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2015 23rd Mediterranean Conference on Control and Automation (MED)

Technical Program for Wednesday June 17, 2015

WeAT1	Salón Málaga
Uav Guidance and Control Applications (Invited Session)	
Organizer: Olivares-Mendez, Miguel A.	SnT - Univ. of Luxembourg
Organizer: Shin, Hyo-Sang	Cranfield Univ
11:00-11:20	WeAT1.1
<i>A Proposal of Methodology for Multi-UAV Mission Modeling (I)</i> , pp. 1-7.	
Roldán, Juan Jesús (Centre for Automation and Robotics (UPM-CSIC)), Del Cerro, Jaime (Centre for Robotics and Automation UPM-CSIC), barrientos, antonio (Univ. Pol. De Madrid)	
11:20-11:40	WeAT1.2
<i>Task-Priority Based Task Allocation of Multiple UAVs with Resource Constraints (I)</i> , pp. 8-13.	
Shin, Hyo-Sang (Cranfield Univ), Tang, Biwei (Northwestern Pol. Univ.), Zhu, Zhanxia (Northwestern Pol. Univ.), Tsourdos, Antonios (Cranfield Univ)	
11:40-12:00	WeAT1.3
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Olivares-Mendez, Miguel A. (SnT - Univ. of Luxembourg), Kannan, Somasundar (Univ. of Luxembourg), Voos, Holger (Univ. of Luxembourg)	
12:00-12:20	WeAT1.4
<i>A Guidance Reconfiguration Strategy to Handle Aileron Actuator Fault (I)</i> , pp. 22-27.	
Shin, Hyo-Sang (Cranfield Univ), Lo, Chang How (Cranfield Univ), Tsourdos, Antonios (Cranfield Univ)	
12:20-12:40	WeAT1.5
<i>Optimal Conflict Resolution for Multiple UAVs Using Pseudospectral Collocation (I)</i> , pp. 28-35.	
Vera, Santiago (Univ. of Seville), Cobano, Jose Antonio (Univ. of Seville), Alejo, David (Univ. of Seville), Heredia, Guillermo (Univ. of Seville), Ollero, Anibal (Univ. De Sevilla)	
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<i>Multi-UAV Ground Control Station for Gliding Aircraft (I)</i> , pp. 36-43.	
del Arco, Juan Carlos (Univ. De Sevilla), Alejo, David (Univ. of Seville), Arrue, B.C. (Escuela Superior De Ingenieros, Univ. De Sevilla), Cobano, Jose Antonio (Univ. of Seville), Heredia, Guillermo (Univ. of Seville), Ollero, Anibal (Univ. De Sevilla)	
WeAT2	
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Castillo Garcia, Javier Ferney (Univ. Del Valle), Bastos, Teodiano (Univ. Federal Do Espirito Santo), Caicedo, Eduardo (Univ. Del Valle), Azorin, Jose M. (Univ. Miguel Hernandez De Elche), Hortal, Enrique (Miguel Hernández Univ. of Elche), Iañez, Eduardo (Univ. Miguel Hernandez De Elche)	
11:20-11:40	WeAT2.2
<i>LPV Water Delivery Canal Control Based on Prescribed Order Models</i> , pp. 49-54.	
Caiado, Daniela (INESC-ID), Lemos, Joao M. (INESC-ID), Igreja, José Manuel Cardoso (Inst. Superior De Engenharia De Lisboa / INESC-ID)	

11:40-12:00	WeAT2.3
<i>Periodic Disturbance Compensation of an Angular Velocity Drive-Load Servo Control System with Self-Excited Oscillations</i> , pp. 55-60.	
Alsogkier, Izziddien (TU-Clausthal), Bohn, Christian (Clausthal Univ. of Tech)	
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<i>Adaptive Control of a Master-Slave System for Teleoperated Needle Insertion under MRI-Guidance</i> , pp. 61-67.	
Franco, Enrico (Imperial Coll. London)	
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<i>Bond Graph Model-Based Fault Accommodation in Power Electronic Systems</i> , pp. 68-75.	
Borutzky, Wolfgang (Bonn-Rhein-Sieg Univ. of Applied Sciences)	
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Rahimi Mousavi, Mir Saman (McGill Univ), Boulet, Benoit (McGill Univ)	
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<i>Predictive Cruise Control for Energy Saving in REEV Using V2I Information</i> , pp. 82-87.	
Alrifaaee, Bassam (RWTH Aachen Univ), Granados Jodar, Jaime (Univ. of Málaga), Abel, Dirk (RWTH Aachen Univ)	
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<i>Vehicle Sideslip Estimation Using Tyre Force Measurements</i> , pp. 88-93.	
Kunnappillil Madhusudhanan, Anil (Delft Univ. of Tech), Corno, Matteo (Pol. Di Milano), Holweg, Edward (Delft Univ. of Tech)	
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<i>Flatness Based Control of Nonlinear Half-Car Active Suspension System</i> , pp. 94-101.	
Velagić, Jasmin (Univ. of Sarajevo), Islamović, Berina (Univ. of Sarajevo, Faculty of Electrical Engineering)	
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Tzortzis, Ioannis (Tech. Univ. of Crete), Amargianos, Alexandros (Tech. Univ. of Crete), Piperidis, Savvas (Tech. Univ. of Crete), KOUTROULIS, EFTICHIOS (Tech. Univ. OF CRETE), Tsourveloudis, Nikos (Tech. Univ. of Crete)	
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<i>Influence of the Temperature on the Dry-Clutch Engagement Control in Gear-Shift Manoeuvres</i> , pp. 109-116.	
Pisaturo, Mario (Univ. of Salerno), Cirrincione, Maurizio Cirrincione (UTBM), Senatore, Adolfo (Univ. of Salerno)	
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Salón Torremolinos C	
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11:00-11:20	WeAT4.1
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Approach, pp. 117-123.

Fernandez de Canete, Javier (Univ. of Malaga),
Muñoz-Martinez, Victor Fernando (Univ. of Malaga), Luque,
Joaquin (Univ. of Seville), Barbancho, Julio (Univ. of Seville),
Rozan, John (Univ. of Malaga)

11:20-11:40 WeAT4.2

An Optimal Control Approach to Reference Level Tracking in General Anesthesia, pp. 124-129.

Almeida, Juliana (Faculdade De Engenharia - Univ. Do Porto),
Paiva, Luis Tiago (Univ. Do Porto), Mendonça, Teresa (Univ.
Do Porto), Rocha, Paula (Univ. of Aveiro, NIF: 501461108)

11:40-12:00 WeAT4.3

A Low Cost Smart Glove for Visually Impaired People Mobility, pp. 130-135.

Bernieri, Giuseppe (Univ. Degli Studi Roma Tre), Faramondi,
Luca (Univ. Degli Studi Roma Tre), Pascucci, Federica (Univ.
Degli Studi Roma Tre)

12:00-12:20 WeAT4.4

Stability Analysis of Cardiovascular Regulation, pp. 136-142.

Codrean, Alexandru ("Pol. Univ. of Timisoara, Faculty
Ofautomation And), Dragomir, Toma-Leonida ("Pol. Univ. of
Timisoara, Faculty Ofautomation And)

12:20-12:40 WeAT4.5

Experimental Architecture for Synchronized Recordings of Cerebral, Muscular and Biomechanical Data During Lower Limb Activities, pp. 143-149.

Iáñez, Eduardo (Brain-Machine Interface Systems Lab, Univ.
Miguel Hernande), Costa, Álvaro (Brain-Machine Interface
Systems Lab, Miguel Hernández Univ), Ceseracciu, Elena
(Univ. of Padova, Department of Management and
Engineering.), Márquez-Sánchez, Ester (Biomechanics and
Tech. Aids Unit, Physical Medicine and Reha), Piñuela-Martín,
Elisa (Biomechanics and Tech. Aids Unit, Physical Medicine
and Reha), Asín, Guillermo (BioEngineering Group, National
Council for Scientific Res), del-Ama, Antonio J. (Biomechanics
and Tech. Aids Unit, Physical Medicine and Reha), Gil-Agudo,
Ángel (Biomechanics and Tech. Aids Unit, Physical Medicine
and Reha), Reggiani, Monica (Univ. of Padova, Department of
Management and Engineering.), Pons, José L. (Human
Locomotion Lab. Neural Rehabilitation Group, Cajal), Moreno,
Juan C. (Cajal Inst. National Council for Scientific Res. Argan),
Azorin, Jose M. (Univ. Miguel Hernandez De Elche)

12:40-13:00 WeAT4.6

Receding Horizon Control of Tumor Growth Based on Optimal Control, pp. 150-155.

Lemos, Joao M. (INESC-ID), Caiado, Daniela (INESC-ID)

WeAT5 Salón Torremolinos D
Fault Diagnosis I (Regular Session)

11:00-11:20 WeAT5.1

Fault Detection with Distributed PCA Methods in Water Distribution Networks, pp. 156-161.

