

Name: Luca Roselli

Nationality: Italian

Date of birth:

Home address:

Work address: University of Perugia, Department of Engineering (DI), High Frequency Electronic (HFE Lab), Via
06125, Perugia, Italy

Work phone:

Position held: Associate Professor (Full Professor qualified),

IEEE membership evolution: Member IEEE (1992), Senior IEEE (2001), **Fellow IEEE** (2018)

Education:

- 13 December 1988, Electronic Engineering, University of Florence “Laurea” thesis: “Surface acoustic resonators”, Supervisor: Prof. Carlo Atzeni.

Employments:

- Current position: Qualified full-professor in “Applied Electronics”, University of Perugia (since November the 1st, 2001), From 2005 he is responsible of High Frequency Electronics Laboratory (HFE-Lab).
- “Ricercatore” (formal Italian academic permanent position similar to “aggregate professor”) in Applied Electronics, University of Perugia (November 1,1991-November 1, 2001).
- Consultant under contract, six months, for MICREL S.r.l., to develop modeling of SAW chirp filters and resonators (1990 to 1991).
- Second Lieutenant in the Italian Army as a teacher of electronics equipment, since 1989 to 1990.

Visiting:

- Visiting Scientist (2 months) at Ferdinand Braun Institut fuer Hoechsthfrequenztechnik (FBH), Berlin, Germany 1993.
- Visiting Scientist (2 months) at Ferdinand Braun Institut fuer Hoechsthfrequenztechnik (FBH), Berlin, Germany 1994.
- Visiting Scientist (4 months) at the University of Michigan, Ann Arbor, US (Fulbright fellowship for researchers) 1997.

Teaching Activities

Since he was with the Italian Army in 1989 he started a continuous teaching activity in the area of applied electronics. Constantly at the University of Perugia since 1991.

More specifically he taught:

- “Electronic Equipment” (Italian Army), 1989.
- “Electronic Components”, as assistant professor, 1991-1993.
- “Applied Electronics”, as assistant professor, 1991-1999.
- “Electronic Devices”, 1994-1998.
- “Microwave Electronics”, 1995-2011.
- “Basics of Electronic Circuits”, 2000.
- “Telecommunication Electronics”, 2001.
- “High Frequency Electronic Components”, 2003-2009.
- “Applied Electronics”, 2009-2017.
- “System and Circuits for Internet of Things”, 2017-.
- “Electronic Circuits”, 2018-.

Supervision of PhD and visiting students, evaluation of M. thesis and PhD thesis

- Supervisor of the following PhD students:
 - Valeria Palazzari 2001-2003.
 - Francesco Pio Placentino 2005-2008.
 - Andrea Scarponi 2005-2008.
 - Gabriele Tasselli 2008-2010.
 - Giulia Orecchini 2009-2011.

- Luca Aluigi 2009-2011.
- Francesca Lolli 2009-2012.
- Andrea Battistini 2010-2012.
- Chiara Mariotti 2012-2015.
- Valentina Palazzi 2014-2017.
- Gabriele Brizi 2015-2018.
- PhD Assessment committee/external referee for the University of Florence, Italy (4 times); for the University of Pavia, Italy; for the University of Gent, Belgium; for the University of Aveiro, Portugal; for the University of Cantabria, Santander, Spain; for the University of Uppsala Sweden, (2 times) for the Georgia Institute of Technology (GTECH), Atlanta GE-US; for the University of Siena, Italy and for the University of Bologna, Ital.
- Advisor of the following visiting scientists within the Short Terms Scientific Mission program of the COST ACTION IC0803 (2012):
 - Petr Dvorak from the University of Prague.
 - Norbert Cheljuska from the University of Novi Sad.
 - Goran Kitic from the University of Novi Sad.
- Advisor of the following visiting scientists:
 - Dr. Nikolina Jankovic (from University of Novi Sad) within the EU project Innosense.
 - Mr. Sunny Kumar (from the PEC University of Technology Chandigarh, India).
- Supervisor of more than 150 Master Thesis, since 1992.

International Journals responsibilities:

- Associate Editor of IEEE Microwave Magazine.
- Associate Editor of the Cambridge University Press Journal on Wireless Power Transfer.
- Guest Editor of IEEE Microwave Magazine FI on: Microwave Technologies to make objects “smart”, 2018.
- Guest Editor of MDPI “Sensors”, 2016-2017.
- Guest editor of Proceedings of IEEE, SI on: Energy Harvesting and Scavenging, 2013.
- Guest editor of IEEE-Microwave Theory and Techniques Transactions, 2013.
- Guest editor of Wiley-International Journal of Numerical Modeling, 2009.
- Reviewer for Elsevier Publishing, Artech House, Cambridge University Press.
- Editorial Board Member of IEEE-Transactions on Microwave Theory and Techniques (since 1998).
- Editorial Board Member of IEEE-Microwave Components and Waveguides Letters (since 1995).
- Reviewer for several international reviews, including: Cambridge University Press-Wireless Power Transfer Journal, Cambridge University Press-International Journal of Microwave and Wireless Technologies, IEEE Sensor Journal, IEEE Proceedings, IEEE Antennas and Wireless Propagation Letters, IEEE Transactions on Industrial Electronics, IEEE Transactions on Industrial Informatics, IEEE Transaction of Electromagnetic Compatibility, IEEE Transaction on Antennas and Propagations, IEEE Photonics Technology letters, IEEE Journal of Lightwave Technology, John Wiley and Sons Encyclopedia, MDPI Sensors, Nature Publishing Group, IEEE Internet of Things Magazine.

