Andrea Passarella Curriculum Vitae

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Curriculum Vitae: Summary

Andrea Passarella Birth date: 17 June 1977

CURRENT POSITION and PROFESSIONAL EXPERIENCE

02/2010 -		Permanent Researcher, Institute for Informatics and Telematics of the National
		Research Council (IIT-CNR), Pisa, Italy
01/2006 -	02/2010	Fixed-term Researcher, Institute for Informatics and Telematics of the National
		Research Council (IIT-CNR), Pisa, Italy
03/2005 -	12/2005	Research Associate, Computer Lab, University of Cambridge, UK
05/2004 -	08/2004	Visiting PhD Student, Computer Science Department, Rutgers University, USA
01/2002 -	03/2005	PhD student, Computer Engineering Department, University of Pisa, Italy.

EDUCATION

PhD in Computer Engineering

Computer Engineering Dept., University of Pisa (Italy), graduated on May 2005 Thesis: "Power Management Policies for Mobile Computing" Supervisors: G. Anastasi, M. Conti, E. Gregori, L. Lenzini

Master of Science in Computer Engineering (cum laude)

University of Pisa (Italy), graduated on October 2001 Thesis: "A Power-Saving Architecture for Mobile Web Access" (in Italian) Supervisors: G. Anastasi, M. Conti, E. Gregori, L. Lopriore Winner of the Vodafone "Paolo Galli" Prize for the best Italian Thesis of the Year

RESEARCH INTERESTS (see the section "EXTENDED RESEARCH STATEMENT" for additional details)

Current interests:Mobile Social Networks, Online Social Networks, IoT, Fog Computing & Mobile
cloud, Opportunistic and Delay-tolerant networking, Internet of People, Inter-
disciplinary approaches for mobile networks in cyber-physical scenarios.Expertise:architectures and protocols for wireless networking, ad hoc networks, p2p systems
for ad hoc networks, sensor networks, energy efficiency in mobile networks.

MAIN RESEARCH ACHIEVEMENTS

I have published 135 peer-reviewed papers, of which

- 40 in international journals
- 83 in international conferences and workshops
- 12 book chapters

In addition, I am

- recipient of 4 Best Paper Awards in international conferences
- Area Editor for two International Journals
- co-editor of a book, 2 special issues and 7 special sections on international journals
- program chair of one international IEEE conference, and vice-/co-chair of 7 international conferences and workshops, and PC member of more than 100 international conferences and workshops
- chair of IFIP WG6.3
- invited speaker in national and international events

BIBLIOMETRIC INDICES (as of May 2017)

- Google Scholar
 - Total number of citations: 7953
 - H-index: 36
- Scopus
 - # of citations: 4178
 - H-index: 24

Andrea Passarella: Curriculum Vitae

EXPERIENCE IN INTERNATIONAL PROJECTS

- Coordinator or co-coordinator of the CNR Research Unit in 11 EU projects (in FP6, FP7 and H2020) since 2006.
- Coordinator of the CNR research Unit in 4 EIT Digital Project; acting coordinator for one of the EIT Digital Action Lines at the national level, and co-responsible for CNR coordination of one of the EIT Digital Action Lines
- Project reviewer for the European Commission and several National Agencies since 2007

PROFESSIONAL ORGANISATIONS

- Since 2015: Chair of IFIP WG 6.3 (Performance of Communication Systems), http://cnd.iit.cnr.it/ifipwg63/listmembers.html
- 2013-15: Vice Chair of the IFIP Working Group 6.3 (Performance of Communication Systems), http://cnd.iit.cnr.it/ifipwg63/listmembers.html
- Since 2015: member of the 5G-PPP Networld 2020 Expert Group

SUPERVISING

- External PhD examiner
 - Theus Hossman, ETH Zurich, "Exploiting the Structure of Human Mobility for Opportunistic Networks", Supervisor: Prof. Bernhard Plattner, thesis defense: 16 November 2012
 - Alexandru-Florin Tatar, UPMC Sorbonne Universites (France), "Predicting user-centric behavior: Content popularity and mobility", Supervisors: Prof. Serge Fdida and Prof. Marcelo Dias de Amorim; Year: 2014
 - Pavlos Sermpezis, Institut Eurecom (Sophia Antipolis, France) and ParisTech (Paris, France), "Performance Analysis of Mobile Social Networks with Realistic Mobility and Traffic Patterns", Supervisor: Prof. Thrasyvoulos Spyropoulos; Year: 2015.
 - Sylvia Kouyoumdjieva, KTH (Stockholm, Sweden), "System Design for Opportunistic Networks", Supervisor: Prof. Gunnar Karlsson, 2015
- Member of the 4 PhD thesis committee for the University of Pisa (2015-17)
 - Co-supervisor of PhD theses in the area of Computer Engineering
 - 5 completed PhD theses
 - 2 ongoing PhD theses
- Co-supervisor of 3 Post-doc researchers in the areas of Computer Engineering and Computer Science
- Co-supervisor of 8 MSc Theses in the time period 2002-2012

TEACHING

- Member of the PhD Faculty Board, PhD in Smart Computing, University of Florence, Since 2015
- Member of the Board of the Master (Consiglio del Master), Master Universitario di Secondo Livello in BigData Analysis, University of Pisa, since 2015
- Member of the Board of the Master (Consiglio del Master), Master Universitario di Secondo Livello in Cyber Security, University of Pisa, 2016 -
- Member of the Board of the Master (Consiglio del Master), Master Universitario di Secondo Livello in Smart Cities, University of Pisa, 2014
- Lecturer, "Social Network Analysis", "Master Universitario di Secondo Livello in BigData", University of Pisa, since 2015
- Lecturer, "IoT and smart contracts", Master Universitario di Secondo Livello in Internet Ecosystem: governance e diritti", University of Pisa, Italy, 2016
- Lecturer, "Online and Mobile Social Networks", PhD course, IMT Institute for Advanced Studies of Lucca, Italy, 2014.
- Lecturer, "Smart Participation", "Master Universitario di Secondo Livello in Smart Cities", University of Pisa, since 2014
- Teaching Assistant for courses on Fundamentals of Informatics, Databases, Network Operating Systems between 2002 and 2012

CNR RESPONSIBILITIES

- Since November 2015, I'm the Head of the Ubiquitous Internet Group of IIT-CNR (25+ people).
- I am member of the Board of the SoBigData Lab, a joint lab between IIT and ISTI (and the Department of Informatics of the University of Pisa)
- Since March 2016, I'm Co-Chair of the National CNR Group on ICT Systems ("Sistemi ICT")
- I am Scientific Responsible for the activities carried out in 3 contracts for the Research Assistant (Assegno di Ricerca) positions
- I have been one of the elected members of the Board of the Institute of Informatics and Telematics (Consiglio di Istituto) of CNR, November 2011 November 2015
- I have been member of commission for 14 Research Assistant positions (Assegno di Ricerca)

