

PERSONAL INFORMATION



Marco Picone, Ph.D.

Dipartimento di Scienze e Metodi dell'Ingegneria (DISMI)
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Gender M | Date of Birth 07/09/1984 | Nationality Italian

PROFESSIONAL PROFILE

Marco Picone is an Associate Professor at the University of Modena and Reggio Emilia working in the Distributed and Pervasive Intelligence (DIPI) Group at the Department of Sciences and Methods for Engineering (DISMI). He received the Ph.D. in Information Technology and the M.Sc. (cum Laude) in Computer Engineering from the University of Parma and he has also been a research visitor in the NetOS group at the Computer Laboratory, University of Cambridge (United Kingdom). He published several research papers and participated in many editorial activities for international journals, conferences and events. His research interests are mainly focus on Distributed Systems, Internet of Things, Edge/Fog Computing and Digital Twins. He also received the national qualification for Associate Professor from the Italian Ministry of Education, University and Research (MIUR) in November 2020 (Abilitazione Scientifica Nazionale II Fascia, Settore 09/H1).

WORKING EXPERIENCE

- (2024 -) **Associate Professor (Computer Engineering)**
Dipartimento di Scienze e Metodi dell'Ingegneria (DISMI), Università di Modena e Reggio Emilia
- (2021 - 2024) **Assistant Professor (Computer Engineering)**
Dipartimento di Scienze e Metodi dell'Ingegneria (DISMI), Università di Modena e Reggio Emilia
- (2020 - 2021) **Postdoctoral Research Associate (Computer Engineering)**
Dipartimento di Scienze e Metodi dell'Ingegneria (DISMI), Università di Modena e Reggio Emilia
- (2020 - 2021) **Adjunct Professor - Università degli Studi di Modena e Reggio Emilia**
Dipartimento di Ingegneria Enzo Ferrari (DIEF) dell'Università degli Studi di Modena e Reggio Emilia.
- (2016 - 2020) **Co-Founder e Director of Engineering**
Caligoo S.r.l
- (2013 - 2021) **Adjunct Professor - Università degli Studi di Parma**
'Università degli Studi di Parma.
- (2015 - 2017) **R&D Engineer**
Guglielmo Srl, Via Don Minzoni, 112 – 42043 – Taneto di Gattatico, Reggio Emilia, ITALIA
- (2012 - 2015) **Postdoctoral Research Associate (Computer Science) - Università degli Studi di Parma**
Computer Science - University of Parma

(2011) Visiting Researcher - Computer Laboratory, University Of Cambridge

Visiting Researcher at the Computer Laboratory, University Of Cambridge, United Kingdom - <http://www.cl.cam.ac.uk/>

EDUCATION

(2009-2011) Ph.D. in Computer Engineering - Information Technologies

Università degli Studi di Parma, Italy

(2006-2008) Master Degree in Computer Engineering

110/110 cum laude

Università degli Studi di Parma, Italy

(2003-2006) Bachelor Degree in Computer Engineering

105/110

Università degli Studi di Parma, Italy

MAIN ACADEMIC TEACHING ACTIVITIES

(2023 -) Distributed and Internet of Things Software Architectures - Università degli Studi di Modena e Reggio Emilia

Digital Infrastructure Curriculum, Master Degree Course: Digital Automation Engineering (D.M.270/04), Department of Engineering Sciences and Methods, University of Modena and Reggio Emilia

(2021 -) Intelligent Internet of Things - Università degli Studi di Modena e Reggio Emilia

Degree Course: Computer Engineering (D.M.270/04), Department of Engineering "Enzo Ferrari", University of Modena and Reggio Emilia

(2020 - 2021) Intelligent Internet of Things - Università degli Studi di Modena e Reggio Emilia

Degree Course: Computer Engineering (D.M.270/04), Department of Engineering "Enzo Ferrari", University of Modena and Reggio Emilia

(2013-2020) Mobile Development - Università degli Studi di Parma

Mobile Development Course, University of Parma, Italy.

(2019) Ph.D. Course - "Edge Computing & Microservices for the Next Generation of Internet of Things Architectures" - University of Parma

Ph.D. Course in Information Technologies, University of Parma.

RESEARCH PROJECTS PRINCIPAL INVESTIGATOR

(2025-2027) Principal Investigator Research Project "STF 685 ESTIMED: Enabling Standardized IoT deployments in MEC Environments for advanced systems (OneM2M & SmartM2M)", ETSI (European Telecommunications Standards

Institute), Università di Modena e Reggio Emilia

Research project between ETSI (European Telecommunications Standards Institute) and the University of Modena and Reggio Emilia

(2024-2025)

Principal Investigator Research Project "Industrial Internet of Things and Data Visualization"

Research project between a private company and the University of Modena and Reggio Emilia

(2023-2025)

Principal Investigator (PI) - PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022

PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022. Prot. 20223N7WCJ. Progetto: TWINKLE - digital TWIN continuum: a Key enabler for pervasive cyber-physical Environments. 24 Mesi

(2023-2025)

Substitute Principal Investigator & Unit Coordinator - Progetti di Ricerca di Rilevante Interesse Nazionale (PRIN)-PNRR 2022

PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022 PNRR. Prot. P20225KTR4. Progetto "DATRUST - Connecting the physical and Digital worlds through TRUSTworthy data-flows", 24 mesi.

