

# Enzo Mingozzi

## Curriculum Vitae

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### Full Professor

Dip. di Ingegneria dell'Informazione, University of Pisa, Italy  
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Enzo Mingozzi is Full Professor at the Department of Information Engineering of the University of Pisa, Italy. His research activities span several areas, including resource optimization in wireless and wired IP networks, Mobile Edge/Fog Computing and the Internet of Things. He is a co-author of >130 peer-reviewed papers in international journal and conference proceedings, 5 book chapters and 10 patents. He is currently Area Editor (Services, Applications, and Other Topics for IoT) of the Internet of Things Journal (IEEE), and serves on the Editorial Board of Computer Networks (Elsevier), and Computer Communications (Elsevier). He has been also guest editor of a number of journal special issues on topics related to wireless and mobile networks. He served in the organizing and technical program committee of several international conferences and was a co-founder of the IEEE IoT-SoS and IEEE MeshTech workshops.

## 1 Scientific and professional career

### 1.1 Qualifications

- February 14, 2000 - Ph.D. in Computer Systems Engineering, from University of Pisa.
- July 20, 1995 - Laurea degree (cum laude) in Computer Systems Engineering, from University of Pisa.

### 1.2 Positions

- Full Professor at the Department of Information Engineering of the University of Pisa (since 2017).
- Responsible of the Cisco Academy of the University of Pisa, as part of the Cisco Networking Academy program (since 2001).
- Director's delegate for Teaching - Department of Information Engineering (since 2020).

#### 1.2.1 Previous positions

- Chair of the Degree Programme Board (elected) - Degree Programmes (Laurea & Laurea Magistrale degrees) in Computer Engineering at the University of Pisa (2017 - 2020).
- Board member (elected) of the School of Engineering of the University of Pisa (Dec. 2016 - Nov. 2017).
- Board member of the PhD Program in *Ingegneria dell'Informazione* (<http://phd.dii.unipi.it/>), of the University of Pisa (since its foundation in 2013).
- Associate Professor at the Department of Information Engineering of the University of Pisa (2005 - 2017).
- Member of the IPR Technical Committee of the University of Pisa (2017-2018).
- Coordinator of Internationalization Activities of the Dept. of Information Engineering of the University of Pisa (*Coordinatore d'Area per l'Internazionalizzazione*), delegated by the Rector to negotiate and sign Erasmus+ agreements of the Department (2013-2016).
- Member of the Advisory Board of the *Master Universitario II livello Smart Cities* (2013-2014).
- Member of the Board of the Doctoral Program in Information Engineering (<http://www.iet.unipi.it/dottinformazione/>), PhD School in Engineering "Leonardo Da Vinci" of the University of Pisa (2012-2015).

- *Visiting Professor* at the IMT Institute for Advanced Studies, Lucca, Italy (Jan. 2011 - Dec. 2011).
- *Assistant Professor (Ricercatore)* at the Faculty of Engineering of the University of Pisa (May 2000 – Dec. 2004).
- *Research Fellow* at the Dept. of Information Engineering of the University of Pisa (Sept. 1999 - Mar. 2000).
- *PhD student* at the Dept. of Information Engineering of the University of Pisa (1995 - 1999).

### 1.2.2 Post-graduate experience

- Responsible of computer and networking systems, Office for Electronic, Informatics, Telecommunications of the Italian Coast Guard (as a reserve officer during military service) (July 1996 - July 1997).
- Research grant from Fondazione Ugo Bordoni, Italy, working on “Traffic performance analysis of a multiple access protocol for service integration in advanced mobile systems” (Aug. 1995 - Dec. 1995).

## 2 Research activities

Enzo Mingozzi’s research interests are in the area of computer networks and distributed computing, with particular emphasis on the following topics:

- Design and performance evaluation of architectures and protocols for Mobile Edge/Fog Computing
- Design and performance evaluation of architectures and protocols for the Internet of Things (IoT)
- Design and performance evaluation of algorithms and protocols for wireless networks, with particular emphasis on aspects related to Quality of Service (QoS) support and resource allocation
- Design and performance evaluation of algorithms and protocols for QoS support and Traffic Engineering in IP-based core networks.