Reference International Projects

ROLE IN EUROPEAN AND OTHER INTERNATIONAL PROJECTS (abstract of the projects follow)

- H2020 FoF AUTOWARE project: Wireless Autonomous, Reliable and Resilient ProductIon Operation ARchitecture for Cognitive Manufacturing (2016-2019)
 - a. CNR Research Unit Coordinator
- H2020 REPLICATE project: REnaissance of Places with Innovative Citizenship and TEchnolgy (2016-2021), <u>http://replicate-project.eu/</u>
 - a. CNR Research Unit Co-coordinator
- H2020 SoBigData project: European Research Infrastructure for Big Data and Social Mining (2015-2019), <u>http://project.sobigdata.eu/</u>

a. IIT-CNR Research Unit Co-Coordinator

 FP7 EC MOTO Project: Mobile OpportunisTic Traffic Offloading (2012-2015), http://www.fp7moto.eu/

a. CNR Research Unit Coordinator

- 5. FP7 EINS Project: Network of Excellence in Internet Science (2011-2015), http://www.internet-science.eu/
 - a. CNR Research Unit Coordinator for JRA1, JRA2, JRA3, JRA6
 - b. Responsible for CNR Finance
- 6. FP7 SCAMPI Project: Service platform for social Aware Mobile and Pervasive computIng (2010-2013), http://www.ict-scampi.eu/
 - a. CNR Research Unit Coordinator for WP2, WP3, WP4
 - b. Leader WP2
- 7. EC COST Action IC0804 Energy efficiency in large scale distributed systems (2009-2013) http://www.cost804.org/
 - a. CNR Research Unit Coordinator
 - b. Management Committee Substitute for Italy
- 8. FP7 EC FET-AWARE RECOGNITION Project: Relevance and cognition for self-awareness in a content-centric Internet (2010-2013), http://recognition-project.eu/
 - a. CNR Research Unit Coordinator
 - b. Leader WP3
 - c. Responsible for CNR Finance
- 9. FP7 EC FET-PERADA SOCIALNETS Project: Social Networking for Pervasive Adaptation (2008-2011), http://www.social-nets.eu/
 - a. CNR Research Unit Coordinator for WP3and WP4
 - b. Responsible for CNR Finance
- FP6 EC FET-SAC HAGGLE Project: "A Novel Communication Paradigm for Autonomic Opportunistic Communication" (2006-2010) <u>http://www.haggleproject.org</u>
 a. CNR Research Unit Coordinator for WP1, WP2, WP3
- 11. FP6 EC PATHFINDER Measuring the Impossible MEMORY Project: "MEasuring and MOdelling Relativistic-like effects in brain and NCSs" (2007-2010)
 - a. CNR Research Unit Co-Coordinator
- 12. FP5 EC FET-IST MobileMAN Project "Mobile Metropolitan Ad hoc Network" (2002-2005) http://cnd.iit.cnr.it/mobileMAN
 - a. Participant
- 13. Rutgers University (The State University of New Jersey, USA) "DataSpace" Project (1997-2005) <u>http://paul.rutgers.edu/~gsamir/dataspace/</u>
 - a. Participant

EXPERIENCE IN INDUSTY-DRIVEN RESEARCH PROJECTS

- I am CNR Research Unit Coordinator in the EIT-ICT Labs MOSES (Mobile Opportunistic Services for Experience Sharing) Project (Business Plan 2014-15, running from January 1st 2014 to December 31st, 2015)
- I am CNR Research Unit Coordinator in the EIT-ICT Labs Efficient IoT Content Project (Business Plan 2015, running from January 1st to December 31st, 2015)

- I participate to the CNR Research Unit for the EIT-ICT Labs Project "Reference Communication & Application Platform for Automotive and ITS" (Business Plan 2014, running from January 1st to December 31st, 2014)
- I have been CNR Research Unit Coordinator in the EIT-ICT Labs ESM (Emergent Social Mobility) Project (Business Plan 2013, running from January 1st to December 31st, 2013)
- I have been CNR Research Unit Coordinator in the EIT-ICT Labs MONC (IoT content routing/caching) Project (Business Plan 2013, running from January 1st to December 31st, 2013)
- I have participated in the CNR Research Unit for the EIT-ICT "Next Generation Car2X" Project (Business Plan 2013, running from January 1st to December 31st, 2013)

In addition, I have coordinated (at the national and CNR levels, respectively) contributions of the EIT Digital partners (which include, in addition to CNR, TelecomItalia, Engineering, Centro Ricerche Fiat, ST Microelectronics, Replay, PosteItaliane, TrentoRise, Politecnico of Milano, Politecnico of Torino, Scuola S. Anna, University of Bologna) towards the preparation of the call for proposals in the 2014 Business Plan. More specifically:

- In 2013, in agreement with the Italian Node Director of EIT Digital, I have acted, together with Carlo Meghini, as the Node Action Line Leader for the Innovation Area "Future Networking Solutions". With this role, I have coordinated the teams of all the Italian partners (i.e., TelecomItalia, Engineering, ST Microelectronics, Centro Ricerche Fiat, TrentoRise, CNR, Politecnico of Milan, Politecnico of Turin, Scuola S. Anna of Pisa, University of Bologna) in proposing a set of key topics to be included in the call for projects for the Business Plan 2014. It was explicitly requested by EIT Digital to highlight the innovation, exploitation and business opportunities of the proposed topics.
- Since 2012, I have been the CNR coordinator for the Innovation area "Cyber-Physical Systems". This role mainly consisted in establishing a link between CNR teams active in this area and the rest of the Italian Node partners, in order to identify a set of topics to be proposed for the call for projects for the Business Plan 2014.

ABSTRACTS OF EUROPEAN PROJECTS (including Industry-driven EIT Digital projects)

H2020 FoF AUTOWARE project: Wireless Autonomous, Reliable and Resilient ProductIon Operation ARchitecture for Cognitive Manufacturing (2016-2019)

Current practice is such that a production system is designed and optimized to execute the exact same process over and over again. The planning and control of production systems has become increasingly complex regarding flexibility and productivity, as well as the decreasing predictability of processes. The full potential of open CPS has yet to be fully realized in the context of cognitive autonomous production systems. SMEs face additional challenges to the implementation of "cloudified" automation processes. While the building blocks for digital automation are available, it is up to the SMEs to align, connect and integrate them together to meet the needs of their individual advanced manufacturing processes. Moreover, SMEs face difficulties to make decisions on strategic automation investments that will boost their business strategy. AUTOWARE objective is to build three distinct pillars to form a multi-sided ecosystem. (1) From the BeinCPPS, leverage a reference architecture (fully aligned with CRYSTAL and EMC2 CPS design practices and ARROWHEAD cloudification approach) across I4MS competence domains (cloud, CPPS, robotics), acting as a glue that will attract potential users and developers to a friendly ecosystem for business development, more efficient service development over harmonized architectures (smart machine, cloudified control, cognitive planning- app-ized operation). (2) To leverage a number of SME enablers; e.g. augmented virtuality, reliable wireless communications, CPPS trusted auto-configuration, smart data distribution and cognitive planning to ease cognitive autonomous systems. Finally, to leverage digital automation investments. AUTOWARE brings together the best of breed ARTEMISIA/ECSEL platforms, I4MS innovation, SAFIR business platforms and neutral experimental sites (robotics & process). AUTOWARE assets will be evaluated in two industrial pilots, PWR and SCM, and will offer well established industry and startups new business opportunities.

