

MATTEO CESANA

Associate Professor
Dipartimento di Elettronica, Informazione e Bioingegneria
Politecnico di Milano
Piazza L. Da Vinci 32
I-20133 Milano – Italy
Tel. +39-02-2399.3695
E-mail: matteo.cesana@polimi.it
Web: <http://home.deib.polimi.it/cesana>

EDUCATION AND PROFESSIONAL EXPERIENCE

- 7/2000: Laurea (MS equivalent) in Telecommunications Engineering from Politecnico di Milano. Thesis title: “Study of packet switched data Services on UMTS radio interface”.
- 11/2000–2/2001: research associate at the Electronics and Information Department of Politecnico di Milano.
- 9/2002-4/2003: Employed by Computer Science Department of the University of California in Los Angeles (UCLA) as a visiting research scholar. Research topics: WLAN analysis and QoS in Wireless Personal Area Networks (WPANs).
- 3/2001-2/2004: PhD candidate in Information Engineering at the Department of Electronics and Information of the Politecnico di Milano. PhD Cum Laude with a thesis titled "Packet Switched Services in New Generation Wireless Systems: from UMTS to Ad Hoc Networks”.
- 3/2004–12/2004: Post Doc at the Electronics and Information Department of Politecnico di Milano.
- January 2005 –today: Assistant Professor at the Department of Electronics and Information of the Politecnico di Milano.

CURRENT TEACHING ACTIVITIES

Instructor of the course “**Fondamenti di Internet e Reti**”, master degree in Computer Science and Engineering, Politecnico di Milano

Instructor of the course “**Internet of Things**”, 2010-today (5 credits, course in English). Master degree in Telecommunications and Computer Science and Engineering

RESEARCH INTERESTS

I'm co-founder of the Advanced Network Technologies Lab (ANT Lab) at the Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano (<http://antlab.deib.polimi.it>) where I coordinate the research activities in the field of the Internet of Things (IoT).

In the past, I've been extensively working on the design, optimization, and performance evaluation of wireless systems including:

1. Wireless ad hoc and vehicular networks
2. Broadband wireless access networks
3. Wireless Sensor Networks (WSN)
4. 3G cellular systems

BIBLIOMETRICS (Feb. 2017)

Scopus: H-Index: 23, citations number: 1228

Google Scholar: H-Index: 29, citations number: 2800

SERVICES TO THE RESEARCH COMMUNITY

Area Editor per Elsevier Ad Hoc networks Journal (2006-today)

Guest Editor for IEEE Network, special issue on "Networking Over Multi-Hop Cognitive Radio Networks" (7/2008-8/2009). M. Cesana, E. Ekici, Y. Bar-Ness, Networking Over Multi-Hop Cognitive Networks-Guest Editorial, IEEE Network, July 2009, vol. 23, no. 4, pp. 4-5

Guest Editor for Wiley Journal on Security and Communication Networks, special Issue on "Security for QoS Assured Wireless and mobile Networks" (9/2010-3/2011). M. Cesana, A. Boukerche, A. Zomaya, Security for QoS assured wireless and mobile networks, Security and Communication Networks, vol. 4, no. 3, ISSN: 1939-0122,

pp. 239-241

Guest Editor for Ad Hoc Networks Journal, special issue on "Models and Algorithms for Wireless Mesh Networks" (5/2010-2/2011), M. Cesana, X. Lin, N. B. Shroff, Q. Zhang, Special issue on models and algorithms for wireless mesh networks, Ad Hoc Networks, vol. 13, Part A, February 2014, pp. 107-109, ISSN 1570-8705

Guest Editor for Ad Hoc Networks, special issue on "Smart solutions for mobility supported distributed and embedded systems", A. Levi, Ö. Gürbüz, A. Maña, M. Klonowski, M. Cesana, M. Ghassemian, S. Sargento, "Smart solutions for mobility supported distributed and embedded systems", Ad Hoc Networks, vol. 15, April 2014, pp. 1-3, ISSN 1570-8705

Guest Editor for Springer Lecture Notes in Computer Science, volume on "Wireless Systems and New Trends in Network Architectures in Next Generation Internet", vol. 3883, Lecture Notes in Computer Science (6/2005-6/2006)

Guest Editor for International Journal of Distributed Sensor Networks (Hindawi), special issue on "Enabling Technologies and Smart Services for the Internet of Things", June 2015

Technical Program Chair of the 5th ACM Symposium on "QoS and Security for Wireless and Mobile Networks", Q2SWinet 2009, Tenerife, Spain, 26-30 Oct 2009.

