FrA4.6
<i>Thermal and Lighting Control System with Energy Saving and Users Comfort Features</i> , pp. 1322-1327.	
Zanoli, Silvia Maria	Univ. Pol. delle Marche

Barchiesi, David Univ. Pol. delle Marche

FrA5	Salón 5
Industrial Automation, Manufacturing (Regular Session)	
Chair: Aouf, Nabil	Cranfield Univ.
10:30-10:50	FrA5.1
<i>Precise Ratio Control Structure for Nonlinear Blend Processes</i> , pp. 1328-1333.	
Lupu, Ciprian	Pol. Univ. of Bucharest
Popescu, Dumitru	Pol. Univ. of Bucharest
Gyorodi, Robert	Univ. of Oradea
Udrea, Andreea	Pol. Univ. of Bucharest
10:50-11:10	FrA5.2
<i>An Experimental Study on Thermodynamic Properties of Pneumatic Artificial Muscles</i> , pp. 1334-1340.	
Andrikopoulos, George	Univ. of Patras, Greece
Nikolakopoulos, George	Luleå Univ. of Tech.
Manesis, Stamatis	Univ. of Patras
11:10-11:30	FrA5.3
<i>Task Assignment and Agent Coordination in a Warehouse Environment</i> , pp. 1341-1346.	
Stavrou, Demetris	Univ. of Cyprus
Panayiotou, Christos	Univ. of Cyprus
11:30-11:50	FrA5.4
<i>Application of a Mahalanobis-Based Pattern Recognition Technique for Fault Diagnosis on a Chemical Process</i> , pp. 1347-1352.	
Zanoli, Silvia Maria	Univ. Pol. delle Marche
Astolfi, Giacomo	Univ. Pol. delle Marche
11:50-12:10	FrA5.5
<i>Clustering Data Procedure for the Prediction of the Recovered Volume of the Light Gasoil of a Visbreaking Column</i> , pp. 1353-1358.	
Zanoli, Silvia Maria	Univ. Pol. delle Marche
Orlietti, Lorenzo	Univ. Pol. delle Marche
Astolfi, Giacomo	Univ. Pol. delle Marche
FrA6	Salón 7
Marine Robotics (Invited Session)	
Chair: Bibuli, Marco	CNR - ISSIA
Co-Chair: Miskovic, Nikola	Lab. for Underwater Systems and Tech. Faculty of Electrical Engineering and Computing, Univ. of Zagreb
Organizer: Miskovic, Nikola	Lab. for Underwater Systems and Technologies, Faculty of Electrical Engineering
Organizer: Bibuli, Marco	CNR - ISSIA
Organizer: Scaradozzi, David	Univ. Pol. delle Marche
10:30-10:50	FrA6.1
<i>Enhancing Autonomous Capabilities and Human-Robot Interaction for Unmanned Surface Vehicles (I)</i> , pp. 1359-1364.	
Ferreira, Fausto	CNR - IEIT
Bibuli, Marco	CNR - ISSIA
Caccia, Massimo	CNR - ISSIA
Bruzzone, Giorgio	CNR - ISSIA
Bruzzone, Gabriele	CNR - ISSIA
10:50-11:10	FrA6.2

Sigma-Point Unscented Kalman Filter Used for AUV Navigation (I), pp. 1365-1372.

Barisic, Matko Lab. for Underwater Systems and Technologies, Univ. of Vasiljevic, Antonio Lab. for Underwater Systems and Tech. Faculty of E Nađ, Đula Faculty of Electrical Engineering and Computing, Univ. of Z

11:10-11:30 FrA6.3

Assisted Guidance System for Micro ROV in Underwater Data Gathering Missions (I), pp. 1373-1378.

Scaradozzi, David Univ. Pol. delle Marche Conte, Giuseppe Univ. delle Marche Sorbi, Laura Italian Inst. of Tech.

11:30-11:50 FrA6.4

Multipurpose Autonomous Underwater Intervention: A Systems Integration Perspective (I), pp. 1379-1384.

Prats, Mario Univ. of Jaume-I García, Juan Carlos Univ. Jaume-I Wirth, Stephan Univ. of the Balearic Island Ribas, David Univ. of Girona Sanz, P.J. Univ. of Jaume I Ridao, Pere Univ. of Girona Gracias, Nuno Univ. of Girona Oliver, Gabriel Univ. of Balearic Islands

11:50-12:10 FrA6.5

Quick Identification and Dynamic Positioning Controller Design for a Small-Scale Ship Model (I), pp. 1385-1390.