Sanchez-Fernandez, Alvar (Univ. De Valladolid), Fuente, Maria
Jesus (Univ. De Valladolid. Q4718001C), Sainz, Gregorio
(Univ. De Valladolid)

11:40-12:00 WeAT5.3

Robust Unknown Input Observer Design for Unknown Input Nonlinear Systems: Application to Fault Estimation, pp. 162-167.

Witczak, Marcin (Univ. of Zielona Gora), Puig, Vicenc (Univ.
Pol. De Catalunya), Rotondo, Damiano (Univ. Pol. De
Catalunya (UPC)), de Rozprza-Faygel, Michał (Univ. of Zielona
Gora), Mrugalski, Marcin (Univ. of Zielona Gora)

12:00-12:20 WeAT5.4

Sensors Selection for K-Diagnosability of Petri Nets Via Integer Linear Programming, pp. 168-175.

Basile, Francesco (Univ. Degli Studi Di Salerno), De Tommasi,
Gianmaria (Univ. Degl Studi Di Napoli), Sterle, Claudio (DIETI -
Univ. Degli Studio Di Napoli Federico II)

12:20-12:40 WeAT5.5

A Packet Address Driven Test Strategy for Stuck-At Faults in Networks-On-Chip Interconnects, pp. 176-183.

Bhowmik, Biswajit (IIT Guwahati), Biswas, Santosh (IIT
GuwahatiINDIA), Deka, J (IIT Guwahati)

12:40-13:00 WeAT5.6

Comparative Study of Inter-Turn Short Circuit Fault in Stator and Rotor Windings on a Small and Medium Power Wound Rotor Induction Machine, pp. 184-189.

RAZAFIMAHEFA, David Tsivalalaina (Univ. of Corsica, CNRS
SPE UMR 6134), HERAUD, Nicolas (Univ. of Corsica), Eric
Jean Roy, SAMBATRA (Intitut Supérieur De Tech.
D'antsiranana), WALLLY, Olivier (Cnrs Umr 6134)

WeBT1 Salón Málaga

On Robust and Fault Tolerant Control of Nonlinear Systems (Invited Session)

Organizer: Aitouche, Abdel CRISTAL/HEI

Organizer: El Hajjaji, Ahmed Univ. De Picardie-Jules Verne

Organizer: WANG, Haoping Nanjing Univ. of Science and
Tech

14:30-14:50 WeBT1.1

Active Fault Tolerant Control for Pitch Actuators Failures Tested in a Hardware-In-The-Loop Simulation for Wind Turbine Controllers (I), pp. 190-196.

Vidal, Yolanda (Univ. Pol. De Catalunya), Rodellar, Jose (Tech.
Univ. of Catalonia), Acho, Leonardo (Univ. Pol. De
Catalunya-EUETIB), Tutivén, Christian (Univ. Pol. De
Catalunya)

14:50-15:10 WeBT1.2

Design of Fault Isolation Filter for Control Reconfiguration : Application to Energy Efficiency Control in Buildings (I), pp. 197-202.

Sauter, Dominique (Lorraine Univ), Yamé, Joseph-Julien (Univ.
De Lorraine), Aubrun, Christophe (Univ. of Lorraine), Hamelin,
Frederic (Univ. of Lorraine)

15:10-15:30 WeBT1.3

Adaptive Type-2 Fuzzy Sliding Mode Control for MIMO Nonlinear Systems: Application to a Turbocharged Diesel Engine (I), pp. 203-210.

Larguech, Samia (National School of Engineers of Sfax), Aloui,
Sinda (Univ. of Picardie Jules Verne, France), Pages, Olivier
(Univ. of Picardie Jules Verne), El Hajjaji, Ahmed (Univ. De
Picardie-Jules Verne), CHAARI, Abdessattar (National
Engineering School of Sfax)

15:30-15:50 WeBT1.4

Robustness Evaluation of Real-Time Fuzzy Logic Control of the VGT and EGR on a Diesel Engine (I), pp. 211-217.

Cheng, Li (Univ. of Sussex, Brighton), Wang, William (Sussex
Univ), Aitouche, Abdel (CRISTAL/HEI), Peng, Jun (Univ. of
Hertfordshire)

15:50-16:10 WeBT1.5

Fault-Tolerant Control Scheme Based on Reference Adjustments for a 4WD Electric Vehicle with Actuator Faults and Constraints (I), pp. 218-223.

Zhang, Xian (Lille 1), Cocquemot, Vincent (Lille 1 Univ),
Aitouche, Abdel (CRISTAL/HEI)

16:10-16:30 WeBT1.6

H-Infinity Criteria for Robust Actuator Fault Reconstruction for Nonlinear Systems in Takagi-Sugeno's Form Using Sliding Modes (I), pp. 224-230.

Schulte, Horst (HTW-Berlin, Univ. of Applied Sciences),
Pöschke, Florian (HTW Berlin)

WeBT2	Salón Torremolinos A
Process Control I (Regular Session)	
14:50-15:10	WeBT2.2
<i>Performance Analysis of PI and PI+CI Compensation for an IPDT Process</i> , pp. 231-236.	
Mercader Gómez, Pedro (Univ. of Murcia), Davó Navarro, Miguel Angel (Univ. of Murcia), BAÑOS, ALFONSO (Univ. OF MURCIA)	
15:10-15:30	WeBT2.3
<i>Estimate of the Farthest Possible Non-Dominant Pole Locations with PID Controllers</i> , pp. 237-241.	
Dincel, Emre (Istanbul Tech. Univ), Söylemez, Mehmet Turan (Istanbul Tech. Univ)	
15:30-15:50	WeBT2.4
<i>A Future Internet Interface to Control Programmable Networks</i> , pp. 242-248.	
Battilotti, Stefano (Univ. La Sapienza), Cimorelli, Federico (Univ. of Rome "La Sapienza"), Cusani, Roberto (Univ. of Rome "La Sapienza"), Delli Priscoli, Francesco (Univ. Di Roma), Gori Giorgi, Claudio (Sapienza Univ. of Rome), Suraci, Vincenzo (Univ. Degli Studi E-Campus), Zuccaro, Letterio (Univ. of Rome "La Sapienza")	
16:10-16:30	WeBT2.6
<i>Optimal PID Control in Discrete Time Using Sensitivity Function</i> , pp. 249-254.	
Tajika, Hiroshi (Univ. of Hyogo), Sato, Takao (Univ. of Hyogo), Vilanova, Ramon (Univ. Autonoma De Barcelona), Konishi, Yasuo (Univ. of Hyogo)	
WeBT3	Salón Torremolinos B
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San-Millan, Andres (Univ. of Castilla-La Mancha)	
14:50-15:10	WeBT3.2
<i>Study of Dexterous Robotic Grasping for Deformable Objects Manipulation</i> , pp. 262-266.	
Mira, Damián (Univ. of Alicante), Delgado, Angel (Univ. of Alicante), Mateo, Carlos M. (Univ. of Alicante), Puente Méndez, Santiago T. (Univ. De Alicante), Candelas Herias, Francisco A. (Univ. of Alicante), Torres, Fernando (Univ. of Alicante)	
15:10-15:30	WeBT3.3
<i>Steerability Analysis on Slopes of a Mobile Robot with a Ground Contact Arm</i> , pp. 267-272.	
García, Jesús M. (Univ. Nacional Experimental Del Ta´ Chira), Martínez, Jorge L. (Univ. of Malaga), Mandow, Anthony (Univ. De Málaga), Garcia-Cerezo, A. (Univ. De Malaga)	
15:30-15:50	WeBT3.4
<i>Trajectory-Tracking Control Design and Modeling for Quadrotor Aerial Vehicles</i> , pp. 273-277.	
Margun, Alexey (ITMO Univ), Bazylev, Dmitry (ITMO Univ), Zimenko, Konstantin (ITMO Univ), Kremlev, Artem (ITMO Univ)	
15:50-16:10	WeBT3.5
<i>Dynamics-Compatible Potential Fields Using Stochastic Perturbations</i> , pp. 278-283.	
Shah, Shridhar K. (Univ. of Delaware), Tanner, Herbert G. (Univ. of Delaware)	

