

Curriculum Vitae
of
Stefano Bregni



Professional Experience and Educational Background

● **Associate Professor** of telecommunications networks at [Politecnico di Milano](#), [Dipartimento di Elettronica e Informazione](#) (tenured Assistant Prof. since July 1999).

● **From Nov. '94 to June '99**, he was with the [CEFRIEL](#) Center, as Researcher in the Technical Staff, Head of Transmission Systems Area and with the following main tasks.

● **Consulting** about network synchronization, clock characterization issues and the design, deployment and maintenance of SDH transmission networks. In particular, he worked with SNAM Telecommunications in the framework of the ENInet project.

● **Work Package Leader** in the EEC project [HECTOR](#) (*Health Emergency management and Coordination through Telematics Operational Resources*). The aim of this project was the design and implementation in the various participating countries of advanced systems for the health emergency management and integrating state-of-the-art technologies (in Italy, the HECTOR system widens the functions of the 118 system

operating in the province of Brescia).

● **Giving courses** on digital transmission topics and in particular on the SDH technique and on network synchronization.

● **From Nov. '91 to Oct. '94**, he was with [SIRTI](#), *R&D - Network Technologies Division*, where as system engineer he carried out his activity mainly in the field of the SDH transmission technique, in particular in the framework of the first Italian SDH field trial (IRITEL trial), aiming at the conformance testing and the performance evaluation of the systems of four suppliers. He has been mainly involved in digital network synchronization issues and telecommunications clocks stability characterization. He was member of the Italian National Study Group on Network Synchronization (established by [Telecom Italia](#) and joined by [SIRTI](#), [CSELT](#) and [Fondazione Ugo Bordoni](#)) and he widely contributed to [ETSI](#) and [ITU-T](#) standard bodies activity on this subject.

● **From Jan. '91 to Oct. '91**, he was with [CEFRIEL](#) as researcher in the Network Systems area, pursuing his research activity on analytical models for ATM shared buffer switches started during his Master course.

● **Master in Information Technology**

achieved at the [CEFRIEL](#) Center (*Centro per la Ricerca e la Formazione in Ingegneria dell'Informazione*) in Milano, on the subject of his degree thesis.

● **Degree (Laurea) in Telecommunications Engineering**

(equivalent to a BSc+MSc degree) achieved in 1990 at [Politecnico di Milano](#), with full marks *cum laude*. Thesis: "*Analytical Models for a Policing Device in ATM Networks*" advisors [Prof. F. Borgonovo](#) and [Prof. M. Decina](#). This work was carried out at the [CEFRIEL](#) Center of Milan. In order to study an innovative policing device for ATM networks, analytical stochastic models for ATM multiplexers were developed.

● **High-school degree "Maturità classica"**

(5-years high school based on classical studies, i.e. Latin, Ancient Greek, literature) achieved in 1984 at the *Liceo Ginnasio statale G. Carducci*, Milan, Italy.

Main Research Interests

His main interests are in the following areas:

● **Characterization and modelling of IP traffic**

- His research interest focuses on investigating new mathematical tools (e.g., Modified Allan Variance, Modified Hadamard Variance) for traffic analysis and synthesis based on fractional noise and fractional Brownian motion models.
- Projects co-funded by the European Commission
 - FP7-ICT-2011-8 COMBO (European Commission 7th Framework Programme. COvergence of fixed and Mobile BrOadband access/aggregation networks), 2013-2016.
- Projects co-funded by the Italian Ministry of Education, University and Research (MIUR):