Vladić, Viktor Univ. of Zagreb, Faculty of Electrical Engineering and Comput Miskovic, Nikola Lab. for Underwater Systems and Technologies, Faculty of Elec Vukic, Zoran Univ. of zagreb, Faculty of Electrical Engineering and Compu

12:10-12:30 FrA6.6

OceanRINGS: System Concept & Applications (I), pp. 1391-1396.

Omerdic, Edin Univ. of Limerick Toal, Dan Univ. of Limerick

FrB1 Salón Llimona

Nonlinear Control (III) (Regular Session)

Chair: Nakamura, Hisakazu Tokyo Univ. of Science

14:00-14:20 FrB1.1

Nonlinear Control of Magnetic Levitation System with Finite-Time P-PI Control, pp. 1397-1402.

Hirota, Keisuke Tokyo Univ. of Science Nakamura, Hisakazu Tokyo Univ. of Science Katayama, Hitoshi Shizuoka Univ.

14:20-14:40 FrB1.2

Global Control Lyapunov Function Design Based on Decision by Q-Learning, pp. 1403-1408.

Akiba, Hideyuki Tokyo Univ. of Science Nakamura, Hisakazu Tokyo Univ. of Science

14:40-15:00 FrB1.3

Distributed Tracking Control of an Uncertain Heat Diffusion Process, pp. 1409-1414.

Orlov, Yury CICESE

Pisano, Alessandro

Univ. di Cagliari

Usai, Elio

Univ. degli Studi di Cagliari

15:00-15:20 FrB1.4

Nonlinear Feedback Control of a Nutrient Removal Biological Plant (I), pp. 1415-1420.

El bahja, Hicham Univ. de Salamanca Othman, Bakka Univ. Cady Ayyad Vega, Pastora Univ. of Salamanca

FrB2 Salón 1

Biomedical Engineering (Regular Session)

Chair: Casals, Alicia Inst. for Bioengineering of Catalonia and Univ. Pol. de Catalunya, Barcelona Tech.

14:00-14:20 FrB2.1

Cardiovascular Model with Human Elastance Function and Valve Dynamics, pp. 1421-1427.

Korodi, Adrian Pol. Univ. of Timisoara Codrean, Alexandru Pol. Univ. of Timisoara Timofte, Angela Pol. Univ. of Timisoara Dragomir, Toma-Leonida Pol. Univ. of Timisoara

14:20-14:40 FrB2.2

Control Problems Related to Three Compartmental Model of Combined Anticancer Therapy, pp. 1428-1433.

Swierniak, Andrzej Silesian Tech. Univ.

14:40-15:00 FrB2.3

High-Speed FPGA-Based Flow Detection for Microfluidic Lab-On-Chip, pp. 1434-1439.

Voudouris, Liberis Aristotle Univ. of Thessaloniki Sotiropoulou, Calliope-Louisa Aristotle Univ. of Thessaloniki Vassiliadis, Nikolaos Micro2gen Ltd. Demiris, Athanasios Micro2gen Ltd. Nikolaidis, Spyridon Aristotle Univ. of Thessaloniki

15:00-15:20 FrB2.4

Multivariable Control Applied to Temperature and Humidity Case Study: Neonate Incubator, pp. 1440-1445.

Zermani, Aymen Department of Electric Engineering, Lab. of Analysis and C

15:20-15:40 FrB2.5

A New Method to Determine Arterial Distensibility in Small Arteries, pp. 1446-1449.

Guerreschi, Emmanuelle ESAIP and LISA Bricq, Stéphanie ESAIP and LISA Leftheriotis, Georges Lab. de physiologie et d'Explorations Vasculaires, Centre Chauvet, Pierre Univ. Catholique de l'Ouest Haussy, Bernard Groupe ESEO L'hullier, Jean-Pierre ENSAM Humeau, Anne groupe esaip

FrB3 Salón 3

Real-Time Control and Signal Processing (Regular Session)

Chair: Albertos, Pedro Univ. Pol. de Valencia

14:00-14:20 FrB3.1

Identifying Poles from Time--Domain Data Using Discrete Laguerre

System, pp. 1450-1455.
 Soumelidis, Alexandros Comp. and Automation Res. Inst.
 Bokor, Jozsef Hungarian Acad. of Sciences
 Schipp, Ferenc Eotvos Lorand Univ. of Budapest

