# Curriculum Vitae

**Paolo Bellavista**

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## SOME SUMMARIZED AND PRIMARY ELEMENTS OF MY CV

Source: **Google Scholar** (June 2016)
Citations = 3846; h-index=29; g-index=56; cites/year=160.25

In total I am co-author of around 50 articles in international journals/magazines (in publication venues that are considered excellent in my research fields, such as ACM Computing Surveys, IEEE Communication Surveys&Tutorials, IEEE Transactions on Software Engineering, IEEE Journal on Selected Areas in Communications, ACM Transactions on Internet Technology, IEEE Transactions on Vehicular Networks, IEEE Computer, IEEE Internet Computing, IEEE Pervasive Computing, IEEE Communications, IEEE Wireless Communications). In addition, I have served as guest editor for more than 10 special issues in international journals/magazines (e.g., IEEE Communications and IEEE Computer). Moreover, I am co-author of around 15 chapters in international peer-reviewed books and of around 90 additional papers presented in international conferences organized by the primary professional associations and publishers (IEEE, ACM, Springer, …).

About organization and reviewing activities, I am (or have been) member of the Editorial Boards of several international journals/magazines, among which IEEE Transactions on Computers (2011-2015), IEEE Transactions on Network and Service Management (2011-), IEEE Transactions on Services Computing (2008-), Elsevier Pervasive and Mobile Computing Journal (2010-), Elsevier Journal on Network and Computing Applications (2015-), Elsevier Journal of Systems Architecture (2003-), Springer Journal of Network and Systems Management (2008-), and IEEE Communications Magazine (2003-2011).

Finally, among the roles I am covering and covered to serve my community, I can list the fact that I am member of the Academic Senate of Alma Mater Studiorum – Università di Bologna (2015-2018), Senior Member of both IEEE and ACM, member of the Steering Committee of the European Technology Platform called Networked European Software and Service Initiative (NESSI) and of the Activity Group of the Big Data Value Association (BDVA) cPPP.

## QUALIFICATIONS AND SENIOR MEMBERSHIPS

- In September 1991, I was named "**Alfiere del Lavoro**" by the President of the Italian Republic Francesco Cossiga (every year the qualification is assigned to the best 25 Italian students who completed their High School studies with the highest average marks over the 5 years)
- In March 1997, I completed my M.Sc. studies **Laurea (with honors) in Electronics Engineering, orientation in Computers** at the University of Bologna, with a thesis on "Methodologies and Environments for Distance Learning in Distributed Systems"
- In April 2001, I completed my **Ph.D. studies in Computer Engineering** at the Dept. of Electronics, Computer Science, and Systems (DEIS) of the University of Bologna, with the doctoral dissertation "Mobile Agent Models and Technologies for Distributed Coordinated Applications in Global Systems"
- In July 2002, I won a public examination for the permanent position of Assistant Professor in the scientific sector ING-INF/05 at the University of Bologna. I covered that position starting from November 2002
- In July 2004, I won a public examination for the permanent position of Associate Professor in the scientific sector ING-INF/05 at the University of Perugia. I covered that position at the University of Bologna starting from November 2005
- I won a public examination for being admitted to the role of Full Professor in the scientific sector ING-INF/05 within the Abilitazione Scientifica Nazionale (National Scientific Habilitating selection) 2012
- **IEEE Senior Member** since 2006, **ACM Senior Member** since 2009 and **Create-Net Affiliate Partner** since 2009

# SCIENTIFIC ACTIVITIES

## PRIMARY RESEARCH TOPICS

- Service-oriented architectures for mobile, context-aware, and pervasive applications
- Middleware for dynamic and adaptive distributed services in pervasive computing scenarios and integrated wired-wireless systems in general. Application domains:
    - Integrated management of networks, systems, and services
    - Federation of cloud infrastructures and resources, with special focus on Quality of Service and dynamic resource migration
    - Efficient and scalable integration, with exploitation of dynamically determined localities, of sensors/actuators and cloud computing for Cyber Physical Systems, with special focus on edge/fog computing techniques
    - Online stream processing of big data for cloud-Internet of Things environments
    - Wireless sensor networks and smart space services, with special focus on smart buildings and high scalability in wide-scale urban environments
    - Opportunistic and completely decentralized urban monitoring via vehicular ad-hoc sensor networking
    - Resource replication and dissemination in mobile ad-hoc and dense networks
    - Framework extensions and services for scalability in IP Multimedia Subsystem (IMS) and, more in general, for cloud-based virtual network functions in 4G/5G ecosystems
    - Provisioning of continuous and context-aware services with guarantees/indications of Quality of Service towards mobile users and devices, e.g., by considering predictive and proactive management of horizontal/vertical handovers
    - Opportunistic and cooperative sharing of resources in highly decentralized and heterogeneous environments (integration/federation of heterogeneous subnetworks, simultaneous exploitation of different network interfaces, sharing incentives, …)
- Mobile agent systems and related standards for open and interoperable programming environments

The above research topics are covered also via the coordination and supervision work of a research group, namely Mobile Middleware Research Group – http://middleware.unibo.it. This group, which is coordinated by Antonio Corradi and me, consists of around ten people, including Ph.D. students, PostDoc collaborators and research grant staff, who actively contribute to our research activities and projects, as demonstrated by the list of co-authored publications included in the following parts of this cv.