- [MIMOSA](#) (experimental measurement and models of packet multiservice traffic);
- [TANGO](#) (Traffic models and Algorithms for Next Generation IP networks Optimization).
- Selected papers:
 - S. Bregni, P. Giacomazzi, G. Saddemi, "Long-Range Dependence of Traffic across Schedulers with Multiple Service Classes", *Elsevier Computer Communications*, Vol. 35, No. 7, Apr. 2012, pp. 842-848.
 - S. Bregni, P. Giacomazzi, G. Saddemi, "Characterization of Long-Range Dependent Traffic Regulated by Leaky-Bucket Policers and Shapers", *Elsevier Computer Communications*, Vol. 33, No. 6, Apr. 2010, pp. 714-720.
 - S. Bregni, L. Jmoda, "Accurate Estimation of the Hurst Parameter of Long-Range Dependent Traffic Using Modified Allan and Hadamard Variances", *IEEE Transactions on Communications*, Vol. 56, No. 11, Nov. 2008, pp. 1900-1906. ([download](#)) (or better download the [extended version](#): TCOM original submission, Revision R1).
 - S. Bregni, R. Cioffi, M. Decina, "An Empirical Study on Time-Correlation of GSM Telephone Traffic", *IEEE Transactions on Wireless Communications*, Vol. 7, No. 9, Sept. 2008, pp. 3428-3435. ([download](#))
 - S. Bregni, P. Giacomazzi, G. Saddemi, "On Traffic Long-Range Dependence at the Output of Schedulers with Multiple Service Classes", *Proc. of IEEE GLOBECOM 2008*, New Orleans, LA, USA, Nov. 30 - Dec. 4, 2008. ([download](#))

🌟 Network synchronization

- He is author of the book "[Synchronization of Digital Telecommunications Networks](#)", published by [John Wiley & Sons, Inc.](#) , 2002.
- He is author of the Italian book "[Sistemi di trasmissione PDH e SDH - Multiplazione](#)", published by [McGraw-Hill](#), 2004 (also listed by [Ateneonline](#)).
- He is [Distinguished Lecturer](#) of the IEEE Communications Society with lectures on synchronization of digital telecommunications networks.
- He is lecturer of the online tutorial [Synchronization of Digital Telecommunications Networks](#) in the IEEE Communications Society program *Tutorials Now*.
- He is member of the Steering Group of the [NIST - ATIS Workshop on Synchronization in Telecommunication Systems](#).
- In 2000, he designed for ITALFERR the new synchronization network of the SDH network of the Italian Railway Company (Ferrovie dello Stato).
- His most recent research interests are about the behaviour of chains of slave clocks and the impact on quality of service of network synchronization impairments in mobile telephone networks.
- Selected papers (more papers available for download in the [publications](#) page):
 - S. Bregni, "Timing Rearrangements of SEC and SASE Slave Clock Chains Due to Non-Small Input Phase and Frequency Hits in Synchronization Networks", *European Transactions on Telecommunications*, Vol. 17, No. 4, July-August 2006. John Wiley & Sons. Chichester, UK.
 - S. Bregni, L. Barbieri, "Experimental Evaluation of the Impact of Network Frequency Synchronization on GSM Quality of Service During Handover", *Proc. of IEEE GLOBECOM 2003*, S. Francisco, CA, USA 1-5 December 2003. ([download](#))
 - S. Bregni, S. Maccabruni, "Fast Computation of Maximum Time Interval Error by Binary Decomposition", *IEEE Trans. on Instrum. and Meas.*, Vol. 49, No. 6, Dec. 2000. ([download](#))
 - S. Bregni, "Clocks in Telecommunications", in *Encyclopedia of Electrical and Electronics Engineering* . Editor: John G. Webster. John Wiley & Sons, Inc., 1999.
Also included in *Survey of Instrumentation & Measurement* . Editor: S.Dyer. John Wiley & Sons, Inc., 2001. pages 743-757.

ISBN # 0-471-39484X .