14:20-14:40 FrB3.2

On the FPGA Implementation of Tracking Algorithms, pp. 1456-1461.
 Belaabed, Abdelghani EMP
 Benbouchama, Cherrad EMP

14:40-15:00 FrB3.3

Robust Wiener Optimal Nonlinear Estimation for Uncertain Systems, pp. 1462-1467.
 Inzerillo, Santo Univ. of Strathclyde
 Grimble, Michael John Univ. of Strathclyde

15:00-15:20 FrB3.4

Hands-On Course in Networked Control Systems, pp. 1468-1473.
 Fuertes, Josep M. Tech. Univ. of Catalonia
 Villa, Ricard Tech. Univ. of Catalonia
 Ayza, Jordi Tech. Univ. of Catalonia, Automatic Control Department
 Mares, Pere Tech. Univ. of Catalonia, Automatic Control Department
 Marti, Pau Tech. Univ. of Catalonia
 Velasco, Manel Tech. Univ. of Catalonia
 Yopez, Jose Tech. Univ. of Catalonia, Automatic Control Department
 Torres, Gina Tech. Univ. of Catalonia, Automatic Control Department
 Perello, Miquel Tech. Univ. of Catalonia, Automatic Control Department

15:20-15:40 FrB3.5

A Method for Torque-Ripple Compensation in Non-Ideal Permanent Magnet Machines, pp. 1474-1478.
 Bakos, Ádám Computer and Automation Res. Inst. S
 Soumelidis, Alexandros Comp. and Automation Res. Inst.

15:40-16:00 FrB3.6

Experimental Inverted Pendulum Unfalsified Control, pp. 1479-1484.
 Felicio, Paulo Inst. Pol. de Setúbal
 Azinheira, José Raúl Inst. Superior Técnico - Tech. Univ. of Lisbon
 Lourtie, Pedro Inst. Superior T Cnico

FrB4 Salón 4
Renewable Energy and Sustainability (II) (Regular Session)

Chair: Escobet, Teresa Univ. Pol. de Catalunya

14:00-14:20 FrB4.1

Control of Oscillating Water Column-Based Wave Power Generation Plants for Grid Connection, pp. 1485-1490.
 Alberdi, Mikel Univ. of the Basque Country
 Amundarain, Modesto Univ. of the Basque Country
 Garrido, Aitor J. Univ. of the Basque Country
 Garrido, Izaskun Univ. of the Basque Country
 Sainz, Francisco Jose Univ. OF THE BASQUE COUNTRY

14:20-14:40 FrB4.2

A Model Predictive Control Approach to the Load Shifting Problem in a Household Equipped with an Energy Storage Unit, pp. 1491-1498.

Di Giorgio, Alessandro Sapienza, Univ. of Rome
 Pimpinella, Laura Sapienza, Univ. of Rome
 Liberati, Francesco Sapienza, Univ. of Rome

14:40-15:00 FrB4.3

Reduction of Wind Turbine Tower Oscillations Based on Individual Pitch Control, pp. 1499-1505.
 Petrović, Vlaho Univ. of Zagreb
 Baotic, Mato Univ. of Zagreb
 Perić, Nedjeljko Univ. of Zagreb

15:00-15:20 FrB4.4

On Line Solar Irradiation Forecasting by Minimal Resource Allocating Networks, pp. 1506-1511.
 Ciabattoni, Lucio Univ. Pol. delle Marche
 Grisostomi, Massimo Univ. Pol. delle Marche
 Ippoliti, Gianluca Univ. Pol. delle Marche
 Longhi, Sauro Univ. Pol. delle Marche
 Mainardi, Emanuele Energy Res. SPA

15:20-15:40 FrB4.5

Identification and Model Selection of Building Models, pp. 1512-1517.
 Zacekova, Eva Department of Control Engineering, Faculty of Electrical Engineering
 Vana, Zdenek Department of Control Engineering, Faculty of Electrical Engineering

15:40-16:00 FrB4.6

On Predicted Mean Vote Optimization in Building Climate Control, pp. 1518-1523.
 Cigler, Jiri Czech Tech. Univ. in Prague, Faculty of Electrical Engineering
 Privara, Samuel Czech Technical University in Prague, Faculty of Electrical Engineering
 Vana, Zdenek Department of Control Engineering, Faculty of Electrical Engineering
 Zacekova, Eva Department of Control Engineering, Faculty of Electrical Engineering
 Ferkl, Lukas Czech Tech. Univ. in Prague