International Conference responsibilities:

- Chairman and organizer of the IEEE-CEM-TD (Computational ElectroMagnetic-Time Domain) 2007, 15-17 October 2007, Perugia, Italy.
- Chairman and organizer of the first IEEE-Wireless Power Transfer Conference (WPTC) (flagship conference), 15-16 May 2013, Perugia, Italy.
- Co-chair of IEEE-WiSNet topical Conference (2016-2019).
- Chairman of the 6th RFCSET Workshop meeting (COST ACTION IC0803) Perugia, May 2011.
- Chairman of the IU.NET (Italian University Consortium for Nanoelectronics) biannual working days, Perugia, 21-22 Sept. 2017.
- Technical Program Reviewing Committee Member of IEEE International Microwave Symposium (IMS) since 1999; in this committee he had the responsibility of chairing the Sub Committee 03 (time domain modeling) in 2009 and 2010, the SC 32 (RFID Technologies) in 2011, 2012 and 2015 and the SC 35 (Wireless Power Transfer) in 2018.
- Technical Committee Member of IEEE CEM-TD (2003 and 2008).

- Technical Program Committee member of Wireless Power Week (2019).
- Executive Committee member of IEEE-WPTC (Wireless Power Transfer Conference –since the beginning).
- Advisory Committee member of IEEE-WPTC (Wireless Power Transfer Conference – since the beginning).
- Steering Committee member of IEEE-IMS 2008, 15-20 May 2008 Atlanta GE, as Student Competition Chair.
- Steering Committee member of IEEE RFID-TA 2011 Conference as Publicity Chair.
- Organizer of the Working day: “Formula 1 and consumer car: a continuous dialogue”, Perugia “Aula Magna” of the Faculty of Engineering, March 2008.
- Co-organizer of the Workshop "Flexible, autonomous RFID-enabled sensors: novel applications, energy harvesting and integration challenges," in the IMS 2011.
- Co-organizer of the Workshop "Nanotechnology-enabled RF and cognitive devices components and systems" in the IMS 2011.
- Co-organizer of the Convened Session "RFID technologies" (COST IC0803/IC0603) in the EUCAP 2011 conference.
- Co-organizer of the Workshop "RFIDs and RFID-enabled sensors: novel applications, energy harvesting and integration challenges." in the EuMW 2011.
- Co-organizer of the Workshop “Looking further than the internet of things – Wide Area Electronics,” in the IEEE-IMS 2013.
- Co-organizer of the Workshop WM4 on "Wireless concurrent technologies for the Smart Evolution of cities " in the EuMW 2014.
- Co-organizer of the Workshop WS11 on "Far-field Wireless Power Transmission " in the EuMW 2015.
- Chair of the Workshop “European initiatives to develop Wireless Power Supply for sensor node evolution” within IEEE-WISNet 2016.
- Chairman of the IV IU.NET day (National inter-University Consortium for the nanoelectronics), Sep. 2017.
- Member of the panel of reviewers of the European Microwave Conference (EuMC).
- Member of the Technical Program Reviewing Committee of the IEEE-WISNet Conference.
- Member of the Technical Program Committee of the EUCAP Conference.
- Member of the Technical Program Committee of the IEEE-RFID-TA Conference.
- Member of the Reviewing Committee of Asia Pacific Microwave Conference APMC RC-27 Wireless Power Transfer and Energy Harvesting.
- Member of the Technical Program of the Electronic Components and Technology Conference (ECTC), till 2018.
- Member of the Technical Program Committee of the International Conference on Microwave and Photonics (ICMAP-2015).
- Student competition judge at IEEE-RWW (2015-2017).

Granted project evaluation, activity:

European panels

- H2020 RIA- ICT Projects Expert panelist (2018).
- Expert evaluator for the Academy of Finland, since (2018).
- Expert evaluator for the Research Council of Lithuania, DAINA projects, since 2017.
- Expert evaluator of H2020-FET OPEN Projects, (2016).
- Expert evaluator panelist for the European Research Council (ERC), Panel PE7 “System and Communication. Engineering” (2011-2017).
- Expert evaluator for FWO Foundation for scientific research in Belgium, (2011).
- Expert evaluator for DTU Oersted COFUND Programme, Denmark (2018-).
- Expert evaluator for Cyprus RPF (Research Promotion Foundation) (2019-).

National panels

- Expert evaluator for “Regione Campania” (Campania region), since 2018.
- Expert evaluator for “Fondazione Cassa di Risparmio di Verona”, since 2018.
- Expert evaluator for “Fondazione Cassa di Risparmio di Padova e Rovigo”, since 2017.
- Expert evaluator for “Provincia Autonoma di Trento”, since 2016.

- Expert evaluator for “Regione Emilia Romagna” (Emilia Romagna region), since 2015.
- MIUR (Italian Ministry of Instruction University and Research) in the list of expert evaluators, since 2005.
- Expert evaluator of MUR (Italian Ministry of University and Research) for 2020 FISIR-COVID CALL.
- Expert evaluator for Italian Ministry of Defense since 2020.

