Curriculum Vitae

Daniele Ioli

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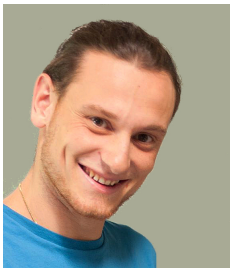
Personal information



Name	Daniele
Surname	Ioli
Birth	14th August 1988
Gender	Male
Nationality	Italian
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Academic & professional qualifications

Fall 2020 **IBM Professional Certificate: data science** [verify]
Issued by Coursera, Online, 9 Courses, 10 months
Hands-on skills in Data Science, Data Visualization and Analysis, Machine Learning

March 2019 **Master in Business Analytics: decision making using data** [verify]
University of Cambridge Judge Business School, Online
Advanced studies in descriptive, predictive and prescriptive analytics for business

2012-2014 **Master of Science in Automation Engineering**
Politecnico di Milano (POLIMI), Milano, Italy
Advanced studies in Systems and Control theory, First order grade, Level 7 QEQ

April 2012 **Athens Programme**
Ecole Nationale Superieure de Techniques Avancees (ENSTA), Paris, France
Course attended: Photovoltaic solar energy, ECTS mark A

2008-2012 **Bachelor of Science in Automation Engineering**
Politecnico di Milano (POLIMI), Milano, Italy
Studies in industrial automation and control theory, Level 6 QEQ

2011-2012 **Erasmus Program**
Lund University of technology (LTH), Lund, Sweden
Attended courses in engineering and mathematics, 20 cfu, ECTS mark A

2002-2007 **Mechanical technical high school degree**
I.T.I.S. Enea Mattei, Sondrio, Italy
Design of hydronic heating and cooling systems

Work experience

2018-now **Craftman**
Self Employed, Sondrio area, Italy
Working in the family business in buildings.

2018-now **Consultant**
Self Employed, Sondrio area, Italy
Definition and business model study for the implementation of small cogeneration power plant based on sustainable biomass exploitation in a circular economy perspective

2014-2018 **Research assistant**
Electronic, Infromatics and Bioengineering Dept. (DEIB), Politecnico di Milano, Italy
Modeling and control of smart grids integrating renewables. Design and testing of stochastic, distributed optimal control algorithms for optimal energy management. Work within the UnCoVerCPS European project (grant number 643921)

2016-2017 **Consultant**
General Electric Global Research Center (GEGR), Munich, Germany
Design and implementation of a stochastic optimal control technique for the energy management of a system integrating photovoltaic and batteries for on-the-fly reduction of uncertainty

Academia

J7 **A mixed-integer distributed approach to prosumers aggregation for providing balancing services**. *Under review: International Journal of Electrical Power and Energy Systems*;

J6 **Distributed optimization for structured programs and its application to energy management in a building district**. *Journal of Process Control Volume 89, May 2020, Pages 11-21*;

J5 **Optimal steady-state disturbance compensation for constrained linear systems: The gaussian noise case**. *Under review: IEEE Transaction on Automatic Control*;

J4 **Optimal disturbance compensation for constrained linear systems operating in stationary conditions: a scenario-based approach**. *Automatica, vol. 110, December 2019*;

J3 **An optimal strategy with autotuning capabilities for efficiently operating a cooling tower**. *Under review: the IEEE Transactions on Control Systems Technology*;

C8 **A data-driven approach to stochastic constrained control of piecewise affine systems**. *IEEE ACC American Control Conference, Milwaukee, USA, June 27-29 2018*;

C7 **Energy management in a multi-building set-up via distributed stochastic optimization**. *IEEE ACC American Control Conference, Milwaukee, USA, June 27-29 2018*;

J2 **A smart-grid energy management problem for data-driven design with probabilistic reachability guarantees**. *EpiC Series in Computing, Pittsburgh, USA, April 17, 2017*;

C6 **Optimally shaping the stationary distribution of a constrained discrete-time stochastic linear system via disturbance compensation**. *IEEE CDC Melbourne, Australia, Dec.12-15 2017*;

C5 **A two-layer decentralized approach to the optimal management of a district network with a shared thermal storage**. *IFAC 2017 World Congress, Tolouse, France, July 9-14 2017*;

J1 **A compositional modeling framework for the optimal energy management of a district network**. *IFAC JPC Journal of Process Control, available online arXiv: 1707.08494*;

C4 **Energy management of a building cooling system with thermal storage: a randomized solution with feedforward disturbance compensator**. *IEEE ACC, Boston, USA, July 6-8 2016*;

C3 **A compositional framework for energy management of a smart grid: a scalable stochastic hybrid model for cooling of a district network**. *IEEE ICCA, Kathmandu, Nepal, June 1-3 2016*;

C2 **An iterative scheme to hierarchically structured optimal energy management of a microgrid**. 54^{th} *IEEE CDC Conference on Decision and Control, Osaka, Japan, December 15-18 2015*;

C1 **Optimal energy management of a building cooling system with thermal storage: A convex formulation**. *IFAC ADCHEM, Whistler, British Columbia, Canada, June 7-10, 2015*;

MT **Optimal energy management of a building cooling system with storage: modeling and control**. *Supervisor: Prof. Maria Prandini.* Master thesis;

Extras & Skills

Leadership	**Team Leader, StartUp**. *Winner of the "Unlock Your Ability Challenge": Definition of innovative projects and business ideas in the energy sector.* Acceleration phase in ABB and Polihub permises and tutoring by MIP (Politecnico di Milano School of Business)[verify];
Presentation	**Given seminars**. *Optimal shaping of the stationary distribution of the state of a discrete time stochastic linear system via disturbance compensation.* Presented at SIDRA (Italian Society in Automation); *A data-driven forecasting method for photovoltaic energy production.* Presented at GEGR (General Electric Global Research), Munich, Germany, February 2017;
Motivation	**Stage**. *Leonardo Helicopters at time AgustaWestland, Cascina Costa, Italy*, Merit-based funded experience as visiting student at the AB139 helicopter experimental division, March 2007;
Initiative	**Project Manager**.*CaMalenca Bed & Breakfast.* From the idea to the practical realization of a family project to renovate and valorise my family home. Visit `www.camalencabb.com` ;
Technical	**Information technology**. *Proficent in using Matlab and LaTeX*, experienced in using Python, NI Labview and IBM CPLEX, knowledge of object-oriented and database programming paradigms, basic level of MS Office and C.