(2023-2025)

Principal Investigator (PI) - Sustainable and Orchestrated Digital Twin Ecosystem for Human-Centric Industry 5.0, FAR (Fondo di Ateneo per la Ricerca) 2023 - Progetti Interdisciplinari - University of Modena and Reggio Emilia

FAR (Fondo di Ateneo per la Ricerca) 2023 - Progetti Interdisciplinari - University of Modena and Reggio Emilia, Progetto "Sustainable and Orchestrated Digital Twin Ecosystem for Human-Centric Industry 5.0". 18 Mesi

(2023)

ETSI STF-628 Digital Twin Standardization Opportunities, ETSI (European Telecommunications Standards Institute), Università di Modena e Reggio Emilia

Research project between ETSI (European Telecommunications Standards Institute) and the University of Modena and Reggio Emilia

(2023)

Design and Development of an Internet of Things Software Architecture for Fuel Management System

Research project between a private company and the University of Modena and Reggio Emilia

(2022)

Design and Development of a Software Library for the Analysis of Geographic Data

Research project between a private company and the University of Modena and Reggio Emilia

(2020)

Study and Evaluation of Software Architectures and Technologies for the design of Multi-access Edge Computing (MEC) network combining 5G and WiFi

Research project between a private company and the University of Modena and Reggio Emilia

(2015)

Android Image Processing for Food Intelligent Analysis

Research project between a private company, University of Parma and CNIT Parma Unit

RESEARCH PROJECT PARTICIPATION

- (2023-2026) **EcoMobility: For A Sustainable Society With Intelligent Mobility Solutions, European Project - HORIZON-KDT-JU-2022-2-RIA**
EcoMobility: For A Sustainable Society With Intelligent Mobility Solutions, European Project - HORIZON-KDT-JU-2022-2-RIA, European Project - HORIZON-KDT-JU-2022-2-RIA - Project Id: 101112306, 36 Mesi. <https://www.ecomobility-project.eu/>
- (2020-2021) **PolisEye - POR FESR Emilia Romagna 2014-2020**
POLIcy Support systEm for smart citY data governancE. Research Team, University of Modena and Reggio Emilia.
- (2014-2015) **Design and Implementation of an IoT Hub**
Università degli Studi di Parma
- (2014-2015) **Design and Implementation of IoT/Cloud Communication Systems**
Università degli Studi di Parma.
- (2012-2015) **Design of Efficient Watermarked Broadcasting Algorithms**
Università degli Studi di Parma
- (2013-2014) **Design and implementation of applications for multi-interface mobile terminals for advanced wireless communications with cloud architectures.**
Università degli Studi di Parma
- (2009-2011) **European Project NeoMark (EC-FP7-IST)**
European Project - NeoMark (EC-FP7-IST)

PROFESSIONAL ACTIVITIES

OpenSource Projects

- (2020-) WLD T Digital Twin Library: (<https://github.com/wldt>).
- (2020-2021) OpenNESS-4-Java: (<https://github.com/openness-4-java/>).
- (2013-2015) CoSIP Project
- (2013-2015) Voilà Project
- (2010-2015) Sip2Peer Project
- (2008-2010) PeerDroid Project

(2012-) **Invited Talks, Keynote, Lectures**

- [7] 2022 - Invited Talk - M. Picone - "Internet of Things & Digital Twins: Just a Buzzword or a Challenging Opportunity?", ETSI IoT Week 2022, October 13, 2022
- [6] 2021 - Invited Lecture - M. Picone - "Intelligent Cyber-Physical IoT Architectures" Department of Electrical Engineering and Computer Science, Syracuse University, November 30, 2021
- [5] 2021 - PerDL IEEE PerCom Workshop - "Intelligent IoT Architectures to Support Distributed Cognitive Applications". PerDL: 1st International Workshop on Deep Learning in Pervasive Computing 2021. Colocated with IEEE PerCom 2021.
- [4] 2019 - "Casi applicativi e deployment di sistemi IoT" - Internet of Things: come rendere la tua azienda smart grazie ai dati. Camera di Commercio di Reggio Emilia, Italia. 11 Luglio 2019.