I contributed to write the project proposal, and I am co-leading the IIT-CNR scientific activities in the project.

H2020 REPLICATE project: REnaissance of Places with Innovative Citizenship and TEchnolgy (2016-2021)

The objective of REPLICATE is to demonstrate Smart City technologies in energy, transport and ICT in districts in San Sebastian, Florence and Bristol addressing urban complexity and generate replication plans in other districts and in follower cities of Essen, Nilufer and Lausanne. Main challenges for cities are to increase the overall energy efficiency, to exploit better local resources in terms of Energy supply and demand side measures. For successful implementation of Smart City technologies two main elements are considered:

- Cities are the customer: considering local specificities in integrated urban plans and the need to develop monitoring systems to extract conclusions for replication.

- Solutions must be replicable, interoperable and scalable. REPLICATE considers also the complexity of cities, the tangible benefits for citizens, the financia mechanisms and the new business models.

The 3 pillars implemented in the pilots with the engagement of citizens, private actors an authorities are:

- Low energy districts: cost-effective retrofitting, new constructive techniques with optimal energy behaviour and high enthalpy RES in residential buildings. Include also efficient measures in public and residential buildings: ICT tools, PV, shading or natural ventilation; district heating is demonstrated hybridising local biomass, recovered heat an natural gas

- Integrated Infrastructure: deployment of ICT architecture, from internet of things to applications, to integrate the solutions in different areas. Smart Grids on electricity distribution network to address the new challenges, connecting all users: consumers, producers, aggregators and municipality. Intelligent lighting will allow automated regulation of the amount of light and integration of IP services via PLC.

- Urban mobility: sustainable and smart urban bus service, electric urban bike transport, 3-wheeler deliver and transport services, deployment of EV charging infrastructures and ICT tools.

I contributed to write the project proposal, and I am co-leading the CNR scientific activities in the project.

H2020 SoBigData project: European Research Infrastructure for Big Data and Social Mining (2015-2019)

One of the most pressing and fascinating challenges scientists face today, is understanding the complexity of our globally interconnected society. The big data arising from the digital breadcrumbs of human activities promise to let us scrutinize the ground truth of individual and collective behaviour at an unprecedented detail and scale. There is an urgent need to harness these opportunities for scientific advancement and for the social good. The main obstacle to this accomplishment, besides the scarcity of data scientists, is the lack of a largescale open infrastructure, where big data and social mining research can be carried out. To this end, SoBigData proposes to create the Social Mining & Big Data Ecosystem: a research infrastructure (RI) providing an integrated ecosystem for ethic-sensitive scientific discoveries and advanced applications of social data mining on the various dimensions of social life, as recorded by "big data". Building on several established national infrastructures, SoBigData will open up new research avenues in multiple research fields, including mathematics, ICT, and human, social and economic sciences, by enabling easy comparison, re-use and integration of state-of-the-art big social data, methods, and services, into new research. It will not only strengthen the existing clusters of excellence in social data mining research, but also create a pan-European, inter-disciplinary community of social data scientists, fostered by extensive training, networking, and innovation activities. In addition, as an open research infrastructure, SoBigData will promote repeatable and open science. Although SoBigData is primarily aimed at serving the needs of researchers, the openly available datasets and open source methods and services provided by the new research infrastructure will also impact industrial and other stakeholders (e.g. government bodies, non-profit organisations, funders, policy makers).

I contributed to write the project proposal, and I am co-leading the IIT-CNR scientific activities in the project.

FP7 EC MOTO Project: Mobile OpportunisTic Traffic Offloading (2012-2015)

To support the booming demand in mobile 4G data services, the MOTO project proposes to design, dimension, implement, and evaluate a new network architecture in support of dynamic traffic offloading strategies to relieve a congested 4G/LTE network. Going far beyond present infrastructure-based offloading approaches, MOTO explores an additional layer of disruptive offloading protocols that make use of direct terminal-to-terminal communications. MOTO definitely takes an operator point of view to opportunistic networking by keeping terminal based offloading under the control of the operator's infrastructure. It explores and evaluates distributed offloading control protocols, it investigates coordination strategies between mobile and broadband Internet operators, it designs and implements a distributed trust and security policy, it derives formal capacity enhancements estimates and works toward understanding mobility and contact opportunities. MOTO adopts an experimental methodology, providing enhancements to an open source simulation environment, and carrying out practical experimentations on a large scale integrated testbed for architecture and protocol validation. The operators' vision, requirements, and experience are backed by a strong team of experts in wireless networking technologies both from academia and industry. Thanks to MOTO offloading solutions, the operators will decide how much bandwidth to allocate for supporting crowds of users sharing data hungry services in a flexible and efficient way, and will be able to handle peaks of traffic without overprovisioning the infrastructure and without blocking the service to its users.

I contributed to write the project proposal, and I am leading the IIT-CNR scientific activities in the project.

FP7 EINS Project: Network of Excellence in Internet Science (2011-2015)

EINS aims to develop Internet Science as a foundation for the understanding and evolution of the Internet as a societal and a technological artefact, as well as its transformational influence to various disciplines in humanities and socio-economics. EINS brings together network engineers, technology pioneers and scientists from related disciplines of computation, complexity, networking and security, mathematics, physics, sociology, game theory, economics, political science and other scholars from the humanities, law, social sciences and life sciences, in an effort to pave the way for Internet science. It will enable the various public and private, stakeholders to influence Internet's evolution in a way that optimises the benefits across social and private life, economy, business and politics, and its impact on the built and natural environment. The individual contributing disciplines will themselves benefit from the understanding of the principles that govern Internet Science. The connectivity offered by the Internet plays a role mostly underappreciated in most of them; the Internet provides both a platform and a concrete empirical and experimental model. This fosters scientific development by usefully generalising models (e.g. games and markets played out over networks) and by providing a common ground for the exchange of ideas among supporting disciplines (e.g. economic epidemiology). The multi- and interdisciplinary investigation will improve the designed elements of the Future Internet, enhance understanding of its evolving and emerging aspects and make possible the identification of universal principles which transcend the online world, and that feed back to the participating disciplines. The EINS consortium unites a critical mass and range of European researchers with the skills required to optimise Europe's contribution to the launch of Internet Science and act at the same time as a reference point integrating excellence in that broad new field.

