Curriculum Vitae Europass

Personal information

First name / Surname	Pasquale PACE
Address	Via Moschereto N° 2A – 87012 – Castrovillari (CS)
Telephone	+39 0984 494805
E-mail	p.pace@dimes.unical.it
Nationality	Italian
Date of birth	06/01/1975
Gender	Male
Web site	https://sites.google.com/dimes.unical.it/pasqualepace

Current occupation

Associate Professor at "Department of Computer Engineering, Modeling, Electronics and Systems (DIMES) – UNIVERSITY OF CALABRIA.

Work experience

Date	01-10-2024→ Now
	Associate Professor at "Department of Computer Engineering, Modeling, Electronics and Systems (DIMES) – UNIVERSITY OF CALABRIA.
Date	01-10-2021→ 30-09-2024
	Tenured Assistant Professor at "Department of Computer Engineering, Modeling, Electronics and Systems (DIMES) – UNIVERSITY OF CALABRIA. (art. 24 c.3-b L. 240/10)
Date	01-04-2016→ 31-03-2019
Occupation or position held	Non-tenured Assistant Professor at "Department of Computer Engineering, Modeling, Electronics and Systems (DIMES) – UNIVERSITY OF CALABRIA. (art. 24 c.3-a L. 240/10)
Date	01-11-2012→ 01-11-2015
Occupation or position held	Non-tenured Assistant Professor at "Department of Computer Engineering, Modeling, Electronics and Systems (DIMES) – UNIVERSITY OF CALABRIA. (art. 24 c.3-a L. 240/10)
Date	03-2006 → 10-2012
	Postdoctoral Researcher at the Department of Electronics, Computer and System Sciences (D.E.I.S.) - University of Calabria – ITALY
Date	12-2003 → 11-2005
Occupation or position held	Research fellow within the Department of Electronics, Computer and System Sciences (D.E.I.S.) - University of Calabria – ITALY
Date	01/2001 – 11/2003
Occupation or position held	Professional collaboration with DEIS - UNICAL
Main activities and responsibilities	Design, analysis and performance evaluation of algorithms for connection admission control and protocols for resource management of EuroSkyWay Satellite Communications System.

Political experience

Date	2020 → Now

Municipal Assessor (Second Term) Delegation: Environment, Energy and New Technologies Reconfirmed in the Council led by Mayor Domenico Lo Polito (Mayor Decree no. 22289 of 10/14/2020).
• Coordination of city environmental policies and waste management.
• Promotion of the ecological transition through the use of PNRR funds.
• Development of strategies for energy efficiency and "Smart Cities".

Date | 2015 → 2020

Municipal Assessor (First Term) Delegation: Environment, Energy and New Technologies. He led the department in a crucial phase for the transition and consolidation of the "door-to-door" separate waste collection system.

Main research activities at glance

- Edge and Cloud mobile architectures to support emerging applications
- Internet of Mobile Things: aerial and terrestrial drones coordination and cooperation
- Smartphone-centric systems for data collecting, managing and monitoring
- IoT technologies for Smart Cities and industrial contexts
- IoT Interoperability issues
- IoT security issues
- Wireless sensors and Self-organized networks
- Cognitive networks and Software Defined Radio systems
- Non-Terrestrial Networks integration in 5G
- Advanced wireless multimedia systems
- Enabling Intelligence at the Network Edge
- Networks for Artificial Intelligence (N4AI)

Research activities in the last years

1) Edge and Cloud mobile architectures to support emerging applications - This research line started in 2017 from the proposal of Activity as a Service (Activity-aaService) [R37], a full-fledged cyber–physical framework to support community, on-line and off-line human activity recognition and monitoring in mobility. The framework was designed to address the lack of Cloud-Assisted Body Area Networks platforms and applications supporting monitoring and analysis of human activity for single individuals and communities. Recently the research activity moved towards the edge paradigm to reduce the interaction timing and the huge amount of data coming from Internet of Things (IoT) devices toward the Internet. In this direction, a novel architecture called BodyEdge and well suited for human-centric applications has been developed in the context of the emerging healthcare industry [R31]. It consists of a tiny mobile client module and a performing edge gateway supporting multi-radio and multi-technology communication to collect and locally process data coming from different scenarios; moreover, it also exploits the facilities made available from both private and public cloud platforms to guarantee a high flexibility, robustness, and adaptive service level. Finally, the last work in [R20] proposes a novel simulation-driven platform which supports both Edge and Cloud Computing paradigm to develop innovative Ambient Assisted Living (AAL) services in scenarios of different scales. The developed communication platform flexibly combines Edge, Cloud or Edge/Cloud deployments, supports different communication protocols, and fosters the interoperability with other IoT platforms.
2) Pushing intelligence at the edge of complex networks to support IoT devices – This research line aims to make network devices more intelligent, smart and collaborative in order to learn from the past experience and to promptly react and adapt to new contexts. In particular I started from the paper [R39] in which a combined approach is proposed based on a Neural/Genetic technique and wireless nodes are able to self-organize in a totally distributed way by using only local information. The work envisaged the possibility to exploit, in a synergic way, the Software Defined Radio (SDR) capability and the mobility support for wireless devices to dynamically compute the most suitable modulation scheme and the best position in order to improve both the coverage and connectivity in a specific area. Then we applied reinforcement learning, a prominent method in artificial intelligence, to design an energy-preserving MAC protocol, with the aim to extend the network lifetime of wireless sensor networks (WSNs) also achieving a delicate balance between spectrum and energy efficiency [R30]. More recently we explored ways in which the latest development in artificial intelligence (AI) and particularly machine learning may help address the complex requirements of IoT communications, highlighting the crucial role of predictive communications [R28]. The emerging panorama for cognitive communications is one in which intelligent processes must start at the very edge and need to transfer meta-learned information in a peer-to-peer fashion. Finally, how to build a distributed trust system for cooperative learning in edge computing is a complex and challenging engineering problem that has been investigated through the implementation of a reputation rewards and punishments method in [R21].

3) Integration and collaboration in Industrial IoT networks and smart factories – This research line is mainly focused on solutions aimed at improving both data transmission capacity and energy efficiency in smart factories and workshops environments where a large amount of data is transmitted using different types of networks. In this context, the work in [R35] proposes the integration of two types of networks (wired/wireless fieldbus networks and wireless sensors networks) also exploiting the existence of mobile intelligences as autonomous driving vehicles (AGV), widely used in smart factory contexts, in order to propose an integrated transport scheme for both data and materials. More specifically, data acquired by the sensors can be transferred in the first instance to the nodes using fieldbus technology and then be managed according to different priorities, ensuring that only low priority data, therefore less delay sensitive, can be delivered through smart mobile devices by solving the joint data and materials delivery problem to balance data load on the different integrated networks.
   This embryonic idea of integration is then extended and detailed in depth, both from an algorithmic and simulative point of view, in a subsequent work [R34] in which a hierarchical and mobile communication architecture is developed to support the transmission of data always in smart factories environments. In particular, a coordinated data delivery scheme has been developed in which the autonomous vehicles present inside the factory are able to coordinate the choice of their own designated leader for the distribution of data and material delivery tasks to just neighbors through a special election procedure that considers various factors such as residual energy, the required computational power and the distance from the destination to be reached. Always in the same application context, the study in [R33] proposes a new "task-oriented" solution that allows the generic AGV to be guided by an activity management strategy through collaboration with the industrial network and the support of a new collaborative routing protocol that favors the complete integration of AGVs within the industrial communication network.
   In particular, this protocol called “Collaborative Routing” has been tested and compared with other solutions in order to verify its performance in terms of adaptation to failures and relative repositioning of the nodes, resulting also inexpensive from an implementation point of view. This research line has been carried out thanks to a close international cooperation with the research team at Wuhan University of Technology, China.

4) Internet of Mobile Things: aerial and terrestrial drones coordination and cooperation – This research line is mainly based on the emerging Internet of Mobile Things paradigm in which intelligent objects can also be moved autonomously while remaining controllable and accessible remotely. In this context, an approach was proposed based on the design of a new framework to support management and to encourage collaboration between interconnected intelligent objects such as ground or aerial drones equipped with different types of sensors / actuators and able to move autonomously [C17, C19]. More specifically, the “*AirGround*” framework (http://airground.dimes.unical.it/) allows both the programming and the management of intelligent drones, favoring the autonomous coordination process between a set of such devices in order to carry out a specific mission through the distribution of specific tasks [R40]. Coordination is dynamically supported through the configuration of specific parameters and system conditions such as the residual energy of the drone, the computational power of the required operation and the hardware capabilities available to the individual device. The flexibility and robustness of the developed framework were tested through the implementation of a real testbed and the use of off-the-shelf drones on which *AirGround* was installed. Very recently, this background knowledge has been used to propose a framework that combines a blockchain with a deep recurrent neural network (DRNN) and edge computing for 5G-enabled drone identification and flight mode detection [R19].

5) IoT security issues - This research line starts from the ugly truth that intrinsic vulnerabilities of IoT devices, with limited resources and heterogeneous technologies, together with the lack of specifically designed IoT standards, represent a fertile ground for the expansion of specific cyber threats. In this context, the research activity aims at making order on the IoT security panorama providing a taxonomic analysis from the perspective of the three main key layers of the IoT system model: 1) perception; 2) transportation; and 3) application levels. As a result of the analysis, the most critical issues have been investigated and detailed in the works [R36, C12] with the aim of guiding future research directions. The great interest from the worldwide scientific research community on this survey work, has been testified from the big amount of citations that have made it a “highly cited paper” according to the Web of Science Clarivate Analytics.