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Dost, Philip (Ruhr-Univ. Bochum), Sourkounis, Constantinos (Ruhr-Univ. Bochum)	
14:50-15:10	WeBT4.2
<i>Decentralized Frequency Control of a DDG-PV Microgrid in Islanded Mode</i> , pp. 292-297.	
Gong, Kuangye (Tech. Univ. Darmstadt), Lenz, Eric (Tech. Univ. Darmstadt), Konigorski, U. (Tech. Univ. Darmstadt)	
15:10-15:30	WeBT4.3
<i>A PSO-Based MPPT Re-Initialised by Incremental Conductance Method for a Standalone PV System</i> , pp. 298-303.	
Mirbagheri Golroodbari, Sayedah Zahra (The Univ. of Melbourne), Aldeen, Mohammad (Univ. of Melbourne), Saha, Sajeeb (Melbourne Univ)	
15:30-15:50	WeBT4.4
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Yfoulis, Christos (Alexander Tech. Inst), Giaouris, Damian (Centre for Res. and Tech. Hellas), Ziogou, Chrysovalantou (Centre for Res. and Tech. Hellas (CERTH)), Stergiopoulos, Fotis (Centre for Res. and Tech. Hellas (CERTH)), Voutetakis, Spyridon (Centre for Res. and Tech. Hellas (CERTH)), Papadopoulou, Simira (Alexander Tech. Educational Inst)	
15:50-16:10	WeBT4.5
<i>Multiple Model Predictive Control of Grid Connected Solid Oxide Fuel Cell for Extending Cell Life Time</i> , pp. 310-315.	
Horalek, Radek (Tech. Univ. of Liberec), Hlava, Jaroslav (Tech. Univ. in Liberec)	
WeBT5	Salón Torremolinos D
Fault Diagnosis II (Regular Session)	
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<i>Leak Isolation Based on Extended Kalman Filter in a Plastic Pipeline under Temperature Variations with Real-Data Validation</i> , pp. 316-321.	
Delgado Aguiñaga, Jorge Alejandro (Centro De Investigación Y De Estudios Avanzados Del Inst. Po), Besancon, Gildas (Ense3 - Grenoble INP), Begovich, Ofelia (CINVESTAV)	
14:50-15:10	WeBT5.2
<i>Actuator Fault Detection and Isolation Via Input Reconstruction: Application to Intensified Heat Exchanger Reactor</i> , pp. 322-327.	
zhang, Mei (Univ. Paul Sabatier, Toulouse, France; Guizhou Univ. G), Dahhou, Boutaieb (LAAS-CNRS), CABASSUD, Michel (Univ. Paul Sabatier, Toulouse, France; CNRS, Lab. De), Li, Zetao (Guizhou Univ)	
15:10-15:30	WeBT5.3
<i>A Rolling Bearing Fault Diagnosis Techniques - Autocorrelation and Cepstrum Analyses</i> , pp. 328-334.	
El Morsy, Mohamed (Czech Tech. Univ. in Prague & Helwan Univ. Egypt), Achtenová, Gabriela (Czech Tech. Univ. in Prague)	
15:30-15:50	WeBT5.4
<i>Development of Synthesis Method of Fault Tolerant Systems for Autonomous Underwater Robots with Navigation Sensors Failures</i> , pp. 335-340.	
Zuev, Alexander (Inst. of Automation and Control Processes FEB RAS), Filaretov, Vladimir (Far Eastern Federal Univ),	

Zhirabok, Alexey (Far Eastern Federal Univ), Procenko, Alexander (Far Eastern Federal Univ), Subudhi, Bidyadhar (National Inst. of Tech. Rourkela)	
15:50-16:10	WeBT5.5
<i>Timed Discrete Event System Approach to Online Testing of Asynchronous Circuits</i> , pp. 341-348.	
Biswas, Santosh (IIT GuwahatiINDIA), Biswal, Pradeep Kumar (IIT Guwahati)	
16:10-16:30	WeBT5.6
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Agarwal, Mayank (IIT Guwahati), Biswas, Santosh (IIT GuwahatiINDIA), Nandi, Sukumar (IIT Guwahati)	
WeCT1	Salón Málaga
Predictive Control (Regular Session)	
17:20-17:40	WeCT1.2
<i>Multi-Rate Predictive Cascade Speed Control of Synchronous Machines in Automotive Electrical Traction Drives</i> , pp. 357-363.	
Carpiuc, Sabin - Constantin (Gheorghe Asachi Tech. Univ. of Iasi), Lazar, Corneliu (Gheorghe Asachi Tech. Univ. of Iasi)	
17:40-18:00	WeCT1.3
<i>Two and a Half Carrots - a Versatile and Intuitive Optimisation-Based Path-Following Approach for Road Vehicles</i> , pp. 364-370.	
Reiter, Matthias (RWTH Aachen Univ), Abel, Dirk (RWTH Aachen Univ)	
18:00-18:20	WeCT1.4
<i>MPC Implementation in a PLC Based on Nesterov's Fast Gradient Method</i> , pp. 371-376.	
Pereira Martin, Mario (Univ. De Sevilla), Limon, Daniel (Univ. De Sevilla), Muñoz de la Peña, David (Univ. of Sevilla), Alamo, Teodoro (Univ. De Sevilla)	
18:20-18:40	WeCT1.5
<i>Cooperative Unmanned Aerial Vehicles Formation Via Decentralized LB MPC</i> , pp. 377-383.	
Hafez, Ahmed Taimour Kamaleldin (Queen's Univ), Givigi, Sidney (Royal Military Coll. of Canada), Yousefi, Shahram (Queen's Univ), Noureldin, Aboelmagd (Royal Military Coll. of Canada)	
18:40-19:00	WeCT1.6
<i>Robust Model Predictive Control for Discrete-Time Fractional-Order Systems</i> , pp. 384-389.	
Sopasakis, Pantelis (IMT Inst. for Advanced Studies Lucca), Ntouskas, Sotirios (National Tech. Univ. of Athens), Sarimveis, Haralambos (National Tech. Univ. of Athens)	
WeCT2	Salón Torremolinos A
Linear Systems (Regular Session)	
17:00-17:20	WeCT2.1
<i>Solution of a Singular Infinite Horizon Zero-Sum Linear-Quadratic Differential Game: A Regularization Approach</i> , pp. 390-397.	
Glizer, Valery Y. (ORT Braude Coll), Kelis, Oleg (Ort Braude Coll)	
17:20-17:40	WeCT2.2
<i>Improving Accuracy of Parallel SLICOT Model Reduction Routines for Stable Systems</i> , pp. 398-403.	
Guerrero-López, David (UPV), Román, José E. (UPV)	
17:40-18:00	WeCT2.3

Stability of Slowly Rotating Timoshenko Beam with Two Viscoelastic Damping Coefficients, pp. 404-407.

Wozniak, Jaroslaw (Univ. of Szczecin), Firkowski, Mateusz (Univ. of Szczecin)

18:00-18:20 WeCT2.4

Sensor Parametrization and the Sensor Group, pp. 408-413.

Szabo, Zoltan (Mta Sztaki), Bokor, Jozsef (Hungarian Acad. of Sciences)

WeCT3 Salón Torremolinos B
Modelling and Simulation (Regular Session)

17:00-17:20 WeCT3.1

Incorporation of Thermal Expansion in Static Force Modeling of Pneumatic Artificial Muscles, pp. 414-420.

Andrikopoulos, George (Univ. of Patras, Greece), Nikolakopoulos, George (Luleå Univ. of Tech. Sweden), Manesis, Stamatis (Univ. of Patras)

17:20-17:40 WeCT3.2

Modelling and Control of the UPV/EHU Stellarator, pp. 421-427.

Garrido, Aitor J. (Univ. of the Basque Country), garrido, izaskun (Univ. of the Basque Country), Chalatsakos, Odysseas (Univ. of the Basque Country UPV/EHU), Viñas, Ander (Univ. of the Basque Country - UPV/EHU), Villaverde, Ainhoa (Univ. of the Basque Country - UPV/EHU), Queral, Vicente (CIEMAT), Romero, Jesus (CIEMAT)

17:40-18:00 WeCT3.3

Identification of Simple Mass Balance Models for Plant Growth - Evolving Yields and Incorporating Developmental Stages, pp. 428-433.

Dochain, Denis (Univ. Catholique De Louvain), Maclean, Heather (Univ. Catholique De Louvain)

18:00-18:20 WeCT3.4

Dynamics of Differential Entropy Maximization Process Via the Speed Gradient Principle, pp. 434-441.

Shalymov, Dmitry (Saint-Petersburg State Univ), Fradkov, Alexander L. (Acad. of Sciences of Russia)

18:20-18:40 WeCT3.5

Modeling of a Front End Loader for Control Design, pp. 442-447.

Roskam, Rolf (Ostfalia Univ. of Applied Sciences, Department of Mechanical), Dobkowitz, Dirk (Ostfalia)

18:40-19:00 WeCT3.6

Bond Graph Model of a Mechanically Pumped Biphasic Loop. (MPBL), pp. 448-453.

KEBDANI, Mohamed (Ec. Centrale De Lille), Dauphin-Tanguy, Genevieve (Ec. Centrale De Lille), DAZIN, Antoine (Arts Et Métiers Paris Tech), DUPONT, Patrick (Ec. Centrale De Lille)

WeCT4 Salón Torremolinos C
Power Systems and Smart Grid II (Regular Session)

17:00-17:20 WeCT4.1

A Model Predictive Control Scheme for Parallel-Connected Inverter-Based Distributed Generators in Micro-Grids, pp. 454-458.

Liu, Sheng (Harbin Engineering Univ), Zhu, Wanlu (Mississippi State Univ), Xing, Bowen (Univ. of Notre Dame)

17:20-17:40 WeCT4.2

Agent-Based Modelling of Electric Vehicle Driving and Charging Behavior, pp. 459-464.

