

PROGRAMMA SCIENTIFICO

8 Settembre 2021

h 14:30-16:30 Analysis, identification and control I

SLOT 1 – Stanza 1 - (12 contributi) -

Chair: *Laura Menini*

Co-Chair: *Giorgio Battistelli*

Link Zoom: <https://zoom.us/j/92016193231?pwd=S2w0Mjl3eVZSNXdZb2VsaTFndldvdz09>

Luca Zancato and Alessandro Chiuso, Fading Memory Deep Neural Network for non-linear system identification

Sergio Galeani, Laura Menini, Daniele Carnevale and Mario Sassano, Data Driven Moment Computation, with Application to Output Tracking with External Models

Lucia Falconi, Mattia Zorzi and Augusto Ferrante, A Robust Approach to ARMA Factor Modeling

Gabriele Calzavara, Luca Consolini and Gianluigi Ferrari, Leak Detection in Pharmaceutical Freeze-Dryers: an Identification-based Approach

Alberto Dalla Libera and Gianluigi Pillonetto, Deep Prediction Networks

Marco Capelletti, Alessandro Incremona, Davide Raimondo and Giuseppe De Nicolao, Advanced methods for the identification of wind power curves

William D'Amico, Marcello Farina and Giulio Panzani, Advanced control based on Recurrent Neural Networks and Virtual Reference Feedback Tuning

Luca Faramondi, Simone Guarino, Martina Nobili and Roberto Setola, Cyber Threats and Countermeasures in SCADA Systems

Daniela Selvi, Dario Piga, Giorgio Battistelli and Alberto Bemporad, Model-free data-driven optimal control design with guaranteed stability

Luca Zancato and Alessandro Chiuso, TRIAD: Time series Reliable and Interpretable Anomaly Detection with Residual Temporal Convolutional Networks

Luigi Russo, Kishan Sarda, Antonio Acernese, Luigi Glielmo and Carmen Del Vecchio, Fault Detection and Diagnosis in Steel Industry: a One Class-Support Vector Machine Approach

Nicholas Cartocci, Marcello R. Napolitano, Gabriele Costante, Francesco Crocetti, Paolo Valigi and Mario L. Fravolini, A Robust Data-Driven Fault Diagnosis scheme based on Recursive Dempster–Shafer Combination Rule

8 Settembre 2021

h 14:30-16:30 Robotics and Automotive I

SLOT 1 – Stanza 2 (12 contributi)

Chair: *Carlo Alberto Avizzano*

Co-Chair: *Fabrizio Dabbene*

Link Zoom: <https://zoom.us/j/99861444093?pwd=MDRJVBpSFQ3dnFpbWJzNDMyWk9EUT09>

Michael Mugnai, Gabriele Baris, Carlo Alberto Avizzano and Marco Gabiccini, KerubLess: Design and Implementation of an Autonomous Racing Vehicle

Alessandro Bozzi, Roberto Sacile, Enrico Zero and Chiara Bersani, Trajectory Planning for Vehicle Platoons: Adapt Control Technique Based on Inter-vehicle Distance

Francesco Crocetti, Gabriele Costante, Mario Luca Fravolini and Paolo Valigi, Tire-road friction estimation and uncertainty assessment to improve electric aircraft braking system

Gerardo Amato and Riccardo Marino, Reconfigurable Slip Vectoring in Electric Vehicles with Four-In-Wheel Motors

Simone Graffione, Roberto Sacile, Enrico Zero and Chiara Bersani, A Model Predictive Approach to Prevent Vehicle Skidding

Waseem Akram and Alessandro Casavola, Adaptive Control Reconfiguration Schemes for Redundant Autonomous Underwater Vehicles under Actuator Faults

Alberto Dionigi, Alessandro Devo and Gabriele Costante, Deep Reinforcement Learning approaches for Visual Active Tracking with Ground and Aerial Robots

Leonardo Cecchin, Danilo Saccani and Lorenzo Fagiano, G-BEAM: Graph-Based Exploration And Mapping for Autonomous Vehicles

