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Personal information

Name / Surname

Mauro, Marinoni

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Home page

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Nationality

Italian

Date of birth

15 November 1977

Gender

Male



Occupational Field

Information and Communication Technology (ICT)

Work Experience

Dates

May 2021 - Current

Occupation or position held

Technical Administrative Staff: Officials Area, Scientific-Technological Professional Sector

Main activities and responsibilities

Supervision and coordination of activities in research and technology transfer projects. Safety officer for the ReTiS laboratory

Name and address of employer

Scuola Superiore Sant'Anna - Piazza Martiri della Libertà, 33 - 56127 Pisa - Italy

Type of business or sector

Research Organization - University

Dates

October 2020 - April 2021

Occupation or position held

ICT Research Consultant

Main activities and responsibilities

Supervision and coordination of development and testing activities of operating systems for critical activities in the railway sector. Participation in a senior role in research activities on innovative methodologies for robust and reliable localization for critical activities in the railway sector.

Name and address of employer

Scuola Superiore Sant'Anna - Piazza Martiri della Libertà, 33 - 56127 Pisa - Italy

Type of business or sector

Research Organization - University

Dates

September 2009 - August 2020

Occupation or position held

Assistant Professor

Main activities and responsibilities

From July 2012 to May 2016: Leader of the "Resource Management" area at the ReTiS Laboratory. Since 2013: Committee member of the Graduate Programme in Computer Science and Engineering and member of the Scientific board of the "Emerging Digital Technologies" Ph.D.

Name and address of employer

Scuola Superiore Sant'Anna - Piazza Martiri della Libertà, 33 - 56127 Pisa - Italy

Type of business or sector

Research Organization - University

Dates

April 2007 - August 2009

Occupation or position held

Postdoctoral researcher

Main activities and responsibilities

Analysis and development of power-aware scheduling algorithms and energy-management kernel mechanisms for real-time embedded systems.

Name and address of employer

TeCIP - Scuola Superiore Sant'Anna - via Moruzzi, 1 - 56127 Pisa

Type of business or sector

Research Organization - University

Dates

November 2006 - April 2007

Occupation or position held

Software development for microcontrollers

Main activities and responsibilities

Name and address of employer
Type of business or sector

Dates

Occupation or position held

Main activities and responsibilities

Name and address of employer
Type of business or sector

Education and Training

Dates

Title of qualification awarded

Name and type of organization providing education and training

Level in national or international classification

Dates

Title of qualification awarded

Finale grade

Name and type of organization providing education and training

Level in national or international classification

Dates

Title of qualification awarded

Finale grade

Name and type of organization providing education and training

Level in national or international classification

Personal skills and competences

Mother tongue

*Self-assessment
European level^(*)*

English

Qualifications

Completion of the porting of the Erika Enterprise OSEK/VDX kernel for Microchip 16-bit microcontrollers and development of the Board Support Package for the Flex board.

Evidence s.r.l. - Via Carducci 64/A - 56010 S.Giuliano Terme (PI)
Real-time embedded systems

June 2003 - October 2003

Development of an embedded system

Hardware e Software development of an hexapod.

DIS - Università degli studi di Pavia - Via Ferrata, 1 - 27100 Pavia
Research Organization - University

November 2003 - October 2006

Ph.D in Computer Engineering

Università degli Studi di Pavia

Doctor of Philosophy (ISCED Level 8 - Field 061)

September 1996 - July 2003

Master degree in Computer Engineering (B.Sc. and M.Sc.)

110/110

Università degli Studi di Pavia

Master degree (ISCED Level 7 - Field 061)

September 1991 - July 1996

Diploma di Perito Industriale Capotecnico in Informatica

56/60

Istituto Tecnico Industriale Statale "G. Cardano"- Pavia

Technical High School (ISCED Level 3)

Italian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	B2	Independent user	C1	Proficient user

^(*) Common European Framework of Reference (CEF) level

Obtained the scientific qualification as Associate Professor (Italian National Scientific Qualification 2018) in Computer Engineering (Sector 09/H1) in September 2019.