Torres, Sergio (Univ. Del País Vasco. Escuela Univ. De Ingeniería), Barambones, Oscar (Basque Country Univ),

Gonzalez de Durana, Jose María (Univ. of the Basque Country), Kremers, Enrique (Karlsruhe Inst. of Tech), Marzabal, Francisco (European Inst. for Energy Res. Inst. O), Wirges, Johannes (European Inst. for Energy Res. Inst. O)

17:40-18:00 WeCT4.3

Mitigation of Oscillations in DFIG-Based WECS Operating in Unbalanced Networks, pp. 465-471.

Sourkounis, Constantinos (Ruhr-Univ. Bochum), Tourou, Pavlos (Ruhr-Univ. Bochum), Chhor, Johnny (Ruhr-Univ. of Bochum)

18:00-18:20 WeCT4.4

Electric Vehicle Trip Planning Integrating Autonomy Constraints and Charging Facilities, pp. 472-479.

Gambutì, Raffaele (Univ. of Rome "Sapienza"), Canale, Silvia (Univ. of Rome "Sapienza"), Facchinei, Francisco (Univ. of Rome "La Sapienza"), Lanna, Andrea ("Sapienza" Univ. of Rome), Di Giorgio, Alessandro (Univ. of Rome "La Sapienza")

18:20-18:40 WeCT4.5

Real Time Optimal Power Flow Integrating Large Scale Storage Devices and Wind Generation, pp. 480-486.

Di Giorgio, Alessandro (Univ. of Rome "La Sapienza"), Liberati, Francesco (Univ. of Rome "La Sapienza"), Lanna, Andrea ("Sapienza" Univ. of Rome)

WeCT5 Salón Torremolinos D
Nonlinear Control (Regular Session)

17:00-17:20 WeCT5.1

Sliding Mode Control for Diesel Generator Via Disturbance Observer, pp. 487-494.

GUERMOUCHE, Mohamed (Inst. De Recherche En Systèmes électroniques Embarquées IRSEE), AHMED ALI, Sofiane (IRSEEM Rouen), Langlois, Nicolas (Irseem / Esigelec)

17:20-17:40 WeCT5.2

Defensive State Feedback Control of Asynchronous Sequential Machines, pp. 495-500.

Hammer, Jacob (Univ. of Florida)

17:40-18:00 WeCT5.3

The Feedback Linearisation Method for Embedded Model Control: The Borea Project Case-Study, pp. 501-507.

Lotufo, Mauricio Alejandro (Pol. Di Torino), Colangelo, Luigi (Pol. Di Torino), Perez Montenegro, Carlos Norberto (Pol. Di Torino), Canuto, Enrico (Pol. Di Torino)

18:00-18:20 WeCT5.4

Error Handling Approach of a PEM Fuel Cell System by Nonlinear Model Predictive Control, pp. 508-513.

Hähnel, Christian (Helmut-Schmidt-Univ. / Univ. of the Federal Armed Forc), Aul, Vitali (Helmut-Schmidt-Univ. / Univ. of the Federal Armed Forc), Horn, Joachim (Helmut-Schmidt-Univ. / Univ. of the Federal Armed Forc)

18:20-18:40 WeCT5.5

Multivariable Algebraic Loops in Linear Anti-Windup Implementations, pp. 514-519.

Adegbege, Ambrose Adebayo (The Coll. of New Jersey), Heath, William Paul (Univ. of Manchester)

18:40-19:00 WeCT5.6

Experimental Investigation of Nonlinear Controllers Applied to a 3DOF Hover: SMC Via ALQR Approach, pp. 520-524.

Renan, Pereira, Renan Lima Pereira (ITA), Kienitz, Karl Heinz (Inst. Tecnológico De Aeronautica)

Technical Program for Thursday June 18, 2015

ThPL	Salón Málaga
Prof. Manuel Silva. Discrete and Fluid Petri Nets: Dealing with Individuals, Dealing with Populations (Plenary Session)	
09:30-10:30	ThPL.1
<i>Discrete and Fluid Petri Nets: Dealing with Individuals and Populations</i> , pp. 525-530. Silva, Manuel (Univ. De Zaragoza)	
ThAT1	Salón Málaga
Process Control Ii (Regular Session)	
11:20-11:40	ThAT1.2
<i>A Dynamic Game Model of Optimal Stockpile Management with Price Dynamics and Constraints</i> , pp. 531-536. Lloyd, Justin (Johns Hopkins Univ), Meyer, Gerard (Johns Hopkins Univ)	
11:40-12:00	ThAT1.3
<i>Design, Automation and Control of a Two-Stage, Two-Load-Demand Experimental Refrigeration Plant</i> , pp. 537-544. Bejarano, Guillermo (Univ. of Seville), Alfaya, José A. (Univ. of Seville), Ortega, M. G. (Univ. De Sevilla), Rubio, Francisco R. (Univ. De Sevilla)	
12:00-12:20	ThAT1.4
<i>Application of Fuzzy Control on Wastewater Treatment Plant for P-Removal</i> , pp. 545-550. Xu, Hongyang (Escola D'enginyeria, UAB), Vilanova, Ramon (Univ. Autònoma De Barcelona)	
12:20-12:40	ThAT1.5
<i>Characterization and Tuning of Predictive SSOD-PI Controllers</i> , pp. 551-557. RUIZ, ÀNGEL (Univ. OF CORDOBA), Jimenez Hornero, Jorge (Univ. of Cordoba), Sánchez Moreno, José (UNED), Dormido, Sebastián (UNED)	
12:40-13:00	ThAT1.6
<i>Event-Based Control for IPTD Processes with Simple Tuning Methods</i> , pp. 558-564. RUIZ, ÀNGEL (Univ. OF CORDOBA), Jimenez Hornero, Jorge (Univ. of Cordoba), Sánchez Moreno, José (UNED), Dormido, Sebastián (UNED)	
ThAT2	Salón Torremolinos A
Nonlinear Systems (Regular Session)	
11:00-11:20	ThAT2.1
<i>Relaxed Sufficient Conditions for Asymptotic Stability for a Class of Underdamped Nonautonomous Hamiltonian Systems</i> , pp. 565-570. Androulidakis, Evangelos (Dept of Electrical Engineering, Univ. of Patras, Greece), Alexandridis, Antonios (Univ. of Patras)	
11:20-11:40	ThAT2.2
<i>An Algorithmic Approach for Lessening Conservativeness of Criteria Determining Absolute Stability</i> , pp. 571-576. Materassi, Donatello (Univ. of Tennessee, Knoxville), Salapaka, Murti V. (Univ. of Minnesota)	
11:40-12:00	ThAT2.3
<i>Control Strategies for Ammonia Violations Removal in BSM1 for Dry, Rain and Storm Weather Conditions</i> , pp. 577-582. Santin, Ignacio (Univ. Autònoma De Barcelona), Vilanova, Ramon (Univ. Autònoma De Barcelona), Pedret, Carles (Univ.	

Autònoma De Barcelona)	
12:00-12:20	ThAT2.4
<i>Temperature Control of a Solar Tower Receiver Based on the Lyapunov Method</i> , pp. 583-588. Costa, B.Andrade (INESC-ID/IST/ TU Lisbon), Lemos, Joao M. (INESC-ID)	
12:20-12:40	ThAT2.5
<i>Extension of the Observability Rank Condition to Nonlinear Systems Driven by Unknown Inputs</i> , pp. 589-595. Martinelli, Agostino (INRIA Rhone Alpes)	
12:40-13:00	ThAT2.6
<i>RISE-Backstepping Feedback Control for Induction Machine in Electric Vehicle Applications</i> , pp. 596-602. Rkhissi Kamoun, Yosra (Ec. Nationale D'ingenieurs De Sfax ENIS), Ghommam, Jawhar (ENIS), Boukhnefer, Moussa (ESTACA Paris), Mnif, Faical (Sultan Qaboos Univ)	
ThAT3	Salón Torremolinos B
Aerospace Control (Regular Session)	
11:00-11:20	ThAT3.1
<i>Visual Landing Insensitive to the Depth with Velocity and Control Constraints: A Twisting Based Solution</i> , pp. 603-610. Burlion, Laurent (ONERA France), de Plinval, Henry (ONERA - the French Aerospace Lab)	
11:20-11:40	ThAT3.2
<i>Disturbance Attenuation Problem for Overactuated Systems with Actuator Saturation: A Control Allocation Based Approach</i> , pp. 611-616. Naskar, Asim Kr (National Inst. of Tech. Rourkela (India)), Patra, Sourav (Indian Inst. of Tech. Kharagpur), Sen, Siddhartha (Indian Inst. of Tech. Kharagpur)	
11:40-12:00	ThAT3.3
<i>Hybrid Visual Servoing for Aerial Grasping with Hierarchical Task-Priority Control</i> , pp. 617-623. Buonocore, Luca Rosario (Univ. Di Napoli Federico II), Cacace, Jonathan (Univ. Di Napoli Federico II), Lippello, Vincenzo (Univ. Di Napoli Federico II)	
12:00-12:20	ThAT3.4
<i>Flexible Membrane Wing Warping Using Tendon-Sheath Mechanism</i> , pp. 624-629. Lee, Shian (Nanyang Tech. Univ), Tjahjowidodo, Tegoeh (Nanyang Tech. Univ), Moon, Seung Ki (Nanyang Tech. Univ)	
12:20-12:40	ThAT3.5
<i>Monocular Image Parameter-Based Aircraft Sense and Avoid</i> , pp. 630-637. Bauer, Peter (Inst. for Computer Science and Control, Hungarian Academy of S), Vanek, Balint (The Computer and Automation Res. Inst. Hungarian Academy), Peni, Tamas (Inst. for Computer Science and Control of Hungarian Acad), Futaki, Anna (BUDAPEST Univ. OF Tech. AND Ec), Pencz, Borbala (Hungarian Acad. of Sciences Inst. for Computer Science And), Zarándy, Ákos (Computer and Automation Res. Inst), Bokor, Jozsef (Hungarian Acad. of Sciences)	
ThAT4	Salón Torremolinos C
Robust Control I (Regular Session)	
11:00-11:20	ThAT4.1
<i>Stochastic Linear Systems: Robust H_{∞} Control Via Vertex-Dependent Approach</i> , pp. 638-643. Gershon, Eli (Holon Inst. of Tech), Shaked, Uri (Tel-Aviv Univ)	
11:20-11:40	ThAT4.2