Institutional commitments

- Member of the board of expert of MIUR (Italian Ministry of Instruction University and Research) for the writing of the National Research Plan (PNR) 2019 (table “green technologies” – coordinator).

Scientific community servicing activity

- Member of the IEEE-MTT-Technical Coordination Committee (2009-2012 and 2017).
- Member of Technical Committee IEEE-MTT-24 (RFID Technologies), Vice chair 2009-2010, Chair 2011-2012.
- Member of Technical Committee IEEE-MTT-25 (RF Nanotechnologies), since 2011, Vice Chair 2017-2018, Chair 2019-.
- Member of Technical Committee IEEE-MTT-26 (Wireless Power Transfer), since 2011, Vice Chair 2017-.
- Member of the Governing board of EuMA Topical Group MAGEO (Microwaves in Agriculture, Environment and Earth Observation).
- IEEE-MTT-S Representative within the IEEE-IoT Initiative (2019-).

Research interest and expertise:

Applied Electronics – High Frequency Electronics - RFIDs – RFID sensors - printable circuits – green electronics – compostable electronics - microfluidics-Wireless Power Transfer (microwave transfer) - Internet of Things RF Technologies – Wireless Sensor Networks (WSN) technologies - additive and hybrid manufacturing - technologies for wireless sensor networks – Large Area Electronics (LAE).

Project involvement and funding ID:

Here a synoptic table summarizing funded project involvement, relevant responsibilities and commitments. The funding are rounded to .5 K€ and refer to the budget of the managed task not to the overall project, figures related to projects before 2002 are converted in euros according to the official rate.

Project led

Project / Company	Year	Subject/ short description	Fund	Responsibility
MADESS 2/MIUR	1998	Design Methodology for “wireless” applications with radio frequency in CMOS sub-micrometrical technologies	12 K€	Proj. manager
DOLP s.p.a.	1998	Study, development and realization of oscillators prototypes controlled in tensions for telecommunications in S/C band	2 K€	Proj. manager
ITELCO s.p.a.	1999	Study, development and realization of amplifier prototype in I band based on LDMOS devices	2.5 K€	Proj. manager
DOLP s.p.a.	1999	Study and development of filters in square wave-guide “dual mode” type with response compatible with DVB standard	7 K€	Proj. manager
TEKMAR s.r.l.	1999	Development of subsystems passive controllers filters for microwaves and radio-frequency in planar technology with prototypes relevant to IMT 200 band	5 K€	Proj. manager
Magneti Marelli s.p.a.	2000	Development of front-ends for F1 telemetry	35 K€	Proj. manager
COFIN 2000/MIUR	2000	Poly-phase filters in CMOS for DECT applications	41 K€	Proj. manager
TEKMAR s.r.l.	2000	Development of predistorsion system for laser diodes for “Radio over Fiber” type systems	26 K€	Proj. manager
MARCONI s.p.a.	2001	Development of linearization system for amplifiers of medium power with large band	32 K€	Proj. manager
Delta Meccanica s.r.l.	2002	Design of filters of power for DVB-T applications	7.5 K€	Proj. manager
WiS s.r.l.	2002	Development of control electronics for transceivers with large band	20 K€	Proj. manager
Consorzio Cresci	2005	Design and realization of electronic systems assigned to remote control (wireless and wired) of matrix sensors for the survey of air condition or specific gas emissions	20 K€	Proj. manager
Georgia Institute of Technology	2005	Development of radar sensor subsystems in LTCC and LCP Technologies	8 K€	Proj. manager
SISAS s.r.l.	2006	Pre-certification of blinking lights for road signalling	2 K€	Proj. manager
WiS s.r.l.	2007	Development of radar sensors for automotive applications	200 K€	Proj. manager
WiS s.r.l.	2007	Development of telemetry systems for applications to human being and animals	180 K€	Proj. manager
Georgia Institute of Technology	2008	Development of radar sensor subsystems in LTCC and LCP Technologies	8 K€	Proj. manager
ADAHILI /ASI	2009	Feasibility study for the realization of a W band radiometer for the solar observation of solar flares	60 K€	Co Principal investigator
ART s.r.l.	2009	Feasibility study for radar front end for car speed detection along highway	7 K€	Proj. manager
ENLIGHT/ENIAC JU	2011	European project within JTI ENIAC about intelligent lighting	735 K€	Proj. manager
IDEAS /ENIAC JU	2012	European project within JTI ENIAC about reconfigurable electronics for efficient electric cars	300 K€	Proj. manager
GRETA/MIUR	2012	Localization, identification and sensing by UWB techniques based on green technologies	260.5 K€	Proj. manager
DI	2015	Modeling of linear actuators for fuel injectors	15 K€	Proj. manager
ROVER LAB s.p.a.	2016	Feasibility study of harmonic sensors for crack detection	2 K€	Proj. manager
Hitech Solutions	2018	Sensors for lubricant layers thickness	8 K€	Proj. manager
EU-ECSEL-Adacorsa	2019	RF technologies for BLOS drones	375 K€	Proj. manager
EU-ECSEL-CHARM	2019	Condition monitoring in harsh environment (for spin-off)	210 K€	Proj. manager
TOTAL			2580.5 K€	

