CURRICULUM VITAE

Luca Potì

Head of Research Area with CNIT (Consorzio Nazionale Interuniversitario per le Telecomunicazioni) at the Photonic Networks & Technologies Nat'l Lab

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Birth date:
Birth place:
Marital state   l
Nationality

1. PROFESSIONAL EXPERIENCE

Apr. 1997 – He graduated as Electronic Engineer with a specialization in Telecommunication at the University of Parma (Italy) with a thesis entitled: "Simulation and experimental measurements of joint effect of chromatic dispersion and Kerr nonlinearities in optical WDM systems". The thesis work was carried out in the optical communications laboratory at the University of Parma.

Feb. 1998 – Qualification for engineering profession.

1997 – 1998 Marconi Communications grant on the topic: "WDM communication systems on optical fibre" at the Marconi Laboratory of Parma University. Involved in the contract with Marconi at Parma University on '*Nonlinear effects due to fibers and EDFAs in WDM systems*'.

1998 – 1999 Post lauream grant at the University of Parma. Involved in the EU project DAWRON Design of Advanced Routed Optical Networks) with UCL-London and IIT on degradations due to linear and nonlinear effects.

Nov. 1998 – Visiting researcher at the Laval University, Quebec, Canada working on to the realization of a recirculating optical loop for long haul transmission.

2000 – 2001 CNIT researcher at the optical communications laboratory of the University of Parma.

2001 his research group demonstrated **first Italian transmission system working at 160 Gbit/s**.

June 2001 – Senior researcher with CNIT at the Photonics Networks National Laboratory in Pisa.

Oct. 2002 – Visiting researcher at the 'Communication Research Laboratory' - Tokyo- Japan, working on ultra-fast phase comparison for 160 Gb/s signals exploiting nonlinear phenomena in Semiconductor Optical Amplifiers.

2005 – He is Head of Research with CNIT (Consorzio Nazionale Interuniversitario per le Telecomunicazioni) managing **Ultrafast All-optical Subsystems** research area.

Jan. 2006 he founded **PhoTrix S.r.L.**, together with two CNIT researchers and CNIT, a new Company producing optical instruments.

2008 - Visiting researcher at the Tsinghua University in Beijing working on: Ultra-fast Photonic communications, Optical Processing, Optical Packet Switched Networks, Optical Measurement Systems and Techniques.

2009 – He is Head of Research Area with CNIT (Consorzio Nazionale Interuniversitario per le Telecomunicazioni) managing **Ultrafast All-optical Subsystems** research area, now **High Capacity Optical Systems**.

2011 his group demonstrated together with Ericsson **the first coherent system working at 448 Gbit/s** on an installed commercial apparatus in field trial hosting real traffic.

2012 his group demonstrated together with Ericsson **the first coherent system working as 1Tbit/s super-channel in a flexible optical network.**

2012 – He was invested with the **Career Award** PWI (Italian Web Award) for the outstanding research results in the previous 10 years in the field of Telecommunications.