6) IoT Interoperability issues – This research line started with the realization that, even the simplest objects will become "smart" because they will be interconnected to other objects to share and collect data from the environments in which they are placed thus paving the way to novel application services, computing and communication scenarios. In this context, "interoperability" among different standards and communication technologies is still a significant challenge that can be addressed by proposing a smartphone-based mobile gateway acting as a flexible and transparent interface between different IoT devices and the Internet [R38]. The presented unified, high-level and extendible software architecture supports opportunistic IoT devices discovery, control and management coupled with data processing, collection and diffusion functionalities. The implemented software architecture for multi-standard and multi-technology interoperation presents a reduced use of hardware resources in front of a relatively high energy consumption value, mostly due to the simultaneously active radio interfaces combined with a small battery capacity, that limits the smartphone lifetime. In the last years, the interoperability issues among different IoT platforms and devices have been deeply investigated within the INTER-IoT European H2020 Project (http://www.inter-iot-project.eu/) by proposing several solutions and adaptation modules presented in the works [B1, C7, C11, C13, C14, C16].

7) Wireless Sensor Networks – This research line is devoted to enhance the performance of wireless sensors networks from different point of views:

   a. Opportunistic approach - the work in [R32] proposes a new opportunistic network framework called WON that introduces WSNs into the opportunistic network by shortening time delay and enhancing delivery ratio in sparse settings. A comprehensive routing mechanism that is able to cover all the message-forwarding activities (i.e., mobile-to-mobile, mobile-to-stationary, stationary-to-mobile and stationary-to-stationary) has been designed coupled with specific storage management and message control schemes to tackle the challenging issues caused by constrained energy and storage space.

   b. Environmental impact - In most cases, wireless sensor networks (WSNs) are deployed in unattended scenarios and are featured by energy sensitivity and low cost, thus making the performance of WSNs prone to the impact of external environment and internal energy. Existing routing protocols attempted to optimize the energy efficiency and routing reliability from the perspective of the network itself and failed to take into consideration the environmental impact from outside, causing them cannot make prompt reactions to the dynamic changes of the environments (e.g., wildfire). Thus, to tackle this issue, the work [R27] proposes an environment-fusion multipath routing protocol (EFMRP) to provide sustainable message forwarding service under harsh environments. In EFMRP, routing decisions are made according to a mixed potential field in terms of depth, residual energy and environment. The basic idea of this approach is to instruct data packets to select routes with the best trade-off among latency, energy conservation and routing survivability. As the environmental field is constructed and updated using the sensing capability of WSN itself, constructed routes can avoid crossing through the danger zones to keep the paths safe.

   c. Cascading Failure - Existing research on cascading failures of wireless sensor networks (WSNs) fails to consider the role of the sink node on network load distribution, and rarely involves how to improve network robustness, so it has obvious limitations. To this end, the work in [R22] presents a sink-oriented cascading model for WSNs developing a memetic algorithm to help WSNs resist cascading failures via topology optimization, in which the local search operator is designed based on a new network balancing metric "sink-oriented betweenness entropy".

This research line has been carried out thanks to a close international cooperation with the research team at Shanghai Maritime University, Shanghai, China.

Education and training

Date	12/2005
Title of qualification awarded	PhD degree in Computer Science Engineering: obtained from University of Calabria (Italy) with a thesis entitled "*Connection Admission Control and routing issues over Multilayered Satellite-Hap Networks supporting DVB-RCS*"
Name and type of organisation providing education and training	University of Calabria - ITALY
Date	12/2000
Title of qualification awarded	Master Degree in Computer Science Engineering: obtained from University of Calabria (Italy), with a thesis entitled "*Performance analysis of Connection Admission Control algorithms for GEO ATM-Satellite Systems with on-board processing*".

Name and type of organisation providing education and training: University of Calabria - ITALY

Personal skills and competences

Mother tongue: Italian

Other language

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Listening			
Inglese	C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C2	Proficient user

(*)Common European Framework of Reference for Languages

In 2009 I obtained the *First Certificate in English (FCE)* from University of Cambridge ESOL Examinations.

Social skills and competences

Strong organizational and interpersonal skills, aptitude for teamwork and problem-solving. Very conducive to teamwork and to compare with other people to draw on new knowledge.
Good management capacity and coordination of research activities acquired in both national and international scientific working contexts.
Excellent teaching skills acquired through the teaching of undergraduate and master's degree at the Faculty of Engineering and professional courses in colleges.

Technical skills and competences

Excellent knowledge of both wireless and wired computer networks, ability to design structured cabling networks simple and complex, in-depth knowledge of different communication network protocols.
Excellent knowledge of computer basic and advanced programming environments such as advanced object-oriented. Excellent knowledge of simulation environments for computer networks such as NS2 and NS3.
Good Knowledge of image and video processing techniques to improve quality in content delivery networks.

Computer skills and competences

Operating Systems: Windows Professional/Server, Linux (Red Hat, Ubuntu),

Programming languages: C/C++, Java, Visual Basic, Python.

Programming environments: JDeveloper, Eclipse, Microsoft Visual SourceSafe, Microsoft Visual Studio .NET

Database: MySQL, Oracle, Microsoft Access.

Web e Application Server: Apache, Apache Tomcat

Miscellaneous: Matlab, Labview, Ns2, Ns3, Mininet, VB Script, Shell Script, Office.

Driving licence: B

University Teaching

Date: 2025-2026

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA SYSTEMS", a master's course in the Electronic Engineering master course at the University of Calabria. (9CFU)

Professor of "LABORATORY OF SMART AND PROGRAMMABLE NETWORKS", a master's course in the Telecommunication Engineering master course at the University of Calabria. (3CFU)

Date: 2024-2025

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA SYSTEMS", a master's course in the Electronic Engineering master course at the University of Calabria. (9CFU)

Professor of "LABORATORY OF SMART AND PROGRAMMABLE NETWORKS", a master's course in the Telecommunication Engineering master course at the University of Calabria. (3CFU)

Date: 2023-2024

Professor of "PROCESSING OF MULTIMEDIA SIGNALS", a master's course in the Electronic Engineering master course at the University of Calabria. (6CFU)

Professor of "MULTIMEDIA SYSTEMS AND NETWORKS", a master's course in the Electronic Engineering master course at the University of Calabria. (3CFU)

Professor of "LABORATORY OF SMART AND PROGRAMMABLE NETWORKS", a master's course in the Telecommunication Engineering master course at the University of Calabria. (3CFU)

Date 2022-2023

Professor of "PROCESSING OF MULTIMEDIA SIGNALS", a master's course in the Electronic Engineering master course at the University of Calabria. (6CFU)

Professor of "MULTIMEDIA SYSTEMS AND NETWORKS", a master's course in the Electronic Engineering master course at the University of Calabria. (3CFU)

Professor of "LABORATORY OF SMART AND PROGRAMMABLE NETWORKS", a master's course in the Telecommunication Engineering master course at the University of Calabria. (3CFU)

Date 2021-2022

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "PROGRAMMABLE NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2020-2021

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "PROGRAMMABLE NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2019-2020

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "TELECOMMUNICATIONS NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2018-2019

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "TELECOMMUNICATIONS NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2017-2018

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "TELECOMMUNICATIONS NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2016-2017

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Professor of "TELECOMMUNICATIONS NETWORKS LABORATORY", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2015 – 2016

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2014 – 2015

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2013 – 2014

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date 2012 – 2013

Professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date | 2011 – 2012

Contract professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)

Date | 2010 - 2011

Contract professor of "DIGITAL SIGNAL PROCESSING AND MULTIMEDIA", a master's course in the Telecommunication Engineering master course at the University of Calabria. (6CFU)
Contract professor of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Computer Engineering degree course at the University of Calabria. (5CFU)

Date | 2009 - 2010

Contract professor of "TELECOMMUNICATIONS", a master's course in the Media Education master course at the University of Calabria. (6CFU)
Contract professor of "COMPUTER SCIENCE" at the Pharmacy Faculty and Engineering Faculty for Introductory Universities Studies at the University of Calabria. (6CFU)
Teaching assistant of "TELECOMMUNICATION NETWORKS", a master's course in the Computer Engineering master course at the University of Calabria. (6CFU)

Date | 2008 - 2009

Contract professor of "COMPUTER SCIENCE" at the Engineering Faculty for Introductory Universities Studies at the University of Calabria. (6CFU)
Teaching assistant of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Computer Engineering degree course at the University of Calabria.
Teaching assistant of "LABORATORY OF TELECOMMUNICATION NETWORKS", a master's course in the Telecommunication Engineering master course at the University of Calabria.