Project participated with non leading responsibilities

ESA-ESTEC	1993	Optimisation routines for the efficient CAD of microwave wave guide components	18 K€	Team leader
MURST ex 40%	1997	Microelectronic and nanoelectronic techniques	8.5 K€	Team leader
TMR	1997	Development of models and circuits for the develop of “almost optics” frequency multipliers	170 K€	Team leader
ALENIA s.p.a.	1998	Study and design of wide band microstrip to waveguide transitions	6 K€	Designer
ITELCO s.p.a.	1998	Design of two prototypes of “dual-mode” filters with DAB-T and DVB-T response in rectangular wave-guide fed in square coaxial cable	6 K€	Designer
EEMS s.p.a.	1999	Extraction of parasitic parameters characteristic of specific involucre for memories with semiconductor	7.5 K€	Designer
“TOP-MELON”	2010	Development of miniaturized low cost sensors for the monitoring of sensitive data for melon farming	60 K€	General supervisor (advisor of the project manager Valeria Palazzari)
SAIPEM s.p.a.	2010	Investigation of new RF technologies for buckle detection	45 K€	Task leader
SAIPEM s.p.a.	2011	Further investigation on new RF technologies for buckle detection and design of WIFI antenna for intra-pipe wireless communications	100 K€	Task leader
ARTEMOS/ENIAC JU	2011	European project within JTI ENIAC about reconfigurable transceivers	1500 K€	Broker and Task leader
SAIPEM s.p.a.	2012	Further investigation on new RF technologies for buckle detection and design of WIFI antenna for intra-pipe wireless communications	70 K€	Task leader
Brunello Cucinelli	2017	Development of RFID circuits in fabrics	80 K€	Task leader
PRIN -MIUR	2018	Sensors on unconventional biodegradable materials	90 K€	Unit Co-PI
EU-ECSEL-CHARM	2019	Condition monitoring in harsh environment (for UNIPG)	990 K€	Broker and Task leader
TOTAL			3151 K€	

Technology Transfer:

- Director of the works for the realization of a 35 m² clean room (10,000 to 100 class under laminar flow) at the University of Perugia.
- Funder (in 2000) and general manager of the first spin-off company, WiS S.r.l., of the University of Perugia. This company, at its top, before being acquired by a bigger research center (ART S.r.l. now ART S.p.A.) had an annual revenue of 900 K€, hiring 12 engineers. Core business being the realization of HF electronic systems for Formula 1 cars (Telemetry systems). These products equipped, among the others, Ferrari and Renault F1 teams that won continuously the F1 world championship in those years.
- Director of the Scientific and Technical Committee of ART srl (2008-2011).
- Member of the Board of Directors of ART S.r.l. (2008-2011).
- Member (2003-2006) of the Technology Transfer Committee of the University of Perugia and writer of the first draft version of the Technology Transfer Regulation of that University.
- Representative of the University of Perugia within inter-university consortium IU.NET (university consortium for nanoelectronics) since 2015.
- Member of the patent proposal evaluation committee of the University of Perugia (2018-).
- In January 2019 he founded Luna Geber Engineering S.r.l., a spin-off company of the University of Perugia. This company has the mission to transfer the most advanced results of the research in the area of electronic technologies for IoT into products with a special focus on systems for massively distributed monitoring in the areas of precision farming, animal monitoring, building maintenance and condition monitoring. It won the first prize of the Regional Start-cup in Umbria for the best start-up idea, and it was selected among the top finalists (16 over more than 400 competitors) in the national Start-cup competition.

Granted Patents:

- id=TR2006A000017, "Sistema automatico di rilevamento dei piattelli rotti nel tiro a volo", 7 December 2006.
- id=TR2008A000005, "Sicurezza contro gli infortuni derivati dall'utilizzo di utensili da taglio", 6 November 2008.

- id=RM2012A000190, “Sistema di codifica, decodifica e ricetrasmisione senza fili di dati sensoriali”, 2 May 2012. Extended as European Patent application patent: 13161946 2 – 1811.
- “Rete di ripartizione a radiofrequenza riconfigurabile”, submission code: 102018000006163, pending.

Publications:

87 articles in international peer-reviewed journals, 2 books published by Wiley and Cambridge University 9 book chapters, almost 250 articles in international peer-reviewed conferences.

Citations (31/07/2020):

3470 citations (h-index 31, i10-index 92) in Google Scholar.

His academic life has been always characterized by a great independency. Even in his early career, (1992 to 2000), at the time he was “Ricercatore” (Aggregate Professor) he had no supervisors, only an intense cooperation with the Electromagnetic Group of the University of Perugia where he introduced and developed, together with a PhD student (at that time): Paolo Mezzanotte (associate professor at present), the FDTD method (bullet a. in the following list). After he became Associate Professor in 2001, he decided to take a new challenge, working on more industrial related fields (bullets b. and c.). In the last decade, partially stimulated by the economic crisis, he decided to steer his activity towards longer-term researches (bullet d.) that likely will meet the industrial needs when the circumstances would have been hopefully better.

The main distinctive contributions have been in the following fields:

- Finite Difference Time Domain (FDTD) and Multi Resolution Time Domain (MRTD) modeling of high Frequency electronic circuits accounting for linear as well as nonlinear components and sub-circuits [1-5].
- Linearization of electro-optic devices for Radio over Fiber systems [6-7].
- RF electronic systems and subsystems with specific attention to RFID systems (High performance for F1 applications and ultra low cost for Internet of Things evolution) [8-11].
- Green electronics, in particular paper electronics and Systems in Package on Paper (SiPoP) approach [12-25].