- S. Bregni, "A Historical Perspective on Network Synchronization", *IEEE Commun. Mag.*, Vol. 36, No. 6, June 1998. ([download](#))
- S. Bregni, "Clock Stability Characterization and Measurement in Telecommunications", *IEEE Trans. on Instrum. and Meas.*, Vol. 46, No. 6, Dec. 1997. ([download](#))
- S. Bregni, "Measurement of Maximum Time Interval Error for Telecommunications Clock Stability Characterization", *IEEE Trans. on Instrum. and Meas.*, Vol. 45, No. 5, Oct. 1996. ([download](#))

• Optical WDM networks

- His research interests focus on optical packet switching, optical metropolitan ring networks, optimization of resource allocation in optical networks.
- Projects co-funded by the European Commission
 - EC 7FP [BONE](#) (European Commission 7th Framework Programme Network of Excellence. Building the Future Optical Network in Europe), 2008-2010
 - EC 6FP [e-Photon/One+](#) (Mar. 2006 - Feb. 2008) and e-Photon/ONE (Mar. 2004 - Feb. 2006) (European Commission 6th Framework Programme Network of Excellence. Optical Networks: Towards Bandwidth Manageability and Cost Efficiency)
- Projects co-funded by the Italian Ministry of Education, University and Research (MIUR):
 - ROAD-NGN "Rete Ottica di Accesso a Divisione di frequenza e/o lunghezza d'onda per soluzioni Next Generation Network"
 - [WONDER](#) (WDM Optical Network DEMonstrator over Rings);
 - [OSATE](#) (Optics in Switching Architectures: Theory and Experimentation). [IPPO](#) (IP Packet Optical Networks).
 - [ADONIS](#) (Algorithms for Dynamic Optical Networks based on Internet Solutions)
- Selected papers (more papers available for download in the [publications](#) page):
 - S. Bregni, R. Gaudino, A. Pattavina, D. Carzaniga, A. Antonino, "Slot Synchronization of a WDM Packet-Switched Slotted Ring", *IEEE/OSA Journal of Lightwave Technology*, Vol. 25, No. 10, Oct. 2007, pp. 2922-2930. ([download](#))
 - S. Bregni, A. Pattavina, G. Vegetti, "Architectures and Performance of AWG-Based Optical Switching Nodes for IP Networks", *IEEE J. Select. Areas in Commun.*, Vol. 21, No. 7, Sept. 2003. ([download](#))
 - S. Bregni, U. Janigro, A. Pattavina, "Optimal Allocation of Limited Optical-Layer Resources in WDM Networks under Static Traffic Demand", *Photonic Network Communications*, Vol. 5, No. 1, Jan. 2003. Kluwer Academic Publishers.
 - S. Bregni, G. Guerra, A. Pattavina, "Optical Switching of IP Traffic Using Input Buffered Architectures", *Optical Networks Magazine*, Vol. 3, No. 6, Nov./Dec. 2002.
 - M. Baresi, S. Bregni, A. Pattavina, G. Vegetti, "Deflection Routing Effectiveness in Full-Optical IP Packet Switching Networks", *Proc. of IEEE ICC 2003*, Anchorage, AK, USA 11-15 May 2003. ([download](#))

• Architectures of access networks

- He worked in study programmes of the Italian Authority for Communications (Autorità per le Garanzie nelle Comunicazioni, AGCOM) on the unbundling of the Italian local loop (1999) and on architectures of Next-Generation Optical Access Networks (2009).
- Selected papers:
 - S. Bregni, R. Melen, "Local Loop Unbundling in the Italian Network", *IEEE Communications Magazine*, Vol. 40, No. 10, Oct. 2002, pp. 86-93. ([download](#))

🌟 TCP performance on heterogeneous networks with wireless access

- Selected papers:
 - S. Bregni, D. Caratti, F. Martignon, "Enhanced Loss Differentiation Algorithms for Use in TCP Sources over Heterogeneous Wireless Networks", *Proc. of IEEE GLOBECOM 2003*, S. Francisco, CA, USA 1-5 December 2003. ([download](#))

<> 🌟 Other European projects

- European Commission Leonardo Da Vinci Programme [IntEleCT](#) (Internationalisation of Electronic Communications Training), 2009-2011.
- European Commission Leonardo Da Vinci Programme InCert (International Certificates of Excellence in Selected Areas of ICT) and Train2Cert (Vocational Training for Certification in ICT), 2007-2008.