## PARTICIPATION IN COMPETITITIVE RESEARCH PROJECTS

(at the end of any project item, I report the organization/coordination role that I had in that project)

- **EU FP7 Large-scale IP**, FP7 Future Networks Call, "Mobile Cloud Networking (MCN)", Coordinator SAP Germany (2012-2016), overall budget 15.7M€; UNIBO leader
- **EU FP7 STREP**, ICT Call 8 (FP7-ICT-2011-8), "Cooperative Self-Organizing System for low Carbon Mobility at low Penetration Rates (COLOMBO)", Coordinator DLR Germany (2012-2015), overall budget 2.4M€; task leader
- **Artemis** Joint Undertaking, Innovation Pilot Project, **"Arrowhead"**, Coordinator Lulea U. Technology Sweden (2013-2016), overall budget 46M€; task leader
- **Artemis** Joint Undertaking, Sub-Programme 3, **"Internet of Energy for Electric Mobility"**, Coordinator SINTEF Norway (2011-2014), overall budget 34M€
- **Artemis** Joint Undertaking, Sub-Programme 3, **"Smart Objects For Intelligent Applications (SOFIA)"**, Coordinator Nokia Research Finland (2009-2011), overall budget 27M€; task leader
- **MIUR** Negotiated Project **FIRB**, Strategic Program Enabling Technologies for the Information Society – Objective 2: Networks and Net-computing, **"TOCAI: Knowledge-oriented Technologies for Internet-based Enterprise Aggregation"**, Coordinator Prof. Maurizio Lenzerini (2006-2009), overall budget 0.9M€
- **MURST PRIN** Project **"MOMA: a middleware approach to MObile MultimodAl web services"**, Coordinator Prof. Marco Roccetti (2006-2007), overall budget 350k€
- **MIUR** Negotiated Project **FIRB**, Strategic Program Enabling Technologies for the Information Society – Objective 2: Networks and Net-computing, **"WEB-MINDS: Middleware for Advanced Services over Large-Scale Wired-Wireless Systems"**, Coordinator Prof. Giovanni Chiola (2003-2005), overall budget 2.4M€
- **CNR** Strategic Project, Funding Area: Enabling Software Platforms for Complex Distributed Objects, **"IS-MANET: Middleware for Mobile Ad Hoc Networks and their Applications"**, Coordinator Prof. Carlo Ghezzi (2003-2007), overall budget 900k€
- Emilia-Romagna Project **Piano Telematico Regionale** - "**Mobile Web Services**", Coordinator Prof. Maurelio Boari (2004-2006), overall budget 350k€
- **MURST PRIN** Project **"MUSIQUE: Infrastructure for QoS in Web Multimedia Services with Heterogeneous Access"**, Coordinator Prof. Antonio Corradi (2000-2002), overall budget 600k€; task leader
- **CNR** Coordinated Project **"Multimedia Services in Distributed Environments: Architectures, Provisioning, and QoS Management"**, Coordinator Prof. Antonio Puliafito (2001-2002), overall budget 400k€
- **University of Bologna** Special Funds for Selected Research Topics **"Integrated Environments to Support Secure Services"**, Coordinator Prof. Maurelio Boari (1999-2001), overall budget 90k€
- **CNR** Coordinated Project **"Models and Environments for Open, Parallel and Mobile Distributed Systems"**, Coordinator Prof. Antonio Corradi (1997-1999), overall budget 250k€; task leader

- **MURST** Project **"MOSAICO: Methodologies and Tools for the Design of High Performance Systems for Distributed Applications"**, Coordinator Prof. Luciano Lenzini (1997-1999), overall budget 1.8M€
- Young Researchers Project of the University of Bologna, **"Mobile Agent Supports for User, Terminal and Resource Mobility in Global Systems "**, Coordinator Paolo Bellavista (2000), overall budget 35k€

## INNOVATION AND TECHNOLOGIC TRANSFER PROJECTS

About the so-called non-competitive research projects, I have coordinated and supervised more than 10 industrial innovation and technologic transfer projects. In particular, within the Centro Interdipartimentale per la Ricerca Industriale ICT (CIRI-ICT) of the University of Bologna, I have coordinated and am coordinating several projects receiving direct private funding from both large companies and SMEs, e.g., Telecom Italia, Solair srl (then acquired by Microsoft), CRIF, … The total annual budget of the projects I personally lead is generally around 120k€ (average value in 2013-2016).