### 2.1 Impact of research

- **SCOPUS** (<http://www.scopus.com/authid/detail.url?authorId=6602669130>)
  - Citations: 2395, h-index = 27
- **Google Scholar** (<http://scholar.google.com/citations?user=uV8F12wAAAAJ&hl>)
  - Citations: 4208, h-index: 34

### 2.2 Achievements

#### 2.2.1 Patents

Enzo Mingozzi is co-inventor of ten international patents, which have been developed as a partial result of international research projects funded by private industries listed in Sections 3.1.2 and 3.2.2. In particular:

- two patents related to channel assignment and routing in wireless mesh networks have been filed and granted to Fluidmesh Networks;
- four patents related to IEEE 802.16 allocation algorithms have been filed and granted to Nokia and Nokia Siemens Networks, and one patent related to IEEE 802.16 allocation algorithms has been filed and granted to Telecom Italia;
- three patents have been filed and granted to Telecom Italia, for TTSD-based algorithms.

#### 2.2.2 Paper awards

- Best Paper Award: L. Conforti, C. Puliafito, A. Viridis and E. Mingozzi, “Extending the QUIC Protocol to Support Live Container Migration at the Edge,” 22nd IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM 2021), Pisa, Italy.

- **Best Paper Award:** P. McDonagh, C. Vallati, A. Pande, P. Mohapatra, P.A. Perry, E. Mingozzi, “Investigation of Scalable Video Delivery using H.264 SVC on an LTE Network,” 14th International Symposium on Wireless Personal Multimedia Communications (WPMC 2011), Brest, France, Oct. 3-7, 2011.
- **Spotlight Paper selected for the July 2010 issue of IEEE Transactions on Mobile Computing:** C. Cicconetti, L. Lenzini, E. Mingozzi, C. Vallati, “Reducing Power Consumption with QoS Constraints in IEEE 802.16e Wireless Networks,” IEEE Transactions on Mobile Computing, Vol. 9, No. 7, pp. 1008-1021, July 2010.

## 2.3 Supervision

Enzo Mingozzi is/has been supervisor or co-supervisor of the following PhD students in the field of computer networks and distributed computing:

- Leonardo Bacciottini (University of Florence & University of Pisa)
- Martina Pappalardo (University of Florence & University of Pisa)
- Carlo Puliafito (University of Florence & University of Pisa)
- Giacomo Tanganelli (University of Pisa)
- Carlo Vallati (University of Pisa)
- Vanessa Gardellin (University of Pisa)
- Claudio Cicconetti (University of Pisa)
- Linda Martorini (University of Pisa)
- Giovanni Stea (University of Pisa)
- Cristiano Bonato Both – *visiting* (Federal University of Rio Grande do Sul, Argentina)

## 2.4 Other activities

Between 1999 and 2001 Enzo Mingozzi actively took part in the standardization process of HIPERLAN/2 and HIPERMAN networks, as representative of Telecom Italia in the framework of the ETSI (European Telecommunications Standards Institute) project Broadband Radio Access Networks (BRAN).

# 3 Research projects

## 3.1 Scientific responsibility

### 3.1.1 Public funding based on competitive calls

- Italian Ministry of Economic Development (MiSE), **ARTES 4.0 Advanced Robotics and enabling digital TEchnologies & Systems 4.0**, vice coordinator of the Training Node of the Competence Center at University of Pisa.
- European Commission, 7th Framework Program, **BETaaS: Building the Environment for the Things as a Service**, 2012-2015 (30 months). Contract FP7-ICT-2011-8 n.317674. Responsible of the University of Pisa Research Unit.
- Italian Ministry of Economic Development (MiSE), **Second Life of the Public Services**, 2011-2016 (54 months). Call F.I.T. Start-up, ranked 24<sup>th</sup> out of 406 applications (<http://www.pon-rec.it/bandi/bando-start-up-legge-4682-fit/>). Responsible of the University of Pisa Research Unit.
- Italian Ministry of Education, University and Research (MIUR), **PRIN 2004: Quality and Control-ability of Communication Services over Heterogeneous Networks** (QuaSAR), (24 months). Responsible of the University of Pisa Research Unit.

