

Associate Prof. Luca Valcarenghi - Curriculum vitae

(<https://www.santannapisa.it/it/luca-valcarenghi>)

Associate Prof. Luca Valcarenghi (IEEE Senior Member), has more than 20 years of academic and professional experience in research, teaching and technology transfer.

EDUCATION

- Laurea degree in Electronics Engineering (1997), Politecnico di Torino, Italy
- M.S. in Electrical Engineering (1999), The University of Texas at Dallas (UTD), Dallas, TX, USA
- Ph.D. in Electrical Engineering-Telecommunications (2001), The University of Texas at Dallas (UTD), Richardson, TX, USA

ACADEMIC CAREER AND SERVICES

Current Position

- Dec. 2014-to date Associate Professor, Scuola Superiore Sant'Anna, Pisa, Italy

Previous Positions

- Oct. 2010- Dec. 2014 Assistant Professor, Scuola Superiore Sant'Anna, Pisa, Italy
- Mar. 2010-Sep. 2010 Research Associate, CNIT-National Laboratory of Photonic Networks, Pisa, Italy
- Sep. 2008-Feb. 2010 Consulting Assistant Professor, Scuola Superiore Sant'Anna, Pisa, Italy
- Aug. 2002-Jan. 2002 Research Associate, The University of Texas at Dallas, Richardson, TX, USA

Academic Services

- He advised several Bachelor, Master, and Ph.D. students and he is currently teaching courses on Optical Network Design, Network Simulations, and Field Programmable Gate Array (FPGA) for communications network prototyping.
- 11/2016- to date Vice-director Interuniversity master programme in Computer Science & Networking (UniPI-Sant'Anna) (<https://www.di.unipi.it/it/didattica/wtw-lm>)
- 2018-to date Director Ph.D. in Emerging Digital Technologies, Scuola Superiore Sant'Anna, Pisa Italy

SCIENTIFIC COMMUNITY SERVICES AND CONFERENCE ORGANIZATION ACTIVITIES

- Dec. 2017-to date vice-chair IEEE Optical Networking Technical Committee
- Jan. 2017-to date IEEE "Communications Magazine", Associate Technical Editor
- Jan. 2016-to date Elsevier "Optical Switching and Networking", Associate Editor
- 2014- to date IEEE Senior Member
- 2000-2003 - SPIE/Kluwer "Optical Networks Magazine", Feature Editor
- He actively participated in the TPC and organizing committee of several IEEE conferences, such as Globecom, ICC "Optical Network and System Symposium" and "Next-Generation Networking & Internet Symposium", Symposium on High Performance Interconnects (Hot Interconnects), International Conference on Optical Network Design and Modeling (ONDM), International Conference on Transparent Optical Networks (ICTON). For example he has been:
 - TPC co-chair, "Optical Network and System Symposium", IEEE ICC 2011, Kyoto, Japan
 - TPC co-chair, "Optical Network and System Symposium", IEEE ICC 2015, London, UK
 - Steering committee member, First and Second "Workshop on Green Broadband Access" at ICC 2013 (Budapest, Hungary) and Globecom 2014 (Austin, TX, USA)
 - Co-chair of the "Workshop on Green Optical Communications (GOC)" co-located with ICTON from 2012 to 2018.

RESEARCH INTERESTS AND PUBLICATIONS

Dr. Valcarengi main research interests are optical networks design, analysis, and optimization; communication networks reliability; energy efficiency in communications networks; optical access networks; terrestrial transport networks for mobile communications.

He published more than two hundred papers (source Google Scholar, Nov. 2018) in International Journals and Conference Proceedings. Two of them has been cited more than two hundred times and two of them more than one hundred time. Research indices:

- Google Scholar
 - Citations 2544
 - h-index 25
- Scopus
 - Citations 1651
 - h-index 20

PROJECTS AND GRANTS

Dr. Valcarengi participated to several NSF and EU funded projects. He has been research unit coordinator of five EU funded projects and of one Region of Tuscany funded project. He has also been co-recipient of an IEEE Standards Education Grant for the project "FPGA-based Design and Evaluation of an Energy-Efficient 10G-EPON" presented by Dung Pham Van (Student) and L. Valcarengi (Faculty Advisor), Aug. 15, 2013 (http://www.ieee.org/education_careers/education/standards/published_applications.html).

- Apr. 2013-Aug. 2013, Y2012 JSPS "Invitation Fellowship Program for Research in Japan (Long Term)", Photonic Networks Laboratory of Osaka University, research on energy efficient TWDM PON, supervisor Prof. Ken-Ichi Kitayama
- Apr. 2009-Sep. 2009, Fulbright Reaserch Scholar Fellowship in 2009, Photonics and Networking Research Laboratory (PNRL), Stanford University, supervisor Prof. Leonid Kazovsky.

HONORS

- IEEE Communications Society Charles Kao Award for Best Optical Communications & Networking Paper 2018, Divya Chitimalla, Koteswararao Kondepu, Luca Valcarengi, Massimo Tornatore, Biswanath Mukherjee, "5G Fronthaul–Latency and Jitter Studies of CPRI Over Ethernet", IEEE Journal of Optical Communications & Networking, Vol. 9, No. 2, pp. 172-182, February 2017
- DISTINGUISHED STUDENT PRIZE for the paper Dung Pham Van, Maluge Pubuduni Imali Dias, K. Kondepu, L. Valcarengi, P. Castoldi and E. Wong, "Energy-Efficient Dynamic Bandwidth Allocation for Long-Reach Passive Optical Networks", OECC/ACOFT 2014, Melbourne, Australia.
- BEST STUDENT PAPER AWARD for the paper Dung Pham Van, L. Valcarengi, M. Chincoli, P. Castoldi, "Full FPGA-based Implementation of an Energy Efficient ONU with Cooperative Cyclic Sleep", IEEE/OSA Asia Communications and Photonics Conference (ACP) 2013, Nov. 12-15, 2013, Beijing, China
- BEST PAPER AWARD for the paper S.-W. Wong, L. Valcarengi, S.-H. Yen, D. Campelo, S. Yamashita, L. Kazovsky, "Sleep Mode for Energy Saving PONs: Advantages and Drawbacks", IEEE GLOBECOM Second International Workshop on Green Communications, Nov. 30 2009-Dec. 4 2009, Honolulu,