Robust D-Stability Via Discrete Controllers for Continuous Time Uncertain Systems Using LMIs with a Scalar Parameter, pp. 644-649.

Leandro, Marco (Inst. Tecnológico De Aeronáutica), Kienitz, Karl Heinz (Inst. Tecnológico De Aeronautica)

11:40-12:00 ThAT4.3

Robust Control Strategies of Stick-Slip Type Actuators for Fast and Accurate Nanopositioning Operations in Scanning Mode, pp. 650-655.

Oubellil, Raouia (GIPSA-Lab, Grenoble INP), Voda, Alina (Joseph Fourier Univ. of Grenoble), Boudaoud, Mokrane (Pierre and Marie Curie Univ), Régnier, Stéphane (Univ. Pierre Et Marie Curie)

12:00-12:20 ThAT4.4

Design of a Robust Discrete Time Sliding Mode Repetitive Controller, pp. 656-661.

Mitrevska, Maria (Swinburne Univ. of Tech), Cao, Zhenwei (Swinburne Univ. of Tech), Zheng, Jinchuan (Swinburne Univ. of Tech), Kurniawan, Edi (Indonesian Inst. of Sciences)

12:20-12:40 ThAT4.5

Robust Set Invariance and Contractivity of Discrete-Time Systems: The Generators Approach, pp. 662-666.

Bitsoris, Georges (Univ. of Patras), Vassilaki, Marina (School of Pedagogical and Tech. Education)

ThAT5 Saló n Torremolinos D
Unmanned Systems I (Regular Session)

11:00-11:20 ThAT5.1

Visual Navigation of Mobile Robots for Autonomous Patrolling and Surveillance of Urban Areas, pp. 667-674.

Di Fava, Alessandro (Scuola Superiore Sant'Anna), Sattler, Massimo (Percro Lab, Scuola Superiore Sant'Anna), Tripicchio, Paolo (Scuola Superiore Sant'Anna)

11:20-11:40 ThAT5.2

Sampling-Based Receding Horizon Collision-Free Control for a Class of Micro Aerial Vehicles, pp. 675-680.

Alexis, Kostas (Eidgenössische Tech. Hochschule Zürich), Papachristos, Christos (Univ. of Patras), Siegwart, Roland Y. (ETH Zürich), Tzes, Anthony (Univ. of Patras)

11:40-12:00 ThAT5.3

The Power-Over-Tether System for Powering Small UAVs: Tethering-Line Tension Control Synthesis, pp. 681-687.

Zikou, Lida (Univ. of Patras), Papachristos, Christos (Univ. of Patras), Tzes, Anthony (Univ. of Patras)

12:00-12:20 ThAT5.4

Output Feedback Control of Micro Aerial Vehicle in Indoor Environment, pp. 688-694.

Efraim, Hanoach (Ben Gurion Univ. of the Negev, Be'er Sheva), Arogeti, Shai (Ben-Gurion Univ. of the Negev), Shapiro, Amir (Ben-Gurion Univ. of the Negev, Mechanical Engineering Dept), Weiss, Gera (Ben Gurion Univ. of the Negev)

12:20-12:40 ThAT5.5

Flat Trajectory Generation for Way-Points Relaxations and Obstacle Avoidance, pp. 695-700.

Stoican, Florin (Pol. Univ. of Bucharest), PRODAN, Ionela (Grenoble Inst. of Tech. (Grenoble INP) - Esisar), Popescu, Dan (Pol. Univ. of Bucharest)

12:40-13:00 ThAT5.6

Optimal Design and Modeling of a Tilt Wing Aircraft, pp. 701-708.

Lindqvist, Adrian (Luleå Univ. of Tech), Fresk, Emil (Luleå Univ. of Tech), Nikolakopoulos, George (Luleå Univ. of Tech.

Sweden)

ThBT1 Saló n Málaga
OPTIMIZATION (Regular Session)

14:30-14:50 ThBT1.1

Support Vector Machines for Determination of an Operational Strategy for Hybrid Electric Vehicles, pp. 709-714.

Innerwinkler, Pamela (VIRTUAL VEHICLE Res. Center), Ebner, Wolfgang (VIRTUAL VEHICLE Res. Center), Stolz, Michael (VIRTUAL VEHICLE Res. Center)

14:50-15:10 ThBT1.2

Nash Tuning for Optimal Balance of the Servo/Regulation Operation in Robust PID Control, pp. 715-721.

Sanchez Corrales, Helem Sabina (Univ. Autonoma De Barcelona), Visioli, Antonio (Univ. of Brescia), Vilanova, Ramon (Univ. Autonoma De Barcelona)

15:10-15:30 ThBT1.3

On Guaranteeing Passivity and Performance with a Human Controller, pp. 722-727.

Xia, Meng (Univ. of Notre Dame), Rahnama, Arash (Univ. of Notre Dame), Wang, Shige (General Motors R&D), Antsaklis, Panos J. (Univ. of Notre Dame)

15:30-15:50 ThBT1.4

A Robust Eigenvalue Assignment Approach to Integrated System and Control Design, pp. 728-733.

Stein, Gregor Lukas (Tech. Univ. Darmstadt), Strubel, Jan (Tech. Univ. Darmstadt), Konigorski, U. (Tech. Univ. Darmstadt)

15:50-16:10 ThBT1.5

State of Charge Estimation Based on Extended Kalman Filter Algorithm Forlithium-Ion Battery, pp. 734-739.

KAMAL, ELKhatib (Lab. D'automatique, Génie Informatique Etsignal, CNRS, Lil), El Hajjaji, Ahmed (Univ. De Picardie-Jules Verne)

16:10-16:30 ThBT1.6

Incorporating Feedback Predictions for Optimized UAV Attack Mission Planning, pp. 740-746.

Jardine, Peter Travis (Royal Military Coll. of Canada), Givigi, Sidney (Royal Military Coll. of Canada), Noureldin, Aboelmagd (Royal Military Coll. of Canada)

ThBT2 Saló n Torremolinos A
Image Processing (Regular Session)

14:30-14:50 ThBT2.1

Automatic Detection of Surgical Gauzes Using Computer Vision, pp. 747-751.

Garcia Martinez, Alvaro (Miguel Hernandez Univ), Juan, Carlos G. (Miguel Hernández Univ), Garcia, Nicolas M. (Univ. Miguel Hernandez), Sabater, Jose M. (Univ. Miguel Hernandez)

14:50-15:10 ThBT2.2

Fast 3D Object Matching with Projection Density Energy, pp. 752-758.

Kechagias Stamatis, Odysseas (Cranfield Univ), Aouf, Nabil (Cranfield Univ)

15:10-15:30 ThBT2.3

A Low-Cost Stereoscopic μ P-Based Vision System for Industrial Light Objects Grasping, pp. 759-765.

Kanellakis, Christoforos (University of Patras), Kyrtisis, George (University of Patras), Tsilomitrou, Ourania (Univ. of Patras), Manesis, Stamatis (Univ. of Patras)

15:30-15:50 ThBT2.4

Occupancy Grids Generation Based on Geometric-Featured Voxel Maps, pp. 766-771.

Plaza-Leiva, Victoria (Univ. De Málaga), Gomez-Ruiz, Jose Antonio (Univ. De Málaga), Ababsa, Fakr-Eddine (Evry Univ), Garcia-Cerezo, A. (Univ. De Malaga), Mandow, Anthony (Univ. De Málaga)

15:50-16:10 ThBT2.5

Set-Based Direct Visual Servoing for Nanopositioning, pp. 772-776.