2013 Scientific national qualification as Professor in Telecommunications.

2017 Scientific national qualification as Full Professor in Telecommunications.

2018 Promoter and responsible for the new technological Incubator "INCUBANDO" established in L'Aquila

2018 Associate Professor at Universitas Mercatorum - Roma
2021 Full Professor at Universitas Mercatorum - Roma

2. RESEARCH PROJECTS AND CONTRACTS (Coordination activity)

PERIOD	TITLE	INSTITUTION	ROLE	PARTNERS
1999-2001	Ultra high speed OTDM systems and techniques	MURST (Ministero dell'Università e della Ricerca Scientifica e Tecnologica)	WP Coordinator	Univeristà di Padova Politecnico di Milano Università Tor Vergata di Roma Università di Parma
2000	Centre for Communication Network Engineering (COFINLab 2000)	MURST (Ministero dell'Università e della Ricerca Scientifica e Tecnologica)	WP Coordinator	Scuola Superiore Sant'Anna di Pisa, Italy
2000-2002	Large Optical Bandwidth by amplifier Systems based on Tellurite fibres doped with Rare earths (LOBSTER)	EU - FP5	Scientific Coordinator	Università di Parma (Italia) CSELT (Centro Studi E Laboratori Telecomunicazioni - Italia) University of Southampton (Regno Unito) Friedrich-Schiller-University of Jena (Germania)
2001-2003	Ultrahigh bit rate OTDM transmission systems	MURST (Ministero dell'Università e della Ricerca Scientifica e Tecnologica)	WP Coordinator	Univeristà di Padova Politecnico di Milano Politecnico di Torino Università "Tor Vergata" di Roma Università di Parma
2004-2005	CNIT-ISCOM 2004	ISCOM Istituto Superiore delle Comunicazioni	WP Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) Istituto Superiore delle Comunicazioni (ISCOM)

2004-2006	Future optical communication networks beyond 160 Gbit/s based on Optical Time Division Multiplexing (OTDM) involving ultrafast photonic devices	MAE Ministero per gli Affari Esteri	Scientific Coordinator	Scuola Superiore Sant'Anna - Pisa, Italy Korea Institute of Science & Technology (KIST) - Seul, Corea
2004-2006	Optical Networks: Towards Bandwidth Manageability and Cost Efficiency	EU - FP6	WP Coordinator	>40 European Institutions
2005-2007	Optical Transmission Systems with Coherent Detection	MIUR (Ministero dell'Università e della Ricerca)	Experimental Activity Coordinator	Univeristà di Parma Politecnico di Torino Scuola Superiore Sant'Anna di Pisa, Italy
2006-2008	Enabling technologies for the design and implementation of next generation optical internet prototype based on optical packet switching	MAE Ministero per gli Affari Esteri	Scientific Coordinator	Scuola Superiore Sant'Anna - Pisa, Italy Indian Institute of Technology - Kharagpur, India
2006-2008	Optical Networks: Towards Bandwidth Manageability and Cost Efficiency	EU - FP6	WP Coordinator	>40 European Institutions
2006-2007	CNIT-ISCTI 2006	ISCTI (Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione)	WP Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione (ISCTI)
2007-2009	Design and implementation of a 2.5 Tbit/s Optical Time Division Multiplexing (OTDM) system	MAE Ministero per gli Affari Esteri	Scientific Coordinator	Scuola Superiore Sant'Anna - Pisa, Italy Korea Institute of Science & Technology (KIST) - Seul, Corea
2007-2009	Laboratory for PhOtonic switching nETworks (POET)	FIRB - MIUR (Ministero dell'Università e della Ricerca)	Scientific Coordinator	Scuola Superiore Sant'Anna - Pisa, Italy Indian Institute of Technology - Kharagpur, India
2007-2009	Photonic Enabling Devices for Regeneration and Optical Switching (PEDROS)	FIRB - MIUR (Ministero dell'Università e della Ricerca)	Scientific Coordinator and Italian delegate for Scuola Superiore Sant'Anna	Scuola Superiore Sant'Anna - Pisa, Italy Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy Institut National de la Recherche Scientifique (INRS) - Montreal, Canada
2008-2009	Semiconductor-based photonic Circuits Operation for Optical Packet Switching (SCOOPS)	MAE Ministero per gli Affari Esteri	Italian Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy National Institute of Information and Communications Technology (NICT) - Tokyo, Japan

