DAVIDE M. RAIMONDO

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Languages: *Italian*: mother tongue. *English*: proficient. *Spanish*: fluent.
German: basic knowledge. *Serbo-Croatian:* basic knowledge

EDUCATION

Nov. 05 – Nov. 08	UNIVERSITY OF PAVIA **Ph.D. in electronic, computer and electrical engineering,** Identification and Control of Dynamical Systems (ICDS) Laboratory, Thesis title: *Nonlinear Model Predictive Control: Stability, Robustness and Applications.* Advisor: Prof. Lalo Magni (Ph.D. defended on 16-01-2009)	Pavia *Italy*
Oct. 03 – Jul. 05	UNIVERSITY OF PAVIA **M.Sc.** in Automatic Control Engineering. 110/110 cum laude	Pavia *Italy*
Oct. 00 – Sep. 03	UNIVERSITY OF PAVIA **B.Sc.** in Computer Science Engineering. 110/110 cum laude	Pavia *Italy*

ACADEMIC AND RESEARCH APPOINTMENTS

May 15 –	UNIVERSITY OF PAVIA **Associate Professor**, ICDS Laboratory, Dept. of Electrical, Computer and Biomedical Engineering	Pavia *Italy*
Jan. 13 –	UNIVERSITY OF PAVIA **Head** of the educational Process Control Laboratory, Dept. of Electrical, Computer and Biomedical Engineering, http://conpro.unipv.it/	Pavia *Italy*
Oct. 17 – Feb. 18	UNIVERSITY OF KONSTANZ **Visiting Professor**, Department of Mathematics and Statistics	Konstanz *Germany*
Dec. 10 – May 15	UNIVERSITY OF PAVIA **Assistant Professor** (tenured 29/12/2013), ICDS Laboratory, Dept. of Electrical, Computer and Biomedical Engineering	Pavia *Italy*
Mar. 15 – Apr. 15 Mar. 14 – Apr. 14	VIENNA UNIVERSITY OF TECHNOLOGY (TU WIEN) **Visiting Professor**, Computer Engineering PhD School	Vienna *Austria*
Nov. 08 – Dec. 10	SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETHZ) **Postdoc** at the Automatic Control Laboratory Dept. of Information Technology and Electrical Engineering	Zürich *Switzerland*

RESEARCH STAYS

Oct. 15 – Nov. 15 Sep. 14 – Feb. 15 Aug. 13 – Sep. 13 Mar. 12 – Jun. 12	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) **Visiting scholar** Prof. Braatz group Department of Chemical Engineering	Cambridge *USA*
Oct. 06 – May 07	UNIVERSITY OF SEVILLE **Academic Guest** in the Dept. of Automation and System Engineering	Sevilla *Spain*

AWARDS

Automatica Paper Prize Award 2014-2016 for *Constrained zonotopes: A new tool for set-based estimation and fault detection*, J.K. Scott, D.M. Raimondo, G.R. Marseglia, R.D. Braatz, Automatica, 69, 126-136, 2016.

QUALIFICATIONS

Italian scientific habilitation for the position of Full Professor, section 09/G1 Automatica (2018 - 2024).

MEMBERSHIPS

2019 –   IEEE membership, IEEE Control System Society Membership

RESEARCH INTERESTS

Theory: control, optimization, fault detection and isolation. *Applications:* energy, robotics, logistics, medical.

BIBLIOMETRIC PROFILE

Currently (October 18, 2019) Prof. Raimondo has an h index of 23 (Scopus) - 28 (Google Scholar) and a number of citations equal to 2057 (Scopus) - 3216 (Google Scholar). He is editor, author or co-author of 1 book, 30 journal papers, 1 patent (filed), 4 book chapters, and 58 conference papers. Main topics: optimization-based control, fast, cooperative and distributed control, fault diagnosis, battery management systems, autonomous surveillance, control of glycaemia. See https://scholar.google.com/citations?user=cXZ54KEAAAAJ&hl=en&oi=ao for details.

PROJECTS AND FUNDING

Participant in several European projects (SEMI40, AP@HOME, IMPROVE, FEEDNETBACK), Italian projects (PRIN projects on control of glycaemia in diabetic patients, PhD position on vehicle to grid granted by Lombardy region and ENEA), local projects (funded for collaborations with MIT), and contracts (with Stelar S.r.l. and LPE S.p.A. as principal investigator, and CESI).

SOFTWARE

Promoter and co-author of the Li-ion Simulation Battery (LIONSIMBA) toolbox, official website http://sisdin.unipv.it/labsisdin/lionsimba.php. Co-author of the Battery Optimal Layer Design (BOLD) toolbox https://zenodo.org/record/1241420#.XF2QxlxKjb1.

TEACHING AND STUDENT SUPERVISION

Teaching experience in several countries: Austria, Colombia, Germany, Italy, Switzerland.

- Lecturer of several courses at the Ph.D., Master, and Bachelor level, with a number of students ranging from 30 to 100 (8 years of experience – topics: model predictive control, basics of automatic control, optimization and graph theory). Teaching rating at University of Pavia: 9.35/10 (departmental average 8.77/10).
- Supervisor/co-supervisor of 8 PhD students (topics: cooperative control, energy systems, management of Lithium-ion batteries, vehicle to grid, fault diagnosis and fault tolerant control, power electronic converters).
- Supervisor of >20 master theses, >45 bachelor theses and 5 internships (topics: wind farm layout optimization, optimal placement of energy storage devices in power grids, autonomous surveillance, stochastic reachability, design of vision systems, control of glycaemia, batteries, power plants, small scale race cars, submarines, cranes, helicopters, trains, solar trackers, design of field frequency lock).

INVITED SEMINARS, PARTICIPATION AT INTERNATIONAL CONFERENCES

- Overall >20 presentations held at international conferences (CDC, ACC, ECC, NMPC, IFAC WC, IFAC NOLCOS, IFAC NecSys, Systol, Diabetes Technology Society Annual Meetings).
- >20 invited seminars at several universities and research centers (MIT, ETH, EPFL, Imperial College, UC Berkeley, Boston Univ., TU Wien, Magdeburg Univ., Braunschweig Univ., Bochum Univ., Federal University of Minas Gerais, IIT Italy, ABB Corporate Research Center, Mitsubishi Electric Research Labs).

EDITORIAL ACTIVITY AND PROFESSIONAL SERVICE

- Member of the committee for the qualification to the profession of Computer Science Engineer (2012-2016),

Member of the scientific board of the PhD program in Electronics, Computer science and Electrical Engineering (2017-). Member and secretary of the committee for the final evaluation of the PhD candidates in Electronics, Computer Science and Electrical Engineering (2018), University of Pavia. Ph.D. committee member of theses at Polytechnic University of Catalonia and University of Seville.

- Subject editor for the journals IEEE Transactions on Control Systems Technology (2019-) and Optimal Control Applications and Methods (2015-2018). Member of the IEEE Technical committee on Process Control. CEB member of IEEE Control Systems Society (2016-) and of ECC '18 - '20, '15, '14. Associate Editor of CDC '16 - '19, ACC '16 - '20, IPC member of NMPC '18, '15, '12, ADCHEM '21, '15, ECC '13.

- Co-chair of the International workshop on Assessment and Future Direction of Nonlinear Model Predictive Control, Pavia, Italy, 2008. Organizer of the invited sessions "Nonlinear MPC" and "New Development in NMPC" for the 7th and 10th IFAC Symposium on Nonlinear Control Systems.