Liu, Zhichao (Nanyang Tech. Univ), Wang, Jianliang (Nanyang Tech. Univ), Poh, Eng Kee (Nanyang Tech. Univ)

ThBT3 Salón Torremolinos B
Renewable Energy and Sustainability (Regular Session)

14:30-14:50 ThBT3.1

Efficiency Boosting for PV Systems Using New MPPT Method, pp. 777-782.

Farhat, Maissa (Univ. Del País Vasco), Barambones, Oscar (Basque Country Univ), Sbita, Lassaad (National Engineering School of Gabes (ENIG), Tunisia)

15:10-15:30 ThBT3.3

System of Systems Theory As a New Perspective on Building Control, pp. 783-788.

Schild, Thomas (RWTH Aachen Univ)

15:30-15:50 ThBT3.4

Loop-Shaping Control of High-Step Converters for Fuel-Cell Applications, pp. 789-795.

Diaz-Saldierna, Luis Humberto (Inst. Potosino De Investigacion Cientifica Y), Langarica Cordoba, Diego (The Inst. for Scientific and Tech. Res. of San L), Leyva-Ramos, Jesus (Inst. Potosino De Investigación Científica Y Tecnológica)

15:50-16:10 ThBT3.5

Solar Membrane Distillation: A Control Perspective, pp. 796-802.

Gil, Juan Diego (Univ. of Almería), Ruiz-Aguirre, Alba (Plataforma Solar De Almería - CIEMAT), Roca, Lidia (Psa - Ciemat), Zaragoza, Guillermo (PSA-CIEMAT), Berenguel, Manuel (Univ. of Almeria)

16:10-16:30 ThBT3.6

Real-Time Estimation of Thermal Comfort Indices in an Office Building with a Solar Powered HVAC System, pp. 803-808.

RUZ, MARIO L. (Univ. OF CORDOBA. DEPARTMENT OF COMPUTER SCIENCE AND NUMERI), FRAGOSO, SERGIO (Univ. OF CORDOBA. DEPARTMENT OF COMPUTER SCIENCE AND NUMERI), Rodriguez Cantalejo, Rafael David (Univ. OF CORDOBA. DEPARTMENT OF COMPUTER SCIENCE AND NUME), Vazquez, Francisco (Univ. De Córdoba)

ThBT4 Salón Torremolinos C
IDENTIFICATION (Regular Session)

14:30-14:50 ThBT4.1

AR + Noise versus AR and ARMA Models in SHM-Oriented Identification, pp. 809-814.

Guidorzi, Roberto (Univ. of Bologna), Diversi, Roberto (Univ. of Bologna), Vincenzi, Loris (Univ. of Modena and Reggio Emilia), Simioli, Vittorio (Teleco SpA)

14:50-15:10 ThBT4.2

*Dynamical Metabolic Modelling for Lipid Accumulation by *Yarrowia Lipolytica* Growing on Glucose*, pp. 815-820.

Robles-Rodriguez, Carlos Eduardo (INSA), Guillouet, Stéphane (INSA Toulouse), Bideaux, Carine (INSA Toulouse), Roux, Gilles (LAAS-CNRS), Gorret, Nathalie (INSA Toulouse), Hulin,

Sébastien (TEREOS), Molina-Jouve, Carole (INSA Toulouse), Aceves-Lara, Cesar Arturo (INSA-Toulouse)

15:10-15:30 ThBT4.3

Realizing System Poles Identification on the Unit Disc Based on the Fourier Transform of Laguerre-coefficients, pp. 821-826.

Gözse, István (Computer and Automation Res. Inst. HungarianAcademy Of), Soumelidis, Alexandros (Comp. and Automation Res. Inst)

15:30-15:50 ThBT4.4

Identification of Flexible Wing Aircraft Models Using Hyperbolic Metrics, pp. 827-832.

Soumelidis, Alexandros (Comp. and Automation Res. Inst), Szabo, Zoltan (Mta Sztaki), Seiler, Peter (Univ. of Minnesota), Bokor, Jozsef (Hungarian Acad. of Sciences), Gupta, Abhineet (Univ. of Minnesota)

15:50-16:10 ThBT4.5

Combined Stochastic and Deterministic Interval Predictor for Time-Varying Systems, pp. 833-839.

Bravo, Jose Manuel (Huelva Univ), Alamo, Teodoro (Univ. De Sevilla), Gegundez, Manuel Emilio (Univ. De Huelva), Marín, Diego (Univ. De Huelva)

16:10-16:30 ThBT4.6

Neural Network Identification of Wastewater Treatment Plant, pp. 840-846.

Liu, Qi (Univ. Autonoma De Barcelona), Ibeas, Asier (Univ. Autonoma De Barcelona), Vilanova, Ramon (Univ. Autonoma De Barcelona)

ThBT5 Salón Torremolinos D
Unmanned Systems II (Regular Session)

14:30-14:50 ThBT5.1

Collision Avoidance Strategies for Quadrotors in Tight Formation Flying, pp. 847-852.

Arogeti, Shai (Ben-Gurion Univ. of the Negev), Ailon, Amit (Ben Gurion Univ. of the Negev)

14:50-15:10 ThBT5.2

Design, Modeling and Control of a 5-DoF Light-Weight Robot Arm for Aerial Manipulation, pp. 853-858.

Bellicoso, Carmine Dario (ETH Zurich, Autonomous Systems Lab), Buonocore, Luca Rosario (Univ. Di Napoli Federico II), Lippello, Vincenzo (Univ. Di Napoli Federico II), Siciliano, Bruno (Univ. Degli Studi Di Napoli Federico II)

15:10-15:30 ThBT5.3

Robust Control for Multi-Model Planar Robots Coordination, pp. 859-864.

Jimenez-Lizarraga, Manuel (Univ. Autonoma De Nuevo Leon), Chapa, Ricardo (Autonomous Univ. of Nuevo Leon, San Nicolas, Nuevo Leon, Me), Rodriguez, Celeste (Autonomous Univ. of Nuevo Leon, San Nicolas, Nuevo Leon, Me), Arellano, Hever (Inst. Tecnológico De Nuevo Leon Mexico.), Castillo, Pedro (Univ. De Tech. De Compiègne)

15:30-15:50 ThBT5.4

Multi-Rotor Robust Trajectory Tracking, pp. 865-870.

Gil-Martínez, Montserrat (Univ. of La Rioja), Rico-Azagra, Javier (Univ. of La Rioja)

15:50-16:10 ThBT5.5

Implementation of Unmanned Ground Vehicle Navigation in Wireless Sensor and Actuator Networks, pp. 871-876.

Li, Jianfeng (Louisiana Tech. Univ), Selmic, Rastko R. (Louisiana Tech. Univ)

ThCT1 Salón Málaga

Discrete Events and Automation (Regular Session)	
17:00-17:20	ThCT1.1
<i>Effects of Permanent Bounded Cyber Attacks on Networked Control Systems</i> , pp. 877-882.	
Gerard, Benjamin (SNT, Univ. Du Luxembourg), Voos, Holger (Univ. of Luxembourg), Li, Yumei (Univ. of Luxembourg), Darouach, Mohamed (CRAN CNRS UMR 7039, Université De Lorraine)	
17:20-17:40	ThCT1.2
<i>Modelling Spatial Surface Pellet Distribution from Rotary Pneumatic Feed Spreaders</i> , pp. 883-888.	
Skøien, Kristoffer Rist (Norwegian Univ. of Science and Tech. NTNU), Alver, Morten Omholt (SINTEF Fisheries and Aquaculture), Alfredsen, Jo Arve (Norwegian Univ. of Science and Tech. NTNU)	
17:40-18:00	ThCT1.3
<i>A Model-Based Embedded Control Hardware/software Co-Design Approach for Optimized Sensor Selection of Industrial Systems</i> , pp. 889-894.	
Deliparaschos, Kyriakos (Cut, Tcd), Michail, Konstantinos (Cyprus Univ. of Tech), Tzafestas, Spyros (National Tech. Univ. of Athens), Zolotas, Argyrios (Univ. of Lincoln)	
18:00-18:20	ThCT1.4
<i>A Simulation Model for a Cash Concentration and Disbursements System</i> , pp. 895-902.	
Herrera, Carlos Antonio (Univ. Autónoma De Barcelona, Univ. Nacional Experime), Ibeas, Asier (Univ. Autonoma De Barcelona)	
18:20-18:40	ThCT1.5
<i>A Unifying Decision-Making Framework to Study Secrecy in Decentralized Discrete Event Systems</i> , pp. 903-910.	
Khoumsi, Ahmed (Univ. of Sherbrooke)	
ThCT2	Salón Torremolinos A
Real-Time Control (Regular Session)	
17:00-17:20	ThCT2.1
<i>A New Practical ARC-Shaped Fractional Order Hold</i> , pp. 911-915.	
Babazadeh, Mehrdad (Univ. of Zanjan), Garcia, Jorge (Vestas), Lang, Walter (Univ. of Bremen)	
17:20-17:40	ThCT2.2
<i>A Fusion Fuzzy PID Controller with Real-Time Implementation on a Ship Course Control System</i> , pp. 916-920.	
Liu, Sheng (Harbin Engineering Univ), Xing, Bowen (Univ. of Notre Dame), Zhu, Wanlu (Mississippi State Univ)	
17:40-18:00	ThCT2.3
<i>Fixed Order H_∞ Controller for Quarter Car Active Suspension System</i> , pp. 921-926.	
erol, bilal (Yildiz Tech. Univ), Delibasi, Akin (Yildiz Tech. Univ)	
18:00-18:20	ThCT2.4
<i>Control of Disturbed Systems with Measurement Delays: Application to Quadrotor Vehicles</i> , pp. 927-932.	
Sanz-Diaz, Ricardo (Inst. De Automática E Informática Industrial Univ. Pol), Garcia Gil, Pedro José (Univ. Pol. De Valencia), Zhong, Qing-Chang (The Univ. of Sheffield), Albertos, Pedro (Univ. Pol. De Valencia)	
18:20-18:40	ThCT2.5
<i>Extremum-Seeking Control with Anticipative Action of Microbial Fuel Cell's Power</i> , pp. 933-939.	
Kebir, Anouer (École De Tech. Supérieure), Woodward, Lyne (École De Tech. Supérieure), Akhrif, Ouassima (Ec. De Tech. Supérieure)	

