

CURRICULUM VITAE



PERSONAL INFORMATION

Name **MARCHESE MARIO**
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Ph **+39-010-33-56571 (office)**
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E-mail **mario.marchese@unige.it**
Nationality Italian
Birth Date 27-04-1967

WORK EXPERIENCE

- From February 2016 at now
 - Name of the employer University of Genoa
 - Sector Academia
 - Role Full professor, Vice-Rector for Doctoral Studies and Relations with Companies /(from Sept. 2022), Rector's Delegate to Doctoral Studies (from Dec. 2020 to Sept. 2022)
 - Main responsibilities Coordination of All Doctoral Studies and Relations with Companies for the University of Genoa
Coordination of the Research Laboratory: research and personal
Responsible of Research Funds
Teaching and Researching
- From February 2005 to January 2016
 - Name of the employer University of Genoa
 - Sector Academia
 - Role Associate professor
 - Main responsibilities Coordination of the Research Laboratory: research and personal
Responsible of Research Funds
Teaching and Researching
- From January 1999 to January 2005
 - Name of the employer CNIT – Italian National Consortium for Telecommunications
 - Sector Research
 - Role Researcher (January 1999 - June 2002), Head of Research (July 2002 - January 2005)
 - Main responsibilities Coordination of the Research Laboratory: research and personal
Responsible of Research Funds
Researching
- From November 1993 to January 1996
 - Name of the employer Different research centres and Enterprises
 - Sector Research/Industry
 - Role Consultant
 - Main responsibilities Engineering

EDUCATION AND TRAINING

- From November 1993 to October 1996
 - University of Genoa
 - Subject
 - Degree
- From October 1986 to April 1992
 - University of Genoa
 - Subject
 - Degree

SKILLS

MOTHER TONGUE

OTHER LANGUAGES

- Reading
- Writing
- Speaking

Researching

PhD Student
Networking and Telecommunication
Doctorate (Dottorato di Ricerca)

Student
Electronics Engineering
Laurea Degree (110/110 cum laude)

ITALIAN

ENGLISH

EXCELLENT
EXCELLENT
EXCELLENT

OTHER INFORMATION

He was at the German Aerospace Center (DLR), Oberpfaffenhofen, Germany, as a Visiting Professor / Guest Scientist in the following periods: September 6 to 29, 2004; October 3 to 14, 2005; July 10 to 28, 2006; July 6 to August 8, 2007; July 7 to 22, 2008.

He is the founder and head of the Laboratory "Satellite Communications and Heterogeneous Networking" (www.scnl.diten.unige.it) at the University of Genoa. The laboratory contains devices and instruments of great scientific and economic value and involves the management of different units of scientific-technical personnel. He formed and trained staff in research: PhD students, research fellows, research associates and young researchers. He coordinated the technical-scientific and financial management of many research projects. He attracted and managed funds both at European and institutional level.

He is (or was, where indicated):

- Coordinator of the PhD in "Science and Technology for Electronic and Telecommunication Engineering" from 2013 to January 2021.
- "Chair" (2006-2008), "Vice-Chair" (2004-2006) and "Secretary" (2002-2004) of the "Satellite and Space Communications Technical Committee" of "IEEE ComSoc".
- Associate Editor of the IEEE Transactions of Vehicular Technology; Technical Editor of the IEEE Network Magazine; Associate Technical Editor of the IEEE Communications Magazine; Associate Editor of the IEEE Open Journal of the Communications Society (OJ-COMS); Associate Editor of the International Journal of Communication Systems (Wiley); Associate Founder Editor of the journal Frontiers in Space Technologies; Technical Editor dell' IEEE Wireless Communications Magazine from 2006 to 2012.
- Winner of the IEEE ComSoc "Satellite Communications Distinguished Service Award" in 2008 for the scientific and professional contribution in the field of satellite technology and of numerous "Best Paper Awards".

He organized "Special Issues" in international scientific journals such as Wiley International Journal of Communications Systems, IEEE Wireless Communications, IEEE JSAC, Elsevier Computers and Electrical Engineering Journal, IEEE Systems Journal on issues mainly concerning satellite telecommunications systems. He belonged to the Organizing Committee of Globecom 2010, Miami, USA. He was a Member of the Steering Committee of the following international conferences: 3rd International ICST Conference on Personal Satellite Services 2011 - PSATS'11, Malaga, Spain; 4th International ICST Conference on Personal Satellite Services 2012 - PSATS'12, Bradford, UK; 5th International ICST Conference on Personal Satellite Services 2013 - PSATS'13, Toulouse, France.