I contributed to write the project proposal, and together with Marco Conti I am leading the IIT-CNR scientific activities in the project.

FP7 SCAMPI Project: Service platform for social Aware Mobile and Pervasive computIng (2010-2013)

The future Internet will be characterised by a pervasive diffusion of devices with heterogeneous capabilities and resources. Users will carry personal mobile devices (smartphones, PDAs, cameras) bundling several wireless interfaces, supporting computationally intensive tasks, and powerful tools to produce multimedia content. Other types of devices with networking capabilities will be also available in the environment (sensors, fixed cameras, etc) featuring more specialised resources. The resulting networking environment, seen as a whole, will thus be characterised by a multitude of

heterogeneous resources. The goal of SCAMPI is to enable each user to avail not only of the resources available on its own device, but also to opportunistically exploit the other resources of the environment, including those on the other users' devices, in a trustable and secure way. SCAMPI will thus enable users to compose the functionality of the different resources available in the network, enjoying much richer functionality than what available on their own device. To realise this vision, SCAMPI develops the technical solutions for a service platform in mobile and pervasive opportunistic networks. Service is used as the main abstraction for using resources. We focus on opportunistic networking environments, where the network is formed by the devices spread in the environment, events such as long disconnections and partitions are the rule, and no simultaneous multi-hop paths can be guaranteed. Thus, SCAMPI generalises the pure opportunistic networking environment of opportunistic resource usage in challenged networks. The "human factor" (information about the social relationships among users) is a key dimension of the project. On the one hand, because SCAMPI leverages social awareness to optimise its technical solutions. On the other hand, because SCAMPI will enable novel services enhancing current mobile online social networking applications.

I contributed to write the project proposal, and together with Marco Conti I am leading the IIT-CNR scientific activities in the project.

FP7 EC FET-AWARE RECOGNITION Project: Relevance and cognition for self-awareness in a content-centric Internet (2010-2013)

RECOGNITION will develop a radically new approach for embedding self-awareness in ICT systems. This will be based on the cognitive processes that the human species exhibits for self-awareness, seeking to exploit the fact that humans are ultimately the fundamental basis for high performance autonomic processes. This is due to the cognitive ability of the brain to efficiently assert relevance (or irrelevance), extract knowledge and take appropriate decisions, when faced with partial information and disparate stimuli. Using the psychological and cognitive sciences as concrete inspiration, our approach is to develop functional models of the core cognitive processes that allow humans to assert relevance and achieve knowledge from information. This involves mechanisms such as inference, belief, similarity and trust. These will be translated to the ICT domain by development of flexible RECOGNITION algorithms that can be imbedded in ICT on a flexible basis for self-awareness.

We will demonstrate this new paradigm for Internet content. The future Internet will see everincreasing amounts of content that needs to be effectively managed and acquired, often from portable devices and in diverse spatial and social situations. The massive scale of content will swamp the user with information, impeding effective management and relevant acquisition by the user. By exploiting the self-awareness capability we will enable the users, content and network to cope effectively in a scalable manner, thus making unprecedented amounts of relevant content available and unleashing new classes of applications that extract maximum utility from content.

I contributed to write the project proposal, and together with Marco Conti I am leading the IIT-CNR scientific activities in the project.

FP7 EC FET-PERADA SOCIALNETS Project: Social Networking for Pervasive Adaptation (2008-2011)

This project involves researchers of Cardiff University (UK), IIT-CNR (Italy), University of Cambridge (UK), National and Kapodistrian University of Athens (Greece), University of Oxford (UK), University of Aveiro (Portugal), and Institut Eurecom (France). In this project we are looking at how to exploit the structures defined by human social relationships to develop an entirely new paradigm for adaptability in technology-rich pervasive information and communication systems. Human social relationships have dynamic characteristics, massive scalability, inclusivity, self organisation and remarkable structural properties. These social links may be based on diverse issues emanating from trust and human-centric behavioural characteristics. Exploiting social networks for communication between electronic devices provides a unique way of translating qualitative human can be used to define and adapt a unique social structure between the electronic devices. Social anthropology results merged with models of social networks' structure will be exploited to design trustable and adaptive networking protocols and data management systems for pervasive

information and communication environments. Therefore, "Social Networking for Pervasive Adaptation" will i) investigate and understand dynamics of human social relationships; ii) model and analyze the social system dynamics and structures based on characterisation of human interactions; iii) Develop and validate the adaptive human behavioural-based paradigm for pervasive adaptation; iv) Develop the mechanisms and protocols for the electronic social networking paradigm and validate it from the technological standpoint, that is, its technical feasibility, effectiveness and scalability; v) Develop and validate the social mechanisms and protocols to assert & reinforce appropriate trust and security in dynamic situated environments; vi) Develop and validate the social mechanisms and protocols to acquire and provide user-relevant data & situated knowledge in pervasive technology rich environments using social networks.

I contributed to write the project proposal, and together with Marco Conti I am leading the IIT-CNR scientific activities in the project.

FP6 EC PATHFINDER – Measuring the Impossible MEMORY Project: "MEasuring and MOdelling Relativisticlike effects in brain and NCSs" (2007-2010)

This project involves researchers of IIT-CNR (Italy), of SUPSI (CH), of the Libera Università "Vita Salute S.Raffaele" of Milan (Italy), and of Philipps-University Marburg (Germany). This project builds on recent psychophysical and neurophysiologic findings showing that as humans and animals move their eyes, their visual systems are subject to strong and robust (albeit transient) distortions of perceived space and time. It has been suggested, with strong supporting evidence, that these distortions may be relativistic-like consequences of the rapid remapping of neurones, necessary to compensate for the changes in retinal position produced by the eye movement. We plan to investigate and measure these phenomena with a multidisciplinary approach that combines the techniques of human psychophysics, functional magnetic imaging, animal neurophysiology and modelling within a Networked Control System (NCS).

Together with Marco Conti I am leading the IIT-CNR scientific activities in the project.

FP6 EC FET-SAC HAGGLE Project: "A Novel Communication Paradigm for Autonomic Opportunistic Communication" (2006-2010) <u>http://www.haggleproject.org</u>

This project involves IIT-CNR (Italy), the University of Cambridge Computer Lab (UK), Thomson Research (France), Institut Eurecom (France), Uppsala University (Sweden), EPFL (Switzerland), SUPSI (Switzerland), Martel Consulting (Switzerland). Haggle is a new autonomic networking architecture designed to enable communication in the presence of intermittent network connectivity, which exploits autonomic opportunistic communications (i.e. in particular in the absence of end-to-end communication infrastructure). We depart from the existing TCP/IP protocol suite, completely eliminating layering above the datalink, and exploiting an application-driven message forwarding, instead of delegating this responsibility to the network layer. To this end, we go beyond already innovative cross-layer approaches, defining a system that uses real best-effort, context aware message forwarding between ubiquitous mobile devices, in order to provide services when connectivity is local and intermittent. We use only functions that are absolutely necessary and common to all services, but that are sufficient to support a large range of current and future applications, more oriented to the human way of communicating (and more in general, the way communication.