1. P. Mezzanotte, M. Mongiardo, L. Roselli, R. Sorrentino, and W. Heinrich, "Analysis of packaged microwave integrated circuits by FDTD," *IEEE Trans. Microwave Theory Tech.*, vol. 42, pp. 1796-1801, Sep. 1994.
2. P. Ciampolini, P. Mezzanotte, L. Roselli, and R. Sorrentino, "Accurate and efficient circuit simulation with lumped-element FDTD technique," *IEEE Trans. Microwave Theory Tech.*, vol. 44, no. 12, pp. 2207-2215, Dec. 1996.
3. J. A. Pereda, F. Alimenti, P. Mezzanotte, L. Roselli, and R. Sorrentino, "A new algorithm for the incorporation of arbitrary lumped networks into FDTD simulators," *IEEE Trans. Microwave Theory Tech.*, vol. 47, pp. 943-949, Jun. 1999.
4. P. Ciampolini, L. Roselli, G. Stopponi, and R. Sorrentino, "Global modeling strategies for the analysis of high-frequency integrated circuits," *IEEE Trans. Microwave Theory Tech.*, vol. 47, pp. 950-955, Jun. 1999.
5. G. Emili, F. Alimenti, P. Mezzanotte, L. Roselli, and R. Sorrentino, "Rigorous modelling of packaged Schottky diodes by the non linear lumped network (NL2N)-FDTD approach," *IEEE Trans. Microwave Theory Tech.*, vol. 48, pp. 2277-2282, Dec. 2000.
6. F. Zepparelli, L. Roselli, F. Ambrosi, R. Sorrentino, P. Faccin, A. Casini, "Modelling and Design of a Broadband Predistortion Circuit for Radio-over-Fibre Systems," *IEICE Transactions on Fundamentals Communications*, vol. E85-C, n. 3, pp. 519-526, Mar. 2002.
7. L. Roselli, V. Borgioni, F. Zepparelli, F. Ambrosi, M. Comez, P. Faccin, A. Casini, "Analog Laser Predistortion for Multi-service Radio-over-Fiber Systems," in *IEEE Journal of Lightwave Technology JLT*, vol. 21, n. 5, pp 1211-1223, May 2003.
8. S. Helbing, M. Cryan, F. Alimenti, P. Mezzanotte, L. Roselli, and R. Sorrentino, "Design and verification of a novel crossed dipole structure for quasi-optical frequency doublers," *IEEE Microwave and Guided Wave Lett.*, vol. 10, pp 105-107, Mar. 2000.
9. F. Alimenti, P. Mezzanotte, L. Roselli, and R. Sorrentino, "Modeling and characterization of the bonding wire interconnection," *IEEE Trans. Microwave Theory Tech.*, vol. 49, pp. 142-150, Jan. 2001.
10. L. Roselli, F. Alimenti, M. Comez, V. Palazzari, F. Piacentino, N. Porzi, A. Scarponi "A Cost driver 24GHz Doppler Radar Sensor Development for Automotive Applications," in *Proc. 35th European Microwave Conference*, Paris, F, Oct. 3-7, 2005, pp. 2059-2062.
11. V. Palazzari, S. Pinel, M. M. Tentzeris, L. Roselli and J. Laskar, "Design of an Asymmetrical Dual-Band WLAN Filter in Liquid Crystal Polymer (LCP) System-On-Package Technology," *IEEE Microwave and Wireless Components Letters*, vol. 15, n. 3, pp. 165-167, Mar. 2005.

