



# Europass Curriculum Vitae



## Personal information

First name(s) / Surname(s) **Luca Reggiani**

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LinkedIn <http://www.linkedin.com/in/luca-reggiani-06803ba>

Nationality Italian

## Work experience

Dates	Since December 2002
Occupation or position held	Researcher
Main activities and responsibilities	<ul style="list-style-type: none"> <li>- Professor in “Wireless communications” (“Sistemi di radiocomunicazione”) since 2010-2011 [Ing. delle Telecomunicazioni (Telecommunications Eng.), Laurea Magistrale]. He held the courses “Sistemi di comunicazione” (“Communication systems”) [2009-2010, Ing. delle Telecomunicazioni, Laurea 1° livello], “Fondamenti di segnali e trasmissione” (“Fundamentals of signal and transmission”) [2002-2009, Ing. Informatica (Computer Science Eng.), Laurea 1° livello]. (<a href="http://home.deib.polimi.it/reggiani/indice_eng.html">http://home.deib.polimi.it/reggiani/indice_eng.html</a>).</li> <li>- Research activity in the following areas: next generation cellular systems (LTE, 5G), high capacity transport networks (backhauling, fronthauling), information and communications theory and technology, wireless transmission technologies (e.g. multiple antenna systems MIMO and cognitive radio), wireless sensor networks, ultrawide band systems, positioning systems (<a href="http://home.deib.polimi.it/reggiani/indice_eng.html">http://home.deib.polimi.it/reggiani/indice_eng.html</a>).</li> <li>- Consulting activity for companies in the field of telecommunications (see additional information).</li> </ul>
Name and address of employer	Politecnico di Milano, Dipartimento di Elettronica ed Informazione 32, P.zza Leonardo da Vinci, 20133, Milano, Italy Tel: +39 02 2399 3442, Fax: +39 02 2399 3413
Type of business or sector	Academic institution
Dates	Dec. 2016
Occupation or position held	Co-founder of DRB srl ( <a href="http://www.drb.aero/">http://www.drb.aero/</a> ) Via E. Toti, 29 - 20900 Monza (MB) - Italy Spin-off company of Politecnico di Milano in the ICT field.
Occupation or position held	Co-founder of Nuvidea srl Start-up company in the ICT field.
Dates	Nov. 2008 – 2012
Occupation or position held	Professional activity in the field of Electronic and Communications Engineering. ICT consultant.
Dates	Nov. 2001 – Dec. 2002
Occupation or position held	Post-Doc fellowship
Main activities and responsibilities	Research program “Broadband wireless access”.
Name and address of employer	Politecnico di Milano

Dates Sept. 1999 – Apr. 2000  
Occupation or position held Visiting Scholar  
Main activities and responsibilities Research on magnetic storage systems  
Name and address of employer University of California San Diego (UCSD) – Dept. CMRR (Center for Magnetic Recording Research), 9500 Gilman Drive – La Jolla, CA 92093-0401 (USA).  
Type of business or sector Academic institution

Dates Feb. 1998 – Dec. 2001  
Occupation or position held Consultant  
Main activities and responsibilities Design of channel detectors and error correction systems  
Name and address of employer STMicroelectronics, Via Tolomeo 1, 20010 Cornaredo (MI).  
Type of business or sector Microchip manufacturer

Dates 1994 – 1998  
Occupation or position held Software developer  
Main activities and responsibilities Development of C, C++ software. Design of websites.

### Education and training

Dates Oct. 2001  
Title of qualification awarded PhD (3 years)  
Principal subjects/occupational skills Electronic and Communications Engineering  
Name and type of organisation Politecnico di Milano

Dates June 1999  
Principal subjects/occupational skills Course in “Management of Technology” (5 months)  
Name and type of organisation Universita’ degli Studi di Milano

Dates Feb. 1998  
Title of qualification awarded Laurea (Master, 5 years), 100/100 cum laude  
Principal subjects/occupational skills Electronic and Communications Engineering  
Name and type of organisation Politecnico di Milano

### Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

*European level (\*)*

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	B2	Independent user	C1	Proficient user	B2	Independent user

Computer skills and competences Programming experience in C, C++ and in software platforms like MATLAB and LabVIEW.  
Knowledge of operative systems Windows, Unix (Linux).