## REVIEWER OF INTERNATIONAL PROJECTS AND PROJECT PROPOSALS
- Project proposal evaluator for H2020 Innovative Training Networks (ITN), 2014-2015
- FP7 Mid-term Project Reviewer, for both STREP and ITN projects, 2013-2015
- Project proposal evaluator for FP7 Call1, Objective 1.1 "The Network of the Future", 2007
- Project proposal evaluator for Qatar National Research Foundation (QNRF), 2007, 2009, 2011, 2012
- Project proposal evaluator for Italian, Canadian, French, Kazakhstan, Norwegian, and Romanian National Research Councils and Research Ministers

## ORGANIZATION AND REVIEWING ACTIVITIES, EDITORIAL/STEERING BOARDS
I am member of the Editorial Boards of the following international journals/magazines:
- **IEEE Transactions on Network and Service Management** (2011-)
- **IEEE Transactions on Services Computing** (2008-)
- **IEEE Communications Magazine** (2003-2011)
- **IEEE Transactions on Computers** (2011-2015)
- **Elsevier Pervasive and Mobile Computing Journal** (2010-)
- **Elsevier Journal on Network and Computer Applications** (2015-)
- **Springer Journal of Network and Systems Management** (2008-)
- **Elsevier Journal of System Architecture** (formerly Microprocessors and Microsystems Journal) (2003-)
- **International Journal of Handheld Computing Research (IJHCR)**, Information Resources Management Association (IRMA) (2009-)

In addition, among the roles I am covering and covered to serve my community, I can list the fact that I am member of the Academic Senate of Alma Mater Studiorum – Università di Bologna (2015-2018), Senior Member of both IEEE and ACM, member of the Steering Committee of the European Technology Platform called Networked European Software and Service Initiative (NESSI) and of the Activity Group of the Big Data Value Association (BDVA) cPPP. Moreover, I have been National leader (together with Erina Ferro, CNR) for the Action Line Smart Space of EIT Digital and member of the Scientific Committee for the Digital Agenda of the municipality of Bologna.

I am a regular reviewer of several international journals/magazines in my primary research fields, such as IEEE Transactions on Mobile Computing, IEEE Transactions on Software Engineering, ACM Computing Surveys, ACM Transactions on Autonomous and Adaptive Systems, IEEE Journal on Selected Areas in Communications, Proceedings of the IEEE, IEEE Computer, IEEE Internet Computing, IEEE Software, IEEE Network, and IEEE Wireless Communications.

In addition, I have served or am serving in the Technical Program Committees of many international conferences and workshops, including:

- **AdHocNets**, EAI International Conference on Ad Hoc Networks (2014-2015)
- **AINA**, IEEE International Conference on Advanced Information Networking and Applications, Track on Pervasive/Ubiquitous Computing and Services (2011-2015)
- **ANT**, International Conference on Ambient Systems, Networks and Technologies (2013-2015)
- **ARM**, International Workshop on Adaptive and Reflective Middleware (2012-2015)
- **CCNC**, IEEE Consumers Communications & Networking Conference (2011, 2012, 2014)
- **CLOUDNET**, IEEE International Conference on Cloud Networking (2014, 2015)
- **CLOUDTECH**, International Conference on Cloud Computing Technologies and Applications (2015)
- **COMPSAC**, Annual IEEE International Computers, Software & Applications Conference (2014)
- **COMSWARE**, International Conference on COMmunication System softWAre and middlewaRE (2011)
- **CQR**, IEEE International Workshop on Communications Quality and Reliability (2012)
- **EPS**, International Workshop on Engineering Pervasive Service Systems (2012, 2013)
- **GIIS**, IEEE Global Information Infrastructure Symposium (2012-2015)
- **GLOBECOM**, IEEE Global Telecommunications Conference, diversi symposium (2006, 2010-2015)
- **I4CT**, International Conference on Computer, Communication and Control Technology (2015)
- **IC3**, International Conference on Contemporary Computing (2010)
- **ICC**, IEEE International Conference on Communications, diverse track (2008-2016)
- **ICCCC**, IEEE International Conference on Communications in China (2012)
- **ICCCN**, IEEE International Conference on Computer Communications and Networks (2007, 2008, 2010)
- **ICCVE**, IEEE International Conference on Connected Vehicles (2012-2015)
- **ICDCN**, International Conference on Distributed Computing and Networking (2013-2016)
- **ICDCS**, International Conference on Districuted Computing Systems (2015)
- **ICMCS**, International Conference on Multimedia Computing and Systems (2012, 2014)
- **ICNC**, International Conference on Computing, Networking and Communications (2013)
- **iCOST**, International Conference on Selected Topics in Mobile and Wireless Networking (2011, 2012)
- **ICPCA**, International Conference on Pervasive Computing and Applications (2008, 2009, 2015)
- **ICT**, International Conference on Telecommunications (2011)
- **IMIS**, International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (2014-2015)
- **INTGAST**, International Conference on Integrated and Sustainable Transportation (2015)
- **ISCC**, IEEE International Symposium on Computers and Communications (2004-2015)
- **IST-AWSN**, International Symposium on Intelligent Techniques for Adhoc and Wireless Sensor Networks (2012-2015)
- **ISWTA**, International Symposium on Wireless Technology and Applications (2012)
- **IWCMC**, International Wireless Communications and Mobile Computing Conference (2014, 2015)
- **Kaleidoscope**, ITU International Conference (2008-2015)
- **LCN**, IEEE International Conference on Local Computer Networks (2009-2015)