Paolo Tripicchio and Salvatore D'Avella, A Synthetic Aperture UHF RFID localization method by Phase Unwrapping and Hyperbolic Intersection

Tommaso Lisini Baldi, Nicole D'Aurizio, Alberto Villani and Domenico Prattichizzo, Self Contact: Enhancing Virtual Reality Experience Recovering Kinaesthetic Feedback

Martina Mammarella, Lorenzo Comba, Alessandro Biglia, Cesare Donati, Fabrizio Dabbene and Paolo Gay, Cooperation of unmanned systems for agricultural applications

8 Settembre 2021

h 17:00-19:00 Applications in control engineering I

SLOT 2 – Stanza 1 (12 contributi)

Chair: *Silvia Siri*

Co-Chair: *Guido Maione*

Link Zoom: <https://zoom.us/j/92016193231?pwd=S2w0Mjl3eVZSNXdZb2VsaTFndldvdz09>

Erica Salvato, Arnob Ghosh, Gianfranco Fenu and Thomas Parisini, Control of a Mixed Autonomy Signalised Urban Intersection: An Action-Delayed Reinforcement Learning Approach

Paolo Lino, Guido Maione, Zeljko Kanovic, Javier Andrés Martínez-Roman and Raoul R. Nigmatullin, Fault detection in induction motors by FFT and the statistics of fractional moments

Saverio Farsoni, Marcello Bonfe and Silvio Simani, Sustainable Control of Offshore Wind Turbine Systems

Cecilia Pasquale, Simona Sacone, Enrico Siri and Silvia Siri, A Modeling Framework for Passengers and Freight in Large-Scale Multi-Modal Transport Networks

Enrico Siri, Silvia Siri and Simona Sacone, A proportional-switch day-to-day discrete time adjustment process with travel costs dependent on paths similarity

Francesco Liberati, Alessandro Di Giorgio and Giorgio Koch, Optimal Stochastic Control of Energy Storage System Based on Pontryagin Minimum Principle for Flattening PEV Fast Charging in a Service Area

Matteo Ravasio, Gian Paolo Incremona, Patrizio Colaneri, Andrea Dolcini and Piero Moia, Distributed Nonlinear AIMD Algorithms for Electric Bus Charging Plants

Amit Joshi, Hamed Kebriaei, Valerio Mariani and Luigi Glielmo, A Sufficient Condition to Guarantee Non-Simultaneous Charging and Discharging of Household Battery Energy Storage

Paolo Lino, Guido Maione, Irene Mazzilli, Gianmario Mirabile, Ileana Blanco, Luigi De Bellis, Andrea Luvisi and Alexsey Rybakov, UAV Inspection of Olive Trees for the Detection of Xylella Fastidiosa Disease Using Neural Networks

Fabio Parisi, Agostino Marcello Mangini, Maria Pia Fanti and Nicola Parisi, A Drone-Assisted 3D Printing by Crane Structures in Construction Industry

Giovanni Gino Zanvettor, Marco Casini and Antonio Vicino, A chance constraint approach to peak mitigation in electric vehicle charging stations

Giuseppe Avon, Eliana De Marchi and Fabio Zanon, Research activity in the Advanced Control Algorithms for nuclear fusion systems framework

8 Settembre 2021

h 17:00-19:00 Networked systems I

SLOT 2 – Stanza 2 (12 contributi)

Chair: *Elena De Santis*

Co-Chair: *Mauro Franceschelli*

Link Zoom: <https://zoom.us/j/99861444093?pwd=MDRJVlBpSFQ3dnFpbWJzNDMyWk9EUT09>

Luca Ballotta, Mihailo R. Jovanović and Luca Schenato, Can Decentralized Control Outperform Centralized? The Role of Communication Latency

Fabio Della Rossa, Francesco Lo Iudice, Anna Di Meglio and Francesco Sorrentino, Controlling consensus in networks with symmetries