I am leading the IIT-CNR scientific activities within the Work Package WP1 "Node Architecture", WP2 "Communication Architecture", and WP3 "Integration and Trials"

EC COST Action IC0804 - Energy efficiency in large scale distributed systems (2009-2013) http://www.cost804.org/

This COST Action will propose realistic energy-efficient alternate solutions to share IT distributed resources. As large scale distributed systems gather and share more and more computing nodes and Storage resources, their energy consumption is exponentially increasing. While much effort is nowadays put into hardware specific solutions to lower energy consumptions, the need for a complementary approach is necessary at the distributed system level, i.e. middleware, network and applications. The Action will characterize the energy consumption and energy efficiencies of

distributed applications. Then based on the current hardware adaptation possibilities and innovative algorithms it will propose adaptive and alternative approaches taking into account the energy saving dimension of the problem. The Action will characterize the trade-off between energy savings and functional and non-functional parameters, including the economic dimension. A COST Action is the right scheme in order to unite a dispersed community and to promote the dissemination of the solutions and the energy concerns to the broader public. Deliverables will include workshop proceedings, books, good practice leaflets fostering consciousness rise at ICT researchers, scientists, managers and users levels. Finally, benefits will address scientific and societal needs.

As MC Substitute Member, I'm in charge of IIT-CNR activities on this Action.

FP5 EC FET-IST MobileMAN Project "Mobile Metropolitan Ad hoc Network" (2002-2005) <u>http://cnd.iit.cnr.it/mobileMAN</u>

This project involved the IIT-CNR (Italy), University of Cambridge Computer Lab (UK), Institut Eurecom (France), Helsinki University of Technology (Finland), Netikos (Italy), and SUPSI (Switzerland). This project investigated the potentialities of the Mobile Ad hoc NETworks (MANET's) paradigm. Specifically, the project defined and developed a campus-wide, self-organising, and totally wireless network that we called Mobile Metropolitan Ad hoc Network (MobileMAN). The main technical outputs of this project can be summarized as follows. i) Development, validation, implementation and testing of the architecture, and related protocols, for configuring and managing a MobileMAN. ii) Physical implementation of this architecture for lowers layers (i.e., wireless technologies). iii) Integration of higher layers and applications on top of our self-organised network. iv) Validation of the self-organising paradigm from the social and economic standpoint.

Rutgers University (The State University of New Jersey, USA) "DataSpace" Project (1997-2005) <u>http://paul.rutgers.edu/~gsamir/dataspace/</u>

This project started from the observation that we have witnessed an astonishing growth of the PDA market with anywhere/anytime wireless connectivity in addition to the rapidly progressing sensor technology. Growing number of devices such as cameras, cars, phones, home appliances collect and store digital information in their own "black boxes". In the near future we will experience the increasing presence of such devices on the wireless network; we will be able to query as well as monitor this information remotely. In this new world, network connectivity will be an attribute of each physical object "that matters". Location will become the first class data attribute, as important as time is today. Querying, monitoring and disseminating of the massive amounts of information produced (and consumed) by millions of devices is an exciting research challenge. The resulting Data-Space (digital information, environmental protection, rapid emergency response. Main technical goals of the project have been investigating how to collect data and manage information exchange among devices in presence of severe resource limitations, mainly in terms of energy. Cross-layer solutions with special emphasis on sensor networks have been investigated.

EIT Digital projects (2013-onwards)

EIT (European Institute of Innovation and Technology) ICT Labs is one of the Knowledge and Innovation Communities (KIC) projects funded by the European Commission to foster innovation and creation of industrial impact across Europe. EIT funds innovation-oriented project with strong commitment towards technology transfer and early exploitation of research results. EIT projects span for one calendar year. The group of projects running in a year is called the "Business Plan" for that year. Each year, a new call for proposals is prepared, which is the basis of the following year's Business Plan. Proposals are evaluated by a panel of reviewers, and funded projects are reviewed at the end of the year.

- I have been CNR Research Unit Coordinator in the EIT-ICT Labs MOSES (Mobile Opportunistic Services for Experience Sharing) Project (Business Plan 2014-15, running from January 1st 2014 to December 31st, 2015)
 - MOSES will deliver mobile applications for users in open gatherings to share the moment instantaneously with people around, openly with everyone nearby or only with friends. It targets Expo 2015 as one such event. This will complement online social networks, which lack the context of an instant neighborhood for sharing: for implicitly defining communities and for peer-to-peer content delivery (offloading from wireless infrastructure). MOSES will contribute to a new way of experiencing events.
- I have been CNR Research Unit Coordinator in the EIT-ICT Labs Efficient IoT Project (Business Plan 2015, running from January 1st 2015 to December 31st, 2015)
 - Content and media has traditionally been produced, stored and distributed from large centralized locations, either without dynamic content originating from the Internet of Things (IoT), or by vertical integration with specific IoT devices. This creates undesirable vertical isolation. The new trend is however that content is increasingly produced independently by a large number of end users and IoT devices distributed across the world. This suggests that a horizontal framework should promote component reuse and repetitive business on IoT content. This activity aims to add value by making use of the information-centric paradigm (ICN), in the domain of IoT, where content is collected (and potentially aggregated) from many devices and then combined and aggregated for various purposes so that it can be requested or distributed to many applications providing intelligent services to their users. Furthermore methods of actuation (controlling IoT devices) will be developed. It is typically a well-defined subset of users that have various credentials for remote control of a device. In any case, security is a critical issue of a horizontal IoT framework.
- I participated to the CNR Research Unit for the EIT-ICT Labs Project "Reference Communication & Application Platform for Automotive and ITS" (Business Plan 2014, running from January 1st to December 31st, 2014)
 - The project will focuses on a complete communication reference platform for connected and cooperative services. It consists of A) a small form-factor Secure Communication Platform for Car and Roadside Connectivity combining Cellular and Short Range Communication Technology and all applicable standardized communication services in its middleware; B) a roadside application platform providing real-time traffic state information based on multiple sensors. EU prioritized applications ("day 1" usecases) will demonstrate the added value of the platform
- I have been CNR Research Unit Coordinator in the EIT-ICT Labs ESM (Emergent Social Mobility) Project (Business Plan 2013, running from January 1st to December 31st, 2013)
 - The ESM project involves several industries: SAP, Engineering, Siemens, Novay, Green Communications. The overall goal of the project is to design solutions for personal mobility also based on mobile social networking techniques. In this project, leveraging our previous results in other FP7 projects (e.g., SOCIALNETS and HAGGLE), the CNR team is investigating algorithms for dynamic discovering of communities of users with similar mobility patterns. This is a key element for dynamic car pooling and platooning services, investigated by the other partners of the project. Technology transfer consists in transferring these algorithms and, more in general, knowledge about how to design them, to the industries involved in the project.
- I have been CNR Research Unit Coordinator in the EIT-ICT Labs MONC (IoT content routing/caching) Project (Business Plan 2013, running from January 1st to December 31st, 2013)
 - The MONC project involves one of the European major telco operators (Deutsche Telekom T-Labs), which is the main target for technology transfer of this project. In this project, leveraging our previous results in other FP7 projects (e.g., SCAMPI and HAGGLE), the CNR team is investigating techniques for social-aware forwarding in mobile networks. We exploit information about users' social relationships to optimize ad hoc communications enabled by direct contact between mobile users. Technology transfer