- **MASS**, IEEE International Conference on Mobile Ad-hoc and Sensor Systems (2013)
- **MediaWin**, International Workshop on Multimedia Applications (2008-2011)
- **Mobile Cloud**, IEEE International Conference on Mobile Cloud Computing, Services and Engineering (2014, 2015, 2016)
- **MoMM**, International Conference on Advances in Mobile Computing and Multimedia (2011-2015)
- **MoWNet**, International Conference on Selected Topics in Mobile and Wireless Networking (2013, 2014)
- **PE-WASUN**, ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (2009-2015)
- **PerCom**, IEEE International Conference on Pervasive Computing and Communications (2010, 2011, 2013, 2015, 2016)
- **PIMRC**, IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (2012-2013)
- **SAINT**, IEEE/IPSJ International Symposium on Applications and the Internet (2011, 2012)
- **SIIT,** IEEE International Conference on Standardization and Innovation in Information Technology (2015)
- **SNeS**, International Workshop on Social Networks and e-Services (2010, 2012)
- **SOCA**, IEEE International Conference on Service Oriented Computing and Applications (2011, 2013)
- **UCAmI**, International Conference on Ubiquitous Computing and Ambient Intelligence (2013-2015)
- **VECON**, International Workshop on Vehicular Communications and Networking (2010, 2012)
- **WoWMoM**, IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (2008, 2009, 2011, 2012, 2013, 2014, 2015, 2016)
- **WCNC**, IEEE Wireless Communications and Networking Conference (2011, 2013-2016)
- **WNS**, International Wireless Networking Symposium (2012)
- **WRECOM**, IEEE International Conference on Wireless Rural and Emergency Communications (2007)
- **WWIC**, International Conference on Wired & Wireless Internet Communications (2014, 2015)

In addition, I have served my research community by covering several roles in the organization of international conferences and workshops. In particular, I served as TPC Co-Chair of the International Conference on Distributed Computing and Networking (ICDCN'16), TPC Co-Chair of the IEEE International Conference on Mobile Cloud (MobileCloud'15), TPC Co-chair of the International Symposium on Mobile, Wearable and Ubiquitous Computing (MOWU), within IEEE COMPSAC, in 2015 and 2016, General Chair of the International Conference on Ad Hoc Networks (ADHOCNETS'13), TPC Co-Chair of the IEEE International Symposium on Computers and Communications (ISCC) in 2006 and 2010, General Co-Chair of the International Workshop on Self-Managing Pervasive Service Systems (SeMaPS'12, within ICSOC), TPC Co-Chair of the International Conference on Advances in Grid and Pervasive Computing (GPC'10), TPC Co-Chair of the IFIP/IEEE International Conference on Management of Multimedia and Mobile Networks and Services (MMNS'09), General Co-Chair of the International Workshop on Intelligent systems and Smart Home (WISH'08), TPC Co-Chair of the IEEE International Workshop on Middleware Engineering (ME'09, within IEEE Computer Software and Applications Conference - COMPSAC), TPC Co-Chair of the ICSE International Workshop on Software Engineering for Pervasive Computing Applications, Systems, and Environments (SEPCASE'07). Moreover, together with Imrich Chlamtac and Carl Chang, I have launched the series of ICST International Conferences on Mobile Wireless Middleware, Operating Systems, and Applications (Mobilware), starting from 2008, for which I served as TPC Co-Chair (2008) and General Co-Chair (2009, 2010, 2013).

Finally, I served as invited keynote speaker and panelist in some international events, such as:
- JITEL'09, Cartagena, Spain (invited keynote speaker)
- IEEE COMPSAC'09, Beijing, China (invited panelist)

- IEEE Sensors'11, Limerick, Ireland (invited keynote speaker)
- IEEE Mobile Cloud'16, Oxford, UK (invited keynote speaker)

## PUBLICATIONS (in time order, starting from the most recent ones)

In total I am co-author of around 50 articles in international journals/magazines (in publication venues that are considered excellent in my research fields, such as ACM Computing Surveys, IEEE Communication Surveys&Tutorials, IEEE Transactions on Software Engineering, IEEE Journal on Selected Areas in Communications, ACM Transactions on Internet Technology, IEEE Transactions on Vehicular Networks, IEEE Computer, IEEE Internet Computing, IEEE Pervasive Computing, IEEE Communications, IEEE Wireless Communications). In addition, I have served as guest editor for more than 10 special issues in international journals/magazines (e.g., IEEE Communications and IEEE Computer). Moreover, I am co-author of around 15 chapters in international peer-reviewed books and of around 90 additional papers presented in international conferences organized by the primary professional associations and publishers (IEEE, ACM, Springer, …).