### 3.1.2 Funding by private industries

- Facebook Inc. (USA) Networking Research Award, **Service continuity of serverless computing at the edge via QUIC migration**, 2021-2022. PI.
- Huawei (P.R. China), **Data Compression for Low-power Low-computational Devices**, 2017-2018. Co-PI.
- Fluidmesh Networks s.r.l. (Italy), **Development of a protocol for Dynamic Frequency Selection (DFS) management and a protocol for Multi Protocol Label Switching (MPLS) with automatic**

**label distribution, fast re-routing and link management in wireless mesh networks**, 2010-2011 (6 months). Co-PI.

- Nokia Siemens Networks (Finland), **Evaluation of IEEE 802.16**, 2007-2008 (11 months). Member of the Steering Group (established to support the supervision of the project).
- Nokia Research Centre (Finland), **Performance Evaluation of IEEE 802.16e**, 2006-2007 (11 months). Member of the Steering Group (established to support the supervision of the project).
- Nokia Networks (Finland), **Evaluation of IEEE 802.16**, 2005 (10 months). Member of the Steering Group (established to support the supervision of the project).
- Nokia Networks (Finland), **Evaluation of IEEE 802.16d**, 2004 (7 months). Member of the Steering Group (established to support the supervision of the project).
- Nokia Research Centre (Finland), **Further Evaluation of IEEE 802.16**, 2003 (7 months). Member of the Steering Group (established to support the supervision of the project).

## 3.2 Participation

### 3.2.1 Public funding based on competitive calls

- European Commission, Horizon 2020, **Arrowhead Tools for Engineering of Digitalisation Solutions**, Contract H2020-ECSEL-2018-1-IA n. 826452.
- Italian Ministry of Education, University and Research (MIUR), **Crosslab**, 2018-2023, as part of the Departments of Excellence initiative, special grant (11M€) to the best departments of Italian universities.
- European Commission, Horizon 2020, **ECOAP: Experimental Assessment of Congestion Control Strategies for CoAP using the WiSHFUL platform**, 2017-2018. Contract WiSHFUL-OC5-EXP-EXC n. 645274.
- Univ. of Pisa, **IoT e Big Data: metodologie e tecnologie per la raccolta e l'elaborazione di grosse moli di dati**, Progetti di Ricerca di Ateneo 2017.
- University of Pisa, **Metodologie e Tecnologie per lo Sviluppo di Servizi Informatici per le Smart Cities**, Progetti di Ricerca di Ateneo 2015 (12 months).
- Italian Ministry of Education, University and Research (MIUR), **PRIN 2006: Design and assessment of protocols and distributed algorithms for quality of service mesh networks (NADIR)**, (24 months).
- European Commission, 6th Framework Program, **EuQoS: End-to-end Quality of Service support over heterogeneous networks**, 2004-2007 (40 months).
- Italian Ministry of Education, University and Research (MIUR), **FIRB 2002: Performance Evaluation of Complex Systems: Techniques, Methodologies and Tools (PERF)**, (36 months).
- European Commission, 5th Framework Program, **WINE GLASS - Wireless IP Network as a Generic platform for Location Aware Service Support**, 2000-2002 (24 months).
- Italian Ministry of Education, University and Research (MIUR), **PRIN 2001: Web Systems with High QoS Guarantees**, (24 months).
- Italian Ministry of Education, University and Research (MIUR), **PRIN 1997: Design Methodologies and Tools of High Performance Systems for Distributed Applications (MOSAICO)**, (24 months).