Date | 2007 – 2008
Contract professor of "TELECOMMUNICATION NETWORKS", a master's course in the Computer Engineering master course at the University of Calabria. (6CFU)

Date | 2006 – 2007
Contract professor of "TELECOMMUNICATION NETWORKS", a master's course in the Computer Engineering master course at the University of Calabria. (6CFU)

Date | 2005 – 2006
Contract professor of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Electronic Engineering degree course at the University of Calabria. (5CFU)

Date | 2004 – 2005
Teaching assistant of "TELECOMMUNICATION SYSTEMS", an undergraduate course in the Computer Engineering degree course at the University of Calabria

Date | 2003 – 2004
Teaching assistant of "RADIOMOBILE NETWORKS I", a master's course in the Computer Engineering master course at the University of Calabria.
Teaching assistant of "IP NETWORKS AND INTERNETWORKING", a master's course in the Computer Engineering master course at the University of Calabria
Teaching assistant of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Electronic Engineering degree course at the University of Calabria

Date | 2002 – 2003
Teaching assistant of TELECOMMUNICATION SYSTEMS", an undergraduate course in the Electronic Engineering degree course at the University of Calabria
Teaching assistant of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Computer Engineering degree course at the University of Calabria

Date | 2001 – 2002
Teaching assistant of "BASICS OF TELECOMMUNICATIONS", an undergraduate course in the Electronic Engineering degree course at the University of Calabria.

PhD Programme Committee

Date | 2014 – up to NOW

Member of the PhD Programme Committee in "Information and Communication Technologies" at the DIMES-University of Calabria – (Italy) - Cycles XXX, XXXI, XXXII, XXXIII, XXXIV, XXXV, XXXVI, XXXVII, XXXVIII, XXXIX, XL, XLI.

Date | From 04-12-2015 to 14-12-2015

Research seminars for doctoral students on the following topics:
1) Toward a Self-Organizing Access Network;
2) Smartphones Like Stem Cells: Cooperation and Evolution for Emergency Communication in Post-Disaster Scenarios;
3) A coordination framework for teams of mobile aerial and terrestrial smart objects;
4) Supporting Mobile IoT Interoperability through Smartphone-based Gateways

Professional Teaching in high schools and industries

Date | 04/2010
Project PON 2007 – 2013 - "Contract professor of "COMPUTER NETWORKS I", a course for college students at the Technical High School FERMI - Castrovillari (CS).

Date | 02/2010

Project PON 2007 – 2013 - "Contract professor of "COMPUTER SCIENCE", a course for college students at the Business High School PITAGORA - Castrovillari (CS).

Date | 04/2007

Contract professor of "WIRELESS COMMUNICATION NETWORKS", a Master's course for industrial researchers and technicians, in the framework of PILOT (Piattaforma di Interoperabilità per la LOgistica ed i Trasporti) organized by Etnoteam, Università della Calabria, Università "Mediterranea" di Reggio Calabria and the Italian Ministry for Education, University and Research (MIUR).

Date | 04/2004

Contract professor of "BASICS OF NETWORKS", a course for Teacher Training on Information Technology and Communication at the Business High School "G. Pezzullo"- Cosenza.

Date | 02/2003

Project FSE-POR Calabria 2000-2006 - Contract professor of "BASICS COMPUTER SCIENCE", a course for college students at the Business High School PITAGORA - Castrovillari (CS).

Date | 10/2002

Project I.F.T.S. PON - Contract professor of "INTERRUPT AND PROCESSES ", a course for Technical Specialists in Networking and Routing at Technical High School - Polistena (RC).

International Mobility and Research activities at qualified foreign institutes

Date | 03/2005 – 09/2005

Occupation or position held | Visiting researcher at CCSR (Centre for Communication Systems Research) University of Surrey – Guildford - United Kingdom under the supervision of Prof. Barry Evans, director of CCSR and Prof. Zhili Sun.

I get involved on IST/FP6 MAESTRO (*Mobile Applications & sErvices based on Satellite & Terrestrial inteRwOrking project*) project and I carried out research on Cost and Demand Sensitive models for evaluation of SDMB (Satellite Digital Multimedia Broadcast) service over integrated satellite-terrestrial UMTS networks. The obtained research results have been published in [R59][C48][C50].

Date | 10/2005 – 04/2006

Occupation or position held | Visiting researcher at BWNLab (Broadband & Wireless Networking Laboratory) Georgia Institute for Technology – Atlanta – USA under the supervision of Prof. Ian Akyildiz.

I worked on a new adaptive and responsive transport protocol for Wireless Mesh Networks.
The obtained research results have been published in [C44][B4].

Participation in international and national research projects

Date | 2024-in progress

Project overview and position held	➔ *National Project VOLTA* Project Title: VOLTA - Virtualization and Orchestration of Liquid multi-Tenant network Architectures. Supported by the European Union under the Italian National Recovery and Resilience Plan (NRRP) of NextGenerationEU, partnership on "Telecommunications of the Future" (PE00000001 - program "RESTART") Budget M€ 1.8; Project coordinator: Prof. Marco Martalò, University of Cagliari - Italy; Topics: The VOLTA project deals with defining a network architecture based on Digital Twins (DT) and their management/orchestration at the various levels of the network. This allows to satisfy, in addition to the classic performance requirements (Key Performance Indicator, KPI), the value requirements (Key Value Indicator, KVI) related to the innovative services generated and supported by 6G architectures. The project has been funded as a cascade call of the Italian National Recovery and Resilience Plan (NRRP) of NextGenerationEU, partnership on "Telecommunications of the Future" (PE00000001 - program "RESTART"). Position held: Scientific manager and Principal investigator (PI) of the local research unit at the University of Calabria.
Date	2023-in progress
Project overview and position held	➔ *National Project 5GSec* Project Title: 5GSec - Security in 5G and beyond Budget M€ 1.8; Project coordinator: Prof. Giuseppe Bianchi, University of Rome Torvergata - Italy; Topics: The project will address the security, privacy and availability challenges emerging in the various functional and technological domains of the 5G architecture (air interface, Multi-access Edge Computing, transport infrastructure, virtualized core network functions, management and orchestration), meanwhile covering all the different lifecycle stages (think, build, test, run&update) of the 5G+ technology. The project has been funded within the SERICS framework (PE00000014) under the NRRP MUR program by the EU - NGEU. Position held: Member of the local research unit directed by Prof. Floriano De Rango, University of Calabria.
Date	2016-2019
Project overview and position held	➔ *European project INTER-IoT* Project Title: INTER-IoT- Interoperability of heterogeneous IoT platforms Budget M€ 7,4; Project coordinator: Prof. Carlos Palau, Universitat Politècnica de València; Topics: INTER-IoT aim is to design, implement and test a framework that will allow interoperability among different Internet of Things (IoT) platforms. http://www.inter-iot-project.eu/ INTER-IoT approach will facilitate rapid prototyping of novel IoT applications being executed over integrated IoT platforms across single and multiple application domains, providing all the building blocks needed to achieve interoperability, including a framework, methodology, associated APIs and tools. This will assure that interoperability will be sustained as different products and architectures evolve in the market. Position held: Member of the local research unit directed by Prof. Giancarlo Fortino, University of Calabria.
Date	2012-2014
Project overview and position held	➔ *National projects PON01_03096 – MC3CARE* Project Title: MC3-CARE - Mobile Continuous Connected Comprehensive – Care Budget € 153.207; Project coordinator: Prof. Gianluca Aloi, University of Calabria;

Topics: In the era of mobile society, increasingly based on mobile communication and social networks, the Mobile Health follows the person in his living environment, understood as the work environment, road environment, leisure environment and living environment. Within this context the research project aims at proposing a forum in which to analyze organizational processes and new scenarios of interaction between citizens, health care institutions and many others involved in delivering health services. The citizen becomes the focal point of the new health ecosystem and collaborates and shares information with not only health professionals but also with other citizens. The model being proposed by MC3-Care is aimed, therefore, not only to citizens-patients but is open to all those who want to improve the relationship with their health, quicker and easier interaction with the social and health institutions.

Position held: Member of the local Telecommunication research unit directed by Prof. Gianluca Aloi, University of Calabria;

Date: 2012-2013

Project overview and position held: ➔ *International joint bilateral ITALY/CHINA project*

Project Title: "Smart Personal Mobility Systems for Human Disabilities in Future Smart Cities" (IT code CN13MO7, CHINA code 2015DFG12210)

Project coordinator: Prof. Wenfeg Li, Wuhan University of Technology.

Topics: The project aims at developing SmartPMS-Smart Personal Mobility System composed of two main components: smart wheelchair and intelligent distributed information system. https://labs.dimes.unical.it/speme/projects/

Position held: Member of the local Italian research unit at the University of Calabria coordinated by Prof. Giancarlo Fortino.

Date: 2011-2013

Project overview and position held: ➔ *National projects in the framework of the PRIN program (Italy)*

Project Title: STEM-Net: Stem devices for wireless auto-organizing networks

Budget € 146.812;

Project coordinator: Prof. Emanuele Viterbo, University of Calabria;

Topics: The project aims to study, analyze and implement network solutions for multi-hop wireless communications devices based on the use of stem cells capable of self-configure and self-organize in order to accomplish a specific task. http://stemnet.deis.unical.it/stemnet/

Position held: Member of the local Telecommunication research unit directed by Prof. Emanuele Viterbo, University of Calabria;

Date: 2011-2014

Project overview and position held: ➔ *National projects PON01_02149 - KOM4T me*

Project Title: *Knowledge Management 4 infoTelematic in Mobility Environment*

Budget € 620.000;

Project coordinator: Infomobility.it S.p.A.;

Topics: The project aims to design a platform of knowledge management well suited for in-car infotainment applications. Particular attention will be paid with respect to the integration of innovative methods for locating mobile users: in this respect the research team headed by University of Calabria, will take charge of one phase of research to develop a system location software based on GSM, which will be integrated within the platform to provide comprehensive data-feed on the degree of road congestion.