12. G. Orecchini, F. Alimenti, V. Palazzari, M. Virili, A. Rida, M. Tentzeris, L. Roselli, "Design and fabrication of ultra-low cost radio frequency identification antennas and tags exploiting paper substrates and inkjet printing technology", *IET Microwave Antennas and Propagation*, vol. 5, n. 8, June, 2011, pp. 993-1001, ISSN : 1751-8725.
13. R. Vyas, V. Lakafosis, L. Hoseon, G. Shaker, Y. Li, G. Orecchini, A. Traille, M.M. Tentzeris, L. Roselli, "Inkjet Printed, Self Powered, Wireless Sensors for Environmental, Gas, and Authentication-Based Sensing", *IEEE Sensors Journal*, vol. 11, n. 12, Dec. 2011, pp. 3139 -3152.
14. F. Alimenti, M. Virili, G. Orecchini, P. Mezzanotte, V. Palazzari, M. M. Tentzeris, L. Roselli, "A New Contactless Assembly Method for Paper Substrate Antennas and UHF RFID Chips", *IEEE Transactions on Microwave Theory and Techniques*, vol. 59, n. 3, March 2011, pp. 627 – 637.
15. F. Alimenti, P. Mezzanotte, M. Dionigi, M. Virili, and L. Roselli, "Microwave Circuits in Paper Substrates Exploiting Conductive Adhesive Tapes," *IEEE Microw. Wirel. COMPONENTS Lett.*, vol. 22, no. 12, pp. 660–662, 2012.
16. S. Kim, F. Alimenti, and P. Mezzanotte, "No battery required," *IEEE Microw. Mag.*, no. August, pp. 66–77, 2013.
17. L. Valentini, M. Cardinali, M. Mladjenovic, P. Uskokovic, F. Alimenti, L. Roselli, and J. Kenny, "Flexible Transistors Exploiting P3HT on paper Substrates and Graphene Oxide Films as Gate Dielectrics : Proof of Concept," *Sci. Adv. Mater.*, vol. 5, no. 5, pp. 1–4, 2013.
18. M. Virili, H. Rogier, F. Alimenti, P. Mezzanotte, and L. Roselli, "Wearable Textile Antenna Magnetically Coupled to Flexible Active Electronic Circuits," *IEEE Antennas Wirel. Propag. Lett.*, vol. 13, pp. 209–212, 2014.
19. F. Alimenti, M. Virili, P. Mezzanotte, L. Roselli, V. Rericha, M. Pokorny, F. Iorio, R. Gaddi, and C. Schepens, "A RF-MEMS Based Tunable Matching Network for 2.45 GHz Discrete-resizing Cmos Power Amplifiers," *RADIOENGINEERING*, vol. 23, no. 1, pp. 328–337, 2014.
20. L. Roselli, F. Alimenti, S. Kawasaki, "Guest Editorial," *IEEE Trans. Microw. Theory Tech.*, vol. 62, no. 4, pp. 2012–2014, 2014.
21. L. Roselli, N. B. Carvalho, F. Alimenti, P. Mezzanotte, G. Orecchini, M. Virili, C. Mariotti, R. Goncalves, and P. Pinho, "Smart Surfaces : Large Area Electronics Systems for Internet of Things Enabled by Energy Harvesting," *Proceedings of IEEE*, vol. 102, no. 11, 2014. (invited paper).
22. C. Mariotti, F. Alimenti, L. Roselli, and M. M. Tentzeris, "High-Performance RF Devices and Components on Flexible Cellulose Substrate by Vertically Integrated Additive Manufacturing Technologies," vol. 65, no. 1, pp. 62–71, 2017.
23. C. Mariotti, W. Su, B. Cook, L. Roselli, and M. Tentzeris, "Development of Low Cost, Wireless, Inkjet Printed Microfluidic RF Systems and Devices for Sensing or Tunable Electronics," *IEEE Sens. J.*, vol. 15, no. 6, pp. 3156–3163, 2015.
24. C. Mariotti, B. S. Cook, L. Roselli, and M. M. Tentzeris, "State-of-the-Art Inkjet-Printed Metal-Insulator-Metal (MIM) Capacitors on Silicon Substrate," *IEEE Microw. Wirel. Components Lett.*, vol. 25, no. 1, pp. 2014–2016, 2015.
25. V. Palazzi, J. Hester, J. Bito, F. Alimenti, C. Kalialakis, A. Collado, P. Mezzanotte, A. Georgiadis, L. Roselli, and M. M. Tentzeris, "A Novel Ultra-Lightweight Multiband Rectenna on Paper for RF Energy Harvesting in the Next Generation LTE Bands," *IEEE Trans. Microw. Theory Tech.*, pp. 1–14, 2017.

A more detailed list of publication in order of citation can be found here:
<https://scholar.google.it/citations?hl=it&user=SPwDg2gAAAAJ>

Invited presentations

- Since 2012 he was a member of the **IEEE-MTT Speakers Bureau office**, and he was invited to give the presentation: "‘Green RFID’: an enabling technology towards the Internet of Things (IoT) world" In the Following institutions and events:
 - Carlton University (Ottawa, Canada).
 - University of Pavia (Pavia, Italy).
 - Tsingua University (Beijing, China).
 - Beihang University (Beijing, China).
 - Jaotong University (Beijing, China).
 - North China University (Taiyuan, China).
 - Shanxi University (Taiyuan, China).
 - Taiyuan University of Technology (Taiyuan, China).
 - KAIST Seoul, Korea.
 - Asia Pacific Microwave Conference (APMC) 2013 Seoul, Korea.
 - University of Padova (Padova, Italy).

- He was invited as a **“keynote speaker”** in the following conferences:
 - 15th COMITE, Brno, 19-21 April 2010 “A System-on-Chip Millimeter-Wave Radiometer for the Space-Based Observation of Solar Flares”.
 - 2nd IEEE IMWS-IWPT 2012, 10-11 May 2012, Kyoto, Japan “EM- and piezo-scavengers: two useful solutions in highly humanized scenarios toward a ‘greener world’ “.
 - 2nd IEEE Wireless Power Transfer Conference (WPTC-2014), 5-6 May 2014, Jeju, Korea, “Smart surfaces: an example of Large Area Electronics (LAE) Systems Enabled by Concurrent WPT, Energy Harvesting and RFID Technologies”.
 - Wireless Charging 2014, RAI Center, Amsterdam, 24-25 June 2014, "Wireless Power Transfer, Green Electronics and Radio Frequency Identification: concurrent technologies enabling Internet of Things evolutions".
 - IEEE-HIT Electromagnetic Compatibility Conference, 4 may 2017, Holon, Israel, “EMC implications of IoT device massive deployment”.