2008-2009	High-resolution near-infrared optical tomograph for bidimensional heart imaging thrugh pulsed fibre lasers	CEIIC	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy Scuola Superiore Sant'Anna - Pisa, Italy
2008-2010	Integrated subsystems for optical fibre communications fabricated through ion implantation of erbium-doped waveguies (LUNCH)	MIUR (Ministero dell'Università e della Ricerca)	Scientific Coordinator	Scuola Superiore Sant'Anna - Pisa, Italy Istituto per la Mircoelettronica e i Microsistemi CNR - Bologna, Italy
2009-2010	Signal processing for virtual and increased reality in design and sensors for robot systems and haptic interfaces	CEIIC	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy Scuola Superiore Sant'Anna - Pisa, Italy
2010	Polarization multiplexed coherent multilevel system 100G and 400G: translation of relevant DSP algorithms from SW implementation to a FPGA-based run-time implementation.	Ericsson S.p.A.	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2010-2011	SPEED	Ericsson Research RA Broadband Technologies	Co-coordinator	Scuola Superiore Sant'Anna - Pisa, Italy
2011	Demo MWC2011 Barcellona	Ericsson S.p.A.	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2011	Terabit coherent wavelength switched optical network (WSON)	Ericsson S.p.A.	Co-coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2011	Field trial Telefonica	Ericsson S.p.A.	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2012	Integrated Terabit transceiver for coherent systems	Ericsson S.p.A.	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2012	In-Line Tribology	ENEL S.p.A.	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy

2012-2014	COherent Terabit Optical NEtworks (COTONE)	MIUR (Ministero dell'Università e della Ricerca)	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy TeCIP- Scuola Superiore Sant'Anna - Pisa, Italy Univeristà di Parma, Italy
2012-2014	Elaborazione ed interpretazione di immagini multisorgente in campo biomedico (MULTISIM)	Regione Toscana	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy CNR, Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo", Pisa, Italy
2013-2015	Coherent Optical system Field-trial For spectral Efficiency Enhancement (COFFEE)	EU-GEANT	Coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy
2012-2015	Industry-Driven Elastic and Adaptive Lambda Infrastructure for Service and Transport Networks (IDEALIST)	FP7-ICT-2011-8	Research line coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy + 22 European Institutions
2017-2019	INCUBANDO	MAECI bilateral	Coordinator	CNIT - Pisa, Italy Tel Aviv Univedrsity, Israel
2017-2019	5G Metro	EU Horizon 2020	Research line coordinator	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT) - Pisa, Italy + several EU Institutions
2018	Next-generation coherent transponder (I)	Fiberhome	Coordinator	CNIT
2018-2021	ENabling quantum crYptoGraphy over standard optical coMmunicAtion systems (ENYGMA)	MAECI bilateral	Coordinator	CNIT Scuola Superiore Sant'Anna California State University Politecnico di Milano
2019	Next-generation coherent transponder (II)	Fiberhome	Coordinator	CNIT
2020	QUAntum SAfe network	Defense	CNIT Coordinator	Università di Roma La Sapienza CNIT Scuola Superiore Sant'Anna Università de 'L'Aquila' Università di Napoli 'Federico II'

2022	Next-generation coherent transponder (III)	Fiberhome	Coordinator	CNIT
2023	Flexibly Scalable Energy Efficient Networking (FLEX-SCALE)	EU	CNIT Coordinator	15 EU and associate members
2023	Agile uLtra Low EnerGy secuRe netwOrks (ALLEGRO)	EU	Research Line Coordinator	22 EU and associate members

3. RESEARCH PROJECTS AND CONTRACTS (Research activity)

PERIOD	TITLE	INSTITUTION	ROLE	PARTNERS
1996-1998	Design of Advanced Wavelength Routed Optical Networks (DAWRON)	EU INCO-DC	Research activity	Università di Parma, Italy University College London, UK Indian Institute of Technology - Kharagpur, India
1998-1999	Nonlinear effects due to fibre and EDFA in WDM systems	Marconi Communications	Research activity	Università di Parma, Italy
2000-2001	PMD compensation	Marconi Communications	Research activity	Scuola Superiore Sant'Anna - Pisa, Italy
2003	Design and analysis of ASE Re-circulating Ring (ARR) networks for steady-state operation.	Marconi Communications	Research activity	Scuola Superiore Sant'Anna - Pisa, Italy
2004	Theoretical and numerical analysis of ASE Re-circulating Ring (ARR) networks for steady-state operation, breakage, and restoration	Marconi Communications	Research activity	Scuola Superiore Sant'Anna - Pisa, Italy
2004-2005	Ultrashort optical sources prototyping	Fondazione Cassa di Risparmio di Pisa	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy
2006	Feasibility study for 100 Gb/s Ethernet transport	Ericsson	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy

2008-2010	GOverning the SPEed of Light (GOSPEL)	EU FP-7	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy Technion - Israel Institute of Technology, Israel Ecole Polytechnique Fédérale de Lausanne, Switzerland Universidad Politécnica de Valencia, Spain Technical University of Denmark, Denmark Universität Kassel, Germany Thales S.A., France Yonsei University-Seoul, Korea
2008-2010	Pan-European Photonics Task Force: Integrating Europe's Expertise on Photonic Subsystems (EUROFOS)	EU FP-7	Research activity	17 European research Institutions
2008-2010	Building the Future Optical Network in Europe (BONE)	EU FP-7	Research activity	> 40 European research Institutions
2009-2010	Integrated time domain optical interleaver for photonic-based full-digital radar receiver within Advanced Components Cooperation for Optoelectronics Research and Development (ACCORD)	EU FP-7	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy Pirelli, Italy
2009-2012	PHOtonic-based full DIgital Radar	European Research Council Starting Grant	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy
2009-2011	ACtivE PLAsmoNics and lossless metamaterials (ACEPLAN)	Europen Consortium NanoSci-ERA	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy
2011-2013	Architetture di Reti e Nodi Ottici per la Trasmissione ad alta capacità, il Trasporto accesso-metro-core basati su Tecnologie fotoniche integrate (ARNO)	Regione Toscana	Research activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy Ericsson S.p.A.
2017-2019	Fotonica Integrata Per Interconnessioni Luminose Intra-chip, Intra-board e Intra-System (FIPILI3)	Regione Toscana	Research Activity	Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy

4. REVISION, DISSEMINATION, AND EVENT ORGANIZATION

2023 Patronage Chair for the International Conference on Communications (ICC '2023 -Rome)

From 2021 Member of the Editorial Board of "Tesi (Territori, Economia, Società e Istituzioni)" joint initiative supported by Centro Studi delle Camere di commercio G. Tagliacarne and Universitas Mercatorum.

From 2021 Review Editor for the Journal "Frontiers in Communications and Networks – Networks".

2020 Applied Sciences (ISSN 2076-3417, IF 2.217) Guest Editor for the special issue intitolato "New Trends in Optical Networks"

2019 IEEE GLOBECOM 2019 Workshop on Quantum Communications and Information Technology TCP member

2019 Editorial board member for the Journal "Semiconductor Science and Information Devices" published by Bilingual Publishing CO.

2018 Italian Project PRIN Evauator

2018 IEEE International Conferenco on Photonics ICP2018 Technical Committee Member

2018 ECOC 2018 Publication chair

2018 Italy-Israel bilateral workshop on "Bilateral Photonics Innovation Workshop" organizer (Jerusalem)

2018 Photonics MDPI Special issue Editor "Lightwave Communications and Optical Networks"

2017 IEEE SCOReD 2017 Technical Committee Member

2017 IEEE Summer Topical Meeting Technical Committee Member

2017 Italy-Israel bilateral workshop on "Innovation in devices and systems for ICT" organizer (Roma)

2015 Photonics in Switching 2015 Generla Chair

2016 Photonic Guest Editor

2013 ECOC 2013 Technical Committee Member

From 2007 Member of the IEEE Photonics in Switching technical committee

From 2015 Steering Committee Member for the international conference IEEE Photonic in Switching now renamed to Photonic Switching and Computing

2008 Member of the organizing committee of 2008 Korea-Italy Bilateral Workshop on Photonics for Communication and Sensing, October 22-23, 2008, Seoul, Korea.

2004 Member of the organizing committee of the international conference IFIP OpNeTec 2004 (Optical Networks & Tecnologies), October 18-20, 2004 Pisa.