## Additional information

### Main research projects:

- 2017 - : NATO Research Project SPS G5482 - "Public Safety Communication in the Context of Terrorist Attacks".
- 2012-13, 2015-16: research contract and consulting activity for the development and implementation of LTE stations.
- 2010-12: leader of 2 research contracts in the field of the technological solutions for next generation cellular networks and back-hauling.
- 2008-11: European Project NEWCOM++ (Network of Excellence in Wireless Communications) in the Work Package WPR.B ("Localization and Positioning Techniques").
- 2008-11: research project FIRB In.Sy.Eme (Integrated System for Emergency) within Workpackage 2 (Communication Infrastructure) in the context of localization and systems coexistence.
- 2007-08: research program "Sistemi wireless futuri a larga banda – Systems beyond 3<sup>rd</sup> generation and advanced ofdm/ofdma systems" in the context of a contract between Politecnico di Milano and Fondazione Politecnico di Milano with the task "Algoritmi di livello fisico" (Physical layer algorithms).
- 2005-07: European project NEWCOM (Network of Excellence in Wireless Communications) with the leadership of the Work Package WPRB4 "Synchronization (in Ultra Wide Band systems)" within Project B on Ultra Wide Band systems.
- 2003-06: 3 annual research contracts on "Broadband Wireless Access below 6 GHz" in the context of IEEE 802.16d / IEEE 802.16e technology(WiMAX).

### Member of:

- Ordine degli Ingegneri (Engineering professional order) in Bologna since October 2008.
- Commissione Telecomunicazioni Ord. degli Ing. Milano since 2015.

### Main recent publications and patents

(complete list at <https://scholar.google.it/citations?user=sNpIXtAAAAAJ&hl=en> or [http://home.deib.polimi.it/reggiani/pag\\_publicazioni\\_eng.html](http://home.deib.polimi.it/reggiani/pag_publicazioni_eng.html)):

- H. R. Barzegar, L. Reggiani, L. Dossi, Capacity gain and design trade-offs for partial-duplex OFDM wireless communications, EURASIP Journal on Wireless Communications and Networking, 2018.
- L. Reggiani, L. Dossi, L. Barletta, A. Spalvieri, "Extended Kalman Filter for MIMO Phase Noise Channels with Independent Oscillators", IEEE Comm. Letters, 2018.
- L. Dossi, L. Reggiani and G. Filiberti, "Performance Evaluation of LoS MIMO Microwave Radio Systems Over Frequency Selective Multipath Fading Channels", Wireless Personal Communications, pp. 1-16, May 2017.
- L. Reggiani and L. Dossi, "Computation of information rates by means of discrete states density recursion", Physical Communication, Vol. 23, pp. 37-42, June 2017.
- L. Reggiani, G. Filiberti, L. Dossi, "Phase Noise Suppression in MIMO LoS Systems for High Capacity Backhauling", Wireless Personal Communications, pp. 1-23, Jan. 2015.
- L. Reggiani, A. Gola, G. M. Maggio, G. Tiberi, "Design of Interference-Resilient Medium Access for High Throughput WLANs", International Journal of Distributed Sensor Networks, pp. 1-14, Oct. 2015.
- S. Bybordi, L. Reggiani, "Hybrid Fingerprinting-EKF Based Tracking Schemes for Indoor Passive Localization", International Journal of Distributed Sensor Networks, vol. 2014 pp. 1-11, Dec. 2014.
- L. Reggiani, B. Baccetti, L. Dossi, "The Role of Adaptivity in MIMO Line-of-Sight Systems for High Capacity Backhauling", Wireless Personal Communications, pp. 1-17, July 2013.
- Patent WO 2018/229681, "Radio Beacon System", L. Reggiani, D. Piazza, G. Mena, 2017.
- U.S. Patent No. 6,882,689, "Pseudo-chaotic communication method exploiting symbolic dynamics", G.M. Maggio, L. Reggiani, April 19, 2005.
- U.S. Patent No. 6,981,201, "Process for decoding signals and system and computer program product therefore", L. Reggiani, G. Betti, F. Brenna, A. Dati, D. Giovenzana, A. Rossi, Dec. 27, 2005.

Best Paper Award at Baltic Electronics Conference, 2018.

Best Paper Award Francesco Carassa 2008 at GTTI meeting (Gruppo nazionale Telecomunicazioni e Teoria dell'Informazione), Florence, June 2008.

TPC member of many conferences in the communications field and Editor of International Journal of Distributed Sensor Networks.