Marco Mirabilio, Alessio Iovine, Elena De Santis, Maria Domenica Di Benedetto and Giordano Pola, Scalable Mesh Stability of Nonlinear Interconnected Systems

Carmela Bernardo, Francesco Vasca and Raffaele Iervolino, Practical clustering in bounded confidence opinion dynamics

Nicola Bastianello and Ruggero Carli, High Probability Convergence of Stochastic Optimization Algorithms

Diego Deplano, Mauro Franceschelli, Alessandro Giua and Luca Scardovi, Distributed Fiedler Vector Estimation with Application to Desynchronization of Harmonic Oscillator Networks

Gianluca Bianchin and Emiliano Dall'Anese, Time-Varying Optimization of Linear Systems via Projected Primal-Dual Gradient Flows

Stefano Ardizzoni, Luca Consolini, Marco Locatelli and Mattia Laurini, The Bounded Acceleration Shortest Path problem: complexity and solution algorithms

Stefano Battilotti, Filippo Cacace, Claudia Califano and Massimiliano D'Angelo, Stochastic Leader-Following for Linear Agents with Communications Delay

Fabio Della Rossa, Pietro De Lellis and Carlos Vega, Inverse optimal pinning control of stochastic network dynamical systems

Dario Madeo and Chiara Mocenni, A Theory of Evolutionary Games on Networks: Modeling and Control

Gianluigi Pillonetto, Sparse estimation of linear dynamic networks using the stable spline horseshoe prior

9 Settembre 2021

h 9:00-11:00. Analysis, identification and control II

SLOT 3 – Stanza 1 (12 contributi)

Chair: *Elena Zattoni*

Co-Chair: *Costanzo Manes*

Link Zoom: <https://zoom.us/j/96891475714?pwd=SmQ2ZjlacTdlUEdSSmEyRk1XbTJaQT09>

Mirko Mazzoleni, Alessandro Chiuso and Simone Formentin, Kernel-based system identification with manifold regularization: a Bayesian perspective

Vito Cerone, Sophie M. Fosson and Diego Regruto Tomalino, A log-concave approach to sparse linear system identification

Antonio Russo, Gian Paolo Incremona and Alberto Cavallo, Higher-Order Sliding Mode Design with Bounded Integral Control Generation

Alessio Moreschini, Mattia Mattioni, Salvatore Monaco and Dorothée Normand-Cyrot, Interconnection and damping assignment for discrete-time port-Hamiltonian systems

Filippo Cacace, Massimiliano d'Angelo, Vittorio De Iuliis and Alfredo Germani, Filtering discrete-time systems in L2 spaces with applications

Francesco Zanini and Alessandro Chiuso, Nonparametric estimation of Koopman operators

Alessandro Borri, Francesco Carravetta and Pasquale Palumbo, A Fast General Taylor Series Method for ODE integration

Alessandro D'Ortenzio and Costanzo Manes, On the consistent reduction of Gaussian Mixture Models

Nicola Mimmo, Lorenzo Marconi and Giuseppe Notarstefano, An Extremum Seeking Scheme with Global Convergence Properties

Claudia Califano and Claude H. Moog, Feedback linearization of time-delay systems over a time window

Davide Animobono, David Scaradozzi, Elena Zattoni, Anna Maria Perdon and Giuseppe Conte, A Structural Geometric Approach to Matching Problems for Linear Systems over the Max-Plus Algebra

Lorenzo Jr Sabug, Fredy Ruiz and Lorenzo Fagiano, On a new Set Membership-based approach for global optimization involving black-box constraints

9 Settembre 2021

h 9:00-11:00. Robotics and automotive II

SLOT 3 – Stanza 2 (12 contributi)

Chair: *Lucia Pallottino*

Co-Chair: *Francesco Pierri*

Link Zoom: <https://zoom.us/j/92701365632?pwd=QUUrbjNLQnhWNHJvTHd4SDJHb2xIZz09>

*Marco Faroni, Manuel Beschi, Nicola Pedrocchi, Alessandro Umbrico, Andrea Orlandini and Amedeo Cesta, **Optimal task and motion planning for human-robot collaboration***