From 2004 reviewer of IEEE/OSA Journal of Lightwave Technology, IEEE Journal of Selected Topics in Quantum Electronics, IEEE Photonics Technology Letters, IEE Electronics Letters, OSA Optics Express, Elsevier Optics Communications, Optical Fiber Technology, IEEE Journal of Quantum Electronics, and more international and national journals.

From 1998 co-author of 432 pubblications including: 1 book, 6 book's chapters, 58 international patents with Marconi Ericsson, 8 invited manuscripts published on international journals, 114 regular manuscripts published on international journals, 22 invited talks at international conferences, and 223 papers presented at international conferences. H-index, as shown by Scopus rating system, is 28 with a number of citations exceeding 3618.

These documents h-index   28

Of the documents considered for the h-index, 28 have been cited at least 28 times
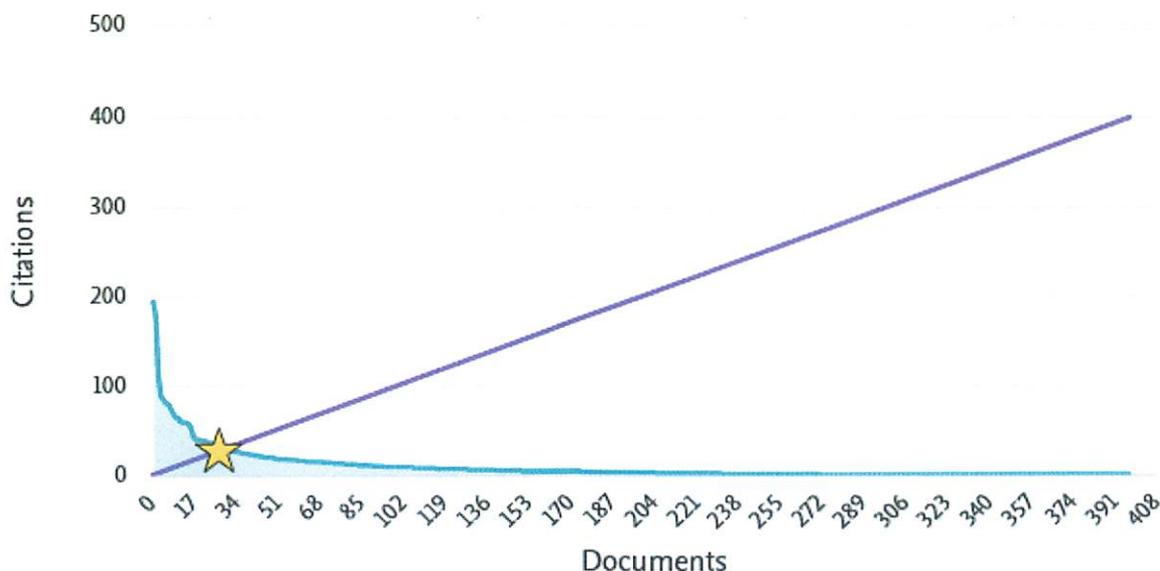
Google Scholar shows slightly different values with a number of citations of about **4252, H index 31 and an i10-index 111**.

Citata da VISUALIZZA TUTTO

	Tutte	Dal 2017
Citazioni	4252	1717
Indice H	31	18
i10-index	111	46
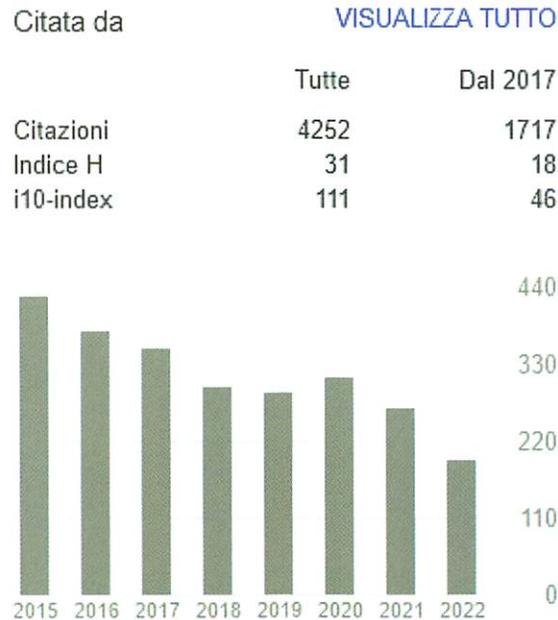
5. TEACHING ACTIVITIES

