



## Europass Curriculum Vitae



### Personal information

Name / Surname **Vitali, Monica**  
 Address DEIB, Politecnico di Milano, via Giuseppe Ponzio 34/5, 20133 Milano (MI), Italy  
 Telephone  
 Personal Email  
 Nationality  
 ORCID <https://orcid.org/0000-0002-5258-1893>

### Academic Positions

Dates Since March 2020  
 Occupation or position held Assistant Professor  
 Name and address of employer Politecnico di Milano, ITALY

Dates Since February 2020  
 Occupation or position held Visiting Researcher  
 Name and address of employer Umeå University, SWEDEN

Dates From April 2019 to January 2020  
 Occupation or position held Senior Lecturer (Associate Professor)  
 Name and address of employer Umeå University, SWEDEN

Dates From January 2014 to February 2020  
 Occupation or position held Research Fellow  
 Name and address of employer Politecnico di Milano, ITALY

### Education and training

Dates From September 2012 to February 2013  
 Title of qualification awarded Visiting Student at the Computer Science and Artificial Intelligence Laboratory at MIT  
 Organization Massachusetts Institute of Technology

Dates From January 2011 to December 2013  
 Title of qualification awarded Ph.D. in Information Technology  
 Organization Politecnico di Milano

Thesis Title	“Measuring and Improving Energy Efficiency of a Data Center in a Self-Adaptive Con
Dates	From October 2006 to April 2009
Title of qualification awarded	Master of Science in Computer Engineering (First-Class Honours)
Organization	Università degli studi di Palermo
Thesis Title	“Study of an Agent Model based on the genetic metaphor”
Dates	From September 2003 to October 2006
Title of qualification awarded	Bachelor of Science in Computer Engineering (First-Class Honours)
Thesis Title	“Genetic Programming in Multi-Agent Systems: an Application”
Organization	Università degli studi di Palermo

## Fellowships and Awards

2019	C. M. Lericci Fellowship, joint research between Italy and Sweden as a visiting research
2012	Progetto Roberto Rocca Fellowship, visiting Ph.D. Candidate, CSAIL, Massachusetts Institute of Technology (MIT), Cambridge, USA

## Teaching

2021/2022 to 2022/2023	Lecturer, INFORMATICA, Politecnico di Milano, Italy
2019/2020 to 2022/2023	Lecturer, DIGITAL TECHNOLOGIES, Politecnico di Milano, Italy
2019/2020	Lecturer, CLOUD COMPUTING, Umeå University, Sweden
2019/2020	Lecturer, ADVANCED DISTRIBUTED SYSTEMS, Umeå University, Sweden
2017/2018 to 2018/2019	Lecturer, INFORMATION SYSTEMS, Politecnico di Milano, Italy
2014/2015 to 2018/2019	Lecturer, INFORMATION SYSTEMS, Politecnico di Milano (Como), Italy

## Participation in International Research Projects

2022-now	TEADAL, Trustworthy, Energy-Aware federated DATA Lakes along the computing continuum, Horizon EU European Project
2022-now	CS-AWARE-NEXT, Dynamic cybersecurity management for organisation and local/regional networks based on awareness and collaboration, Horizon EU European Project
2020-2023	CROWD4SDG, Citizen Science for Monitoring Climate Impacts and Achieving Climate Resilience, H2020 European Project
2017-2019	DITAS, Data-intensive application Improvement involving data and computation in mixed cloud/fog environments, H2020 European Project
2016-2017	EU-BRA BigSEA, Europe-Collaboration of BIG Data Scientific Research through Cloud-Centric Applications, H2020 European Project
2012-2014	Eco2Clouds, Experimental Awareness of CO2 in Federated Cloud Sourcing, 7th Framework European Project
2010-2012	GAMES, Green Active Management of Energy in IT Service centers, 7th Framework European Project

2009-2010	HUMANOBSS: Humanoids that learn Socio-Communicative Skills by Observation, Framework European Project
<b>Organisation of Scientific Meetings</b>	
2023	<b>General chair</b> of the IEEE Big Data Services Conference (BDS), Athens, Greece
	<b>Sustainability Chair</b> of Int. Conference on Advanced Information Systems Engineering (CAISE), Zaragoza, Spain
2022	<b>Program chair</b> of the IEEE Big Data Services Conference (BDS), Fremont, CA, USA
2021	<b>Program chair</b> of the IEEE Joint Cloud Conference (JCC)
	<b>Doctoral Symposium Chair</b> of the of the IEEE Conference on Cloud Engineering (IC2E), San Francisco, CA, USA
	<b>Chair</b> of the InWorkshop on Next Generation Information Systems (NeGIS2021), CAISE'21, June 29 2021, Melbourne, Australia
2020	<b>Chair</b> of the InWorkshop on Next Generation Information Systems (NeGIS2020), CAISE'20, June 09 2020, Grenoble, France
2016	<b>Chair</b> of the InWorkshop on Energy-awareness and Big Data Management in Information Systems (EnBIS2016), at CAISE'16, June 14 2016, Ljubljana, Slovenia