Position held: Member of the local Telecommunication research unit directed by Prof. Gianluca Aloi

Date: 2009-2010

Project overview and position held: ➔ *National private/public laboratory funded by the Italian Ministry of Education and Scientific Research (Italy)*

Project Title: OPENKNOWTECH: Laboratory of Open Source technologies for the integration, management and delivery of data, processes and knowledge

Project coordinator: Prof. Domenico Saccà, University of Calabria;

Topics: The project aims to create an open-source software technology laboratory, which will be distributed and federated among the private/public participants, and will offer differentiated services depending on the participants needs/roles.

Position held: Member of the local Telecommunication research unit directed by Prof. Emanuele Viterbo.

Date: 2006-2008

Project overview and position held:

➔ *National projects in the framework of the PRIN program (Italy)*

Project Title: NADIR: Design and assessment of protocols and distributed algorithms for Quality of Service mesh networks

Project coordinator: Prof. Luciano Lenzini, University of Pisa;

Topics: The project is aimed at promoting research in the field of Wireless Mesh Networks (WMN), based on either standard or emerging technologies. Such infrastructures have been recently devised to allow mobile users a ubiquitous, QoS-based access to networks, such as the Internet, or metropolitan networks, or corporate networks of private and public companies.

Position held: Member of the local Telecommunication research unit directed by Prof. Giorgio Ventre, University of Naples;

➔ *National Program for Research (PNR), Law 297/99, Industrial Research and Pre-competitive Development*

Project Title: A new Multi-Technology Location-Aware Wireless System for Interactive Fruition of Multimedia art-historical contents

Project coordinator: Prof. Roberto Musmanno, University of Calabria;

Topics: The GITA project wants to intervene in the context of the fruition of archaeological sites, experimenting an integrated, modern and technologically innovative system in order to present multimedia content through standard handheld devices (Phones, PDA, Smartphone, ...), and through innovative devices (see-through glasses for outdoor Augmented Reality), in an interactive mode also customizing the needs of individual users visiting at a given site;

The main results expected from the project are summarized as follows:
- Study, integration and testing of an innovative mobile device (see-through glasses) for use in "outdoor Augmented Reality" through techniques based on the location of mobile users;
- Study and experimentation with techniques such as "Remote Augmented Reality" and "Intelligent Virtual Guide" to the use of Virtual Reality Center;
- Study and testing of a Wireless Connection system for transmitting real-time data between service center and mobile device users visiting the site;

Position held: Member of the local Telecommunication research unit.

Date: From 03-2005 to 10-2005

Project overview and position held:

➔ *European Union's FP6 - MAESTRO Integrated Project under EU Framework Program 6 for Research and Development*

Project Title: Mobile Applications & sErvices based on Satellite & Terrestrial interworking (MAESTRO)

Project coordinator: Prof. Barry Evans, University of Surrey – UK.

Topics: The MAESTRO project addresses the whole mobile multimedia value chain will enable the development and implementation of the innovative Satellite Digital Multimedia Broadcast (S-DMB) technology. Based on the UMTS standard, this S-DMB system will complement 3G mobile networks and provide the greatest broadband transmission capacity for multimedia services.

Position held: Member of the local Telecommunication research unit directed by Prof. Barry EVANS and Prof. Zhili SUN, University of Surrey - UK.

Date: 2002-2004

Project overview and position held:

➔ *National projects in the framework of the PRIN program (Italy)*

Project Title: Integration of Satellite Systems and High-Altitude Platforms in Heterogeneous Communications Networks (SHINES).

Project coordinator: Prof. Marina Ruggieri, University of Rome - Tor Vergata;

Topics: Integration of Satellite/HAPs platforms for future generation communications systems, peculiarly for:

- adaptive quality of service management for multimedia applications,
- analysis of traffic models for packet switching systems,
- analysis of propagation models and channel estimation.

Position held: Member of the local Telecommunication research unit.

Date: 2000-2002

Project overview and position held:

→ *National projects in the framework of the PRIN program (Italy)*

Project Title: Code Division Multiple Access for Broadband Mobile Terrestrial-Satellite Integrated Systems (CABIS);

Project coordinator: Prof. Marina Ruggieri, University of Rome - Tor Vergata;

Topics: Analysis of techniques for supporting broadband multimedia services in terrestrial/satellite integrated radio mobile systems through the usage of CDMA technique.

The research focused on:
- ad-hoc techniques for traffic and users' mobility management (handover intra- and inter- segment),
- definition of new qualitative parameters based on adaptive QoS principles, different from the classical parameters used for measuring the quality offered to the users.
- integration of IP traffic in systems with satellite access networks.

Position held: Member of the local Telecommunication research unit.

→ *Participant to the Partnership of a European Project funded by ESA (European Space Agency)- Program: EuroSkyWay Artes 3 Phase II;*

Project Title: Ka-Band GEO System Technology and Demonstrator, Phase II;

Project coordinator: Alenia Spazio, Roma

Topics: Prosecution of activities of phase I, design and simulation of MAC (Medium Access Control) techniques and study of the signaling issues. Design and simulation of the Network Control Centre functionality related to the CAC (Connection Admission Control) and of the functionality of TRM (Traffic Resource Management) on-board the Satellite.

Position held: Member of the local Telecommunication research unit.

Scientific Publications

INTERNATIONAL JOURNALS

R1. S. Chen, W. Li, P. Pace, L. H. He and G. Fortino, "Many-Objective Computation Offloading in Vehicular Edge Computing Using Bayesian and Incremental Learning Methods," in *IEEE INTERNET OF THINGS JOURNAL*, vol. 12, no. 20, pp. 42678-42692, 15 Oct.15, 2025, doi: 10.1109/JIOT.2025.3595091. IF: 8.9

R2. Y. Duan, T. Fu, L. Li, P. Pace, G. Aloi and G. Fortino, "AGV-Integrated Noise-Aware Adaptive Clustering for Industrial Wireless Sensor Networks in smart factories," *AD HOC NETWORKS*, Vol. 177, October 2025, https://doi.org/10.1016/j.adhoc.2025.103906 – IF: 4.8

R3. X. Fu, X. Song, P. Pace, G. Aloi and G. Fortino, "Reinforcement Learning-Based Low-Delay Data Collection in UAV-Assisted IoT for Secondary Geological Hazard Monitoring," in *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*, vol. 74, no. 8, pp. 12935-12950, Aug. 2025, doi: 10.1109/TVT.2025.3554815. - IF: 7.1

R4. S. Chen, W. Li, J. Sun, P. Pace, L. He and G. Fortino, "An Efficient Collaborative Task Offloading Approach Based on Multi-Objective Algorithm in MEC-Assisted Vehicular Networks," in *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*, vol. 74, no. 7, pp. 11249-11263, July 2025, doi: 10.1109/TVT.2025.3543412. - IF: 7.1

R5. X. Fu, T. Wang, P. Pace, G. Aloi and G. Fortino, "Low-AoI Data Collection for UAV-Assisted IoT With Dynamic Geohazard Importance Levels," in *IEEE INTERNET OF THINGS JOURNAL*, vol. 12, no. 11, pp. 18279-18302, June 2025, doi: 10.1109/JIOT.2025.3540508 - IF: 8.9

R6. K. Lin, H. Yang, T. Yang, P. Pace and G. Fortino, “Recurrent Flash Reinforcement Learning for Dynamic Spectrum Access and Power Control,” in *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*, vol. 74, no. 4, pp. 6433-6443, April 2025. doi: 10.1109/TVT.2024.3511595. IF: 7.1

R7. A. Mahmod, P. Pace and A. Iera, "The Role of SDN to Improve Client Selection in Federated Learning," in *IEEE COMMUNICATIONS MAGAZINE*, vol. 63, no. 3, pp. 212-218, March 2025, doi: 10.1109/MCOM.003.2400093. IF: 8.2

R8. O. -D. Delgado Brito, P. Pace and F. de Rango, "A Review on the Confluence of 5G and LoRaWAN: Architectures, Use Cases, Taxonomies, Open Issues, and Research Avenues," in *IEEE ACCESS*, vol. 13, pp. 191144-191163, 2025, doi: 10.1109/ACCESS.2025.3629386. IF: 3.6

R9. X. Song, X. Fu, M. Ren, P. Pace, G. Aloi, G. Fortino, “Prediction-based data collection of UAV-assisted Maritime Internet of Things,” in *VEHICULAR COMMUNICATIONS*, Volume 50, 2024, 100854. - IF: 6.5

R10. X. Fu, X. Huang, Q. Pan, P. Pace, G. Aloi, G. Fortino, "Cooperative Data Collection for UAV-Assisted Maritime IoT Based on Deep Reinforcement Learning," in *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*, vol. 73, no. 7, pp. 10333-10349, July 2024, doi: 10.1109/TVT.2024.3377666. - IF: 6.1