18:40-19:00	ThCT2.6
<i>Motion Planning in Dynamic Environment with Bounded Time Temporal Logic Specifications</i> , pp. 940-946.	
Maity, Dipankar (Univ. of Maryland, Coll. Park), Baras, John S. (Univ. of Maryland)	
ThCT3	Salón Torremolinos B
Wireless Networks and Communications (Regular Session)	
17:00-17:20	ThCT3.1
<i>Position Guided Local Routing and Reconfiguration in Mobile Telecommunication Networks with Scale-Free Topology</i> , pp. 947-952.	
Cserssik, Dávid (Computer & Automation Rsrch. Inst. of the Hungarian Academy of Sci), Imre, Sándor (Budapest Univ. of Technology and Ec. Department of Ne)	
17:20-17:40	ThCT3.2
<i>A Lightweight Sensor Scheduling Algorithm for Clustered Wireless Sensor Networks</i> , pp. 953-959.	
Liberati, Francesco (Univ. of Rome "La Sapienza"), Oddi, Guido (Univ. of Rome "Sapienza"), Lanna, Andrea ("Sapienza" Univ. of Rome), Pietrabissa, Antonio (Consorzio Per La Ricerca Nell'automatica E Nelle Telecomunicazio)	
17:40-18:00	ThCT3.3
<i>Specification Based IDS for Camouflaging Wormhole Attack in OLSR</i> , pp. 960-966.	
Biswas Dutta, Chaitali (Univ. of Kalyani, West Bengal), Biswas, Utpal (Univ. of Kalyani)	
18:00-18:20	ThCT3.4
<i>Rapid Deployment Wireless Sensor Network for Sustainable Urban Mobility</i> , pp. 967-972.	
Martín Guzmán, Miguel (Univ. De Málaga), Martín-Ávila, Juan (Univ. De Málaga), Fernández-Lozano, Juan Jesús (Univ. De Málaga), Garcia-Cerezo, A. (Univ. De Malaga)	
18:20-18:40	ThCT3.5
<i>Open Cloud Solution for Integrating Advanced Process Control in Plant Operation</i> , pp. 973-978.	
Chenaru, Oana (Pol. Univ. of Bucharest), Stanciu, Alexandru (National Inst. for Res. and Development in Informatics), Popescu, Dan (Pol. Univ. of Bucharest), Sima, Vasile (National Inst. for Res. and Development in Informatics.), Florea, Gheorghe ("Pol. Univ. of Bucharest), Dobrescu, Radu (Pol. Univ. of Bucharest)	
18:40-19:00	ThCT3.6
<i>A QoE-Aware Dynamic Bandwidth Allocation Algorithm Based on Game Theory</i> , pp. 979-985.	
Oddi, Guido (Univ. of Rome "Sapienza"), Pietrabissa, Antonio (Consorzio Per La Ricerca Nell'automatica E Nelle Telecomunicazio), Delli Priscoli, Francesco (Univ. Di Roma), Facchinei, Francisco (Univ. of Rome "La Sapienza"), Palagi, Laura (Univ. of Rome "La Sapienza" - Department of Computer, Contr), Lanna, Andrea ("Sapienza" Univ. of Rome)	
ThCT4	Salón Torremolinos C
Intelligent Control (Regular Session)	
17:00-17:20	ThCT4.1
<i>Experimental Evaluation of Second Sliding Modes Observer and Extended Kalman Filter in a Sensorless Robust Control of Switched Reluctance Motor for EV Application</i> , pp. 986-992.	
OUDDAH, Nadir (ESTACA Engineering School), Loukkas, Nassim (ESTACA Paris), Chaibet, Ahmed (ESTACA Paris), Boukhnifer, Moussa (ESTACA Paris), Monmasson, Eric (Univ. De Cergy Pontoise)	

17:20-17:40	ThCT4.2
<i>Musical Tempo Octave Error Reducing Based on the Statistics of Tempogram</i> , pp. 993-998.	
Wu, Fu-Hai Frank (National Tsing Hua Univ. Taiwan)	
17:40-18:00	ThCT4.3
<i>A Fuzzy Controller for Visual Comfort Inside a Meeting-Room</i> , pp. 999-1006.	
Rodríguez-Torres, José Manuel (Univ. of Almería), CASTILLA, MARIA DEL MAR (Univ. OF ALMERÍA), Álvarez Hervás, José Domingo (Univ. of Seville), Rodríguez-Díaz, Francisco (Univ. of Almería), Berenguel, Manuel (Univ. of Almería)	
18:00-18:20	ThCT4.4
<i>Gait Generation through a Feature Based Linear Periodic Function</i> , pp. 1007-1013.	
Ranganath, Avinash (Univ. Carlos III of Madrid), Moreno, Luis (Univ. Carlos III)	
18:20-18:40	ThCT4.5
<i>Geometrically Constrained Path Planning with Fast Marching Square</i> , pp. 1014-1019.	
Alvarez, David (Univ. Carlos III), Gomez, Javier V. (Univ. Carlos III), Garrido, Santiago (Univ. Carlos III De Madrid), Moreno, Luis (Univ. Carlos III)	
18:40-19:00	ThCT4.6
<i>A New Control Allocation Method for Power Converters and Its Application to the Four-Leg Two-Level Inverter</i> , pp. 1020-1026.	
Bouarfa, Abdelkader (INPT-LAPLACE-CNRS), Fadel, Maurice (LAPLACE), Bodson, Marc (Univ. of Utah), LIN, Jun (Univ. of Yantai-LAPLACE)	

ThCT5	Salón Torremolinos D
Agent-Based Systems (Regular Session)	

17:00-17:20	ThCT5.1
<i>Leader-Follower Tracking with Prescribed Transient and Steady State Performance Guarantees for a Class of Unknown Nonlinear Multi-Agent Systems</i> , pp. 1027-1032.	
Katsoukis, Ilias (Aristotle Univ. of Thessaloniki), Rovithakis, George A. (Aristotle Univ. of Thessaloniki)	
17:20-17:40	ThCT5.2
<i>Distributed Consensus Networks of Neutral Type</i> , pp. 1033-1038.	
Somarakis, Christoforos (Univ. of Maryland, Coll. Park), Baras, John S. (Univ. of Maryland)	
17:40-18:00	ThCT5.3
<i>Non-Fragile H-Infinity Consensus of Linear Multi-Agent Systems with Interval-Bounded Variations</i> , pp. 1039-1044.	
Guo, Xianggui (Tianjin Univ. of Tech), Wang, Jianliang (Nanyang Tech. Univ), Liao, Fang (National Univ. of Singapore)	
18:00-18:20	ThCT5.4
<i>A Q-Learning Based Approach to Quality of Experience Control in Cognitive Future Internet Networks</i> , pp. 1045-1052.	
Ricciardi Celsi, Lorenzo (Univ. Di Roma "La Sapienza"), Battilotti, Stefano (Univ. La Sapienza), Cimorelli, Federico (Univ. of Rome "La Sapienza"), Gori Giorgi, Claudio (Sapienza Univ. of Rome), Monaco, Salvatore (Univ. Di Roma La Sapienza), Panfilii, Martina ("Sapienza" Univ. Di Roma.), Suraci, Vincenzo (Univ. Degli Studi E-Campus), Delli Priscoli, Francesco (Univ. Di Roma)	
18:20-18:40	ThCT5.5
<i>A Distributed Analysis and Design Method for the Synchronization of Linear Heterogeneous SISO Systems by Static State Control</i> , pp. 1053-1058.	