About 15 of the above publications were invited ones, in particular 1 journal article, 8 book chapters, and 7 international conferences.

The complete list of publications follows (source: DBLP), organized in types (magazine/journal, guest editorial for special issues, conferences, …) and in time order starting from the most recent ones.

## International Journals and Magazines

[j51]   Jaime García-Reinoso, Iván Vidal, Paolo Bellavista, Ignacio Soto, Pedro A. Aranda-Gutiérrez:
Transparent reallocation of control functions in IMS deployments.
**IEEE Communications Magazine** 54(1): 106-113 (2016)

[j50]   Paolo Bellavista, Franco Callegati, Walter Cerroni, Chiara Contoli, Antonio Corradi, Luca Foschini, Alessandro Pernafini, Giuliano Santandrea:
Network Functions Virtualization in Real Cloud Deployments: Opportunities and Technical Challenges.
**Computer Networks**, Elsevier, 93: 506-517 (2015)

[j49]   Paolo Bellavista, Antonio Corradi, Luca Foschini, Raffaele Ianniello:
Scalable and Cost-Effective Assignment of Mobile Crowdsensing Tasks Based on Profiling Trends and Prediction: The ParticipAct Living Lab Experience
**Sensors, MDPI**, 15(8), 18613-18640 (2015)

[j48]   Paolo Bellavista, Carlo Giannelli:
Cyber Physical Sensors and Actuators for Privacy- and Cost-Aware Optimization of User-Generated Content Provisioning.
**International Journal of Distributed Sensor Networks**, Hindawi, 2015: 1-10 (2015)

[j47]   Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
Middleware-Layer Quality-Aware Collaborative Re-casting of Live Multimedia in Multi-hop Spontaneous Networks.
**Springer J. Network Systems Management** 23(3): 620-649 (2015)

[j46]   Paolo Bellavista, Antonio Corradi, Andrea Reale:
Quality of Service in Wide Scale Publish - Subscribe Systems.
**IEEE Communications Surveys and Tutorials** 16(3): 1591-1616 (2014)

[j45]   Paolo Bellavista, Carlo Giannelli, Luca Iannario, Laurent-Walter Goix, Claudio Venezia:
Peer-to-Peer Content Sharing Based on Social Identities and Relationships.
**IEEE Internet Computing** 18(3): 55-63 (2014)

[j44]   Michael Adeyeye, Paolo Bellavista:
Emerging research areas in SIP-based converged services for extended Web clients.
**World Wide Web Journal** 17(6): 1295-1319 (2014)

[j43]   Paolo Bellavista, Giuseppe Cardone, Antonio Corradi, Luca Foschini:
Convergence of MANET and WSN in IoT Urban Scenarios.

**IEEE Sensors Journal** 13(10): 3558-3567 (2013)

[j42] Malamati D. Louta, Paolo Bellavista:
Bringing always best connectivity vision a step closer: challenges and perspectives.
**IEEE Communications Magazine** 51(2): 158-166 (2013)

[j41] Giuseppe Cardone, Luca Foschini, Paolo Bellavista, Antonio Corradi, Cristian Borcea, Manoop Talasila, Reza Curtmola:
Fostering participaction in smart cities: a geo-social crowdsensing platform.
**IEEE Communications Magazine** 51(6) (2013)

[j40] George Exarchakos, Luca Druda, Vlado Menkovski, Paolo Bellavista, Antonio Liotta:
Skype Resilience to High Motion Videos.
**Int. Journal of Wavelets, Multiresolution and Info. Processing (IJWMIP)** 11(3) (2013)

[j39] Paolo Bellavista, Antonio Corradi, Andrea Reale:
Scalable Stream Processing with Quality of Service for Smart City Crowdsensing Applications.
**ICST Trans. Mobile Communications Applications** 1(3): e6 (2013)

[j38] Paolo Bellavista, Rebecca Montanari, Sajal K. Das:
Mobile social networking middleware: A survey.
**Pervasive and Mobile Computing** 9(4): 437-453 (2013)

[j37] Paolo Bellavista, Antonio Corradi, Luca Foschini:
Self-Organizing Seamless Multimedia Streaming in Dense Manets.
**IEEE Pervasive Computing** 12(1): 68-78 (2013)

[j36] Paolo Bellavista, Antonio Corradi, Luca Foschini, Alessandro Pernafini:
Towards an Automated BPEL-based SaaS Provisioning Support for OpenStack IaaS.
**Scalable Computing: Practice and Experience** 14(4) (2013)