R11. M. Ren, X. Fu, P. Pace, G. Aloi, G. Fortino, "Collaborative Data Acquisition for UAV-Aided IoTs Based on Time-Balancing Scheduling," in *IEEE INTERNET OF THINGS JOURNAL*, vol. 11, no. 8, pp. 13660-13676, April, 2024. doi: 10.1109/JIOT.2023.3339136 - IF: 8.2

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R15. X. Fu, P. Pace, G. Aloi, W. Li, G. Fortino “Toward robust and energy-efficient clustering wireless sensor networks: A double-stage scale-free topology evolution model,” *COMPUTER NETWORKS*, Vol. 200, 2021. – IF: 4.47

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R17. K. Lin, Y. Li, J. Deng, P. Pace, G. Fortino “Clustering-Learning-Based Long-Term Predictive Localization in 5G-Envisioned Internet of Connected Vehicles,” *IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS*, Vol. 22, no. 8, pp. 5232-5246, Aug. 2021. – IF: 6.49

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R23. K. Lin, C. Li, J. P. C. Rodrigues, P. Pace, G. Fortino "Data-Driven Joint Resource Allocation in Large-scale Heterogeneous Wireless Networks", *IEEE NETWORK*, Vol. 24, Issue 3, pp. 163-169, May 2020. – IF: 8.8

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R38. G. Aloi, G. Caliciuri, G. Fortino, R. Gravina, P. Pace, W. Russo, C. Savaglio, "Enabling IoT interoperability through opportunistic smartphone-based mobile gateways", *JOURNAL OF NETWORKS AND COMPUTER APPLICATIONS*, Vol. 81, pages: 74-84, 2017. IF: 3.99

R39. F. Guerriero, V. Loscrí, P. Pace, R. Surace, "Neural networks and SDR modulation schemes for wireless mobile nodes: A synergic approach", *AD HOC NETWORKS*, Vol. 54, pages: 17-29, 2017. IF: 3.15

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R42. G. Aloi, L. Grandinetti, P. Pace, O. Pisacane, “On the Economic Sustainability of Supplying Bandwidth Policies in Multi-layer Wireless Cognitive Networks”, *APPLIED MATHEMATICAL MODELLING*, Vol. 40, No. (7-8), pages: 5123-5138, 2016. IF: 2.25

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C13. G. Aloi, G. Caliciuri, G. Fortino, R. Gravina, P. Pace, W. Russo, C. Savaglio, “A mobile multi-technology gateway to enable IoT interoperability”, IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI 2016), pages: 259-264, Berlin, Germany, 4-8 April 2016.

C14. P. Pace, G. Aloi, R. Gravina, G. Fortino, G. Larini, M. Gulino, “Towards interoperability of IoT-based health care platforms: the INTER-health use case”, 11th EAI International Conference on Body Area Networks (BodyNets 2016), pages: 12-18, Torino, Italy, 55-16 December 2016.

C15. G. Aloi, G. Fortino, P. Pace “A Software Defined Network solution for Spontaneous Wireless Access Extension”, EAI International Conference on Software Defined Wireless Networks and Cognitive Technologies for IoT, Rome, Italy, 26th October, 2015.

C16. G. Aloi, G. Caliciuri, G. Fortino, R. Gravina, P. Pace, W. Russo “A Smartphone-Based Gateway to Support Mobile IOT Interoperability”, IFIOT&A - International Forum on IoT and Applications, Wuhan, China, 26-27 November, 2015. *Best Paper Awards – 2nd Prize*

C17. P. Pace, G. Aloi, G. Caliciuri, G. Fortino “Management and Coordination Framework for Aerial-Terrestrial Smart Drone Networks”, SMARTOBJECTS 2015, MOBICOM workshop on experiences with the design and implementation of smart objects, Paris, France, 7th September, 2015.

C18. P. Pace, F. Vitelli “A reliability-based resource sharing scheduler for mobile and fixed users in Community Networks” IEEE International Conference on Communications (ICC), London, Great Britain June 8-12, 2015.

C19. P. Pace, G. Aloi, G. Fortino “An Application-Level Framework for UAV/Rover Communication and Coordination”, IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD), Calabria, Italy May 6-8, 2015.

C20. G. Aloi, G. Caliciuri, G. Fortino, P. Pace, "A smartphone-centric approach for integrating heterogeneous sensor networks", International Conference on Body Area Networks – BODYNETS, London, Great Britain, Sep. 29-Oct. 1, 2014.

C21. A. Furfaro, P. Pace, A. Parise, L. Molina Valdiviezo, “Modelling and Simulation of a Defense Strategy to Face Indirect DDoS Flooding Attacks”, International Conference on Internet and Distributed Computing Systems, IDCS 2014, Italy, September 22-24, 2014.

C22. G. Aloi, G. Caliciuri, V Loscri', P. Pace, "Energy-efficient and accurate fingerprinting-based localization system for Smartphones," Proceedings of IEEE On line GREENCOM, 29-31 October 2013.

C23. G. Aloi, G. Caliciuri, V Loscri', P. Pace, "Accurate and energy-efficient localization system for Smartphones: a feasible implementation," Proceedings of IEEE Personal Indoor Mobile and Radio Communications (PIMRC), 8-11 September, London-UK, 2013.

C24. P. Pace, G. Aloi, O. Pisacane, “Effective supplying bandwidth policies for wireless cognitive networks: A logistics approach,” Proceedings of IEEE Personal Indoor Mobile and Radio Communications (PIMRC), 8-11 September, London-UK, 2013.

C25. V. Loscri', P. Pace, Rosario Surace, “Multi-objective evolving neural network supporting SDR modulations management,” Proceedings of IEEE Personal Indoor Mobile and Radio Communications (PIMRC), 8-11 September, London-UK, 2013.

C26. M. Di Felice, L. Bedogni, A. Trotta, L. Bononi, F. Panzieri, G. Ruggeri, G. Aloi, V. Loscri', P. Pace “Smartphones Like Stem Cells: Cooperation and Evolution for Emergency Communication in Post-Disaster Scenarios,” in Proc. of IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom 2013), July 3-5, 2013, Batumi, Georgia.

C27. M. Di Felice, A. Trotta, L. Bedogni, L. Bononi, F. Panzieri, G. Ruggeri, V. Loscri', P. Pace, “STEM-Mesh: Self-Organizing Mobile Cognitive Radio Network for Disaster Recovery Operations,” in Proc of the 9th IEEE International Wireless Communications and Mobile Computing Conference (IWCMC 2013), July 1-5, 2013, Cagliari, Italy.

C28. G. Aloi, V. Loscri', P. Pace, G. Ruggeri, M. Di Felice, F. Panzieri, E. Natalizio, “STEM-Net: An Evolutionary Architecture for Highly-Reconfigurable Wireless Networks,” in Proc of the IEEE Future Network and Mobile Summit (FNMS 2013), July 3-5, 2013, Lisbon, Portugal.

C29. P. Pace, “Green Antenna Switching to Improve Energy Saving in LTE Networks,” Proceedings of IEEE GreenCom, 26-28 September 2012.

C30. P. Pace, V. Loscrì, “OpenBTS: a step forward in the cognitive direction,” Proceedings of IEEE International Conference on Computer Communications and Networks (ICCCN), Munich, Germany, July 30 - August 2, 2012.

C31. P. Pace, G. Aloi, “WEVCast: practical implementation and testing of effective multicast services for Wi-Fi Networks,” Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Paris, France, April 1-4, 2012.

C32. P. Pace, V. Loscrì, E. Natalizio, T. Razafindralambo, “Nodes Placement for reducing Energy Consumption in Multimedia Transmissions”, Proceedings of IEEE Personal Indoor Mobile and Radio Communications (PIMRC), Toronto, Canada, 11-14 September 2011.

C33. G. Aloi, A. Borgia, S. Costanzo, G. Di Massa, V. Loscrì, E. Natalizio, P. Pace, F. Spadafora, "Software Defined Radar: synchronization issues and practical implementation," Proceedings of International Conference on Cognitive Radio and Advanced Spectrum Management, GogART - ISABEL 2011, Barcelona, October 26-29, 2011.

C34. P. Pace, G. Iannitelli, G. Aloi, “Eavesdropping wireless video packets to improve standard multicast transmission in Wi-Fi networks”, Proceedings of IEEE International Symposium on Wireless Pervasive Computing (ISWPC), Modena, Italy, 5-7 May 2010.

C35. P. Pace, G. Aloi, “Routing and Scalability Issues for Multi-layered Satellite-HAPs Networks”, Proceedings of Advances in Satellite and Space Communications (SPACOMM), Athens, 13-19 June 2010.

C36. P. Pace, G. Aloi, M. Molè, “Encouraging wireless connection sharing by means of an attractive pricing strategy”, Proceedings of IEEE Personal, Indoor and Mobile Radio Communications Symposium 2009 (PIMRC'09), Tokyo, Japan, September 2009.

C37. P. Pace, M. Molè, G. Aloi, “Attractive pricing mechanism for connection sharing and coverage extension of wireless networks”, Proceedings of IEEE International Symposium on Wireless Communication Systems 2009 (ISWCS’09), Siena, Italy, September 2009.