- [3] 2016 - B-App Expo - "Mobile Computing & Internet of Things: Heterogeneity, Standards and Integration".
[2] 2014 - Droidcon Italy 2014 - "The Android platform in the era of Internet of Things".
[1] 2012 - InfQ Workshop 2012 - "Discrete Event Simulation of Complex Systems with DEUS"

EDITORIAL ACTIVITIES

(2013 -)

Workshop & Conference Organization

- [2025] Workshop Digital Twins Ecosystems and Applications (DIGITA 2025), In conjunction with the 23rd IEEE International Conference on Pervasive Computing and Communications (PerCom 2025), Washington DC, 17-21 March, 2025.
[2024] "2nd Workshop on AI for Digital Twins and Cyber-Physical Applications (AI4DT&CP)" - Co-Located with IJCAI 2024 the 33rd International Joint Conference on Artificial Intelligence, Jeju 03.08.24 - 09.08.
[2023] "1st Workshop on AI for Digital Twins and Cyber-Physical Applications (AI4DT&CP)" - Co-Located Co-Located with IJCAI 2023 the 32nd International Joint Conference on Artificial Intelligence, August 19th 2023, Macao, S.A.R
[2023] 2nd International Workshop on Massive Digital Twins for the Computer-Networks Evolution (TwinNets) Co-Located with IEEE WoWMoM 2023.
[2022] IEEE World Forum on Internet of Things Special Session - Pervasive Digital Twins in the Era of Web of Things (DT-WoT22), Special Session of the 8th IEEE World Forum on Internet of Things (Virtual Event).
[2022] 1st International Workshop on Massive Digital Twins for the Computer-Networks Evolution (TwinNets). Co-Located with IEEE WoWMoM 2022.
[2022] 1st International Workshop on Internet of Things Pervasive Real-World Deployments (IoT-PROD) Co-Located with IEEE PerCom 2022.
[2021] 5th International Workshop on Mobile and Pervasive Internet of Things (PerIoT). OrganizerChair Co-Located with IEEE PerCom 2021.
[2019] 3rd International Workshop on Location-based Services and Applications in Ubiquitous Computing (LSAUC). Co-Located with HPCS 2019.
[2015] 1st International Workshop on IoT challenges in Mobile and Industrial Systems (IoT-Sys). Co-Located with MobiSys 2015
[2013, 2014] Internet of Things and Smart Cities Ph.D. School 2014, Lerici (SP), Italy, September 8th - 13th, 2014

(2021-)

Chair & Committee

- [2022] 42nd IEEE International Conference on Distributed Computing Systems (ICDCS), Session Chair, Session 2B (IoT Applications and Security, IoT), Jul 10, 2022 - Jul 13, 2022, Bologna, Italy
[2022] IEEE Global Conference on Artificial Intelligence & Internet of Things (2022 IEEE GCAIoT) Track Chair, Track IoT Electronics and Signal Processing, 19-21 December 2022, Alamein International University, Egypt
[2022] PerCom Best Demo Award - Award Committee, Committee, Co-Located with IEEE PerCom 2022

(2019-)

Guest Editor

- [2022/2023] Elsevier Computer Communications (ISSN: 0140-3664) - Special issue on "Digital Twins for the Computer-Networks Evolution"
[2019/2020] Elsevier Pervasive and Mobile Computing Journal (ISSN: 1574-1192) - Special Issue "Location Based Services and Applications in the era of Internet of Things"
[2018/2019] MDPI Sensors Journal (ISSN 1424-8220) - Special Issue "Mobile Sensing: Platforms, Technologies and Challenges"
[2019/2020] MDPI Sensors Journal (ISSN 1424-8220) - Special Issue "Blockchain Security and Privacy for the Internet of Things"
[2019/2020] MDPI Sensors Journal (ISSN 1424-8220) - Special Issue "Cloud & Edge Computing for the Next Generation of Internet of Things Applications"
[2019/2020] MDPI Journal of Sensor and Actuator Networks (ISSN 2224-2708) - Special Issue "Smart Objects in the Internet of Things: From Sensor to Data Processing"
[2019/2020] MDPI - Internet of Things Journal (ISSN: 2624-831X) - Special Issue "Industrial IoT as IT and OT Convergence: Challenges and Opportunities"

(2016-)

Editorial Boards & Associate Editor

[2024-now] Associate Editor - IEEE IoT Journal - ISSN 23274662
[2020-now] Editorial Board - MDPI Sensors Journal ISSN 1424-8220
[2020-now] Editorial Board - MDPI Network Journal ISSN 2673-8732
[2020-now] Editorial Board - MDPI Internet of Things (IoT) Journal ISSN 2624-831X
[2020-now] Associated Editor of Mobile and Ubiquitous Computing Frontiers in Computer Science
[2016-now] Academic Editors - Hindawi - John Wiley & Sons, Inc. Wireless Communications and Mobile Computing (Since 2016) (ISSN 1530-8669)
[2016-now] Academic Editors - Hindawi - John Wiley & Sons, Inc. Mobile Information Systems (Since 2018) (ISSN 1574-017X)