

8:30-9:00		Registration		
9:00-10:00		Back to the future: Behavioral systems ... and more!		Room B.032
Plenary 4	Paula Rocha - SYSTEC - Universidade do Porto	Chair: Fátima Silva Leite		
10:00 - 10:30		Coffee Break		
10:30-12:30		Coding Theory		Room B.014
FrA1 SS8	Organizers: Diego Napp, Raquel Pinto	Chair / co-chair: Diego Napp, Raquel Pinto		
10:30	70	Julia Lieb, Raquel Pinto and Carlos Vela <i>Decoding of convolutional codes over an erasure channel via an encoder</i>		
10:50	24	Miguel Sales Cabrera, Xaro Soler-Escrivà and Víctor Sotomayor <i>Construction of some group codes and dihedral quantum codes</i>		
11:10	61	Verónica Requena, Diego Napp, Joan-Josep Climent and Julia Lieb <i>A state-space representation for a class of MDP convolutional codes</i>		
11:30	67	Ettore Fornasini, Diego Napp, Ricardo Pereira, Raquel Pinto and Paula Rocha <i>Decoding of periodic convolutional codes</i>		
11:50	68	Diego Napp, Filipa Santana and Raquel Pinto <i>A construction of an MRD $(5 \times 5, 1, 19)$ rank metric convolutional code</i>		
12:10	72	Zita Abreu, Raquel Pinto and Rita Simões <i>Constructions of non-catastrophic MDS convolutional codes of rate 1/2</i>		
10:30-11:50		Optimization-based control		Room B.017
FrA2 Reg4	Chair: António Paulo Moreira			
10:30	37	Jorge Diogo Ribeiro, Héber Miguel Sobreira and António Paulo Moreira <i>A Nonlinear Model Predictive Control Strategy for Trajectory Tracking of Omnidirectional Robots</i>		
10:50	53	Yassine Boukili and A. Pedro Aguiar <i>LQR Based Control Strategies for DFIG-Based Wind Energy System</i>		
11:10	79	Elham Yazdani Bejarbaneh, Haiping Du and Fazel Naghdy <i>Optimal Cooperative Intersection Control of Heterogenous Vehicle Platoons with MiTraS</i>		
11:30	59	Harry Zheng and Ashley Davey <i>Deep Neural Network Solver for HJB Equations</i>		
12:30-14:00		Lunch		
14:00-15:20		Systems and Behaviors		Room B.014
FrB1 SS11	Organizers: Isabel Brás, Paolo Vettori	Chair / co-chair: Isabel Brás, Paolo Vettori		
14:00	56	Paolo Vettori <i>Trajectories of Linear Behaviors over Quaternions</i>		
14:20	49	Isabel Brás <i>An nD Behavioral Journey</i>		
14:40	20	Margreta Kuijper <i>Linear System Detection and Correction of Adversarial Attacks</i>		
15:00	12	Jose Aleixo <i>Minimal state-space realization of periodic input/output behaviors</i>		
14:00-15:00		Advanced control methods		Room B.017
FrB2 Reg5	Chair: Guilherme Ramos			
14:00	65	Pallov Anand, A. Pedro Aguiar and B. B. Sharma <i>Finite-time Stabilization of a Class of Nonlinear Systems with Parametric Uncertainty using Backstepping Approach: Application to Chaotic Systems</i>		
14:20	44	Tahar Bensouici and Imen Assadi <i>Fractional Al-Alaoui Analog-to-digital Transform</i>		
14:40	50	Imen Assadi and Tahar Bensouici <i>Premature Labor Detection based on fractional order system modeling</i>		
15:00	5	Guilherme Ramos and Sérgio Pequito <i>Distributed Computation of Source, Target, and Mixed Strongly Connected Components in Multi-Agent Systems</i>		

15:20-16:40	FrC1 SS9	Coding and Cryptography	Room B.014
		Organizers: Diego Napp, Raquel Pinto Chair / co-chair: Diego Napp, Raquel Pinto	

15:20	11	Verónica Requena Arévalo, Sara D. Cardell and Joan-Josep Climent <i>On Binary Linear Codes and Sequences</i>
15:40	32	Paulo Almeida, Miguel Beltrá Vidal and Diego Napp <i>A Convolutional Variant of the Niederreiter Cryptosystem with GRS Codes</i>
16:00	45	Joachim Rosenthal, Niklas Gassner, Abhinaba Mazumder and Abigail Sutton <i>Using Linear Systems for building a Public Key System</i>
16:20	57	Zita Abreu, Raquel Pinto and Rita Simões <i>MDS Multidimensional Convolutional Codes</i>

15:20-16:40	FrC2 Reg6	Identification, estimation, and forecast	Room B.017
		Chair: Teresa P Perdicoulis	

15:20	22	Hugo Alonso, Teresa Mendonça and Paula Rocha <i>A parameter estimation process for improved drug infusion</i>
15:40	42	Ivan Francisco Yupanqui Tello and Renzo Martin Mendoza Rabanal <i>POD based observer design of multivariable PDE systems</i>
16:00	85	Luis Miguel Teixeira, Paulo Alexandre Cardoso Salgado, Paulo Lopes dos Santos and Teresa P Perdicoulis <i>Meteorological variables forecast using Dynamic Mode Decomposition (DMD)</i>
16:20	64	Estevao Gedraite, Vinicius Pimenta, Rafael Barbosa, Alex Waldmann, Rubens Gedraite and Claudio Garcia <i>System Identification applied to a Shale Shaker using Linear and Non-Linear Models</i>

16:40-17:00	Coffee Break		
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17:00-18:20	FrD1 SS10	Systems and Control	Room B.014
		Organizer: Teresa Mendonça Chair: Teresa Mendonça	

17:00	54	João Pedro Caldas Ferreira, João Pedro Chaves D'el Rei Costa, Paulo Lopes Dos Santos and Teresa Azevedo Perdicoulis <i>Discharge Behavior of Lithium Batteries</i>
17:20	47	Cong Khanh Dinh, Ionela Prodan and Florin Stoican <i>Multi-agent collision avoidance based on buffered Voronoi cells and B-splines</i>
17:40	75	Nerval de J. S. Junior, Hellen Dianne Pereira de Souza, Shigeaki Leite de Lima and Denivaldo Lopes <i>Low-cost architecture for identifying voltage and current harmonic frequencies Using FFT</i>
18:00	76	Wenllson Carlos F. Leite, Nerval de J. S. Junior and Pedro Baptista Fernandes <i>Methodology of Drone Control with Integration of Optimal Fuzzy System</i>