C38. P. Pace, “Call Handling Strategies for HAP System Supporting 3G Mobile Communications”, Proceedings of International Workshop on Aerial & Space Platforms: Research, Applications, Vision – IEEE GLOBECOM 2008, New Orleans, LA, USA, December 2008.

C39. P. Pace, G. Aloi, A. Palmacci, “New Wireless Communication Architectures for Interactive Fruition of Historical and Artistic Contents”, Proceedings of IEEE IFIP Network Control conference (Netcon 2008), United Arab Emirates, November 2008.

C40. P. Pace, G. Aloi, A. Palmacci, “GITA: New Architectures for Interactive Fruition of Historical and Artistic Contents on Wireless Multi-Technology Platform”, Proceedings of Multimedia in Ubiquitous Computing and Security Services (MUCASS 2008) in conjunction with The International Symposium on Ubiquitous Multimedia Computing (UMC 2008), Hobart, Australia, October 2008.

C41. P. Pace, G. Aloi, “Effective Prediction Scheme for Bandwidth Allocation in Interactive Satellite Terminals”, Proceedings of IEEE International Symposium on Wireless Communication Systems 2008 (ISWCS’08), Reykjavik, Iceland, October 2008.

C42. P. Pace, M. Belcastro, E. Viterbo, "Fast and accurate PQoS estimation over 802.11g wireless networks", Proceedings of IEEE International Conference on Communications (ICC), Beijing, China, May 2008.

C43. P. Pace, E. Natalizio, “Dynamic Fair Power Sharing Admission Control for HAP-UMTS communication system”, Proceedings of the 16th IST Mobile and Wireless Communications Summit, Budapest, 1-5 July, 2007.

C44. V.C. Gungor, P. Pace, E. Natalizio, "AR-TP: An Adaptive and Responsive Transport Protocol for Wireless Mesh Networks," Proceeding of IEEE International Conference on Communications (ICC), Glasgow, Scotland, June 2007.

C45. P. Pace, G. Aloi, “Multilayered architecture supporting efficient inter HAP-Satellite routing”, Proceedings of IEEE Vehicular Technology Conference (VTC Spring), Dublin – Ireland, April 22-25, 2007.

C46. P. Pace, E. Natalizio, “Wireless Communication Networks via Aerial Platforms: Dynamic Fair Power Sharing Admission Control for UMTS real time traffic sources”, Proceedings of the 14th IEEE International Conference On Telecommunications (ICT), Penang, Malaysia, May 14-17, 2007.

C47. P. Pace, G. Aloi, “HAP-Satellite architecture supporting efficient multilayered routing” Proceedings of the 9th IEEE International Conference on Advanced Communication Technology (ICACT), Phoenix Park, Republic of Korea, February 12–14, 2007.

C48. P. Pace, Z. Sun, “Price discount over Satellite Digital Multimedia Broadcast system through a Demand Sensitive Model” Proceedings of the Wireless Communications and Networking Conference (WCNC), Hong Kong, March 11-14, 2007.

C49. P. Pace. D. Pace, S. Marano, “An HAP-UMTS integrated system supporting efficient admission control scheme for mixed traffic sources”, Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Berlin, Germany, September 11-14, 2005.

C50. P. Pace, S. Marano, Z. Sun, B. Evans, “Cost Model for Evaluation of SDMB Service over Integrated Satellite-Terrestrial UMTS Networks”, Proceedings of the International Workshop on Satellite and Space Communications 2005 (IWSSC 2005), Siena, Italy, September 8-9, 2005.

C51. P. Pace, G. Aloi, S. Marano, “A multilayered architecture supporting QoS for multimedia traffic connections”, Proceedings of the IEEE Vehicular Technology Conference (VTC Spring), Stockholm – Sweden, May, 2005.

C52. P. Pace, A. Longo, S. Marano, “A system for monitoring volcanoes activities using High Altitude Platform stations”, Proceedings of the International Astronautical Congress (IAC), Vancouver – Canada, October, 2004.

C53. P. Pace, V. Tomaino, S. Marano, “Traffic Management in an integrated Satellite-HAP-Terrestrial system architecture”, Proceedings of the International Astronautical Congress (IAC), Vancouver – Canada, October, 2004.

C54. P. Pace, G. Aloi, F. De Rango, E. Natalizio, A. Molinaro, S. Marano, “An integrated Satellite-HAP-Terrestrial system architecture: resources allocation and traffic management issues”. Proceedings of the IEEE Vehicular Technology Conference (VTC Spring), Milano - Italy, 17-19 May, 2004.

C55. P. Pace, G. Aloi, S. Marano, “Efficient Real-Time Multimedia Connections Handling over DVB-RCS Satellite System”. Proceedings of the IEEE Global Telecommunications Conference (GLOBECOM), Dallas Texas – USA, November, 2004.

C56. P. Pace, G. Aloi, S. Marano, “Connection Admission Control for Multimedia Traffic over DVB-RCS Satellite System”. Proceedings of the IEEE International Symposium on Wireless Personal Multimedia Communications (WPMC), Abano Terme - Italy, September, 2004.

C57. P. Pace, G. Aloi, S. Marano, “Multimedia Traffic Admission Schemes Comparison for Satellite Systems". Proceedings of the IEEE Vehicular Technology Conference (VTC Fall), Los Angeles - USA, September, 2004.

C58. P. Pace, G. Aloi, S. Marano, “Performance analysis of Connection Admission Control Scheme in a DVB-RCS satellite system”. Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Barcelona-Spain, 5-8 September, 2004.

C59. P. Pace, A. Molinaro, S. Marano, “Guaranteed Vs Dynamic connections resources assignment and management in a DVB-RCS Satellite System”, Proceedings of the IEEE International Symposium on Wireless Personal Multimedia Communications (WPMC), Yokosuka, Kanagawa, October 2003.

C60. P. Pace, A. Molinaro, A. Iera, S. Marano, “Dedicated Signalling Channel vs Random Access Signalling Channel in Satellite Communications Systems”, Proceedings of the IEEE Vehicular Technology Conference (VTC Fall), Orlando, Florida, 6-9 October 2003.

C61. P. Pace, A. Molinaro, A. Iera, S. Marano, “Random access techniques for GEO satellite personal communication networks”, Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), September 2003.

C62. P. Pace, A. Molinaro, A. Iera, S. Marano, “On the Performance of Connection Admission Control and traffic management schemes in a “DVB-RCS Suited” Satellite System”, Proceedings of the Advanced Satellite Mobile Systems (ASMS), Frascati, Italy, 10-11 July 2003.

C63. A. Iera, A. Molinaro, P. Pace, S. Marano, “Multimedia Traffic in Broadband Satellite Networks”, Proceedings of the IEEE International Conference on Communications (ICC), Anchorage, Alaska, May 2003.

C64. P. Pace, A. Iera, A. Molinaro, S. Marano, "Dynamic access control for multimedia satellites in personal Communications Systems", Proceedings of the IEEE International Conference on Telecommunications, ICT '02, Beijing, China, June 2002.

C65. P. Pace, A. Iera, A. Molinaro, G. Aloi, S. Marano, "On the Performance of CAC Algorithms in Multimedia Geostationary Satellite Networks", Proceedings of the Wireless Communications and Networking Conference (WCNC), Orlando, USA, March 2002.

NATIONAL CONFERENCES

CN1. G. Aloi, V. Loscrì, E. Natalizio, P. Pace, A. Scicchitano, "Wireless Mesh Networks", Atti del convegno di ricerca del DEIS (Dipartimento di Elettronica Informatica e Sistemistica), Cetraro, Settembre 2007.

CN2. P.Pace, E. Natalizio, V.C. Gungor, "An adaptive and responsive transport protocol for wireless mesh networks", Atti del convegno nazionale del gruppo di Telecomunicazioni GTTI – 2007, 18-20 Giugno – Roma.

BOOK CHAPTER

B1. G. Ibáñez-Sánchez, A. Fides-Valero, JL. Bayo-Monton, M. Gulino, P. Pace P. "Interoperability Application in e-Health," In: Palau C.E. et al. (eds) Interoperability of Heterogeneous IoT Platforms. Internet of Things (Technology, Communications and Computing). Springer, Cham. (2021). https://doi.org/10.1007/978-3-030-82446-4_8

B2. P. Pace and G. Aloi, "Pervasive and interactive use of multimedia contents via multi-technology location-aware wireless architectures", Chapter 5 of "Pervasive Computing and Communications Design and Deployment: Technologies, Trends, and Applications" - IGI Global - edited by Apostolos Malatras, ISBN10: 1609606116, May 2011.

B3. P. Pace, G. Aloi and L. Boccia, "Using Space Technology for Disaster Monitoring, Mitigation and Damage Assessment", Chapter 3 of "Commerce in Space: Infrastructures, Technologies and Applications" - IGI Global - edited by Phillip Olla, ISBN-10: 1599046245, August 2007.

B4. V.C. Gungor, E. Natalizio, P. Pace and S. Avallone, "Challenges and Issues in Designing Architectures and Protocols for Wireless Mesh Networks", Chapter 1 of "Wireless Mesh Networks: Architectures, Protocols, Services and Applications", Springer-Verlag, edited by by Dr. K. Leung and Dr. E. Hossain, June 2007 (ISBN: 978-0-387-68838-1).