Main Scientific and International Appointments

- 🌟 Author of the book "[Synchronization of Digital Telecommunications Networks](#)", published by [John Wiley & Sons, Inc.](#), 2002.
- 🌟 Author of the Italian book "[Sistemi di trasmissione PDH e SDH - Multiplazione](#)", published by [McGraw-Hill](#), 2004 (also listed by [Ateneonline](#)).
- 🌟 Author or co-author of about 70 papers published on Journals and conference proceedings (for the list of main publications, browse his [scientific publications](#) page).

🌟 [Distinguished Lecturer](#) of the IEEE Communications Society with lectures on synchronization of digital telecommunications networks. Invited as IEEE ComSoc Distinguished Lecturer, he gave the following lectures:

- 🌟 September 2009: El Salvador (keynote speaker of IEEE CONVETEL 2009, San Salvador), Panama (IEEE Communications Society Charter).
- 🌟 July 2009: Malaysia (University Putra Malaysia, Serdang, Selangor Kuala Lumpur).
- 🌟 October 2008: Peru (Universidad Nacional de Ingeniería, Lima; keynote speaker of IEEE Andescon 2008, Cuzco), Bolivia (Universidad Católica Boliviana "San Pablo", La Paz), Colombia (Universidad de Antioquia, Medellín; Universidad Pontificia Bolivariana, Medellín; Universidad Distrital Francisco José de Caldas, Bogotá; Universidad Nacional De Colombia, Bogotá).
- 🌟 October 2007: Mexico (Puebla, Universidad De Las Américas; Mexico City, Instituto Politécnico Nacional UPITA), El Salvador (San Salvador, IEEE Section), Panama (IEEE Communications Society Charter), Colombia (Cartagena, Universidad Tecnológica de Bolívar).
- 🌟 November 2006: Colombia (Bogotá, Universidad Distrital Francisco José de Caldas), Ecuador (Quito, keynote speaker of IEEE Andescon 2006), Panama (IEEE Section).
- 🌟 February 2006: India (Bombay, Sardar Patel College of Engineering; Delhi, Indian Institute of Technology; Bangalore, IEEE ComSoc Chapter; Kerala, IEEE ComSoc Chapter).
- 🌟 June 2005: Poland (Poznan University of Technology).
- 🌟 March 2005: Puerto Rico (Universidad del Turabo de Puerto Rico, Universidad de Puerto Rico Recinto de Mayaguez), Mexico (Tecnológico de

Monterrey, Universidad Jesuita de Guadalajara).

🌟 November 2004: USA (IEEE ComSoc Dallas Section, TX; University of Oklahoma at Tulsa, OK; St. Louis University, MO).

🌟 October 2003: Mexico (Universidad Nacional Autonoma de Mexico), Costa Rica (Universidad Latina de Costa Rica), El Salvador (Universidad José Simeón Cañas de San Salvador), Guatemala (Universidad de San Carlos de Guatemala).

🌟 *Senior Member* of the [IEEE](#) since 1999.

🌟 *Member at Large* on the [Board of Governors](#) of the IEEE Communications Society (elected in ComSoc elections for term 2010-2012, re-elected for term 2013-2015).

🌟 *Director of Education* (member of the Board of Governors, 2008-2011) of the IEEE Communications Society.

🌟 Chair of the [Transmission, Access and Optical Systems](#) (TAOS) Technical Committee of the IEEE Communications Society (2008-2010) (Vice-Chair 2002-2003, 2006-2007; Secretary 2004-2005).

🌟 Voting member of the [GITC \(Globecom/ICC Technical Content\)](#) committee of the IEEE Communications Society (2006-2010).