*Cesare Tonola, Marco Faroni, Nicola Pedrocchi and Manuel Beschi, **Anytime informed path re-planning and optimization for human-robot collaboration***

*Nicole D'Aurizio, Tommaso Lisini Baldi, Sara Marullo and Domenico Prattichizzo, **Reducing Undesired Face-touches Using Wearable Devices and Haptic Feedback***

*Michelangelo Nigro, Monica Sileo, Francesco Pierri, Domenico Daniele Bloisi and Fabrizio Caccavale, **Peg-in-Hole Task by Means of 3D Surface Reconstruction***

*Adriano Scibilia and Nicola Pedrocchi, **Estimation of human-in-the-loop control action in physical human-robot interaction***

*Marco Costanzo, Giuseppe De Maria and Ciro Natale, **Dual-Arm In-Hand Manipulation with Parallel Grippers Using Tactile Feedback***

*Luca Pozzi, Marta Gandolla, Filippo Pura, Marco Maccarini, Alessandra Pedrocchi, Francesco Braghin, Dario Piga and Loris Roveda, **Grasping Learning for Service Robots***

*Enrico Turco, Joao Bimbo, Valerio Bo, Maria Pozzi, Mahdi Ghazaei, Alessandro Rizzo, Gionata Salviatti, Monica Malvezzi and Domenico Prattichizzo, **Grasping with embedded and environmental constraints***

*Filippo Arrichiello, Paolo Di Lillo, Giuseppe Gillini, Alessandro Marino, Gianluca Antonelli and Stefano Chiaverini, **Assistive Shared and Supervisory Control Architectures for Robotic Systems Using EEG-Based BCIs***

*Alessandro Palleschi, Manolo Garabini and Lucia Pallottino, **Optimal Trajectory Planning with Safety Constraints***

*Grazia Zambella, Gianluca Lentini, Manolo Garabini, Giorgio Grioli, Manuel G. Catalano, Alessandro Palleschi, Lucia Pallottino, Antonio Bicchi, Alessandro Settimi and Danilo Caporale, **Whole-Body Balancing Control of Two-Wheeled Humanoids***

*Simone Fani, Alessandro Moscatelli, Paolo Salaris and Matteo Bianchi, **Augmenting Human-Machine Interaction Through the Sense of Touch: Applications in Robot-assisted Surgery and Augmented Reality***

9 Settembre 2021

h 11:30-13:30. Applications in control engineering II

SLOT 4 – Stanza 1 (12 contributi)

Chair: *Daniela Iacoviello*

Co-Chair: *Mattia Zorzi*

Link Zoom: <https://zoom.us/j/96891475714?pwd=SmQ2ZjlaeTdIUEdSSmEyRk1XbTJaQT09>

Alessandro Borri, Pasquale Palumbo and Federico Papa, Spread/removal parameter identification in a SIR epidemic model

Paolo Di Giamberardino, Daniela Iacoviello, Federico Papa and Carmela Sinisgalli, A multi-group model for the COVID-19 spread among connected populations: epidemic and mobility aspects of the Italian case

Chiara Antonini, Sara Calandrini and Fortunato Bianconi, Modeling vaccinations and the transmission dynamics of SARS-CoV-2 variants in Italy

Alessandro Borri, Pasquale Palumbo, Federico Papa and Corrado Possieri, Optimal design of lock-down and reopening policies for early-stage epidemics through SIR-D models

Paolo Di Giamberardino and Daniela Iacoviello, Fighting COVID-19 with models and control

Enrico Zero, Roberto Sacile, Simone Graffione, Chiara Bersani and Alessandro Bozzi, BCI model to detect head movements

Davide Fiore, Davide Salzano and Mario di Bernardo, Controlling the genetic toggle-switch for cell regulation and multicellular applications