DELIVERABLES and INTERNATIONAL REPORTS

D1. INTER-IoT European Union's Horizon 2020 project - D3.3: Methods for Interoperability and Integration Final Version. June 2018.

D2. INTER-IoT European Union's Horizon 2020 project - D3.1: Methods for Interoperability and Integration. December 2016.

D3. INTER-IoT European Union's Horizon 2020 project - D2.4: Use cases manual. December 2016.

D4. INTER-IoT European Union's Horizon 2020 project - D2.1: Stakeholders and Market Analysis Report. March 2016.

D5. NTER-IoT European Union's Horizon 2020 project - D2.3: Requirements and business analysis. September 2016.

TR1. A. Iera, A. Molinaro, G. Aloi, P. Pace, S. Marano "ESW Ground Segment Analysis Report: the SaT Signalling Issue", EuroSkyWay Artes III Phase II Technical Report No. UNICS/ESW/REP/03/01, June 2001.

TR2. A. Iera, A. Molinaro, G. Aloi, P. Pace, S. Marano "ESW Ground Segment Analysis Report: the CAC Optimisation", EuroSkyWay Artes III Phase II Technical Report No. UNICS/ESW/REP/02/01, June 2001.

TR3. A. Iera, A. Molinaro, G. Aloi, P. Pace, S. Marano "CAC algorithm trade-off analysis report", EuroSkyWay Artes III Phase II Technical Report No. UNICS/ESW/REP/01/01, March 2001.

D6. A. Iera, A. Molinaro, G. Aloi, P. Pace, R. Bianco, S.Marano "EuroSkyWay Ground Segment Analysis Report – Final Issue", ESA Deliverable UNICS/ESW/DEL/03/00, Project No. ALS/US/SBC/038/99 - Ka Band GEO System Technology and Demonstrator, March 2001.

D7. A. Iera, A. Molinaro, G. Aloi, P. Pace, R. Bianco, S. Marano "EuroSkyWay Ground Segment Analysis Report – Issue 2", ESA Deliverable UNICS/ESW/DEL/02/00, Project No. ALS/US/SBC/038/99 - Ka Band GEO System Technology and Demonstrator, July 2000.

Invited talks

- *Supporting connected vehicles: Lessons learnt from Autonomous Drones and Smartphone-centric systems* @ Department of Automotive Engineering - Tsinghua University - Beijing, China, 20th October 2017.
- *IoT Security: New Challenges* @ Workshop on Towards People-centric IoT Ecosystems – University of Calabria, Italy, 14th December 2017.
- *An Evolutionary network architecture for smart and sustainable cities: The STEM-Net framework* @ SWANSITY 2014 - Self-organizing Wireless Access Networks for Smart cITY - In conjunction with SECON 2014.
- *Smartphones Like Stem Cells: Cooperation and Evolution for Emergency Communication in Post-Disaster Scenarios* @ UNIVERSITAT POLITÈCNICA DE VALÉNCIA, 2014.

Speaker at international conferences

From 18-06-2023 to 22-06-2023 → ACM International Workshop on Networked AI Systems (NetAISys '23), - Helsinki - Finland. Title of the talk: "Improving the quality of Federated Learning processes via Software Defined Networking ".

From 15-04-2019 to 18-04-2019 → IEEE 5th World Forum on Internet of Things, WF-IoT, - Limerik - Ireland. Title of the talk: "INTER-Health: *An Interoperable IoT Solution for Active and Assisted Living Healthcare Services*".

From 18-09-2017 to 19-09-2017 → IEEE Conference on Standards for Communications and Networking (CSCN), Helsinki - Finland. Title of the talk: *"Securing the IoT world: Issues and perspectives*".

From 06-06-2017 to 09-06-2017 → IEEE Global IoT Summit, Geneva - Switzerland. Title of the talk: "*IoT platforms interoperability for active and assisted living healthcare services support*"

From 04-04-2016 to 08-04-2016 → Speaker at the IEEE International Conference on Internet-of-Things Design and Implementation, IoTDI - Berlin-German. Title of the talk: *"A mobile multi-technology gateway to enable IoT interoperability.*

From 07-09-2015 to 09-09-2015 → Speaker at SMARTOBJECTS 2015, MOBICOM workshop on experiences with the design and implementation of smart objects - Paris - France. Title of the talk: "*Management and Coordination Framework for Aerial-Terrestrial Smart Drone Networks".*

From 08-06-2015 to 12-06-2015 → IEEE International Conference on Communications (ICC), London, Great Britain. Title of the talk: "*A reliability-based resource sharing scheduler for mobile and fixed users in Community Networks"*

From 06-05-2015 to 08-05-2015 → IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD), Calabria, Italy. Title of the talk: *"An Application-Level Framework for UAV/Rover Communication and Coordination".*

From 29-09-2014 to 01-10-2014 → International Conference on Body Area Networks – BODYNETS, London, Great Britain. Title of the talk: *"A smartphone-centric approach for integrating heterogeneous sensor networks".*

From 29-10-2013 to 31-10-2013 → IEEE On line GREENCOM. Title of the talk: *"Energy-efficient and accurate fingerprinting-based localization system for Smartphones".*

From 08-09-2013 to 11-09-2013 → IEEE Personal Indoor Mobile and Radio Communications (PIMRC), London-UK. Titles of the talks:

1) Accurate and energy-efficient localization system for Smartphones: a feasible implementation;

2) Effective supplying bandwidth policies for wireless cognitive networks: A logistics approach;

3) Multi-objective evolving neural network supporting SDR modulations management.

From 26-09-2012 to 28-09-2012 → IEEE GreenCom. Title of the talk: *"Green Antenna Switching to Improve Energy Saving in LTE Networks".*

From 01-04-2012 to 04-04-2012 → Speaker at IEEE Wireless Communications and Networking Conference (WCNC), Paris, France. Title of the talk: *"WEVCast: practical implementation and testing of effective multicast services for Wi-Fi Networks".*

From 26-10-2011 to 29-10-2011 → Speaker at the International Conference on Cognitive Radio and Advanced Spectrum Management, GogART - ISABEL, Barcelona - Spain. Title of the talk: *"Software Defined Radar: synchronization issues and practical implementation".*

From 05-05-2010 to 07-05-2010 → IEEE International Symposium on Wireless Pervasive Computing (ISWPC), Modena, Italy. Title of the talk: *"Eavesdropping wireless video packets to improve standard multicast transmission in Wi-Fi networks".*

From 07-09-2009 to 10-09-2009 → IEEE International Symposium on Wireless Communication Systems 2009 (ISWCS'09), Siena, Italy. Title of the talk: *"Attractive pricing mechanism for connection sharing and coverage extension of wireless networks".*

From 21-10-2008 to 24-10-2008 → IEEE International Symposium on Wireless Communication Systems 2008 (ISWCS'08), Reykjavik, Iceland. Title of the talk: *"Effective Prediction Scheme for Bandwidth Allocation in Interactive Satellite Terminals".*

From 19-05-2008 to 23-05-2008 Speaker at the IEEE International Conference on Communications (ICC'08), Beijing, China. Title of the talk: *"Fast and accurate PQoS estimation over 802.11g wireless networks".*

From 22-04-2007 to 25-04-2007 Speaker at the IEEE Vehicular Technology Conference (VTC Spring), Dublin – Ireland. Title of the talk: *"Multilayered architecture supporting efficient inter HAP-Satellite routing".*

From 08-09-2005 to 09-09-2005 → International Workshop on Satellite and Space Communications 2005 (IWSSC 2005), Siena, Italy. Title of the talk: *"Cost Model for Evaluation of SDMB Service over Integrated Satellite- Terrestrial UMTS Networks".*

From 12-09-2004 to 15-09-2004 → IEEE International Symposium on Wireless Personal Multimedia Communications (WPMC), Abano Terme - Italy. Title of the talk: *"Connection Admission Control for Multimedia Traffic over DVB-RCS Satellite System".*

From 05-09-2004 to 08-09-2004 → IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Barcelona-Spain. Title of the talk: *"Performance analysis of Connection Admission Control Scheme in a DVB-RCS satellite system".*

From 17-05-2004 to 19-05-2004 Speaker at the IEEE Vehicular Technology Conference (VTC Spring), Milano - Italy. Title of the talk: *"An integrated Satellite-HAP-Terrestrial system architecture: resources allocation and traffic management issues".*

From 04-10-2003 to 09-10-2003 → the IEEE Vehicular Technology Conference (VTC Fall'03), Orlando, Florida. Title of the talk: *"Dedicated Signalling Channel vs Random Access Signalling Channel in Satellite Communications Systems".*

Awards for research activities

In 2008 I have been awarded by my Regional Ministry (CALABRIA) a voucher of 2750€ in order to attend the IEEE international conference ISWCS'08 as the author and the presenter of a technical contribution [C41].

In 2015 I received the Best Paper Awards – 2nd Prize for the paper: G. Aloi, G. Caliciuri, G. Fortino, R. Gravina, P. Pace, W. Russo "A Smartphone-Based Gateway to Support Mobile IOT Interoperability", IFIOT&A - International Forum on IoT and Applications, Wuhan, China, 26-27 November, 2015 [C16].

In 2018 I have been awarded by Italian Ministry of Education and Scientific Research (MIUR) with 3000€ for my personal research activity.