Received the Italian qualification to practice as an Professional Engineer in 2004.

Organisational skills and competencies

Participation in various regional, national, and European research projects dealing with both the scientific part and the technical documentation for reporting. In particular:

- *NANCY*: European project founded by the Horizon Europe Programme to develop a secure and intelligent architecture for the beyond the fifth generation (B5G) wireless network.
- *RETINA*: (*Local coordinator*) European project founded by the Eurostars Programme to develop a software toolset that provides time-critical, predictable, and reliable communication for automotive applications in heterogeneous systems and networks.
- *JUNIPER*: (*Local coordinator*) European project funded by the Seventh Framework Programme (FP7) focused on increasing performances and enforcing timing Constraints for applications dealing with large data streams (BigData).
- *PREDATOR*: European project funded by the Seventh Framework Programme (FP7) with the aim of improving the predictability of real-time systems with the main focus on the avionic and automotive industries.
- *ASCOLTA*: Project funded by the Tuscany Region for the creation of a suitable infrastructure aimed at remote monitoring of vital parameters in patients suffering from heart failure.

Project Manager in contracts with national and international companies for technology transfer activities, such as:

- *TIM*: Multi-year research project focused on the development of embedded technologies for the remote rehabilitation of patients.
- *HP Sound*: (*Scientific Director*) Two technology transfer projects aimed at creating distributed embedded audio systems with low latency.
- *Sirio Panel* (*Finmeccanica Group*): Development of innovative technologies for the communication of non-critical controls and implementations in civil avionics fields.
- *Ericsson Sweden*: Study of innovative open-source technologies for virtualizing services within innovative communication networks.
- *Hitachi Rail STS Spa*: Development of innovative localization techniques for ERTMS level 2 and 3 infrastructures (follow-up of a previous project with Ansaldo where I held the same roles).

Currently involved in technical and project coordination activities in the development of innovative solutions for safety-critical applications in the railway context:

- *Rete Ferroviaria Italiana*: Design and implementation of modern real-time operating systems for critical activities in the railway sector.

Managerial skills and competencies

Co-founded in February 2013 BioCare Provider s.r.l., and remained partner till its acquisition by Camlin Group Ltd. in February 2018. The company uses the most modern web and mobile technologies to improve adherence to therapies, and it is accredited as a spin-off both at the Scuola Superiore Sant'Anna and the University of Pisa.

Teaching experience

Ten years of experience acting as a supervisor to several Ph.D., master, and graduate students.

A.Y. 2016-2017, A.Y. 2017-2018, A.Y. 2018-2019, and A.Y. 2019-2020: Project course of *Real-Time Software Development* in the Emerging Digital Technologies Ph.D at the Scuola Superiore Sant'Anna of Pisa.

A.Y. 2016-2017, A.Y. 2017-2018, and A.Y. 2018-2019: Module of the course of *Embedded Systems* within the Master of Science in Embedded Systems at the University of Pisa.

A.Y. 2015-2016, A.Y. 2016-2017, A.Y. 2017-2018, and A.Y. 2018-2019: Module of the course of *Component-based System Design* within the Master of Science in Embedded Systems at the University of Pisa.

A.Y. 2013-2014, A.Y. 2014-2015, and A.Y. 2015-2016: Module of the course of *Industrial Applications* within the Master of Science in Embedded Systems at the University of Pisa.

A.Y. 2012-2013, A.Y. 2013-2014, and A.Y. 2014-2015: Course of *Embedded Systems Laboratory* within the Master of Science in Embedded Systems at the University of Pisa.

A.Y. 2010-2011, A.Y. 2011-2012, and A.Y. 2012-2013: Course of *Embedded Systems Laboratory* for Allievi Ordinari and Ph.D. students at the Scuola Superiore Sant'Anna of Pisa.