[j35] Paolo Bellavista, Antonio Corradi, Luca Foschini:
Enhancing Intradomain Scalability of IMS-Based Services.
**IEEE Trans. Parallel Distributed Systems** 24(12): 2386-2395 (2013)

[j34] Paolo Bellavista, Antonio Corradi, Mario Fanelli, Luca Foschini:
A survey of context data distribution for mobile ubiquitous systems.
**ACM Computing Surveys** 44(4): 24 (2012)

[j33] Paolo Bellavista, Giuseppe Cardone, Antonio Corradi, Luca Foschini:
The Future Internet convergence of IMS and ubiquitous smart environments: An IMS-based solution for energy efficiency.
**J. Network and Computer Applications** 35(4): 1203-1209 (2012)

[j32] Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
Middleware for Differentiated Quality in Spontaneous Networks.
**IEEE Pervasive Computing** 11(3): 64-75 (2012)

[j31] Paolo Bellavista, Paolo Gallo, Carlo Giannelli, Giorgio Toniolo, Aldo Zoccola:
Discovering and accessing peer-to-peer services in UPnP-based federated Domotic Islands.
**IEEE Trans. Consumer Electronics** 58(3): 810-818 (2012)

[j30] Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
A Unifying Perspective on Context-Aware Evaluation and Management of Heterogeneous Wireless Connectivity.
**IEEE Communications Surveys and Tutorials** 13(3): 337-357 (2011)

[j29] Paolo Bellavista, Antonio Corradi, Damiano Fontana, Stefano Monti:
iPOJO-based Middleware Solutions for Self-Reconfiguration and Self-Optimization.
**KSII Trans. Internet and Information Systems (TIIS)** 5(8): 1368-1387 (2011)

[j28] Paolo Bellavista, Antonio Corradi, Carlo Giannelli: 0.4
Differentiated Management Strategies for Multi-Hop Multi-Path Heterogeneous Connectivity in Mobile Environments.
**IEEE Transactions on Network and Service Management** 8(3): 190-204 (2011)

[j27] Paolo Bellavista, Antonio Corradi, Luca Foschini:
IMS-Compliant management of vertical handoffs for mobile multimedia session continuity.
**IEEE Communications Magazine** 48(4): 114-121 (2010)

[j26] Uichin Lee, Eugenio Magistretti, Mario Gerla, Paolo Bellavista, Pietro Liò, Kang-Won Lee:
Bio-inspired multi-agent data harvesting in a proactive urban monitoring environment.
**Ad Hoc Networks** 7(4): 725-741 (2009)

[j25] Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
Multi-hop Multi-path Cooperative Connectivity Guided by Mobility, Throughput, and Energy Awareness: a Middleware Approach.
**Journal of Software (JSW)** 4(7): 644-653 (2009)

[j24] Paolo Bellavista, Antonio Corradi, Carlo Giannelli (invited paper):
Mobility-aware Management of Internet Connectivity in Always Best Served Wireless Scenarios.
**Springer Mobile Networks and Applications (MONET)** 14(1): 18-34 (2009)

[j23] Paolo Bellavista, Marcello Cinque, Domenico Cotroneo, Luca Foschini:
Self-adaptive handoff management for mobile streaming continuity.
**IEEE Transactions on Network and Service Management** 6(2): 80-94 (2009)

[j22] Uichin Lee, Eugenio Magistretti, Mario Gerla, Paolo Bellavista, Antonio Corradi:
Dissemination and Harvesting of Urban Data Using Vehicular Sensing Platforms.
**IEEE T. Vehicular Technology** 58(2): 882-901 (2009)

[j21] Paolo Bellavista, Antonio Corradi, Luca Foschini:
IMS-based presence service with enhanced scalability and guaranteed QoS for interdomain enterprise mobility.
**IEEE Wireless Communications** 16(3): 16-23 (2009)

[j20] Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
The PoSIM middleware for translucent and context-aware integrated management of heterogeneous positioning systems.
**Computer Communications** 31(6): 1078-1090 (2008)

[j19] Paolo Bellavista, Cesare Stefanelli, Mauro Tortonesi:
QoS management middleware solutions for Bluetooth audio distribution.
**Pervasive and Mobile Computing** 4(1): 117-138 (2008)

[j18] Paolo Bellavista, Axel Küpper, Sumi Helal:
Location-Based Services: Back to the Future.
**IEEE Pervasive Computing** 7(2): 85-89 (2008)

[j17] Paolo Bellavista, Antonio Corradi, Luca Foschini:
Dynamic and context-aware streaming adaptation to smooth quality degradation due to IEEE 802.11 performance anomaly.
**The Journal of Supercomputing** 45(1): 15-28 (2008)