- He was an **“invited speaker”** in several workshops, conferences and events, giving the following speeches:
 1. L. Roselli, “Networked Radio Frequency IDentification (NRFID) and related green technologies”, in the panel session “Green Wireless Electronics” of the Radio and Wireless Symposium (RWS), New Orleans (US), 10-14 Jan. 2010.
 2. L. Roselli, “RFID and RFID-enabled Sensors: Packaging, Reliability, and Integration Challenges in Cognitive-Intelligence Applications”, ECTC Special session on “RFID”, 1 June 2010, Las Vegas (US).
 3. L. Roselli, F. Alimenti, G. Orecchini, M. Tentzeris, V. Palazzari, “3D Paper Printed Harmonic RFID-enabled Sensor concept”, IMS Workshop WMH on “Flexible, Autonomous RFID-Enabled Sensors: Novel Applications, Energy Harvesting and Integration Challenges”, 6 June 2011, Baltimore (US).
 4. L. Yang, M. Tentzeris, G. Orecchini, L. Roselli “Wearable Battery-free Active RFID Tag with Piezoelectric Energy Harvester”, IMS Workshop WMH on “Flexible, Autonomous RFID-Enabled Sensors: Novel Applications, Energy Harvesting and Integration Challenges”, 6 June 2011, Baltimore (US).
 5. L. Roselli, F. Alimenti, M. Virili, F. Lolli, B. Popescu, D. Popescu, S. Locci, P. Lugli, L. Pierantoni, “Organic Frequency Doubler” IMS Workshop WFJ on” Nanotechnology-enabled RF and Cognitive Devices, Components and Systems”, 10 June 2011, Baltimore (US).
 6. L. Roselli, F. Alimenti, G. Orecchini, M. Tentzeris, F. Lolli, V. Palazzari, “Harmonic RFID concept by means of 3D paper inkjet printed technology”, EuMW Workshop W16 on RFIDs and RFID-enabled sensors: novel applications, energy harvesting and integration challenges, 10 oct. 2011, Manchester, UK.
 7. M. Tentzeris, R. Vyas, V. Lakafosis, A. Traille, A. Rida, T. Thai, E. Gebara, G. Orrechini, L. Roselli, L. Yang, Y. Kawahara, “Inkjet printed RFID-enabled sensors for cognitive, positioning and biomonitoring applications”, EuMW Workshop W16 on RFIDs and RFID-enabled sensors: novel applications, energy harvesting and integration challenges, 10 oct. 2011, Manchester, UK.
 8. L. Roselli, G. Orecchini, F. Alimenti, M. M. Tentzeris, “Printed RFID technology”, RWW Workshop on Wireless Sensor Network Technologies for the “Internet of Things” Implementation, 15, Jan. 2012, Santa Clara, CA.
 9. L. Roselli, “Massive Electronics for “Internet of Things Applications”, invited lecture at the COST ACTION IC0803 Training school on “Technology Challenges for Internet of Things”. 26 January, 2012, University of Aveiro, Aveiro, Portugal.
 10. L. Roselli, “Emerging RFID Technologies for Future-e (-istic) ICT Applications”, invited lecture at the COST ACTION IC0803 Training school on “Energy-aware |RF Ciruits and System Design,” 6-8 June 2012, Pontecchio Marconi, Bologna, Italy.
 11. F. Alimenti, C. Mariotti, L. Roselli, “Zero-Power RFID Sensors Based on Harmonic Generation”, IMS 2013 Workshop WFI on “RF-On-Demand for the Internet of Things” 7 June 2013, Seattle US.
 12. L. Roselli, “RFID, WPT, and Energy harvesting made “green”: concurrent technologies for the future networked society”, in Proc. Of IEICE 2011, pag 52, Fukuoka JP, 17-20 Sep. 2013.
 13. L. Roselli, C. Mariotti, F. Alimenti, P. Mezzanotte, G. Orecchini, M. Virili, “Heterogeneous non-ohmic coupling between antennas and integrated electronics: a pace along the IoT way” RFIC 2014 Workshop WSI on “Wireless Power Transfer and Wireless Charging” 6 June 2014, Tampa US.
 14. L. Roselli, C. Mariotti, F. Alimenti, P. Mezzanotte, G. Orecchini, M. Virili, “System in Package on Paper (SiPoP Implementation of RF/MF-ID Circuits” IMS 2014 Workshop WFJ on “Inkjet-printing: the next generation of multi-layer fabrication, integration & packaging for RF and mm-wave Systems” 6 June 2014, Tampa US.