in this project consists in building prototypes and real testbeds enabling this kind of opportunistic communications. Deutsche Telekom T-Labs will use this outcome as a set of research prototypes for the development of their future products.

- I participated in the CNR Research Unit for the EIT-ICT "Next Generation Car2X" Project (Business Plan 2013, running from January 1st to December 31st, 2013)
 - The Car2X project is lead by Centro Ricerche Fiat (CRF), which is the main target of our technology transfer activity. In particular, we are investigating the performance limits of LTE architectures and protocols in large-scale vehicular environments by developing appropriate simulation models and conducting performance analysis studies. CRF intends to exploit these results to design advanced Car2X applications.

Awards

- Elsevier Top Cited Article 2005-2010 for the paper ", Andrea Passarella, "Energy Conservation in Wireless Sensor Networks: a Survey" (co-authored with Giuseppe Anastasi, Marco Conti, Mario Di Francesco), *Elsevier Ad Hoc Networks Journal*, Vol. 7, No. 3, pp. 537-568, May 2009.
- Best Paper Award for the paper "Characterising aggregate inter-contact times in heterogeneous opportunistic networks" (co-authored with Marco Conti), *IFIP Networking 2011*, out of 294 submitted papers.
- Best Paper Award for the paper "Autonomic Cognitive-based Data Dissemination in Opportunistic Networks" (co-authored with Lorenzo Valerio, Marco Conti and Elena Pagani), *IEEE WoWMoM 2013*.
- Best Paper Award for the paper "The Role of Trusted Relationships on Content Spread in Distributed Online Social Networks", (co-authored with Valerio Arnaboldi, Massimiliano La Gala, and Marco Conti), *LSDVE 2014*.
- Best Short Paper Award for the paper "Duty Cycling in Opportunistic Networks: the Effect on Intercontact Times", (co-authored with Elisabetta Biondi, Chiara Boldrini and Marco Conti), ACM MSWiM 2014.
- Outstanding Contribution in Reviewing, Elsevier Computer Communications, awarded March 2015.

Activities in the Research Community

Professional Organisations

1.	2015 -	Chair, IFIP Working Group 6.3 (Performance of Communication
	Systems)	
2.	2013-15	Vice-Chair, IFIP Working Group 6.3 (Performance of Communication
	Systems)	

European Commission Service

- 1. I am member of the EC Expert Groups on Next Generation Internet (NGI)
- 2. I currently serve as an expert of the European Commission, for the review of FP7 and H2020 Projects, in the area of ICT (FIRE and FI-PPP Programmes) and transport.
- 3. I served as a reviewer for the ERC Starting Grant Programme (Starting Grant Programme).
- 4. I was a member of the European Commission expert groups for the definition of the research priorities and calls topics for the FIRE initiative (Future Internet Research and Experimentation, http://cordis.europa.eu/fp7/ict/fire/).

Other International Project Review Roles

I serve as project reviewer in the field of mobile communication for:

- ETH Zürich (http://www.ethz.ch/index_EN)
- Israel Science Foundation (ISF, http://www.isf.org.il/English/)
- Swiss National Science Foundation (SNF, <u>http://www.snf.ch/E/Pages/default.aspx</u>)
- French National Research Agency (ANR, <u>http://www.agence-nationale-recherche.fr/en/</u>)

PhD Examiner

- 1. Theus Hossman, ETH Zurich (Switzerland), "Exploiting the Structure of Human Mobility for Opportunistic Networks", Supervisor: Prof. Bernhard Plattner, Year: 2012
- 2. Alexandru-Florin Tatar, UPMC Sorbonne Universites (France), "Predicting user-centric behavior: Content popularity and mobility", Supervisors: Prof. Serge Fdida and Prof. Marcelo Dias de Amorim; Year: 2014
- Pavlos Sermpezis, Institut Eurecom (Sophia Antipolis, France) e ParisTech (Paris, France), "Performance Analysis of Mobile Social Networks with Realistic Mobility and Traffic Patterns", Supervisor: Prof. Thrasyvoulos Spyropoulos; Year: 2015.
- 4. Sylvia Kouyoumdjieva, KTH (Stockholm, Sweden), "System Design for Opportunistic Networks", Supervisor: Prof. Gunnar Karlsson, 2015
- Alessandro Lazzeri, University of Pisa (Italy), "Computational Systems for Spatio-Temporal Pattern Analysis Based on Stigmergy", Supervisors: Prof.ssa Nicoletta De Francesco, Prof.ssa Gigliola Vaglini, Ing. Mario G.C.A. Cimino, 2017
- 6. Giovanni Nardini, University of Pisa (Italy), "ARCHITECTURES AND ALGORITHMS FOR DEVICE-TO-DEVICE COMMUNICATIONS IN LTE-ADVANCED NETWORKS", Supervisors: Prof. Giovanni Stea, Prof. Enzo Mingozzi, 2017
- 7. Carmela Luongo, University of Pisa (Italy), "MASSIVELY PARALLELIZABLE RECONSTRUCTION FOR HIGH ENERGY PHYSICS AND MEDICAL IMAGING", Supervisors: Prof.ssa Nicoletta De Francesco, Prof. Andrea Domenici, Prof. Simone Donati, Prof. Niccolò Camarlinghi, 2017