He was:

- General Chair of the following international conferences; SPECTS 2014.
- General Co-Chair of the following international conferences: 2nd International Conference on Personal Satellite Services 2010-PSATS '2010 Rome, Italy, February 2010.
- Technical Program Co-Chair of the following international conferences; SPECTS 2005, Philadelphia, USA; IEEE Globecom 2006 - Satellite and Space Communications Symposium, San Francisco, USA; IEEE Globecom 2007 - Wireless Networking Symposium, Washington DC, USA; ICC'08 - General Symposium, Beijing, China Globecom; IEEE 2008 Symposium on Selected Areas in Communications, New Orleans, USA; ICC'09 - Wireless Networking Symposium, Dresden, Germany; International Conference on Personal Satellite Services 2009-PSATS '09, Rome, Italy, March 2009; SPECTS 2013, Toronto, Canada; 2017 Tyrrhenian International Workshop on Digital Communications. Towards A Smart And Secure Future Internet.
- Keynotes speech and Tutorial Committee Chair of the following international conferences: ISAECT 2019, International Symposium on Advanced Electrical and Communication Technologies, Rome, Italy, November 2019.
- Member of the "Technical Program Committee" of over 100 international conferences, where he often played the role of "Session Chair" and / or "Session Organizers" frequently presenting his scientific work personally.

PUBLICATIONS

He is the author of the book "Quality of Service over Heterogeneous Networks", John Wiley & Sons, Chichester, 2007, and author/co-author of more than 300 scientific works, including international magazines, international conferences and book chapters. See <https://www.scnl.diten.unige.it/publications> for the complete list.

Contribution to Research

Per ulteriori informazioni:
www.cedefop.eu.int/transparency
www.europa.eu.int/comm/education/index_it.html
www.eurescv-search.com

The most important contribution of Mario Marchese's scientific activity was in the field of **heterogeneous networking**. He was among the first to understand the problems of TCP and transport levels on satellite routes providing, at the same time, algorithmic solutions and architectures to solve them. He devised and applied control strategies in telecommunications for the dynamic assignment of the channel bandwidth in satellite communications and heterogeneous networks obtaining scientific results that have been published in some of the most prestigious journals in the sector, as clear from the list of publications. He published the book "Quality of Service over Heterogeneous Networks ", Wiley, in 2007, which contains a new vision of Quality of Service in telecommunications networks composed of satellite, radio and wired sections. Research topics treated and results obtained have had and have a significant impact both on the topics of the Academic Courses which Mario Marchese holds, and on the teaching methodology, allowing to highlight in the lesson practical and experimental aspects. Research activity has always tended to maintain a high scientific level but it has always been developed within topics of great application and industrial interest, as certified both from the list of projects (<http://www.scnl.dist.unige.it/projects>) on which Mario Marchese has worked and from the filed patents. The main reference of the research activity carried out is the management of the **Quality of Service (QoS) in heterogeneous telecommunications networks** involving portions of **satellite networks** and interplanetary sections in the deep space for which appropriate schemes for data transmission were elaborated during the scientific activity. Quality of Service management in a heterogeneous network requires the introduction of network control solutions at both the architectural level and at strictly algorithmic level. The results and the related conclusions are direct consequences of the research activity developed by Mario Marchese throughout his scientific career.

The conducted research activity represents both temporally and scientifically the evolution of the research developed since 1992 and initially dedicated to the control of admission and routing in multi-service ATM networks. The studied control techniques have represented the scientific-cultural basis for all subsequent scientific activities and, in particular, for the allocation and control of resources in integrated networks. The schemes elaborated for ATM have been used as background for the development of control mechanisms in TCP/IP networks. In this last case, the research was focused, from 1998-1999, on satellite and space systems, where mechanisms have been specifically studied to improve the quality offered by the network through protocol actions. The research carried out previously and the acquired experience has led to propose an extended view of the Internet (within the already existing concept of Future Internet) that also includes portions in the deep space in order to create a global communication network. The natural extension of the studies in interplanetary networks has been the application of DTN solutions (Delay and Disruption Tolerant Networks). The research activity in this context continued with the analysis of specific problems such as the use of a node model for Intermittently Connected Networks (ICN) and the evaluation of the average delay, related to the delivery of packets, in networks where there is no guarantee that the source and destination are constantly connected. Furthermore, this activity gave rise to an international initiative dedicated to information routing in DTN networks, with particular reference to nanosatellites. The extension of satellite networks to the 5G domain, based on SDN and NFV paradigms, and cybersecurity for critical infrastructure protection are the latest evolutions of the research activity described above. The current research is related to two main topics: **Non-Terrestrial Networks (NTN)** and **Cybersecurity**, fully described at <https://www.scnl.dist.unige.it/research>.

"According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Mario Marchese