From 2019 Professor of "Distribuited ICT systems" at the Universitas Mercatorum 9CFU

From 2018 Professor of "Foundamental of Telecommunications" at the Universitas Mercatorum 9CFU

2017 PhD external evaluator for Perrone Pierluigi thesis titled "An optical communication system with multilevel polarization modulation for high-capacity twisted optical fibers", and Giuseppe Giulio Rutigliano thesis titled "Physical layer security for optical communications", at the Università degli Studi di Roma "TorVergata".

2014-2015 Contract Professor for the course "Coherent Optical Communications systems" within the Master Telecom

2013- Contract Professor for the course "Commutazione fotonica" I semester, II year.

2013-2014 Contract Professor for the course Lab. Of Photonic Switching – part.1/part2 6CFU

2013 Contract Professor for the Master Telecom "Smart Solutions Smart Communities" course of "Coherent Optical Communications systems"

2012-2013 Contract Professor for the course Lab. Of Photonic Switching – part.1/part2 6CFU

2011-2012 Contract Professor for the course Lab. Of Photonic Switching – part.1/part2 6CFU

2010-2015 Contract Professor for the course "Photonic Switching" within the Graduate Program in Information and Communciation Technologies organized by the Scuola Superiore Sant'Anna of Pisa Italy.

2012 – 2014 International Committee Member of Master on Communication Networks Engineering AA.AA. 2012/14 IV ed.

2012- 2015 Member of "Consiglio del Corso di Laurea Magistrale in Informatica e Networking"

2012-2015 Member of "Commissione Didattica del Corso di Laurea Magistrale in Informatica e Networking "

2010-2012 Contract Professor for the course **"Photonic Switching"** within Graduate Program in Information and Communciation Technologies organized by Scuola Superiore Sant'Anna, in Pisa Italy.

20010-2012 Contract Professor for the course **"Photonic Switching"** within the Masters on Photonic Networks Engineering organized by Scuola Superiore Sant'Anna, in Pisa Italy.

2010-2012 Contract Professor for the course **"Photonic Switching"** within the Doctoral Program in Emerging Digital Technologies organized by Scuola Superiore Sant'Anna, in Pisa Italy.

2005-2012 Contract Professor for the course **"Fundamentals of optical communications & optical transmission systems"** within the International Master on Communication Networks Engineering organized by Scuola Superiore Sant'Anna, in Pisa Italy.

October 2005 **Contract Professor** in the Training Course on **"Fibre optics for optical fibre communications",** in Cape Coast, Ghana

2004-2006 **Contract Professor** within the **"Optical Communications"** course at Pisa University in Pisa Italy.

2003 PhD external evaluator at Aston Univeristy.

2003-2007 **Contract Professor** within the project **"Optical Fiber Communications"** at ISIS Mattei Institute, Rosignano Italy.

1999- 2001 **Contract Professor** for the course **"Optical Communications"** at Parma University.

From 2000 **Tutor** for more than 30 degree theses in Electronic Engineering and Telecommunication Engineering of Parma University and Pisa University, Italy and more that 20 PhD.

6. MANAGEMENT ACTIVITY

2001 As a person in charge he managed Optical Communications laboratory equipment when the Photonic Networks National Laboratory was established in Pisa.

2001 - 2004 He shared the responsibility of managing the research group named "Ultrafast Communications" where he was coordinating an approximate constant number of 15 researchers including university researchers, PhD students, and MS students.