Journal Editorial Activity

- 1. **2016-** : Founding Associate Editor in Chief, *Elsevier Online Social Networks and Media*, https://www.journals.elsevier.com/online-social-networks-and-media/
- 2. 2010-: Editorial Board Member, *Elsevier Pervasive and Mobile Computing*, Editor in Chief Prof. Sajal K. Das, University of Texas at Arlington, USA, http://www.elsevier.com/wps/find/journaldescription.cws_home/704220/description#desc ription
- 3. 2008-: Editorial Board Member, International Journal of Autonomous and Adaptive Communications Systems, Inderscience Publishers, Editor in Chief, Prof. Athanasios Vasilakos, University of Western Macedonia, Greece, <u>http://www.inderscience.com/ijaacs</u>.
- 4. **2006-08:** Associate Technical Editor, *IEEE Communication Magazine*, IEEE ComSoc, Editor in Chief: Prof. Thomas M. Chen, Southern Methodist University, USA, URL: <u>http://www.comsoc.org/pubs/commag/</u>.
- 5. Guest Co-Editor (with M. Conti and J. Crowcroft), Ad Hoc & Sensor Wireless Networks: An International Journal, Special Issue on "Multi-hop Ad hoc Networks: From Theory to reality, REALMAN 2005", Vol. 2, No. 4, 2006, Old City Publishing, Editor in Chief: Prof. Ivan Stojmenovic, University of Ottawa, Canada, URL: http://www.oldcitypublishing.com/AHSWN/AHSWN.html.
- Guest Co-Editor (with E. Biagioni and S. Giordano), IEEE Communication Magazine, Special Series on "Ad hoc and Sensor Networks", IEEE ComSoc, Editor in Chief: Prof. Thomas M. Chen, Southern Methodist University, USA, Vol. 44, No. 7, July 2006, URL: <u>http://dl.comsoc.org/cocoon/comsoc/servlets/GetPublication?id=9009950</u>.
- 7. **Guest Co-Editor** (with M. Conti and J. Crowcroft), *ACM/SIGMOBILE Mobile Computing and Communications Review (MC2R), Special Section on REALMAN 2006*, ACM Press, Editor in

Chief: Prof. Mani B. Srivastava, UCLA, USA, July 2007, URL: <u>http://www.sigmobile.org/pubs/mc2r/index.html</u>.

- Guest Co-Editor (with K. Oikonomou), Elsevier Computer Communications Journal, Fast Track on AOC 2009, Elsevier, EiC: Dr. Marco Conti, IIT-CNR, Pisa, Italy, Vol. 33, Issue 13, August 2010
- Guest Co-Editor (with J. Ott), Elsevier Computer Communications Journal, Fast Track on WoWMoM 2009, Elsevier, EiC: Dr. Marco Conti, IIT-CNR, Pisa, Italy, Vol. 7, Issue 1, Feb. 2011
- Guest Co-Editor (with M. Chatterjee), *Elsevier Pervasive and Mobile Computing*, Special Section on Pervasive Networks for Future Internet, EiC: Prof. Sajal K. Das, doi:10.1016/j.pmcj.2012.07.006, 2012.
- Guest Co-Editor (with M. Kumar), *Elsevier Pervasive and Mobile Computing*, Special Section on Mobile Social Networks, EiC: Prof. Sajal K. Das, Volume 11, April 2014, Pages 86–87, <u>http://dx.doi.org/10.1016/j.pmcj.2014.01.004</u>
- 12. Guest Co-Editor (with M. Gerla), *Elsevier Computer Communications*, Special Section on Challenged Networks, EiC: Marco Conti
- 13. Guest Co-Editor (with X. Fu, D. Quercia, A. Sala, T. Strufe), *Elsevier Computer Communications*, Special Issue on Online Social Networks, EiC: Marco Conti
- 14. **Guest Co-Editor** (with Patrizia Grifoni, Fernando Ferri, Alessia D'Andrea, Tiziana Guzzo), *Elsevier Pervasive and Mobile Computing*, Special Issue on Pervasive Social Computing, EiC: Sajal K. Das

Organising Committees of International Conferences and Workshops

- Publicity Co-Chair The Fifth ACM International Workshop on Wireless Mobile Multimedia (WoWMoM 2002), Atlanta, Georgia, 28 September 2002, URL: <u>http://www2.ing.unipi.it/wowmom2002/</u>.
- Program Vice-Chair First IEEE International Workshop on Multi-hop Ad hoc Networks: from theory to reality (REALMAN 2005), Santorini, Greece, 14 July 2005, URL: <u>http://www.cl.cam.ac.uk/research/srg/netos/realman/05/</u>.
- 3. **Program Vice-Chair** Second ACM/SIGMOBILE International Workshop on Multi-hop Ad hoc Networks: from theory to reality (REALMAN 2006), Florence, Italy, 26 May 2006, URL: <u>http://www.cl.cam.ac.uk/research/srg/netos/realman/</u>.
- 4. **Program Vice-Chair** 4th IEEE International Workshop on Mobile Distributed Computing (MDC'06), Niagara-Falls/Buffalo, NY, USA, 26 June 2006, URL: http://www2.ing.unipi.it/mdc06/.
- Program Co-Chair The First ACM/SIGMOBILE International Workshop on Mobile Opportunistic Networking (MobiOpp 2007), Puerto Rico, USA, 11 June 2007, URL: <u>http://cnd.iit.cnr.it/mobiopp07/</u>.
- Demo Co-Chair The Fourth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS 2007), Pisa, Italy, 8 - 11 October 2007, URL: http://cnd.iit.cnr.it/mass2007/.
- 7. Panel Chair The Fourth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS 2007), Pisa, Italy, 8 - 11 October 2007, URL: <u>http://cnd.iit.cnr.it/mass2007/</u>; Panel title: "Hypes vs. Reality in MASS Research", panellists: Doug Blough (Georgia Tech), Vania Conan (Thales), Walter Stockwell (Crossbow), Adam Wolisz (TU Berlin).
- Panel Chair The Second IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC 2008), Newport Beach (CA), 23 June 2008, URL: http://cnd.iit.cnr.it/aoc2008/; Panel title: "Opportunities in Opportunistic Communications

Research", panellists: Mohan Kumar (Univ. Texas at Arlington), Giovanni Pau (UCLA), Thrasyvoulos Spyropoulos (ETH Zurich), Ioannis Stavrakakis (University of Athens).