**Reviewing Activities**

**Leading Guest Editor** of the Special Issue on Co-design Data and Computation Management Fog Computing for the Future Generation Computer Systems Journal (FGCS) (2019-2021)

**PC Member** of 20+ international conferences including WWW, ICDCS, CAISE, ICSSOC, and RCIS.

**Reviewer** of 15+ international journals including FGCS, IEEE TSC, IEEE TNSM, CO, IEEE TCC, ACM TWEB, JPDC, and ACM TAAS

**Scientific Publications**

Complete list of publications:  
<https://www.scopus.com/authid/detail.uri?authorId=42662409700>

**Top Relevant Publications**

Monica Vitali: Towards greener applications enabling sustainable-aware cloud native applications design. *International Conference on Advanced Information Systems Engineering*, pages 93–108. Springer, 2022

Carlo A. Bono, Cinzia Cappiello, Barbara Pernici, Edoardo Ramalli, and Monica Vitali: Pipeline design for data preparation for social media analysis. *Journal of Data and Information Quality*, pages 1–15, 2023

Giulia Mangiaracina, Pierluigi Pappalardo, Mattia Salnitri, and Monica Vitali: Efficient Data as a Service in Fog Computing: an Adaptive Multi-agent Based Approach. *Transactions on Cloud Computing* (IEEE TCC), 0(0):1–18, 2022

Sandro Fiore, Donatello Elia, Carlos Pires, Demetrio Mestre, Cinzia Cappiello, Monica Vitali, Nazareno Andrade, Marciso Braz, Daniele Lezzi, Regina Moraes, Tania Basso, Nadia Kozievitch, Keiko Fonseca, Nuno Antunes, Marco Vieira, Cosimo Palazzo, Ignatius A. Blanquer, Wagner Meira, and Giovanni A. Di Stefano. An integrated big and fast data analytics platform for smart urban transportation management. *IEEE Access*, pages 1–26, 2019. Impact Factor: 4.098, SJR index: 0.609

Edoardo Fadda, Pierluigi Plebani, and Monica Vitali. Context-aware Optimal Deployment for Applications based on Microservices. *IEEE Transactions on Services Computing (IEEE TSC)*, pages 1–15, 2019. Impact Factor: 4.418, SJR index: 0.870

Daniilo Ardagna, Cinzia Cappiello, Walter Samá, and Monica Vitali. Context-aware Data Quality Assessment for Big Data. *Data Generation Computer Systems (FGCS)*, 89:548–562, 2016. Impact Factor: 4.639, SJR index: 1.151

Usman Wajid, Cinzia Cappiello, Pierluigi Plebani, Barbara Pernici, Nikilay Mehandjiev, Monica Vitali, Michael Gehger, Kostas Kavoussanakis, David Margery, David Garcia Perez, and Pedro Sampaio. On Achieving Energy Efficiency and Reducing CO2 Footprint in Cloud Computing. *IEEE Transactions on Cloud Computing (IEEE TCC)*, 4(2):138 – 151, 2015. Impact Factor: 7.928, SJR index: 1.186

Cinzia Cappiello, Nguyen Thao Ho, Barbara Pernici, Pierluigi Plebani, and Monica Vitali. CO2-aware Adaptation Strategies for Cloud Applications. *IEEE Transactions on Cloud Computing (IEEE TCC)*, 4(2):152–165, 2015. Impact Factor: 7.928, SJR index: 1.186

Monica Vitali, Barbara Pernici, and Una-May O’Reilly. Realizing a goal-oriented model for energy efficient adaptive applications in data centers. *Information Sciences*, 319:170, 2015. Impact Factor: 4.305, SJR index: 2.513

Monica Vitali and Barbara Pernici. A Survey on Energy Efficiency in Information Systems. *International Journal of Cooperative Information Systems (IJCIS)*, 23(03), 2014. SJR index: 0.256

12/05/2023