🌟 GITC Advisor for the IEEE conference ICC 2011 (Kyoto, Japan, June 2011).

🌟 GITC Advisor for the IEEE conference [ICC 2007](#) (Glasgow, UK, June 2007).

🌟 Voting member of the [Technical Committee Recertification Committee](#) of the IEEE Communications Society (2010-2012).

🌟 Voting member of the [On-Line Content Board](#) of the IEEE Communications Society.

🌟 Member of the Steering Group of the [NIST - ATIS Workshop on Synchronization in Telecommunication Systems](#).

🌟 Editor in Chief of the [IEEE Global Communications Newsletter](#) (since 2008).

🌟 Associate Editor of [IEEE Communications Surveys and Tutorials](#).

🌟 Associate Editor of the HTE Infocommunications Journal, published by the Hungarian Scientific Association for Infocommunications (HTE), Sister Society of the IEEE.

🌟 Technical Program Vice-Chair of the IEEE Conference GLOBECOM 2012, Anaheim, CA, USA, December 2012.

🌟 Technical Program Advisor (member of the Executive Committee) of the IEEE Fourth Latin-American Conference on Communications (IEEE LATINCOM 2012), Cuenca, Ecuador, November 2012.

🌟 Technical Program Co-Chair of the IEEE Third Latin-American Conference on Communications (IEEE LATINCOM 2011), Belém, Pará, Brazil, October 2011.

🌟 Symposia Chair of the IEEE Conference [GLOBECOM 2009](#) (Honolulu, Hawaii, USA, November 2009).

🌟 Co-Chair of the *Symposium on Selected Areas in Communications - Track: Green Communication Systems and Networks* of the IEEE conference GLOBECOM 2013, Atlanta, USA, 2013.

🌟 Co-Chair of the *Optical Systems and Networks Symposium* of the IEEE conference ICC 2011, Kyoto, Japan, June 2011.

🌟 Co-chair of the *Symposium on Selected Areas in Communications* of the IEEE conference GLOBECOM 2010 (Miami, USA, May 2010).

🌟 Co-chair of the *General Symposium* of the IEEE conference [ICC 2008](#) (Beijing, China, May 2008).

🌟 Workshop co-chair of the *IEEE Consumer Communication Network Conference 2008* ([IEEE CCNC 2008](#)), Las Vegas, NE, USA, 2008.

🌟 Co-chair of the *General Symposium* of the IEEE conference [GLOBECOM 2007](#) (Washington, DC, November 2007).

🌟 Co-chair of the *Optical Systems and Networks Symposium* of the IEEE conference [ICC 2007](#) (Glasgow, UK, June 2007).

🌟 Co-chair of the workshop *Findings and Experiences from European Research Projects on Optical Networking* in the IEEE conference [ICC 2007](#) (Glasgow, UK, June 2007).

🌟 Co-chair of the *Optical Systems and Networks Symposium* of the IEEE conference ICC 2006 (Istanbul, Turkey, June 2006).

🌟 Vice-chair of the *General Conference* of the IEEE conference GLOBECOM 2005 (St. Louis, MO, USA, Dec. 2005).