2005 - 2009 He is managing the "Ultrafast All-optical subsystems" research sub-area at the the Photonic Networks National Laboratory of CNIT in Pisa, Italy

2009 - 2016 he is managing the area of "High Capacity Optical Systems" at the the Photonic Networks National Laboratory of CNIT in Pisa, Italy

From 2016 he is managing the area of "High Capacity and Secure Optical Systems" at the the Photonic Networks National Laboratory of CNIT in Pisa, Italy

He is coordinating a number of national and international activities in collaboration with other research institutions such as: the "Korean Institute of Science and Technologies", Seoul – Korea; the "National Institute of Information and Communications Technology (NICT)" - Tokyo, Giappone, the "Indian Institute of Technology" - Kharagpur, India, the "Institut National de la Recherche Scientifique (INRS)" - Montreal, Canada; the "Istituto per la Mircoelettronica e i Microsistemi" CNR - Bologna, Italy and a number of European Universities.

He is promoting, organizing, and managing official events (Workshops, Conferences, Experimental demonstrations, etc...) intended to enhance the laboratory international visibility and to increase collaborations both in numbers and quality.

As a proof for international collaborations and research group management more than 400 publications and 30 projects have been produced starting from 1998.

7. Awards and recognitions

2006 CNIT recognition for individual performance
2006 CNIT recognition for 2005 activity
2007 CNIT recognition for patenting activity
2010 Best Paper AWARD ICC 2010
2012 PWI carreer award for significant results obtained in previous 10 years
2015 Best paper award ONDM 2015
2017 Chalres Kao Award for your excellent paper "Sliceable Transponder Architecture Including Multiwavelength Source", IEEE Journal of Optical Communications & Networking, Vol. 6, No. 7, pp. 590 - 600, July 2014.

8. International Roles

2005 Italian Representative for CNIT in the Canada-Italy bilateral research collaboration Memorandum of Agreement
1998-2017 Member IEEE
2017- Senior Member IEEE
2017 - Technical Committee Member - Quantum Communications and Information Technology (QCIT) – IEEE Comsoc

9. Publications

9. 1: Books

[1] Bogoni A., and Potì L., "Elementi di Comunicazioni Ottiche", Pitagora Editrice, Bologna – Italy, 2003

9. 2: Books' chapters

[1] P. Nadimi Goki, A. Tufano, F. Cavaliere, and L. Potì, "*SOA Model and Design Guidelines in Lossless Photonic Subsystem*", in New Advances in Semiconductors. London, United Kingdom: IntechOpen, 2022 [Online].

[2] Bogoni A., Ghelfi P., Lazzeri E., Potì L., Scaffardi M., and Fresi F. - Optical Fibre, New Developments, "*Fibre Based Schemes for Ultrafast Subsystems: Nonlinear Optical Loop Mirrors Traditional Design and Novel Applications.*", I-Tech Education and Publishing KG, Austria - Vienna, 2009

[3] Porzi C., Guina M., Calabretta N., Bogoni A., and Potì L. - Semiconductor Technologies, "*Applications of saturable absorption-based nonlinear vertical-cavity semiconductor devices for all-optical signal processing*", I-Tech Education and Publishing KG, Austria - Vienna, 2009

[4] Bogoni A., Berrettini G., Ghelfi P., Malacarne A., Meloni G., Potì L., and Wang J. - Semiconductor Technologies, "*All-optical flip-flops based on semiconductor technologies*", In-Tech, Austria - Vienna, 2009

[5] Berrettini G., Bogoni A., Fresi F., Meloni G., and Potì L. - Advances in Lasers and Electro optics, "*Evolution of Optical Digital Sampling*", I-Tech Education and Publishing KG , Austria - Vienna, 2009

[6] Berrettini G., Bogoni A., Lazzeri E., Meloni G., Porzi C., Potì L., and Scaffardi M. - Semiconductor Technologies, "*All-optical digital processing through semiconductor optical amplifiers: state of the art and perspectives*", IN-TECH, Austria - Vienna, 2009