FrB5 Salón 5
Intelligent Systems (Regular Session)

Chair: Tsourveloudis, Nikos Tech. Univ. of Crete

14:00-14:20 FrB5.1

Road Inclinations and Emissions in Platoon Control Via Multi-Criteria Optimization, pp. 1524-1529.
 Nemeth, Balazs MTA SZTAKI
 Csikós, Alfréd Budapest Univ. of Tech. and Ec.
 Varga, István Budapest Univ. of Tech. and Ec.
 Gaspar, Peter Computer & Automation Inst. of HAS

14:20-14:40 FrB5.2

Proportional Two Integral (P2I) Observer Synthesis for Single Track Vehicle, pp. 1530-1535.
 Chenane, Chabane IBISC, Evry Val d'Essonne Univ.
 Ichalal, Dalil IBISC Lab. Univ. Evry
 Arioui, Hichem IBISC Lab. Univ. d'Evry
 Mammar, Said Univ. of Evry

14:40-15:00	FrB5.3
<i>Object Classification in Traffic Scenes Using Multiple Spatio-Temporal Features</i> , pp. 1536-1541.	
Somasundaram, Guruprasad	Univ. of Minnesota
Papanikolopoulos, Nikos	Univ. of Minnesota
Morellas, Vassilios	Univ. of Minnesota
Bedros, Saad	Honeywell

15:00-15:20	FrB5.4
<i>Greenhouse Temperature Control with Wooden Pellet Heater Via Model Predictive Control Approach</i> , pp. 1542-1547.	
Ito, Kazuhisa	Shibaura Inst. of Tech.

15:20-15:40	FrB5.5
<i>Adaptive Multilevel Neuro-Fuzzy Model Predictive Control for Drinking Water Networks</i> , pp. 1548-1553.	
Grosso, Juan	Inst. de Robòtica i Informàtica Industrial (CSIC-UPC)
Ocampo-Martinez, Carlos	Tech. Univ. of Catalonia (UPC)
Puig, Vicenc	UPC

15:40-16:00	FrB5.6
<i>Symmetry-Breaking in Bifurcations of Optimal Solutions for Coordinated Nonholonomic Robotic Control</i> , pp. 1554-1559.	
Goodwine, Bill	Univ. of Notre Dame
O'Connor, Michael	Univ. of Notre Dame

FrB6	Salón 7
Unmanned Systems (Regular Session)	

Chair: Tzes, Anthony	Univ. of Patras
Co-Chair: Di Vito, Vittorio	CIRA - Italian Aerospace Res. Center

14:00-14:20	FrB6.1
<i>Time-Delay Extended State Estimation and Control of a Quadrotor Helicopter</i> , pp. 1560-1565.	
Kis, Laszlo	Budapest Univ. of Tech. and Ec.
Lantos, Béla	Budapest Univ. of Tech. and Ec.

14:20-14:40	FrB6.2
<i>Generating Safe and Equally Long Trajectories for Multiple Unmanned Agents</i> , pp. 1566-1571.	
Jørgensen, Ulrik	Norwegian Univ. of Science and Tech.
Skjetne, Roger	Norwegian Univ. of Science And Tech.

14:40-15:00	FrB6.3
<i>An Advanced 3D Algorithm for Automatic Separation Assurance Systems</i> , pp. 1572-1578.	
Luongo, Salvatore	CIRA, Italian Aerospace Res. Center
Di Vito, Vittorio	CIRA - Italian Aerospace Res. Center
Corraro, Federico	CIRA, Italian Aerospace Res. Center

15:00-15:20	FrB6.4
<i>Towards a High-End Unmanned Tri-TiltRotor: Design, Modeling and Hover Control</i> , pp. 1579-1584.	
Papachristos, Christos	Univ. of Patras
Alexis, Kostas	Eidgenössische Tech. Hochschule Zürich
Tzes, Anthony	Univ. of Patras

15:20-15:40	FrB6.5
<i>Autonomous Deployment of Heterogeneous Mobile Agents with Arbitrarily Anisotropic Sensing Patterns</i> , pp. 1585-1590.	
Stergiopoulos, Yiannis	Univ. of Patras
Tzes, Anthony	Univ. of Patras

15:40-16:00	FrB6.6
<i>Coaxial UAV Helicopter Control Laboratory Design</i> , pp. 1591-1596.	
Morcego, Bernardo	Univ. Pol. de Catalunya