[j16] Paolo Bellavista, Antonio Corradi, Carlo Giannelli:
Mobility-aware middleware for self-organizing heterogeneous networks with multihop multipath connectivity.
**IEEE Wireless Communications** 15(6): 22-30 (2008)

[j15] Paolo Bellavista, Antonio Corradi, Luca Foschini:
Context-aware handoff middleware for transparent service continuity in wireless networks.
**Pervasive and Mobile Computing** 3(4): 439-466 (2007)

[j14] Paolo Bellavista, Antonio Corradi, Rebecca Montanari, Cesare Stefanelli:
A mobile computing middleware for location- and context-aware internet data services.
**ACM Trans. Internet Technologies** 6(4): 356-380 (2006)

[j13] Uichin Lee, Biao Zhou, Mario Gerla, Eugenio Magistretti, Paolo Bellavista, Antonio Corradi:
Mobeyes: smart mobs for urban monitoring with a vehicular sensor network.
**IEEE Wireless Communications** 13(5): 52-57 (2006)

[j12] Paolo Bellavista, Antonio Corradi, Eugenio Magistretti:
REDMAN: An optimistic replication middleware for read-only resources in dense MANETs.
**Pervasive and Mobile Computing** 1(3): 279-310 (2005)

[j11] Paolo Bellavista, Antonio Corradi, Rebecca Montanari, Cesare Stefanelli:
Dynamic Binding in Mobile Applications: A Middleware Approach.
**IEEE Internet Computing** 7(2): 34-42 (2003)

[j10]  Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
       Application-Level QoS Control for Video-on-Demand.
       **IEEE Internet Computing** 7(6): 16-24 (2003)
[j9]   Paolo Bellavista, Antonio Corradi:
       Active middleware for Internet Video on Demand: the QoS-aware routing solution in ubiQoS.
       **Elsevier Microprocessors and Microsystems J.** 27(2): 73-83 (2003)
[j8]   Paolo Bellavista, Antonio Corradi, Rebecca Montanari, Cesare Stefanelli:
       Context-Aware Middleware for Resource Management in the Wireless Internet.
       **IEEE Trans. Software Engineering** 29(12): 1086-1099 (2003)
[j7]   Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
       Java for On-line Distributed Monitoring of Heterogeneous Systems and Services.
       **Computer J.** 45(6): 595-607 (2002)
[j6]   Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
       The Ubiquitous Provisioning of Internet Services to Portable Devices.
       **IEEE Pervasive Computing** 1(3): 81-87 (2002)
[j5]   Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
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How to Monitor and Control Resource Usage in Mobile Agent Systems.
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CORBA Solutions for Interoperability in Mobile Agent Environments.
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[c6]    Paolo Bellavista, Antonio Corradi, Rebecca Montanari, Cesare Stefanelli:
Security in Programmable Netword Infrastructures: The Integration of Network and Application Solutions.
IWAN 2000: 262-276

[c5]    Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
A mobile agent infrastructure for terminal, user, and resource mobility.
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[c4]    Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
A Mobile Agent Infrastructure for the Mobility Support.
ACM SAC (2) 2000: 539-546

[c3]    Paolo Bellavista, Antonio Corradi, Andrea Tomasi:
The Mobile Agent Technology to Support and to Access Museum Information.
ACM SAC (2) 2000: 1006-1013

[c2]    Paolo Bellavista, Antonio Corradi, Rebecca Montanari, Cesare Stefanelli:
How a Secure and Open Mobile Agent Framework Suits Electronic Commerce Applications.
WOA 2000: 13-18

[c1]    Paolo Bellavista, Antonio Corradi, Cesare Stefanelli:
A Secure and Open Mobile Agent Programming Environment.
ISADS 1999: 238-245

# TEACHING ACTIVITIES AND OTHER COMMUNITY SERVICES

In short, since the 2010/2011 academic year my primary teaching activity consists of 3 courses/modules (Mobile Systems M and Distributed Systems M for the Laurea Magistrale in Computer Engineering and one 6 ECTS module of Web Technologies T for the Laurea in Computer Engineering), for an overall amount of 22 ECTS and 188 hours of annual frontal teaching. Here you can find the complete list of the courses I was responsible for:

