

**Europass
Curriculum Vitae**
Personal information

First name(s) / Surname(s) **CASCINI GAETANO**
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 Nationality **Italian**
 Date of birth **24.07.1971**
 Gender **Male**

Work experience

<p>Dates</p> <p>Occupation or position held</p> <p>Main activities and responsibilities</p>	<p>Since November 2014</p> <p>Full Professor at Politecnico di Milano, School of Industrial and Information Engineering</p> <p>He coordinates a research team working on the following topics: Methods and tools for inventive design and Computer-Aided support to the innovation pipeline. He holds the following courses at Politecnico di Milano:</p> <ol style="list-style-type: none"> 1. Methods for Technical Representation (Ind. Eng.) – 7 ECTS 2. Design Laboratory on Computer-Aided Engineering (Mech. Eng.) – 8 ECTS 3. Methods and Tools for Systematic Innovation: Part A: Problem Solving and Inventive Design; Part B: Innovation and Intellectual Property Management - (MSc Mech. Eng.) – 12 ECTS 4. Design Methods and Processes (Alta Scuola Politecnica, course within the MSc special program in Engineering, Architecture and Design)
<p>Name and address of employer</p> <p>Type of business or sector</p>	<p>Politecnico di Milano, Via La Masa 1, 20156 Milan</p> <p>Dept. of Mechanical Engineering</p>
<p>Dates</p> <p>Occupation or position held</p> <p>Main activities and responsibilities</p>	<p>September 2008 - November 2014</p> <p>Associate Professor at Politecnico di Milano, School of Industrial and Information Engineering</p> <p>Coordinator of a research team working on the following topics: Methods and tools for inventive design and Computer-Aided support to the innovation pipeline. In charge of the following courses at Politecnico di Milano:</p> <ol style="list-style-type: none"> 1. Methods for Technical Representation (Ind. Eng.) – 7 ECTS 2. Design Laboratory on Computer-Aided Engineering (Mech. Eng.) – 8 ECTS 3. Product Virtual Modeling (Ind. Des.) – 5 ECTS 4. Methods and Tools for Systematic Innovation: Part A: Problem Solving and Inventive Design; Part B: Innovation and Intellectual Property Management - (MSc Mech. Eng.) – 12 ECTS 5. Design Methods (Alta Scuola Politecnica, course within the MSc special program in Engineering, Architecture and Design)
<p>Name and address of employer</p> <p>Type of business or sector</p>	<p>Politecnico di Milano, Via La Masa 1, 20156 Milan</p> <p>Dept. of Mechanical Engineering</p>

Dates January 1999 – August 2008
Occupation or position held Assistant Professor - Researcher

Lecturer of the following courses at the University of Florence: Methods and Tools for Product Innovation (4th-5th year), Knowledge and Intellectual Property Management (4th-5th year).

(since 2003) Scientific Coordinator of the Laboratory on Methods and Tools for Innovation

Main activities and responsibilities Research in Methods and Tools for Machine Design
Name and address of employer University of Florence
Type of business or sector Dept. of Mechanics and Industrial Technologies

Education and training

Dates 2014
Title of qualification awarded Qualification as Full Professor
Name and type of organisation providing education and training National Scientific Qualification of the Italian Ministry of Education, Universities and Research (MIUR)

Dates 2006
Title of qualification awarded Qualification as Associate Professor
Name and type of organisation providing education and training Polytechnic of Bari

Dates 2006
Title of qualification awarded 4th level TRIZ specialist certificate
Name and type of organisation providing education and training MA TRIZ (the International TRIZ Association)

Dates 1999
Title of qualification awarded PhD in Machine Design
Principal subjects/occupational skills covered Thesis: "Rolling contact dynamics: forces, vibrations, noise." (in Italian)
Name and type of organisation providing education and training University of Florence

Dates 1996
Title of qualification awarded Ms Degree in Mechanical Engineering
Principal subjects/occupational skills covered Thesis: "High Frequency Mobile Input Reconstruction Algorithm (HF-MIRA) Applied to Forces Acting on a Damped Linear Mechanical System" (in Italian)
Name and type of organisation providing education and training University of Florence

Personal skills and competences

Mother tongue(s)

European level (*)

English

Italian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient User	C1	Proficient User	C1	Proficient User	C1	Proficient User	C1	Proficient User

Organisational skills and competences

Coordinator of the Mechanical Engineering Study Programme of Politecnico di Milano.

Coordinator of the Horizon 2020 – ICT Project (H2020-ICT-19-2015- 688417): SPARK: Spatial Augmented Reality as a Key for co-creativity.