[7] Malacarne A., Thomas S., Fresi F., Potì L., Bogoni A., and Azaña J. - Advances in Lasers and Electro optics, "*Programmable All-Fiber Optical Pulse Shaping*", I-Tech Education and Publishing KG, Austria - Vienna, 2009

9. 3: Journal papers

[1] E. Forestieri, M. Secondini, L. Potì, F. Cavaliere, "*High-Speed Optical Communications Systems for future WDM Centralized Radio Access Networks*," in Journal of Lightwave Technology, vol. 40, no. 2, pp. 368-378, Jan.15, 2022 (IF: 3.67)

[2] E. Wohlgemuth, Y. Yoffe, P. Nadimi Goki, M. Imran, F. Fresi, P. Doddaballapura Lakshmijayasimha, R. Cohen, P. Anandarajah, L. Potì, and D. Sadot, "*Stealth and secured optical coherent transmission using a gain switched frequency comb and multi-homodyne coherent detection,*" Opt. Express 29, 40462-40480 (2021).

[3] M. Imran, V. Sorianello, F. Fresi, B. Jalil, M. Romagnoli, L. Potì, "*On-chip tunable SOI interferometer for quantum random number generation based on phase diffusion in lasers,*", Optics Communications, Volume 485, 2021.

[4] Wohlgemuth E., Yoffe Y., Nadimi Goki P., Muhammad I., Fresi F., Potì L., Sadot D., "*Demonstration of Stealthy and Encrypted Optical Transmission Below Adjacent 50 GHz DWDM Channels,*" IEEE Photon. Technol. Lett., 32, 10, pp. 581-584, 2020.

[5] Cavaliere F., Prati E., Potì L., Muhammad I., Catuogno T., "*Secure quantum communication technologies and systems: from labs to markets,*" Quantum Reports, vol. 2, n. 1, pp. 80-106, 2020.

[6] Nadimi Goki P., Imran M., Porzi C., Toccafondo V., Fresi F., Cavaliere F., Potì L., "*Lossless WDM PON Photonic Integrated Receivers Including SOAs,*" Applied Sciences, v. 9, pag. 2457, 2019.

[7] Morsy-Osman M., Fresi F., Forestieri E., Secondini M., Potì L., Cavaliere F., Lessard S., Plant D. V., "*50 Gb/s short-reach interconnects with DSP-free direct-detection enabled by CAPS codes,*" Optics Express, 26 (14), pp. 17916-17926, 2018

[8] Malacarne A., Dallaglio M., Meloni G., Sambo N., Bogoni A., Neumeyr C., Potì L., Castoldi P., "*Software-defined reconfigurable VCSEL-based transmission,*" Optics Express, 26 (7), pp. 9095-9106, 2018

[9] Jalil B., Harwig V., Salvetti O., Potì L., Gargani L., Barskova T., Matucci Cernic M., L'Abbate A., "*Assessment of hand superficial oxygenation during ischemia/reperfusion in healthy subjects versus systemic sclerosis patients by 2D near infrared spectroscopic imaging,*" Computer Methods and Programs in Biomedicine, 155, pp. 101-108, 2018.

[10] Imran M., Anandarajah P. M., Kaszubowska-Anandarajah A., Sambo N. and Poti L., "*A Survey of Optical Carrier Generation Techniques for Terabit Capacity Elastic Optical Networks*," in IEEE Communications Surveys & Tutorials, vol. PP, no. 99, pp. 1-1. (IF:17.18)

[11] Vela A. P., M. Ruiz, F. Fresi, N. Sambo, F. Cugini, G. Meloni, L. Pot', L. Velasco, P. Castoldi, "*BER Degradation Detection and Failure Identification in Elastic Optical Networks*," in Journal of Lightwave Technology, vol. 35, no. 21, pp. 4595-4604, Nov.1, 1 2017 (IF: 3.67)

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