Technical Program Co-Chair of the 6th ACM Symposium on "QoS and Security for Wireless and Mobile Networks", Q2SWinet 2010, Bodrum, Turkey, 16-23 Oct 2010.

Technical Program Co-Chair of the 7th ACM Symposium on "QoS and Security for Wireless and Mobile Networks", Q2SWinet 2011, Miami, USA, Oct-Nov 2011

Technical Program Co-Chair of the 2nd IEEE workshop on "CARrier Grade Wireless MESH Networks", CARMEN 2010, San Diego, California, USA, 15-19 March 2010 (in conjunction with IEEE INFOCOM 2010).

Technical Program Co-Chair of the 5th IFIP conference on "New Technologies, Mobility and Security" (NTMS 2011), Istanbul, Turkey, 7-10 May 2012.

Publicity Co-Chair of the first conference on "Sensor Systems and Software" (S-CUBE 2009), September 7-9, 2009 - Pisa, Italy

Student Research Competition (SRC) and Travel Grants Co-chair for ACM

Mobicom 2012, August 2012.

Tutorials co-Chair per IEEE Globecom 2013

Electronic and Media Chair for IEEE ICME 2015

Technical Program Chair of the 5th IFIP Conference on Wireless, WMNC 2016, Colmar, France, July 2016.

TPC member for several international conference and workshops

COMPETITIVE RESEARCH PROJECTS (since 2011)

-National Projects

Project MIE – Mobilità Intelligente Ecosostenibile, national technological cluster. Design of opportunistic routing techniques in mobile urban networks (grant number: CTN01-00034-594122). Role: researcher.

Project SHELL – Smart Living Technologies, national technological cluster. Design of communication technologies for energy management at home (grant number: CTN01 00128 111357). Role: researcher.

PeopleNET PRIN project funded by the Italian Ministry for Instruction, University and Research (MIUR) under Protocol N. 2009BZM837 (2011-2013). Design and optimization of opportunistic social networks. Role: **Coordinator of the research unit** at Politecnico di Milano.

Project **LAURA (LocAlization and Ubiquitous monitoRing of pAtients for health care support)**, funded by Politecnico di Milano. Design and implementation of a wireless sensor networks to localize and monitor patients hosted in nursing institutes (2009-2011). Role: **Principal Investigator/Project Coordinator**

Project **MESE (Meshed Sensors)**, (2008-2011), funded through art. 11 ICT Lombardia. Activities for the development of hybrid wireless mesh/wireless sensor network infrastructures. Role: **research activities** in the development of middleware solution for multi-technology devices.

-International Projects

Anticipatory Networking Techniques in 5G and Beyond, H2020 MSCA ITN-EID (2015-2019). International Training Network. Role: research unit co-coordinator

GreenEyes-Networked energy-aware visual analysis, FP7 FET-Open Young-Explorers (2012-2015). Design of visual sensor networks. Role: **project co-coordinator**.

TECHNOLOGY TRANSFER

Contribution to standards

- ❑ S. TUBARO, M. TAGLIASACCHI, L. BAROFFIO, M. CESANA, A. REDONDI, "Coding local and global binary visual features extracted from video sequences", MPEG input document m35016, Strasbourg, October 2014
- ❑ L. BAROFFIO, M. CESANA, A. REDONDI, M. TAGLIASACCHI, S. TUBARO, D. PAU, "Analyze-then-compress: a new visual encoder", MPEG input document, m29976, Vienna, July 2013
- ❑ A. CANCLINI, M. CESANA, A. REDONDI, M. TAGLIASACCHI, J. ASCENSO, R. CILLA, D. PAU, "A comparative analysis of state-of-the-art visual feature detectors and descriptors", MPEG input document, m29303, Incheon, April 2013

Co-inventor of the following patents:

- ❑ F. Borgonovo, A. Capone, M. Cesana, L. Fratta, Communication Protocol for Ad Hoc Networks, priority date 18/02/2003, Code EI.03.001.
- ❑ R. Kapoor, M. Cesana, M. Gerla, QoS Multimedia Solution for the Bluetooth Stack, patent pending at the UCLA Intellectual Property Administration Office, UCLA Case no. 2003-315-1
- ❑ S. Tubaro, M. Cesana, M. Tagliasacchi, L. Baroffio, A. Redondi, Metodo e sistema di analisi visual distribuita, priority date 24/12/2014, code: EIB.14.027.A

Co-founder and share-holder of MobiMESH s.r.l., a spin-off company of Politecnico di Milano manufacturing networking devices and solutions for wireless mesh networks