- Technical program vice-chair of the *IEEE/IFIP 9th Conference on Optical Network Design and Modelling (ONDM 2005)* (Milano, Italy, Feb. 2005).
- Co-chair of the *Access and Home Networks Symposium* of the IEEE conference *ICC 2004* (Paris, France, June 2004).
- Member of the Technical Program Committees of the following conferences:
 - IEEE 5rd International Workshop on Reliable Networks Design and Modeling 2013 (RNDM 2013), Almaty, Kazakhstan, Sept. 24-27, 2013.
 - Optical Networks and Systems Symposium, IEEE ICC 2012, Ottawa, Canada, June 2012.
 - Symposium on Selected Areas in Communications, Access Systems and Networks Track, IEEE ICC 2012, Ottawa, Canada, June 2012.
 - IEEE FITCE Congress 2011, Palermo, Italy, 31 Aug. – 3 Sept. 2011.
 - Symposium on Selected Areas in Communications, Green Networks and Systems Track, IEEE GLOBECOM 2011, Houston, TX, USA, Dec. 2011.
 - IEEE XVIII Congreso Internacional de Ingeniería Eléctrica, Electrónica, Sistemas y Ramas Afines 2011 (NTERCON 2011), Lima, Peru, 8-13 Aug. 2011.
 - IEEE International Symposium on Communications and Information Technologies 2011 (ISCIT 2011), Hangzhou, China, 12-14 Oct. 2011.
 - IEEE/IFIP 15th International Conference on Optical Network Design and Modelling 2011 (ONDM 2011), Bologna, Italy, Feb. 2011.
 - IEEE/IFIP 3rd International Workshop on Reliable Networks Design and Modeling 2011 (RNDM 2011), Budapest, Hungary, October 2011.
 - IEEE Latin-American Conference on Communications 2010 (LATINCOM 2010), Bogota, Colombia, 14-17 September 2010.
 - NIST-ATIS-Telcordia Workshop on Synchronization in Telecommunication Systems (WSTS 2010), Broomfield, Colorado, USA, March 2010.
 - 16th IEEE European Wireless 2010, Lucca, Italy, April 12-15 2010.
 - NIST-ATIS-IEEE Workshop on Synchronization in Telecommunication Systems (WSTS 2009), Broomfield, Colorado, USA, March 2009.
 - 2nd IFIP/IEEE Wireless Days 2009, Paris, France, Dec. 15-17 2009.
 - IEEE Latin-American Conference on Communications 2009 (LATINCOM 2009), Medellin, Colombia, 8-11 September 2009.
 - 9th IEEE Malaysia International Conference on Communications (MICC 2009), Kuala Lumpur, Malaysia, 14-17 December, 2009.
 - IEEE Global Information Infrastructure Symposium 2009 (GIIS 2009), Hammamet, Tunisia, June 2009.
 - 9th International Workshop on IP Operations and Management (IPOM 2009), Venice, Italy, October 2009.
 - IEEE Jornadas de Sistemas de Telecomunicaciones 2008 (JST 2008), Quito, Ecuador, May 14-16, 2008.
 - 4th International Telecommunication Networking Workshop on QoS in Multiservice IP Networks (QoS-IP/IT-NEWS 2008), Venice, Italy, February 13-15, 2008.
 - NIST-ATIS-IEEE Workshop on Synchronization in Telecommunication Systems (WSTS 2008), Broomfield, Colorado, USA, March 2008.
 - Optical Networks and Systems Symposium di IEEE GLOBECOM 2008, New Orleans, LA, USA, 2008.
 - General Symposium di IEEE GLOBECOM 2008, New Orleans, LA, USA, 2008.
 - IEEE International Symposium on Power Line Communications and Its Applications 2008 (ISPLC 2008), Jeju, Korea, April 2008.
 - NIST-ATIS Workshop on Synchronization in Telecommunication Systems (WSTS 2007), Broomfield, Colorado, USA, March 13 - 15, 2007.
 - IEEE Global Information Infrastructure Symposium 2007 (GIIS 2007), Marrakech, Morocco, 2007.
 - IEEE International Symposium on Power Line Communications and Its Applications 2007 (ISPLC 2007), Pisa, Italy, 2007.
 - IEEE 4rd European Conference on Universal Multiservice Networks (ECUMN 2007), Toulouse, Francia, 2007.
 - Mosharaka International Conference on Communication Systems and Circuits 2007, Amman, Jordan, 8-10 March 2007.
 - General Symposium di IEEE GLOBECOM 2006, S. Francisco, CA, USA, 2006.
 - IEEE International Conference on Digital Telecommunications (ICDT 2006), France, 2006.
 - General Conference di IEEE International Wireless Communications and Mobile Computing Conference, Vancouver, Canada, 2006.
 - IEEE International Symposium on Power Line Communications and Its Applications 2006 (ISPLC 2006), Orlando, FL, USA, 2006.