- Since the 2010/2011 academic year, **Mobile Systems M (8 ECTS)** for the Laurea Magistrale in Computer Engineering, University of Bologna
- Since the 2008/2009 academic year, **Distributed Systems LS/M** (**8 ECTS**, taught in English) for the Laurea Specialistica/Magistrale in Computer Engineering, University of Bologna
- Since the 2010/2011 academic year, 6 ECTS module of **Web Technologies T (12 ECTS overall)** for the Laurea in Computer Engineering, University of Bologna
- In the 2009/2010 academic year, **Computer Science Basics and Numeric Calculus T (6 ECTS)** for the Laurea in Chemical Engineering, University of Bologna
- Since the 2011/2012 academic year, **Web Technologies for Enterprises** (taught in English, together with Antonio Corradi) for the II Level International Master in Marketing, Communications, and New Media by Bologna Business School, University of Bologna
- Since the 2016/2017 academic year, **Web Technology Basics** (taught in English) for the II Level International Master in Digital Commerce by Bologna Business School, University of Bologna
- From the 2005/2006 to the 2007/2008 academic year, **Operating Systems L-A (6 ECTS)** for the Laurea in Computer Engineering, University of Bologna
- From the 2002/2003 to the 2007/2008 academic year, **Computer Science Basics L-A (6 ECTS)** for the Laurea in Computer Engineering, University of Bologna
- In the 2008/2009 academic year, **Computer Science Basics T-1, part 2 (6 ECTS)** for the Laurea in Computer Engineering, University of Bologna
- In the 2004/2005 academic year, **Models and Applications in Computer Networks LS (6 ECTS)** for the Laurea Specialistica in Telecommunications Engineering, University of Bologna
- In the 2008/2009 academic year, **Managing IT** (together with Antonio Corradi) for the II Level Master UniCredit MBA Retail in the Banking and Financial Industry, Alma Graduate School, University of Bologna
- From the 2001/2002 to the 2005/2006 academic year, **Integration of Heterogeneous Distributed Systems and the Web** (together with Antonio Corradi) for the II Level Master in Management and Information Technologies, Alma Graduate School, University of Bologna


## PHD STUDENTS (co-advisor) SUPERVISION
- Silvia Vecchi, "Middleware for the Provisioning of Adaptive and Configurable Services to Heterogeneous and Mobile Terminals", 2004
- Luca Foschini, "Support Infrastructures for Multimedia Services with Guaranteed Continuity and QoS", 2007
- Eugenio Magistretti, "Dynamic Services in Mobile Ad Hoc Networks", 2007
- Carlo Giannelli, "Middleware for Communication Interface and Context Source Management in Heterogeneous Wireless Environments", 2008
- Stefano Monti, "Middleware Principles and Design for the Integration of Ubiquitous Mobile Services", 2009
- Samuele Pasini, "Ubiquitous Internet Middleware: Architecture Design and Prototype Evaluation", 2009
- Mario Fanelli, "Middleware for Quality-based Context Distribution in Mobile Systems", 2012
- Giuseppe Cardone, "Middleware for Crowdsensing and Mass Participation in Large-scale Mobile Systems", 2013
- Andrea Reale, "Quality of Service in Large Scale Data Streams Distribution and Processing", 2014

- Alessandro Zanni, "Efficient Integration of Sensors/Actuators and the Cloud in Large-scale Cyber Physical Systems", dottorato cominciato a Novembre 2015

In addition, I have supervised the thesis work of around 100 students, more or less equally split into Laurea (triennale) and Laurea Specialistica/Magistrale graduating students in Computer Engineering, University of Bologna.

Finally, I served my research community by working as either reviewer or opponent in several Committees for final Ph.D. student evaluation:
- Final PhD Examination, University of Fribourg, Switzerland, 2006
- Final PhD Examination, University of Cape Town, South Africa, 2010
- Final PhD Examination, Tampere University of Technology, Finland, 2011
- Final PhD Examination, Technical University Berlin, Germany, 2013
- Final PhD Examination, University of Oulu, Finland, 2015

## PRIMARY SERVICE ACTIVITIES FOR OUR LAUREAS

I have served as the responsible person for the Committee of our department Laureas (Corso di Studi - CdS) in Computer Engineering for what relates to the procedures of:
- Transfer to our CdS (Laurea and Laurea Magistrale) in Computer Engineering, Bologna campus site, from other CdS of our University of Bologna and of other National or International Universities, from 2010 to 2015
- Admittance to our CdS (Laurea and Laurea Magistrale) in Computer Engineering, Bologna campus site, from 2010 to 2015
- Validation of possible ECTS achieved before the admission to our CdS (Laurea and Laurea Magistrale) in Computer Engineering, Bologna campus site, from 2010 to 2015
- Approval of individual study plans for our CdS (Laurea and Laurea Magistrale) in Computer Engineering, Bologna campus site, from 2010 to 2015

Finally, I am the responsible professor for two Erasmus+ exchange agreements: i) with Yildiz Technical University, Istanbul, Turkey (since 2010) and ii) with Alexander Technological Educational Institute of Thessaloniki, Greece (since 2012).

## PRIMARY SERVICE ACTIVITIES FOR THE DEPARTMENT AND THE UNIVERSITY OF BOLOGNA

I am a member of the Academic Senate of Alma Mater Studiorum – University of Bologna; in this context I serve in the working group for Internationalization (2015-2018).

Moreover, I serve as the responsible for the Coordination Committee of the Framework Agreement about big data research/teaching/formation topics between the University of Bologna and CRIF SpA (since 2015).

At the department level I serve in the internal Committee for Research Quality Evaluation.