A.Y. 2010-2011: Support for the course of *Embedded System Design* for Allievi Ordinari and Ph.D. students at the Scuola Superiore Sant'Anna of Pisa.

Participation as a lecturer to the 2 editions of the Master "Smart Solutions – Smart Communities (SSSC)" organized by Scuola Sant'Anna in collaboration with Telecom Italia.

Participation as a lecturer to the Master "Digital Life & Smart Living (SMART)" organized by Scuola Sant'Anna in collaboration with Telecom Italia.

Participated as a lecturer and head of the laboratory at different summer schools organized by the European Network of Excellence ARTIST DESIGN and sponsored by Microchip Technology Inc.

- June 2011: ARTIST Graduate School on RT Kernels for Microcontrollers.
- June 2010: ARTIST Graduate School on RT Kernels for Microcontrollers.
- June 2009 ARTIST Graduate Course on Embedded Control Systems.
- June 2008: Real-Time Kernels for Microcontrollers: Theory and Practice.
- March 2007: Real-Time Microcontroller Systems: OSEK Standard and experiments on microcontroller devices.
- July 2006: First European Laboratory on Real-Time and Control for Embedded Systems

Technical skills and competencies

Participation in the School Committee of the Ph.D. Course in Emerging Digital Technologies of the Sant'Anna School of Advanced Studies in Pisa starting from 2013.

Participation in the *technical program committee (TPC)* of international conferences such as JRWRTC 2011, ETFA 2012, MCSoc 2012, SIES 2014 (WiP chair), RTAS 2015, SIES 2015, SIES 2016, SIES 2017, SIES 2018, RTcMAS 2018, ETFA 2019, WoSoCer 2019, CLOSER 2020, ETFA 2020, WoSoCer 2020, WoSoCer 2021, WoSoCer 2022 e DSD-HSTIEC 2024.

Reviewer for technical journals such as *Real-Time Systems Journal, Journal of the ACM, Journal of Systems Architecture, Journal of Computer and System Sciences, Journal on Emerging and Selected Topics in Circuits and Systems, Transactions on Industrial Informatics, Transactions on Cyber-Physical Systems, Transactions on Computers, Transactions on Big Data, Transactions on Embedded Computing Systems, Transactions on Design Automation of Electronic Systems, Computer Networks, Computer Science Review, Journal on Emerging and Selected Topics in Circuits and Systems, Microprocessors and Microsystems, Sustainable Computing, Informatics and Systems e MDPI Sensors.*

Served as a reviewer for project proposals of the The National Fund for Scientific and Technological Development (FONDECYT)

Patent

Brondi Raffaello, Bannò Filippo, Bendinelli Sara, Sernissi Francesca, Castelli Christian, Mancina Antonio, Sartiano Daniele, Mauro Marinoni, *"Dispositivo e procedimento di compliance farmacologica"*, Italian Patent application No.PI2012A000098 (September 20, 2012) and Italian patent N.1414455 (March 10, 2015).

Awards

Finalist of the 2012 edition of the Intel Business Challenge Europe with the spin-off Biocare Provider srl.

Best paper award: Carlo Vitucci, Luca Abeni, Tommaso Cucinotta and Mauro Marinoni, *"The Strategic Role of Inter-Container Communications in RAN Deployment Scenarios"*, Proceedings of the 18th International Conference on Networks (ICN 2019).

Best paper award: Mauro Marinoni, Tommaso Cucinotta, Luca Abeni and Carlo Vitucci, *"Allocation and Control of Computing Resources for Real-time Virtual Network Functions"*, Proceedings of the 17th International Conference on Networks (ICN 2018).

Driving licence

Category B Italian driving licence

Publications

Scientific publications

Publication of more than 70 papers in journals or peer-reviewed conference proceedings with an h-index of 21, computed by Google Scholar.

The Scopus profile has an h-index of 18, including 73 documents with 1315 citations, and is available online at <https://www.scopus.com/authid/detail.uri?authorId=7003668303>.