- Next Generation Networks for Universal Services Symposium e Optical Networking Symposium di IEEE ICC 2005, Seoul, Corea, 2005.
- IEEE 1st International Conference on Multimedia Services Access Networks (MSAN-2005), Orlando, FL, USA, 2005.
- General Conference di IEEE GLOBECOM 2004, Dallas, TX, USA, 2004.
- IEEE 3rd European Conference on Universal Multiservice Networks (ECUMN 2004), Porto, Portogallo, 2004.
- General Conference di IEEE GLOBECOM 2003, S. Francisco, CA, USA, 2003.
- Optical Networking and Systems Symposium di IEEE GLOBECOM 2003, S. Francisco, CA, USA, 2003.
- Optical Networking Symposium di IEEE GLOBECOM 2002, Taipei, Taiwan, 2002.

● Lecturer of the tutorial "*Synchronization of Digital Telecommunications Networks*" in the technical program of the following major IEEE conferences: GLOBECOM 2005 (St. Louis, MO, USA, Nov. 2005), GLOBECOM 2003 (S. Francisco, CA, USA, Dec. 2003), GLOBECOM 2002 (Taipei, Taiwan, Nov. 2002), ICC 2000 (New Orleans, LA, USA, June 2000).

● Lecturer of the IEEE Communications Society tutorial [Synchronization of Digital Telecommunications Networks](#) in the online program [Tutorials Now](#).

● Recipient of the *IEEE LATINCOM 2010 Best Paper Award* (for the paper: S. Bregni, V. Grkovic, F. Musumeci, M. Tornatore, F. Vismara, "On the Energy Efficiency of IP-over-WDM Networks", *Proc. of IEEE LATINCOM 2010*, Bogota, Colombia, 14-17 Sept. 2010)

● He contributed with the article *Clock in Telecommunications* to the [Encyclopedia of Electrical and Electronics Engineering](#), John G. Webster, Editor, published by [John Wiley & Sons, Inc.](#) on 1999. This paper was also included in the *Survey of Instrumentation & Measurement*, S. Dyer, Editor, published by [John Wiley & Sons, Inc.](#) on 2001.

● Regular reviewer of major international journals (e.g.: IEEE Transactions on Communications, IEEE Transactions on Instrumentation and Measurement, Wiley European Transactions on Telecommunications, IEEE Communications Magazine, IEEE Communications Letters, KICS Journal of Communications and Networks) and international conferences (e.g.: IEEE ICC and GLOBECOM).



● He served on the [ETSI](#) and [ITU-T](#) committees on network synchronization.

National and International Teaching Assignments

At **Politecnico di Milano**, he teaches the following courses for undergraduate students in telecommunications engineering (*Corso di Laurea in Ingegneria delle Telecomunicazioni*, [informazioni per i miei studenti](#) ):

- *Cryptography and Network Security* (3rd year, Laurea Ing. TEL).
- *Internet and Telecommunications Networks* (2nd year, Laurea Ing. TEL)

He gives **advanced courses aimed at professionals** at leading Companies, in Italy and worldwide. Contact him for pricing, customization and organization of courses. The main courses given are:

- **SDH Transmission Systems** (suggested length: 4-5 days).
 - [Course description in English](#) 
- **Synchronization of Digital Telecommunications Networks** (suggested length: 3-4 days)
 - [Course description in English](#) 

He is [Distinguished Lecturer](#) of the IEEE Communications Society with [lectures](#) on synchronization of digital telecommunications networks.

In the online program [Tutorials Now](#) of the IEEE Communications Society, he is lecturer of the course [Synchronization of Digital Telecommunications Networks](#).



[back to my home page](#)