Khodaverdian, Saman (Tech. Univ. Darmstadt), Adamy, Juergen (Tech. Univ. Darmstadt)

Technical Program for Friday June 19, 2015

FrAT1	Salón Málaga
Distributed Systems (Regular Session)	
11:00-11:20	FrAT1.1
<i>Throughput Optimality of Extended Back-Pressure Traffic Signal Control Algorithm</i> , pp. 1059-1064.	
Xiao, Nan (Singapore-MIT Alliance for Res. and Tech. Centre), Frazzoli, Emilio (Massachusetts Inst. of Tech), Luo, Yiwen (Singapore-MIT Alliance for Res. and Tech), Li, Yitong (Singapore-MIT Alliance for Res. and Tech), Wang, Yu (Nanyang Tech. Univ), Wang, Danwei (Nanyang Tech. Univ)	
11:20-11:40	FrAT1.2
<i>State Estimator Synthesis for Position Dependent Flexible Systems with Position Independent Error Convergence</i> , pp. 1065-1070.	
Verkerk, K.W. (Eindhoven Univ. of Tech), Kasemsinsup, Yanin (Eindhoven Univ. of Tech), Butler, Hans (ASML), Weiland, Siep (Eindhoven Univ. of Tech)	
11:40-12:00	FrAT1.3
<i>Smoothly Adjustable Autonomy for the Low-Level Remote Control of Mobile Robots That Is Independent of the Navigation Algorithm</i> , pp. 1071-1078.	
Martinez-Tenor, Angel (Univ. De Malaga), Fernández-Madrigal, Juan-Antonio (Univ. of Málaga)	
12:00-12:20	FrAT1.4
<i>An Algorithm with Low Computational Requirements to Constrain the Shapley Value in Coalitional Networks</i> , pp. 1079-1084.	
Muros Ponce, Francisco Javier (Univ. of Seville), Maestre, J. M. (Univ. of Seville), Algaba, Encarnación (Univ. of Seville), Alamo, Teodoro (Univ. De Sevilla), Camacho, Eduardo F. (Univ. of Sevilla)	
12:20-12:40	FrAT1.5
<i>Profiled QoE Based Network Controller</i> , pp. 1085-1091.	
Canale, Silvia (Univ. of Rome "Sapienza"), Cimorelli, Federico (Univ. of Rome "La Sapienza"), Facchinei, Francisco (Univ. of Rome "La Sapienza"), Gambuti, Raffaele (Univ. of Rome "Sapienza"), Palagi, Laura (Univ. of Rome "La Sapienza" - Department of Computer, Contr), Suraci, Vincenzo (Univ. Degli Studi E-Campus)	
FrAT2	Salón Torremolinos A
Robotics II (Regular Session)	
11:00-11:20	FrAT2.1
<i>Incorporating Set-Based Control within the Singularity-Robust Multiple Task-Priority Inverse Kinematics</i> , pp. 1092-1097.	
Antonelli, Gianluca (Univ. of Cassino and Southern Lazio), Moe, Signe (PhD Candidate), Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech)	
11:20-11:40	FrAT2.2
<i>A Two-Stage Control Scheme of Single-Link Flexible Manipulators</i> , pp. 1098-1105.	
San-Millan, Andres (Univ. of Castilla-La Mancha), Feliu, Vicente (Univ. of Castilla-La Mancha), Garcia-Cerezo, A. (Univ. De Malaga)	
11:40-12:00	FrAT2.3
<i>Towards Achieving Rolling Contact Motion in a Spherical Robotic Fingertip</i> , pp. 1106-1111.	
Droukas, Leonidas (Aristotle Univ. of Thessaloniki), Rovithakis, George A. (Aristotle Univ. of Thessaloniki), Dougeri, Zoe (Aristotle Univ. of Thessaloniki)	

12:00-12:20	FrAT2.4
<i>Navigation of Miniature Legged Robots Using a New Template</i> , pp. 1112-1117.	
Karydis, Konstantinos (Univ. of Delaware), Liu, Yan (Univ. of Delaware), Poulakakis, Ioannis (Univ. of Delaware), Tanner, Herbert G. (Univ. of Delaware)	
FrAT3	Salón Torremolinos B
Bio-Inspired Systems (Regular Session)	
11:00-11:20	FrAT3.1
<i>A Complete Epidemiological Model of a Class of Genetic Diseases</i> , pp. 1118-1123.	
Verrilli, Francesca (Univ. of Sannio in Benevento), Del Vecchio, Carmen (Univ. of Sannio), Glielmo, Luigi (Univ. of Sannio), Corless, Martin J. (Purdue Univ)	
11:20-11:40	FrAT3.2
<i>Energy Efficiency of Underwater Snake Robot Locomotion</i> , pp. 1124-1131.	
Kelasidi, Eleni (Norwegian Univ. of Science and Tech), Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech), Gravdahl, Jan Tommy (Norwegian Univ. of Science & Tech)	
11:40-12:00	FrAT3.3
<i>Model Reduction and Process Analysis of Biological Models</i> , pp. 1132-1139.	
Casagrande, Stefano (INRIA), Ropers, Delphine (INRIA), Gouze, Jean-Luc (INRIA)	
12:00-12:20	FrAT3.4
<i>Computing Core Reactions of Uncertain Polynomial Kinetic Systems</i> , pp. 1140-1147.	
Tuza, Zoltan Andras (Pazmany Peter Catholic Univ), Szederkényi, Gábor (Pazmany Peter Catholic Univ)	
12:20-12:40	FrAT3.5
<i>Position Tracking Controller Based on Transformed Equations of Horizontal Motion for a Class of Vehicles</i> , pp. 1148-1153.	
Herman, Przemyslaw (Poznan Univ. of Tech), Kowalczyk, Wojciech (Poznan Univ. of Tech)	
FrAT4	Salón Torremolinos C
Robust Control II (Regular Session)	
11:00-11:20	FrAT4.1
<i>A Class of Decentralized Robust Controllers of Uncertain Large Scale Time-Delay Systems with Unknown Upper Bounds of Uncertainties</i> , pp. 1154-1159.	
Wu, Hansheng (Prefectural Univ. of Hiroshima)	
11:20-11:40	FrAT4.2
<i>Low Level Control of an Omnidirectional Mobile Robot</i> , pp. 1160-1166.	
Comasolivas, Ramon (Advanced Control Systems (SAC), Univ), Quevedo, Joseba (Tech. Univ. of Catalonia), Escobet, Teresa (Univ. Pol. De Catalunya), Escobet, Antoni (UPC), Romera, Juli (UPC)	
11:40-12:00	FrAT4.3
<i>Analyzing Limits of One Type of Disturbance Observer Based PI Control by the Performance Portrait Method</i> , pp. 1167-1173.	
Huba, Mikulas (Slovak Univ. of Tech. in Bratislava)	
12:00-12:20	FrAT4.4
<i>Fractional Order Controllers for Urban Wastewater Treatment Systems</i> , pp. 1174-1179.	
Barbu, Marian (Dunarea De Jos Univ. of Galati), Ceanga, Emil (Dunarea De Jos Univ. of Galati)	

12:20-12:40 FrAT4.5

Single-Step Feedback Linearization with Assignable Dynamics for Hyperbolic PDE, pp. 1180-1185.

Aksikas, Ilyasse (Qatar Univ), Dubljevic, Stevan (Univ. of Alberta)

FrAT5 Sal3n Torremolinos D

Education and Training (Regular Session)

11:00-11:20 FrAT5.1

LMI Based Output PS Control Design for Discrete-Time Linear MIMO Systems, pp. 1186-1191.

Krokavec, Dusan (Tech. Univ. of Kosice), Filasova, Anna (Tech. Univ. of Kosice)

11:20-11:40 FrAT5.2

Active Tuned Mass Damper, pp. 1192-1197.

Azzam, Baher (Texas A&M Univ. at Qatar), Mondal, Jitaditya (Texas A&M Univ. at Qatar), Abuhelaiqa, Mousa (Texas A&M Univ. at Qatar), Tafreshi, Reza (Texas A&M Univ. at Qatar)

11:40-12:00 FrAT5.3

Level Control of a Coupled-Tank System Via Eigenvalue Assignment and LQG Control, pp. 1198-1203.

Engules, Deniz (ITU), Hot, Murat (ITU), Alikoc, Baran (ITU)

12:00-12:20 FrAT5.4

Enhancement of a Commercial Multicopter for Research in Autonomous Navigation, pp. 1204-1209.

Gongora, Andres (Univ. of Malaga), Gonzalez-Jimenez, Javier (Univ. of Malaga)

12:20-12:40 FrAT5.5

Full Building of a Sun Tracker and Control, pp. 1210-1215.

Garcia, F. Javier (Univ. De Valladolid), Moya, Eduardo (ITAP - Univ. De Valladolid)