### 3.2.2 Funding by private industries

- Telecom Italia S.p.A (Italy), **Study of scheduling and channel allocation algorithms for evolved mobile systems (HSPA, WiMax, LTE)**, 2008-2009 (14 months).
- Telecom Italia S.p.A (Italy), **Modeling and performance evaluation of OFDMA systems with WINNER/LTE parameterization supporting multimedia and real-time packet services**, 2007-2008 (11 months).
- Telecom Italia S.p.A (Italy), **Modeling and performance evaluation of HSDPA (High Speed Downlink Packet Access) and HSUPA (High Speed Downlink Packet Access) systems supporting multimedia and real-time packet services**, 2005-2007 (25 months).
- Telecom Italia S.p.A (Italy), **Research activities on networking and QoS in wireline and wireless networks**, 2003-2006 (36 months).

## 4 Scientific and professional service

### 4.1 Invited talks

1. *July 2017. Enabling IPv6 in Constrained Networks for the Internet of Things* (1h), within the course “The Internet of Everything, Everywhere: Methods and Technologies for Internetworking Land, Air and Sea,” held by Prof. Stefano Basagni (Northeastern University, USA), PhD Program in Computer Science, University of Pisa, Italia.
2. *November 2015. QoS-oriented service selection in Things-as-a-Service architectures.* ENSIMAG - École nationale supérieure d'informatique et de mathématiques appliquées de Grenoble, Grenoble Institute of Technology (Grenoble, France, November 17, 2015).
3. *June 2014. Routing over Low Power and Lossy Networks.* College of Information Science and Engineering Hunan University (Changsha, P.R. China, June 25, 2014).
4. *June 2014. BETaaS: an open framework for accessing things as a service.* *Keynote* at IEEE IoT-SoS 2014 (Sydney, Australia, June 16, 2014).
5. *April 2011. The Internet of Things: a look at emerging standard paradigms,* Joint workshop Fitce Greece - AICT Fitce Italy, Pisa, April 2011.
6. *July 2010. 2^kr Factorial Design of Simulation Experiments: A Case Study,* 1st InfQ workshop, Pisa (Italy).

### 4.2 Editorial Boards

- **Internet of Things Journal (IEEE)** – Area Editor for “Services, Applications, and Other Topics for IoT”, since 2020.
- **IEEE Academy on Internet of Things – Technical Editor** for “IoT Computing Platforms”, since its foundation in 2020
- **Computer Networks (Elsevier)** – since 2012.
- **Computer Communications (Elsevier)** – since 2012.

### 4.3 Guest-edited special issues

1. K. Zheng, X. Wang, E. Mingozzi, B. Fan, *Special issue on Technical Challenges and Emerging Opportunities for 5G-enabled IoT Systems*, **Computer Communications**, Vol. 123, pp. 52-125, (June 2018).
2. A. Reinhardt, E. Mingozzi, *Special Section on Selected Papers from the 2015 IFIP/IEEE Conference on Sustainable Internet and ICT for Sustainability, SustainIT 2015*, **Computer Communications**, Vol. 96, pp. 62-108 (December 2016).
3. J. Cao, M. Di Francesco, E. Mingozzi, *Special issue on the Internet of Things*, **Pervasive and Mobile Computing**, Vol. 20, pp. 1-160 (July 2015).
4. Y. Liu, E. Mingozzi, *Special Section on Selected Papers from the 14th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, WoWMoM 2013*, **Pervasive and Mobile Computing**, Vol. 16, Part A, pp. 76-77 (January 2015).
5. E. Mingozzi, X. Perez-Costa, C. Rosenberg and S. Xu, *Special Issue on Wireless Green Communications and Networking*, **Computer Communications**, Vol. 35, No. 14, August 2012.
6. B. Walke, B. Jabbari, E. Mingozzi, A. Sibille, *Special Issue on Next Generation Wireless and Mobile Communications*, **European Transactions on Telecommunications**, Vol. 17, No. 3, May/June 2006.
7. J. Dunlop, L. Lenzini, E. Mingozzi, *Special Issue of Selected Papers from European Wireless 2002*, **Wireless Networks**, Vol. 10, No. 1, January 2004.