15. L. Roselli, "Materials and Technologies for Internet of Things", COST ACTION IC1301 WIPE Summer school on WPT for space applications, Aveiro Portugal, June 23th 2014.
16. L. Roselli, "Micro- and millimeter-wave electronic circuits on cellulose substrates: promising means for the development of the IoT physical layer", in "Giornata IUNET", Bologna IT, September 18th 2014.
17. N.B. Carvalho, R. Goncalves, C. Mariotti, P. Pinho, L. Roselli, "Smart Surfaces: a tile to pave smart cities", EuMW 2014, Workshop WM4 on Wireless concurrent technologies for the Smart Evolution of cities 6 October 2014, Rome.
18. L. Roselli, C. Mariotti, P. Mezzanotte, F. Alimenti, G. Orecchini, M. Virili, N.B. Carvalho, "Review of the present technologies concurrently contributing to the implementation of the Internet of Things (IoT) paradigm: RFID, Green Electronics, WPT and Energy Harvesting" (accepted) WiSNET 2015.
19. L. Roselli, M. Virili, C. Mariotti, G. Orecchini, F. Alimenti, P. Mezzanotte, "System In Package On Paper (SIPOP) Technology as a Means to Realize Extremely Low Cost 3D Millimeterwave Circuits and Systems", 2015 RWW-WS on 3D printing and its impact on Wireless Systems, San Diego, CA, January 25, 2015.
20. L. Roselli, A. Costanzo, "RFID Applications: present, future and futuristic ones", 2015 RWW-WS on RFID Technologies, San Diego, CA, January 25, 2015.
21. L. Roselli, "Research activities towards green electronics and IoT", Biosense scientific Workshop, 18-20th Feb. 2015, Novi Sad, Serbia.
22. L. Roselli, "Activity of the HFE Labs towards Green Electronics and IoT", University of Uppsala, 27 Feb. 2015.
23. L. Roselli, M. Virili, C. Mariotti, V. Palazzi, G. Orecchini, F. Alimenti, P. Mezzanotte, "Energy shower and energy evaporation, two opposite directions to wirelessly power supply daylife electronic equipments" European Microwave Week 2015, Workshop WS11 – Far-field wireless power transmission, 6-11 Sep., Paris F.
24. L. Roselli, "Un corso di Laurea magistrale specializzato sull'elettronica per l'IoT", I GE-EDU, Rome, 18 Febbraio 2016.
25. L. Roselli, "Enabling electronic technologies: the pervasive diffusion of IoT", INNENETWORK WS series Workshop on Internet of Things, Terni, IT, 15 march 2016.
26. L. Roselli, C. Mariotti, M. Virili, G. Orecchini, V. Palazzi, P. Mezzanotte, N.B. Carvalho, "WPT related applications enabling "Internet of Things evolution, European Conference on Antennas and Propagation (EUCAP 2016), Davos CH, 10-15 April 2016.
27. L. Roselli, C. Mariotti, V. Palazzi, F. Alimenti, P. Mezzanotte, "Printed Conductive RF Structures", IMS 2016 Workshop WFB "Advanced Millimeter-wave 3D/Multilayer MCM/SoP and Printing Technologies, San Francisco, 27 May 2016.
28. L. Roselli, V. Palazzi, S. Bonafoni, F. Alimenti, P. Mezzanotte, "'Downgraded" RF-microwave technologies for space low cost satellite", IMS 2017 Workshop WFI "Low cost technologies for space satellites", Honolulu HI, 9 Jun 2017.
29. L. Roselli, "RF Energy harvesting (EH) and Wireless Power Transfer (WPT) for autonomous IoT electronics", NiPS Summer School 2018: Powering the Internet of Things; Perugia (Italy) July 17-20 2018.
30. L. Roselli, "Digging below the physical layer to look for IoT enabling technologies", Summer School: Enabling Technologies for Industrial Internet of Things (ET-I2oT) 2018, Pisa (Italy), July 16-24, 2018.
31. L. Roselli, "Dai SAW all'Elettronica verde, trent'anni a spasso con le radio-frequenze", National annual meeting of SIE (Italian Electronic Society), Rome, June 28, 2019.

Awards and recognitions

- Fulbright fellowship for researchers 1997.
- IEEE Senior member elevation, 2007.
- 2011 IMS Student competition finalist for the contribution: G. Orecchini, L. Yang, M. Tentzeris, L. Roselli, "Wearable battery-free active paper printed RFID tag with human-energy scavenge", 5-10 June 2011, Baltimore, US, (advisor).
- 2013 IET Microwaves, Antennas and Propagation Premium Award; best research paper published during the last two years: "Design and fabrication of ultra-low cost radio frequency identification antennas and tags exploiting paper substrates and inkjet printing technology", G. Orecchini, F. Alimenti, V. Palazzari, A. Rida, M.M. Tentzeris, L. Roselli, Volume 5, issue 8, June 2011, p. 993 – 1001.
- 2014 WPTC Student Paper Award to Chiara Mariotti for the contribution: C. Mariotti, F. Alimenti, M. Virili, G. Orecchini, P. Mezzanotte, L. Roselli, "Harmonic Chipless Sensor Exploiting Wireless Autonomous Communication and Energy Transfer", Jeju, Korea, 8-9 May 2014 (advisor).
- 2014 RFID-TA Best paper award: M. Virili, A. Georgiadis, K. Niotaki, A. Collado, F. Alimenti, P. Mezzanotte, L. Roselli, and N. B. Carvalho, "Design and Optimization of an Antenna with Thermo-Electric Generator (TEG)

for Autonomous Wireless Nodes,” in IEEE RFID-TA, 2014, pp. 21–25.

- ENIAC Innovation Award to ENLIGHT Project (the University of Perugia, coordinated by L. Roselli was a partner of the project) European Nanoelectronic Forum, Cannes, 26-27 Nov. 2014.
- 2016 IEEE MTT-S IMS Student Design Competition, First place Award for Wireless Power Transfer to Valentina Palazzi (Tutor).
- 2017 IEEE MTT-S Graduate Fellowship to Valentina Palazzi for the project: “Novel compact zero-power wireless sensors based on the harmonic radar principle, featuring low environmental impact and high integrability, for the next generation IoT applications” (Tutor).
- IEEE Fellow member elevation, 2018.
- 2018 SIE (Italian Society of Electronics) National Meeting, “Sannino” Award for the best Microwave Electronic paper: Federico Alimenti, Valentina Palazzi, Domenico Zito, Paolo Mezzanotte, Luca Roselli, "Microwave Oscillators on Cellulose".