Coordinator of the Erasmus+ Capacity Building in Higher Education project (Erasmus CBHE- 561869-EPP-1-2015-1-IT-EPPKA2-CBHE-JP): OIPEC: Open innovation Platform for university-Enterprise Collaboration: new product, business and human capital development.

Coordinator of the Marie Curie Project IAPP (PIAP-GA-2011-286305): FORMAT (FOrecast and Roadmapping for MANufacturing Technologies).

Coordinator and Scientific Responsible of the EU Project “Technology as Cultural Heritage”, ref. n. CLT/2005/A1/CH/IT-55

Past-President of ETRIA (European TRIZ Association) (2006-2009) and co-founder/past-president of the Italian Association for Systematic Innovation “Apeiron” (2003-2006).

Past-Chair of the “Computer-Aided Innovation” workgroup and Publication & Events Officer of the TC-5 Committee (Computer Applications in Technology) of IFIP (International Federation for Information Processing) (2009-2013)

Co-Chairman of the Design Creativity Special Interest Group of the Design Society and member of the Design Society Advisory Board (2013-current).

Chairman of the International Conference on Engineering Design (ICED15), 27-30 July 2015, Milan (Italy)

Chairman of the Organizing Committee of the TRIZ Future Conference 2004, 3-5 November 2004, Florence (Italy)

Chairman of the Organizing Committee of the 2nd IFIP Topical Session on Computer-Aided Innovation - Integration of CAI systems in the Product Development cycle, in conjunction with 20th IFIP World Computer Congress, September 7-10, 2008, Milan, Italy.

Technical skills and competences

Main fields of activity: methods and techniques for Systematic Innovation, Knowledge Based CAD/CAE tools, Knowledge Management and Patent Mining.

Author of more than 110 papers mostly presented at International Conferences and published in authoritative Journals and 13 patents (1 assignee University of Florence, 1 assignee Whirlpool Europe, 3 assignee Bracco Imaging, 2 assignee Otlav and Politecnico di Milano, 1 assignee Logli srl, 1 assignee SCAM srl, 1 assignee Meccaniche Fiorentine, 1 assignee Saes Getters, Rold and Politecnico di Milano).

Member of the Design Creativity Special Interest Group of the Design Society since its foundation in 2009.

Current roles in editorial boards:

- Member of the Editorial Board of the Journal of Integrated Design & Process Science, IOS Press (2012-present); Associated Editor of the same journal since 2015;
- Member of the Editorial Advisory Board of the International Journal of Design Creativity and Innovation, Taylor and Francis (2012-present);
- Member of the Editorial Board of Research in Engineering Design, Springer (2014-present).

Member of the PhD Board of the "Machine Design" Doctorate school of the University of Florence (2003-2012).

Member of the PhD Board of the "Mechanical Engineering" Doctorate school of Politecnico di Milano (2012-current).

Selected Publications of the last 5 years

- A1. Borgianni Y., Cascini G., Rotini F.: **"Wood pellet manufacturing improvements through product-driven Process Value Analysis"**, Proc. IMechE, Part B: J. Engineering Manufacture, May 2011, pp.761-772.
- A2. Cardillo A., Cascini G., Frillici F.S., Rotini F.: **"Computer-Aided embodiment design through the hybridization of mono objective optimizations for efficient innovation process"**, Computers in Industry, vol. 62 n.4, 2011, pp. 384-397.
- A3. Becattini N., Borgianni Y., Cascini G., Rotini F.: **"Model and Algorithm for Computer-Aided Inventive Problem Solving"**, Special issue on "Fundamentals of Next Generation CAD/E Systems" on Computer-Aided Design, 44, 2012, pp. 961-986.
- A4. Borgianni Y., Cascini G., Rotini F.: **"Investigating the Patterns of Value-Oriented Innovations in Blue Ocean Strategy"**, International Journal of Innovation Science, Vol. 4 (3), September 2012, pp.123-142.
- A5. Cascini G.: **"TRIZ-based anticipatory design of future products and processes"**, Journal of Integrated Design & Process Science, 16(3), 2012, pp. 29-63.
- A6. Becattini Y., Borgianni N., Cascini G., Rotini F.: **"About the Introduction of a Dialogue-Based Interaction within CAD Systems"**, Computer-Aided Design and Applications, 10(3), 2013, pp. 499-514.
- A7. Becattini Y., Cascini G.: **"Mapping causal relationships and conflicts among design parameters and system requirements"**, Computer-Aided Design and Applications, 10(4), 2013, pp. 643-662.
- A8. Cascini G., Fantoni G., Montagna F.: **"Situating Needs and Requirements in the FBS framework"**, Design Studies, 34, 2013, pp. 636-662.
- A9. Becattini N., Borgianni Y., Cascini G., Rotini F.: **"A TRIZ-based CAI Framework to guide Engineering Students towards a Broad-spectrum Investigation of Inventive Technical Problems"**, International Journal of Engineering Education, 29(2), 2013, pp. 318-333.
- A10. Borgianni Y., Cascini G., Pucillo F., Rotini F.: **"Supporting Product Design by Anticipating the Success Chances of New Value Profiles"**, Computers in Industry, 64(4), 2013, pp. 421-435.
- A11. Cardillo A., Cascini G., Frillici F.S., Rotini F.: **"Multi-objective topology optimization through GA-based hybridization of partial solutions"**, Engineering with Computers, 29(3), 2013, pp.287-306
- A12. Becattini Y., Borgianni N., Cascini G., Rotini F.: **"Question/answer techniques within CAD environments: An Investigation about the most Effective Interfaces"**, Computer-Aided Design and Applications, 10(6), 2013, pp. 905-917.
- A13. Pucillo F., Cascini G.: **"A framework for user experience, needs and affordances"**, Design Studies, 35, 2014, pp.160-179.
- A14. Nikulin C., Graziosi S., Cascini G. and Stegmaier R.: **"Integrated model for technology assessment and expected evolution: a case study in the Chilean mining industry"**, Journal of Integrated Design & Process Science, 17(4), 2013, pp. 53-80.