In April 2019 I got a certificate of appreciation from IEEE Internet of Things Initiative for presenting the paper [C7] at the 5th IEEE World Forum on Internet of Things.

In July 2018 I got the Italian Habilitation (Abilitazione Scientifica Nazionale) for Associate Professorship in Computer Science (SC: 09/H1; SSD: ING-INF/05).

In August 2018 I got the Italian Habilitation (Abilitazione Scientifica Nazionale) for Associate Professorship in Informatics (SC: 01/B1; SSD: INF/01).

In November 2020 I got the Italian Habilitation (Abilitazione Scientifica Nazionale) for Associate Professorship in Telecommunications (SC: 09/F2; SSD: ING-INF/03).

In October 2021 I have entered in the World's 2% top-cited scientists list by Stanford University and Elsevier for the year 2020 in the field of Networking & Telecommunications - https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3

In October 2022 I have entered in the World's 2% top-cited scientists list by Stanford University and Elsevier for the year 2021 in the field of Networking & Telecommunications - https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4

In October 2023 I have entered in the World's 2% top-cited scientists list by Stanford University and Elsevier for the year 2022 in the field of Networking & Telecommunications - https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6

In September 2024 I have entered in the World's 2% top-cited scientists list by Stanford University and Elsevier for the year 2023 in the field of Networking & Telecommunications - https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/7

In October 2025, I received the "IEEE Outstanding Paper Award" for the work titled: "AI-assisted Intent-Mapping and translation for Digital Twins Network applications" during the 23rd IEEE International Conference on Pervasive Intelligence and Computing (PICom 2025), Hakodate - Japan.

International Scientific collaborations

- *Wuhan University of Technology - China:* working on the INTER-IoT European project obtaining the results published in the papers [R27] [R33] [R34] [R35] [R37] [C9].
- *Shanghai Maritime University - China:* obtaining the results published in the papers [R14] [R15] [R22] [R27] R32].
- *King Saud University, Riyadh - Saudi Arabia:* obtaining the results published in the papers [R19] [R21] [R25].
- *University of Derby - UK:* obtaining the results published in the papers [R28] [R30] [R31].
- *Dalian University of Technology - China:* obtaining the results published in the papers [R17] [R23] [R24].
- *University of Surrey - UK:* working on the FP6 MAESTRO European project obtaining the results published in the papers [R59] [C48] [C50].

Citation Index

Scopus citation number: 3600
H index: 28
Author of 4 "highly cited paper" according to the *Web of Science Clarivate Analytics* [R22] [R27] [R31] [R36]

Professional and Editorial Services

Guest Editor for the SPECIAL ISSUE on "*Advances in Multi-Source Information Fusion for Epidemic Diseases*" of the Elsevier Information Fusion Journal. (Vol. 76, December 2021) [R15]

Guest Editor for SPECIAL ISSUE on "*Smart Wireless Access Networks and Systems For Smart Cities*" of the Elsevier Ad Hoc Networks Journal. (June 2016) [R41]

I have been a TPC-Chair of:

- SWANSITY 2015 – Workshop on Smart Wireless Access Networks for Smart City in conjunction with SECON 2015.
- SWANSITY 2014 – Workshop on Self-Organizing Wireless Access Networks for Smart City in conjunction with SECON 2014.

I have been Technical Program Committee Member of:

- IEEE ICC 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025: Track on Mobile Wireless Networking (MWN)
- IEEE ICC 2025: Track on Cognitive Radio and AI-Enabled Networks
- IEEE ICC 2021, 2022, 2023, 2024, 2025: Track on IoT and Sensor Networks Symposium (IoTSN)
- IEEE ICC 2018, 2019, 2020: Track on Ad-Hoc and Sensor Networking (AHSN)
- IEEE ICC 2018, 2019, 2020: Track on Communications Software, Services, and Multimedia Applications Symposium (CSSMA)
- IEEE GLOBECOM 2016, 2017, 2019, 2020, 2021, 2022, 2023, 2024, 2025 - Track on Communications Software, Services and Multimedia Apps
- IEEE 5G World Forum - 2018, 2010, 2020, 2021.
- IEEE PIMRC 2022: Track 2 on Networking and MAC and Track 4 on Applications, Platforms and Business

- IEEE PIMRC 2021: Track 4 Mobile and Wireless Networks
- IEEE PIMRC 2020: Track on Networking and MAC
- IEEE WCNC 2022: Track 3 on Machine Learning and Optimization for Wireless Systems; Track 4 on Emerging Technologies, Standards, and Applications
- IEEE WCNC 2019, 2021: Track on Wireless Networks; Track on Emerging Technologies, Architectures and Services
- IEEE Consumer Communications & Networking Conference (CCNC) - 2017
- ICNSC 2017 - IEEE International Conference on Networking, Sensing and Control
- VTC2017-Spring: Track on Wireless Access Technology and Heterogeneous Networks
- VTC2017-Spring: Track on Mobile Network Applications and Services
- VTC2017-Fall; Track on Wireless Networks: Protocols, Security, and Services
- VTC2016-Fall: Track on Wireless Networks: Protocols, Security, and Services
- VTC2016-Spring: Track on Wireless Networks: Protocols, Security, and Services
- VTC2016-Spring: Track on 5. LTE/LTE-A, 5G, and Wireless Heterogeneous Networks
- PIMRC 2016, 2017, 2019, 2021: - Track on Mobile and Wireless Networks
- ICC 2015, 2016 - IEEE International Conference on Communications - Track on Mobile and Wireless Network Symposium
- LCN 2015 - The 40th IEEE Conference on Local Computer Networks
- VTC 2015-Fall - IEEE Vehicular Technology Conference -Track on Cellular Networks
- HPCC 2015 - IEEE International Conference on High Performance and Communications
- ISCC 2015 - IEEE Symposium on Computers and Communications
- CSCWD 2015 - IEEE International Conference on Computer Supported Cooperative Work in Design
- CivicTech 2015 - EAI International Conference on Civic Technologies for Smart Cities
- ANT 2015 -International Conference on Ambient Systems, Networks and Technologies
- Bodynets 2014, 2015, 2016 International Conference on Body Area Networks
- ICCCN 2013, 2014, 2015, 2016, 2017, 2018- IEEE International Conference on Computer Communications and Networks - Track on Cognitive, Cellular, and Heterogeneous Wireless Networks (CCHN)
- IDCS 2014, 2015, 2016 - International Conference on Internet and Distributed Computing Systems
- SPINS 2014 - International Workshop on Secure Peer-to-Peer Intelligent Networks & Systems
- SatComNet'14 (International Workshop on Advances in Satellite Communications and Networking
- IEEE Online GreenComm (2013, 2014, 2015, 2016)
- PIMRC 2013 - Track on Mobile and Wireless Networks
- IEEE International Conference on Wireless Communications, Networking and Mobile Computing - (WICOM 2013)
- ICACT (International Conference on Advanced Communications Technology) co-sponsored by IEEE ComSoc - 2013.
- GogART - ISABEL 2011 - Session chairman of "Software Defined Radios & Cooperative/Distributed Sensing".
- IARIA International Conference on Advances in Satellite and Space Communications (SPACOMM 2009 – 2010 – 2011 – 2012 - 2013)
- IEEE Global Telecommunications Conference (GLOBECOM 2006) – Symposium on “Satellite and Space Communications”
- IEEE Vehicular Technology Conference (VTC Spring 2004) and chairman of the technical session on “Radio Resources Management"

I am involved in the Editorial Board of:

- IEEE INTERNET OF THINGS Journal – Associate Editor from June 2023. (Impact Factor 8.9 - Q1)
- TELECOMMUNICATION SYSTEMS (Springer) – Associate Editor from march 2016. (Impact Factor 2.3 - Q3).
- Journal of Intelligent and Connected Vehicles – Associate Editor from July 2017. (Impact Factor 7.8 -Q1)
- International Journal of Vehicular Telematics and Infotainment Systems (IJVTIS) - Associate Editor from January 2017.
- International Journal of Communication Networks and Information Security (IJCNIS) – Editorial Board from November 2012 to December 2016.
- ICACT Transactions on the Advanced Communications Technology – Editorial Board from January 2013.

Moreover, I have been an invited referee for many prestigious international journals, such as:

IEEE Transactions on Mobile Computing, IEEE Transactions on Vehicular Technology; IEEE Transactions on Networks and Service Management; IEEE Communications Magazine; IEEE Network; IEEE Wireless Communications, IEEE Internet of Things Journal; IEEE Sensors Journal; Computer Networks; Journal of Network and Computer Applications, Ad Hoc Networks; Computer Communications, Information Fusion, Transactions on Emerging Telecommunications Technologies, IEEE Transactions on Intelligent Transportation Systems.
In the past years, I have been external referee for IEEE international conferences, such as: ICC, GLOBECOM, WCNC, VTC, PIMRC.

Member of the Institute of Electrical and Electronics Engineers (IEEE).

The undersigned is aware that, pursuant to art. 26 of Law 15/68, false statements, false documents, the use of false acts are punishable under the Penal Code and special laws, in addition, the undersigned authorizes the processing of personal data pursuant to Legislative Decree 30 June 2003, no 196 "Code for the Protection of Personal Data" and GDPR Regulation EU 2016/679.

__Castrovillari_____ lì __30-04-2026_

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