Matteo Italia and Fabio Dercole, Optimal control of a two-drug treatment steers cancer adaptive resistance: insights from a multi-scale cell-based model

Massimiliano d'Angelo, Pasquale Palumbo, Stefano Busti and Marco Vanoni, A coarse-grain model of ribosome-protein synthesis

Mario Spirito and Lorenzo Marconi, Modeling of isometric muscle properties via controllable nonlinear spring, and proprioceptive receptors

Elvina Gindullina, Mattia Zorzi, Alessandro Chiuso and Alessandra Bertoldo, Estimating Effective Connectivity exploiting Brain Partitioning

Cristiano Maria Verrelli, Generalized Finite-Length Fibonacci Sequences and Time-Harmonic Structures: From Healthy and Pathological Human Walking to Front Crawl & Butterfly Swimming

9 Settembre 2021

h 11:30-13:30. Robotics and automotive III

SLOT 4 – Stanza 2 (12 contributi)

Chair: *Filippo D'Ippolito*

Co-Chair: *Andrea Maria Zanchettin*

Link Zoom: <https://zoom.us/j/92701365632?pwd=QUUrbjNLQnhWNHJvTHd4SDJHb2xIZz09>

Federico Vesentini and Riccardo Muradore, Velocity Obstacle-based Trajectory Planner for Two-Link Planar Manipulators

Davide Bazzi, Andrea Maria Zanchettin and Paolo Rocco, Goal-driven variable admittance control and virtual fixtures in assistive manual guidance tasks

Lorenzo Gentilini, Dario Mengoli and Lorenzo Marconi, Bézier-Based Planner for 3D Large Areas Exploration

Giovanni Garraffa, Antonino Sferlazza, Filippo D'Ippolito and Francesco Alonge, Localization Based on Parallel Robots Kinematics as an Alternative to Trilateration

Luca Patanè, Paolo Arena, Mario Calandra, Maria Gabriella Xibilia, Tao Sun and Poramate Manoonpong, Echo state networks as soft sensors for environment interaction in quadruped robots

Paolo Tripicchio and Salvatore D'Avella, On the integration of FBG sensing technology into robotic grippers

Cosimo Ieracitano, Nadia Mammone, Michele Lo Giudice, Valeria Tomaselli, Arcangelo Bruna and Francesco Carlo Morabito, EEG recordings and Eye Tracking for Brain-Computer Interfaces and Robotics

Costanza Messeri, Andrea Maria Zanchettin and Paolo Rocco, Human-robot collaboration: optimizing work-related stress and productivity

Olga Napolitano, Daniele Fontanelli, Lucia Pallottino and Paolo Salaris, On-line Optimal information-aware path planning with actuation noise and intermittent noisy measurements

Lorenzo Gentilini, Dario Mengoli and Lorenzo Marconi, Bézier Trajectory Optimization for Quadrotor Flight in Dense Environments

Marco Frego, Recent advances on the Markov-Dubins problem

Fabio Amadio, Alberto Dalla Libera, Ruggero Carli and Diego Romeres, Model-Based Reinforcement Learning Using Monte Carlo Gradient Estimation

9 Settembre 2021

h 14:30-16:30. Analysis, identification and control III

SLOT 5 – Stanza 1 (12 contributi)

Chair: *Carla Seatzu*

Co-Chair: *Giordano Pola*

Link Zoom: <https://zoom.us/j/96891475714?pwd=SmQ2ZjlaeTdIUEdSSmEyRk1XbTJaQT09>

Tommaso Masciulli, Giordano Pola, Elena De Santis and Maria Domenica Di Benedetto, Output Feedback
Reachability of Controlled-Observable States for Nondeterministic Finite-State Systems

Damiano Rigo, Nicola Sansonetto and Riccardo Muradore, A comparison between the Extended Kalman Filter and a Minimum-Energy Filter in the TSE(2) case

Maria Letizia Corradini, Gianluca Ippoliti and Giuseppe Orlando, A Novel Data-Driven Model-Free Adaptive Controller with application to Wind Turbines