- A15. Borgianni Y., Cascini G., Rotini F.: **“Business Process Reengineering driven by customer value: a support for undertaking decisions under uncertainty conditions”**, Computers in Industry, 68, 2015, pp. 132-147.
- A16. Pucillo F., Becattini N., Cascini G.: **“Needs and Experience Affordances: a communication perspective”**, Design Issues, 32(2), 2016, 3-18.
- A17. D’Anna W., Cascini G.: **“Adding Quality of Life to Design for Eco-Efficiency”**, Journal of Cleaner Production, 112(4), 2016, pp. 3211-3221.
- A18. Cantamessa M., Montagna F., Cascini G.: **“Design for Innovation – a methodology to engineer the innovation diffusion into the development process”**, Computers in Industry, 76, 2016, pp. 46-57.
- A19. Bacciotti D., Borgianni Y., Cascini G., Rotini F.: **“The Product Planning within engineering design: an investigation to infer research priorities”**, Research in Engineering Design, 2016.

Supervisor of PhD Theses

PhD Thesis at the University of Florence:

- Davide Russo: “Dalla multidisciplinarietà degli ingegneri del Rinascimento alla gestione della complessità nei processi di innovazione e forecasting tecnologico”, (from multi-disciplinarity of Renaissance Engineers to the management of complexity within innovation and technological forecasting processes”; Supervisors: Prof. Paolo Rissone, Dr. Gaetano Cascini, Dr. Romano Nanni (2004-2006). Awarded as the best PhD Thesis in 2007 at Bernardo Nobile Prize of Consorzio per l’AREA di Ricerca Scientifica e Tecnologica di Trieste.
- Federico Rotini: “Re-engineering of Products and Processes through a value oriented approach”, Supervisor: Prof. Gaetano Cascini, 2008-2010.

PhD Thesis at Politecnico di Milano:

- Filippo Silipigni: “Approccio sistematico alla definizione di nuovi mercati per tecnologie e processi esistenti” (A systematic approach to the identification of new markets for existing technologies and processes), Supervisor: Prof. Gaetano Cascini, 2008-2010.
- Walter D’Anna: “Channeling resources for Innovation in Sustainable Design”, Supervisor: Prof. Gaetano Cascini, 2009-2013.
- Niccolo Becattini: “Requirements Identification and Characterization in Innovation Processes”, Supervisor: Prof. Gaetano Cascini, 2010-2013.
- Alessandro Baldussu: “A problem solving methodology for the development of Bio-Inspired Products. Systematic use of Natural Design Principles for designers without Biological Knowledge”, Supervisor: Prof. Gaetano Cascini, 2009-2012.
- Marco Citro: “The hedgehog shape memory alloys based shock absorber”, Supervisor: Prof. Gaetano Cascini, 2012-2015.
- Francesco Pucillo: “A methodology for affording user experiences”, Supervisor: Prof. Gaetano Cascini, 2012-2015.
- Christopher Nikulin Chandia: “A Method for Forecasting Design Requirements Based on Experts’ Knowledge and Logistic Growth Model”, Supervisor: Prof. Gaetano Cascini, 2012-2015.
- Edoardo Filippo Colombo: “Open innovation meets changeability: strategic design analyses for customizable cyber-physical industry platforms”, Supervisor: Prof. Gaetano Cascini, 2013-2016.

Milan, April 16th, 2016