### 4.4 Conferences

#### 4.4.1 Conference/symposium chair

- **TPC Chair** (with Stefano Basagni and Jiannong Cao) of **DCOSS 2021** – International Conference on Distributed Computing in Sensor Systems (virtual, 14-16 July 2021).

- TPC Chair (with Honggang Wang) of **IEEE ICNC 2018** – International Conference on Computing, Networking and Communications (Maui, HI, USA, 5-8 March 2018).
- TPC Co-Chair (with Kaushik R. Chowdhury) of **EWSN 2018** – International Conference on Embedded Wireless Systems and Networks (Madrid, Spain, 14-16 February 2018).
- Symposium Co-Chair (with Chonggang Wang and Lijun Dong) Internet Services and Applications Symposium, **IEEE ICNC 2017** – International Conference on Computing, Networking and Communications (Silicon Valley, USA, January 26-29, 2017).
- TPC Co-Chair (with Andreas Reinhardt) of **IFIP SustainIT 2015** - International Conference on Sustainable Internet and ICT for Sustainability (Madrid, Spain, April 14-15, 2015).
- TPC Co-Chair (with Yonghe Liu) of **IEEE WoWMoM 2013** - International Symposium on a World of Wireless Mobile and Multimedia Networks (Madrid, Spain, June 4-7, 2013).
- Symposium Co-Chair (with Wenye Wang and Jun Li) Network Algorithms and Performance Evaluation, **IEEE ICNC 2013** – International Conference on Computing, Networking and Communications (San Diego, USA, January 28-31, 2013).
- General Co-Chair (with Mario Gerla) of **IEEE WoWMoM 2011** - International Symposium on a World of Wireless Mobile and Multimedia Networks (Lucca, Italy, June 20-24, 2011).
- Track Chair “Multimedia Communication and Networking” of **IEEE ICME 2008** - International Conference on Multimedia & Expo 2008 (Hannover, Germany, June 23-26, 2008).

#### 4.4.2 Workshop chair

- Co-Chair and Founder of **IEEE IoT-SoS** - IEEE International Workshop on the Internet of Things: Smart Objects and Services
- Co-Chair and Founder of **IEEE MeshTech** - Workshop on Enabling Technologies and Standards for Wireless Mesh Networking
- Co-Chair of **AWN 2009** - First International Workshop on Autonomic Wireless Networking (Leipzig, Germany, June 21-24, 2009), co-located with IWCMC 2009.

#### 4.4.3 Organizing committees

- Tutorial Co-Chair (with Ioannis Anagnostopoulos) of **SaCoNeT 2013** - 4th International Conference on SmArT COmmunications in NEtwork Technologies (Paris, France, June 17-19, 2013).
- Invited Session Co-Chair (with Marilia Curado) “Wireless Multi-hop Communication Challenges in the Future Internet” at **WWIC 2011** - Ninth International Conference on Wired/Wireless Internet Communications (Vilanova i la Geltrú, Catalonia, Spain, June 13-17, 2011).
- Invited Session Co-Chair (with George Polyzos) “Wireless Mesh Networks” at **EW 2010** - European Wireless Conference (Lucca, Italy, April 12-15, 2010).
- Workshops Co-Chair (with George Polyzos) of **IEEE WoWMoM 2009** - International Symposium on a World of Wireless, Mobile and Multimedia Networks (Kos, Greece, June 15-19, 2009).
- Publication Co-Chair (with Seon Ho Kim) of **IEEE WoWMoM 2008** - International Symposium on a World of Wireless, Mobile and Multimedia Networks (Newport Beach, CA, USA, June 23-27, 2008).
- Tutorial Chair of **European Wireless 2002** (Florence, Italy, February 26-28, 2002).