Mohamed Elobaid, Mattia Mattioni, Salvatore Monaco and Dorothée Normand-Cyrot, Digital path-following for a car-like robot

Antonino Sferlazza, Sophie Tarbouriech and Luca Zaccarian, State observer with Round-Robin aperiodic sampled measurements with jitter

Hao Lan, Yin Tong and Carla Seatzu, Detectability Analysis of Labeled Petri Nets

Alessandro Borri and Pierdomenico Pepe, Event-Based Practical Stabilization of Nonlinear Time-Delay Systems

Chao Gu, Ziyue Ma, Zhiwu Li and Alessandro Giua, Non-Blockingness Verification of Petri Nets: A Semi-Structural Approach

Giacomo Nabissi, Renat Kermenov, Sauro Longhi and Andrea Bonci, Towards Predictive Maintenance using Motor Torque Analysis with Nonlinear Observer for PMSM under Transient Conditions

Yuri Orlov , Alessandro Pilloni , Alessandro Pisano , and Elio Usai, Boundary control of an uncertain diffusion PDE with dynamic actuator and unmatched disturbance

Algo Carè and Marco Campi, Finite-sample system identification: relaxing the model-matching condition

Chao Gao, Dimitri Lefebvre, Carla Seatzu, Zhiwu Li and Alessandro Giua, State estimation of timed automata under no event observation

9 Settembre 2021

h 14:30-16:30. Networked systems II

SLOT 5 – Stanza 2 (12 contributi)

Chair: *Michela Robba*

Co-Chair: *Agostino M. Mangini*

Link Zoom: <https://zoom.us/j/92701365632?pwd=QUUrbjNLQnhWNHJvTHd4SDJHb2xIZz09>

Ekaterina Dudkina, Lucia Valentina Gambuzza, Mattia Frasca and Emanuele Crisostomi, Dynamical models for cascading failures in power grids

Giulia Fiscon, SAveRUNNER: A network-based algorithm for drug repurposing and its application to COVID-19

Federica Conte, The New Paradigm of Network Medicine to Analyze Breast Cancer Phenotypes

Maria Pia Fanti, Agostino Marcello Mangini, Michele Roccotelli and Bartolomeo Silvestri, New Approaches for Relocation of Electric Vehicles in Sharing Systems

Marco Coraggio, Saber Jafarpour, Francesco Bullo and Mario di Bernardo, The Minimax Flow Problem in Acyclic Networks as a Consensus Problem: Application to Microgrids

Paolo Scarabaggio, Raffaele Carli, Graziana Cavone, Nicola Epicoco and Mariagrazia Dotoli, Non-Pharmaceutical Stochastic Optimal Control Strategies to Mitigate the COVID-19 Spread

Giulio Ferro, Riccardo Minciardi, Luca Parodi and Michela Robba, Energy Management and Automation Systems for demand response, energy efficiency and risk management in sustainable districts

Maria Elena Valcher and Giulia De Pasquale, On the Effects of Individual Expertise and Prejudice on Collaborative Team Performance

Andrea Testa, Andrea Camisa and Giuseppe Notarstefano, ChoiRbot: Cooperative Robotics in the ROS 2 Framework

Leonardo Massai, Giacomo Como and Fabio Fagnani, Equilibria in network constrained energy markets

Mark Jeeninga, Advances in the steady-state analysis of DC power grids with constant-power loads

Masoud Bahraini, Mario Zanon, Alessandro Colombo and Paolo Falcone, Optimal communication schedule and control co-design for multi-agent networked control systems

9 Settembre 2021

h 17:00-18:10. Model Predictive Control

SLOT 6 – Stanza 1 (7 contributi)

Chair: *Riccardo Muradore*

Link Zoom: <https://zoom.us/j/96891475714?pwd=SmQ2ZjlacTdlUEdSSmEyRk1XbTJaQT09>

Francesco Parino, Lorenzo Zino, Giuseppe Carlo Calafiore and Alessandro Rizzo, On optimally devising a two-shot vaccination rollout through MPC

