

# Santa Di Cataldo – Curriculum Vitae

## Personal Information

First Name: Santa

Family Name: Di Cataldo



Citizenship: Italian

Date (dd, mm, yy) and place of birth: 10, 05, 1982 - Torino, Italy

## Work Experience

- Jan 2020 – present      Politecnico di Torino      Torino, Italy  
**Associate Professor at Dept. of Control and Computer Engineering**
- Jan 2017 – Jan 2020      Politecnico di Torino      Torino, Italy  
**Assistant Professor with tenure track (RTD-b) at Dept. of Control and Computer Engineering**
- Jan 2016 – Jan 2017      Politecnico di Torino      Torino, Italy  
**Assistant Professor (RTD-a) at Dept. of Control and Computer Engineering**
- Jan 2012 – Dec 2015      Politecnico di Torino      Torino, Italy  
**Post-doctoral Research Assistant at EDA Group, Dept. of Control and Computer Engineering**
- Jan 2011 – Dec 2011      Politecnico di Torino      Torino, Italy  
**Research Assistant at EDA Group, Dept. of Control and Computer Engineering**
- Feb 2007 – Dec 2007      Politecnico di Torino      Torino, Italy  
**Research Assistant at EDA Group, Dept. of Control and Computer Engineering**

## Education

- 2008-2010      Politecnico di Torino      Torino, Italy  
**PhD in Systems and Computer Engineering** (Ingegneria Informatica e dei Sistemi)  
Official length of the program (yy): 3  
Date of award (dd,mm,yy): 11, 04, 2011  
PhD Thesis: Image Processing Techniques for Histopathology (Tecniche di Image Processing per Applicazioni Istopatologiche)
- 2004–2006      Politecnico di Torino      Torino, Italy  
**MSc in Biomedical Engineering** (Laurea Specialistica in Ingegneria Biomedica)  
Official length of the program (yy): 2  
Date of award (dd,mm,yy): 21, 12, 2006  
Score: 110/110 summa cum laude

## Visiting

- Mar 2018 – May 2018      Nanyang Technological University (NTU)      Singapore  
**Visiting research fellow at Hardware & Embedded Systems Laboratory, School of Computer Science and Engineering**  
Research fellowship under the program DANTE: Data Analytics with Emerging Technologies (Joint Projects for the Internationalization of Research, call 2017)

**Intern at Advanced Development MRI Division**

Research internship on image processing techniques for brain MRI

**Teaching activity****Main lecturer:**

- High-throughput biological data analysis, doctorate course (20 hs), language: English, 2017-2018
- Informatica, BSc degree course (8CFU), Language: Italian, 2018-2019, 2019-2020, 2020-2021, 2021-2022
- Programming Techniques, BSc degree course (6CFU), Language: English, 2020-2021, 2021-2022
- Machine Learning with Applications, MSc degree course (6CFU), Language: English, 2021-2022
- Basics of AI and ML (theory and models), 2nd Level Specializing Master's Programme in Artificial Intelligence & Cloud: Hands-on Innovation, Language: English, 2020-2021, 2021-2022

**Guest lecturer:**

- Methods and tools for bioinformatics, doctorate course (20 hours), language: English, 2010-2011, 2011-2012
- ICT platforms for facilitating the integration of Additive Manufacturing in traditional manufacturing processes (16 hs), master in Additive Manufacturing, language: English, 2016-2017, 2017-2018, 2018-2019

**Teaching assistant:**

- Informatica, laurea degree course (5CFU), Cod. 06BHDFJ, language: Italian, 2008-2009
- Computer Sciences, BSc degree course (5CFU), Cod. 02JCJFJ, language: English, 2009-2010
- Computer Sciences, Bsc degree course (8CFU), Cod. 04JCJLI, language: English, 2010-2011
- Informatica, Bsc degree course (5CFU), Cod. 12BHDLZ, language: Italian, 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018
- Bioinformatics, Msc degree course (6CFU), Cod. 01OVFOQ, language: English, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-21
- Inference in biological systems, Msc degree course (6CFU), Cod. 01TYLPP, language: English, 2019-2020

**Reviewer activity****Reviewer for Funded Projects proposals:**

- Call for Proposals "**Interdisciplinary approaches in oncogenic processes and therapeutic perspectives: Contributions of mathematics and informatics to oncology**", ITMO Cancer, French National Alliance for Life and Health (August 2019)

**Reviewer for Journals:**

- Transactions on Medical Imaging (IEEE)
- Transactions on Information Technologies in Biomedicine (IEEE)
- Journal of Biomedical and Health Informatics (IEEE)
- Transactions on Computers (IEEE)
- Transactions on Computer-Aided Design of Integrated Circuits and Systems (IEEE)
- Computer Methods and Programs in Biomedicine (Elsevier)
- Opto-electronics Review (Springer-Verlag Heidelberg)
- Biomedical Signal Processing and Control (Elsevier)
- Pattern Recognition Letters (Elsevier)
- Artificial Intelligence in Medicine (Elsevier)
- Micron (Elsevier)
- Journal of Medical Imaging and Health Informatics (American Scientific)
- International Journal of Medicine and Medical Sciences
- Expert Systems and Applications (Elsevier)

**Contribution to organization of conferences**

**TPC (Technical Program Committee) member of international conferences:**

- ICBSP 2018, 3rd International Conference on Biomedical Imaging, Signal Processing (ICBSP 2018)
- Bioinformatics 2017,2018, 2019, 2020 (International Conference on Bioinformatics Models, Methods and Algorithms)
- IEEE LCS 2017 (IEEE Life Sciences Conference)
- IEEE CBMS (International Symposium on Computer-Based Medical Systems), 2014 to 2018

**Editorial activity**

Guest Editor of the Special Issue of Proceedings of the IEEE: Leading ICT technologies for Smart Manufacturing: facing the new challenges and opportunities of the 4th Industrial Revolution, 2021

**Awards**

- Premio Donna Innovazione Piemonte, 2010 for the project “Biossol”, presented at Start Cup Torino Piemonte 2010 (October 2010)
- Best paper award nomination at the international conference BIOSTEC / BIOINFORMATICS 2013
- Best paper award nomination at the international conference BIOSTEC / BIOIMAGING 2018

**Research interests**

- Image processing
- Image texture analysis
- Biological image analysis
- Pattern Recognition, Machine Learning and Deep Learning
- Artificial Intelligence applied to biological and industrial applications
- Machine learning applied to smart manufacturing and additive manufacturing

**Languages**

- Italian: mother tongue
- English: proficient user (level C1)
- French: basic

**Publications**

See the updated list at: <https://scholar.google.it/citations?user=O0yEdHsAAAAJ&hl=it>

Signature \*:



\* To the senses of Italian legislative decree n.196/2003, I give my consent to the treatment of my personal data for human resources research