#### 4.4.4 Technical program committees

- **IEEE INFOCOM** – IEEE International Conference on Computer Communications
- **IEEE ICC** – IEEE International Conference on Communications
- **IEEE GLOBECOM** – IEEE Global Communications Conference
- **ACM MSWIM** – International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems
- **IEEE WoWMoM** – International Symposium on a World of Wireless, Mobile and Multimedia Networks
- **IEEE WF-IoT** – World Forum on Internet of Things
- **IEEE CloudCom** – International Conference on Cloud Computing Technology and Science
- **IEEE FiCloud 2016** – International Conference on Future Internet of Things and Cloud
- **ACM WiNTECH 2016** – International Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization

- **IEEE OnlineGreenComm** – IEEE Conference on Green Communications
- **IEEE PIMRC** – International Symposium on Personal, Indoor and Mobile Radio Communications
- **IEEE DCOSS** – International Conference on Distributed Computing in Sensor Systems
- **IEEE SenseApp** – International Workshop on Practical Issues in Building Sensor Network Applications
- **IFIP Med-Hoc-Net** – IFIP Annual Mediterranean Ad Hoc Networking Workshop
- **IEEE BWA** – Workshop on Broadband Wireless Access
- **IEEE HotMESH** – Workshop on Hot Topics in Mesh Networking
- **IEEE PWC** – Personal Wireless Communications
- **IFIP WWIC** – International Conference on Wired/Wireless Internet Communications
- **IFIP SustainIT** – Conference on Sustainable Internet and ICT for Sustainability
- **European Wireless** Conference
- **ICST Simutools** – Conference on Simulation Tools and Techniques
- **ICST Valuetools** – Performance Evaluation Methodologies and Tools
- **ICST AdHocNets** – International Conference on Ad Hoc Networks

#### 4.4.5 Reviewing activities

- Journal/Magazines Peer Review: IEEE Transactions on Mobile Computing, IEEE/ACM Transactions on Networking, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Wireless Communications, IEEE Transactions on Industrial Informatics, IEEE Communications Magazine, IEEE Communication Letters, IEEE Network, IEEE Wireless Communications, Elsevier Wireless Networks, Elsevier Computer Networks, Elsevier Computer Communications, Elsevier Performance Evaluation, Springer Journal of Network and Systems Management, Wiley Journal of Wireless Communications and Mobile Computing
- Research Grant Proposals Assessor: City University of Hong Kong (SAR, China), University of Verona (Italy)

## 5 Publications

Enzo Mingozzi is co-author of >120 peer-reviewed papers in international journals and conference proceedings, five book chapters and ten patents

A complete list of publications is available at <http://www2.ing.unipi.it/~a009395/home/pub.htm>.

## 6 Teaching activities

### 6.1 Curricular classes

#### 6.1.1 Graduate (Laurea Specialistica/Magistrale)

Since 2014 **Advanced Network Architectures and Wireless Systems** – Master's Degree in Computer Engineering, University of Pisa.

Since 2020 **Information Technologies for Industry 4.0** – Master's Degree in Technology and Production of Paper and Cardboard, University of Pisa.

2013-2018 **Internet of Things** – Master's Degree in Embedded Computing Systems, University of Pisa and Scuola Superiore Sant'Anna.

2003-2012 **Computer Networks' Services and Applications** (Servizi e Applicazioni delle Reti Informatiche) – Master's Degree in Computer Engineering for Enterprise Management, University of Pisa.

#### 6.1.2 Undergraduate (Laurea)

Since 2013 **Computer Networks Design** – Bachelor's Degree in Computer Engineering, University of Pisa.

- 2005-2012 **Foundations of Computers and CAD** (Informatica Grafica) –Bachelor’s Degree in Construction Engineering, University of Pisa.
- 2004-2010 **Computer Networking Lab** (Laboratorio di Reti Informatiche) –Bachelor’s Degree in Computer Engineering, University of Pisa.
- 2001-2004 **Logic Circuits**, Bachelor’s Degree in Computer Engineering, University of Pisa (as a lecturer).
- 2000 **Foundations of Informatics**, Bachelor’s Degree in Telecommunications Engineering, University of Pisa (as a lecturer).
- 1999-2000 **Computer Systems**, Bachelor’s Degree in Telecommunications Engineering, University of Pisa (as a teaching assistant).