Nicola Piccinelli and Riccardo Muradore, A Bilateral Teleoperation with Interaction Force Constraint in Unknown Environment using Non Linear Model Predictive Control

Paolo Scarabaggio, Raffaele Carli and Mariagrazia Dotoli, Stochastic Model Predictive Control of Community Energy Storage under High Renewable Penetration

Muhammad Bakr Ahmad Abdelghany, Muhammad Faisal Shehzad, Valerio Mariani, Davide Liuzza and Luigi Glielmo, Optimal operations for hydrogen-based energy storage systems in wind farms via MPC

Augusto Bozza, Graziana Cavone, Raffaele Carli, Luigi Mazzocchi and Mariagrazia Dotoli, MPC-based Feedback Control of the Cold Sheet Metal Forming Process

Sven Brüggemann and Corrado Possieri, On the Use of Difference of Log-Sum-Exp Neural Networks to Solve Data-Driven Model Predictive Control Tracking Problems

Roberto Boffadossi, Lorenzo Fagiano, Andrea Cataldo and Marko Tanaskovic, Hierarchical Predictive Routing Control: an optimization-based strategy for discrete manufacturing plants

9 Settembre 2021

h 17:00-18:10. Robotics and automotive IV

SLOT 6 – Stanza 2 (6 contributi)

Chair: *Luca Consolini*

Link Zoom: <https://zoom.us/j/92701365632?pwd=QUUrbjNLQnhWNHJvTHd4SDJHb2xIZz09>

Daniel Bonilla Licea, Giuseppe Silano, Mounir Ghogho and Martin Saska, Optimum Trajectory Planning for Multi-Rotor UAV Relays with Tilt and Antenna Orientation Variations

Michele Bolognini, Lorenzo Fagiano and Maria Pina Limongelli, An autonomous, robust, multi-agent UAV path planner for inspection of the built environment

Stefano Primatesta, Francesco Parino and Alessandro Rizzo, A Machine Learning approach to compute Risk Maps for UAS

Mattia Laurini, Luca Consolini and Marco Locatelli, A dynamic programming approach for cooperative pallet loading robots

Edwin Paul Herrera Alarcon, Davide Bagheri Ghavifekr, Gabriele Baris, Michael Mugnai, Massimo Satler and Carlo Alberto Avizzano, An Efficient Object-Oriented Exploration Algorithm for Unmanned Aerial Vehicles

Andrea Borgese, Dario Calogero Guastella, Giuseppe Sutura and Giovanni Muscato, Tether-based relative localization for aerial and ground vehicle coordination control

9 Settembre 2021

h 18:30-19:30. Applications in control engineering III

SLOT 7 – Stanza 1 (6 contributi)

Chair: *Andrea Monteriù*

Link Zoom: <https://zoom.us/j/96891475714?pwd=SmQ2ZjlaeTdIUEdSSmEyRk1XbTJaQT09>

Tiziano Bacci, Antonio Frangioni and Claudio Gentile, On MIP formulations based on Dynamic Programming for the Unit Commitment problem

Mauro Di Marco, Mauro Forti, Giacomo Innocenti and Alberto Tesi, Analysis and feedforward control of multistability in memristor circuits

Alessandro Baldini, Riccardo Felicetti, Alessandro Freddi, Sauro Longhi and Andrea Monteriù, Disturbance Observer Based Fault Tolerant Control for Tilted Hexarotors

Gaetano Volpe, Agostino Marcello Mangini and Maria Pia Fanti, An Architecture for Digital Processes in Manufacturing with Blockchain, Docker and Cloud Storage

Tiziano Bacci, Sara Mattia and Paolo Ventura, An exact algorithm for the Stochastic Container Relocation Problem

Riccardo Caponetto and Emanuele Murgano, Implementation of a fully analog feedback loop with a carbon-black based fractional order controller