### 6.1.3 Short courses (Master Universitario)

- 2014 **Internet of Things** (16h). Master Universitario II livello *Smart Cities*, University of Pisa.
- 2004-2012 **Internet Architecture IV** (Architettura di Internet IV) (13h). Master Universitario I livello *Master.IT*, University of Pisa.
- 2001 **Computer Networks Lab**. Master “Web and Wireless”, University of Pisa.

## 6.2 Invited lectures (PhD programs)

- 2012 **Enabling Technologies and Standards for Multi-hop Wireless Networking** (10h), Programa de Doctorado en Ingeniería Telemática, Universidad Carlos III de Madrid, Spain.
- 2009-2011 **Advanced Networking Architectures: Protocols, Modeling and Analysis** (10h), Computer Science and Engineering PhD Program, IMT - Lucca Institute for Advanced Studies, Italy.
- 2008 **Pervasive Computing: Architectures and Performance Evaluation** (10h), Computer Science and Engineering PhD Program, IMT - Lucca Institute for Advanced Studies, Italy.
- 2005-2006 **Performance Evaluation of Computer Systems** (20h), Computer Science and Engineering PhD Program, IMT - Lucca Institute for Advanced Studies, Italy.

## 6.3 Seminars

- 2019 **Architectures and Protocols for IoT Systems** (6h), RUDN University, Moscow (Russia).
- 2011-2013 **The Internet of Things** (6h) within the course Advanced Network Architectures and Wireless Systems (Architetture Avanzate di Networking e Sistemi Wireless). (L. Computer Engineering, University of Pisa).
- 2010 **Machine-to-machine (M2M) communications and the Internet of Things** (2h) within the course Advanced Network Architectures and Wireless Systems (Architetture Avanzate di Networking e Sistemi Wireless). (L. Computer Engineering, University of Pisa).
- 2007-2010 **IEEE 802.16/WiMAX** (4h) within the course Advanced Network Architectures and Wireless Systems (Architetture Avanzate di Networking e Sistemi Wireless). (L. Computer Engineering, University of Pisa).

## 6.4 Supervision of grad/undergrad students

Enzo Mingozzi has supervised or co-supervised the thesis work of several undergraduate (>150) and graduate (>80) students in the field of computer networks and distributed computing.

## 6.5 Other activities

Enzo Mingozzi regularly chairs or has chaired Examination Committees of curricular classes (graduate and undergraduate) under his responsibility.

Enzo Mingozzi regularly takes part in the final Graduation Committees of the Bachelor Degree in Computer Engineering, and of Master Programmes in Embedded Computing Systems and in Computer Engineering.



Since 2012, Enzo Mingozzi is member of the Evaluation Committee selecting students (both non-EU and EU) for the admission to the Master Programme in Embedded Computing Systems, jointly organized by University of Pisa and Scuola Superiore di Studi Universitari S. Anna, and the Master Programme in Computer Engineering, organized by University of Pisa.

Since 2001, Enzo Mingozzi is responsible of the Cisco Academy “Ingegneria Informatica - Networking e Multimedia” of the University of Pisa, as part of the Cisco Networking Academy program. Based on a partnership between Cisco Systems and the courses on Computer Engineering at the University of Pisa, the Academy delivers courses to prepare students for the CCNA, Cisco Certified Network Associate, certification. Enzo Mingozzi is a CCNA certified instructor.

Since 2013 until recently (February 2016), Enzo Mingozzi has coordinated the internationalization activities of the Dept. of Information Engineering of the University of Pisa (*Coordinatore d’Area per l’Internazionalizzazione*). In this position, he has been delegated by the Rector to negotiate and sign Erasmus+ agreements for all Bachelor and Master Programmes managed by the Department.