- Demo Chair The Seventh Annual IEEE International Conference on Pervasive Computing and Communications (IEEE PerCom 2009), URL: http://www.percom.org.
- 10. Workshop Co-Chair The Third International WoWMoM Workshop on Autonomic and Opportunistic Communications (IEEE AOC 2009), Kos, Greece, 15 June 2009.
- 11. **Panel Chair** The Third International WoWMoM Workshop on Autonomic and Opportunistic Communications (IEEE AOC 2009), Kos, Greece, 15 June 2009.
- 12. Workshops Co-Chair The Eighth Annual IEEE International Conference on Pervasive Computing and Communications (IEEE PerCom 2010), URL: http://www.percom.org.
- 13. Workshops Co-Chair The Eleventh IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (IEEE WoWMoM 2010), URL: http://www.ieee-wowmom.org/.
- Program Co-Chair The Twelfth IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (IEEE WoWMoM 2011), URL: <u>http://www.ieeewowmom.org/</u>
- 15. **Program Vice Chair –** CPSCom 2012, The IEEE International Conference on Cyber, Physical, and Social Computing, <u>http://cpscom.univ-fcomte.fr/</u>
- 16. Publicity Chair ACM 2012 SIGCOMM conference, Helsinki, Finland, 13-17 August 2012.
- 17. Workshop Co-Chair Beyond Social Networks: Collective Awareness (IEEE ICC 2013), Budapest, Hungary, 9-13 June 2013.
- Workshop Co-Chair Ninth ACM Workshop on Challenged Networks, Maui, Hawaii, USA 7 September 2014, URL: <u>http://acm-chants.org</u>
- 19. Workshops Co-Chair The 13th ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys 2015), Florence, Italy, 18-22 May 2015, URL: http://www.sigmobile.org/mobisys/2015/
- 20. Workshop Co-Chair The First IFIP Internet of People workshop, co-located with IFIP Networking 2016, Vienna, 20 May 2016, <u>http://cnd.iit.cnr.it/iopw2016/</u>
- 21. Steering Committee Member IFIP Networking 2015 –
- 22. Steering Committee Member ACM CHANTS 2014 –

Technical Program Committees of International Conferences and Workshops

- 1. **ISPA 2005**: Third IEEE International Symposium on Parallel and Distributed Processing and Applications, Nanjing, China , 2-5 Nov. 2005, URL: <u>http://keysoftlab.nju.edu.cn/ispa2005/</u>
- PE-WASUN 2005: Second ACM International Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Montreal, Qc. Canada, 13 October 2005, URL: <u>http://www.dcs.gla.ac.uk/%7Emohamed/wasun05/pe-wasun05.html</u>
- WWASN 2006: IEEE ICDCS Workshop on Workshop on Wireless Ad hoc and Sensor Networks, Lisbon, Portugal, 4-7 July 2006, URL: http://www.cs.umanitoba.ca/~softart/WWASN2006.html
- 4. PerCom 2006: Fourth Annual IEEE International Conference on Pervasive Computer and Communications, Pisa, Italy, 13-17 March 2006, URL: <u>http://cnd.iit.cnr.it/percom2006/</u>
- 5. WoWMoM 2006: IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Niagara-Falls, Buffalo-NY, 26-29 June 2006, URL: <u>http://ieee-wowmom.cse.buffalo.edu/</u>

- 6. ICWMC 2006: International Conference on Wireless and Mobile Communications, 29-31 July 2006 Bucharest, Romania, URL: <u>http://www.iaria.org/conferences/ICW06.html</u>
- 7. RDDS 2006: International Workshop on Reliability in Decentralized Distributed systems, Montpellier, France, 30 October 2006, URL: <u>http://www.cs.rmit.edu.au/fedconf/index.html?page=rdds2006cfp</u>
- PM2HW2N 2006: ACM International Workshop on Performance Monitoring, Measurement, and Evaluation of Heterogeneous Wireless and Wired Networks, Torremolinos, (Malaga), Spain, 2 October 2006, URL: <u>http://www.dcs.gla.ac.uk/~mohamed/pmmh06/pmmh06.html</u>
- 9. MSN 2006: The Second International Conference on Mobile Ad-hoc and Sensor Networks, 13 15 December 2006, Hong Kong, China, URL: <u>http://www.comp.polyu.edu.hk/msn06/</u>
- 10. PerSeNS 2007: Third IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, White Plains, NY, USA, 19 March 2007, URL: <u>http://www2.ing.unipi.it/persens2007/</u>
- 11. PerCom 2007: Fifth Annual IEEE International Conference on Pervasive Computer and Communications, White Plains, NY, USA, 19-23 March 2007, URL: http://www.cse.psu.edu/~hurson/percom2007/
- 12. WoWMoM 2007: IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Helsinki, Finland, 18-21 June 2007, URL: <u>http://ieeewowmom.tml.hut.fi/</u>
- **13. ATC 2007**: The 4th International Conference on Autonomic and Trusted Computing, Hong Kong, China, 11-13 July 2007, URL: <u>http://ehpclab.stfx.ca/~atc07/</u>
- 14. ISM 2007: IEEE International Symposium on Multimedia, Taichung, Taiwan, China, 10-12 December 2007, URL: <u>http://ism2007.ncu.edu.tw/</u>
- 15. AOC 2007: IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Helsinki, Finland, 18 June 2007, URL: <u>http://cnd.iit.cnr.it/aoc2007/index.html</u>
- 16. P2Mnet 2007: The Third IEEE International Workshop on Performance and Management of Wireless and Mobile Networks, Dublin, Ireland, 15-18 October 2007, URL: <u>http://paradise.site.uottawa.ca/p2mnet2007/</u>
- 17. SANET 2007: The First ACM Workshop on Sensor Actor Networks, Montreal, Canada, 10 September 2007, URL: <u>http://www2.lifl.fr/POPS/SANET2007/</u>
- **18. CHANTS 2007:** The ACM Mobicom workshop on Challenged Networks, Montreal, Canada, 14 September 2007, URL: <u>http://www.netlab.tkk.fi/chants-2007/</u>
- **19. MOVENET 2007:** The IEEE MASS International Workshop on Mobile Vehicular Networks, 12 October 2007, Pisa, Italy, URL: <u>http://movenet.cs.ucla.edu/</u>
- 20. PM2HW2N 2007: The Second ACM International Workshop on Performance Monitoring, Measurement, and Evaluation of Heterogeneous Wireless and Wired Networks, 22-26 October 2007, Chania, Crete, Greece, URL: <u>http://www.i3a.uclm.es/pm2hw2n07/</u>
- 21. RDDS 2007: The Second International Workshop on Reliability in Decentralized Distributed Systems, 25-30 November 2007, Vilamoura, Algarve, Portugal, URL: http://www.cs.rmit.edu.au/fedconf/index.html?page=rdds2007cfp
- **22. Bionetics 2007:** The Second International Conference on Bio-Inspired Models of Network, Information, and Computing Systems, Budapest, Hungary, 10-12 December 2007, URL: http://www.bionetics.org/
- **23. MSN 2007:** The Third International Conference on Mobile Ad-hoc and Sensor Networks, 12-14 December 2007, Beijing, China, URL: <u>http://conference.bjtu.edu.cn/msn07/</u>

- 24. ADPUC 2007: The 2nd International Workshop on Advanced Data Processing in Ubiquitous Computing (in conjunction with ACM/IFIP/USENIX 8th International Middleware Conference 2007), Newport Beach, California, USA, November 26th - 30th, 2007, URL: <u>http://www.cl.cam.ac.uk/~ey204/ADPUC2007/ADPUC_NEWS/news.html</u>
- 25. PerSeNS 2008: Fourth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, Hong Kong, March 17-21, 2008, URL: <u>http://www.ing.unipi.it/persens/</u>
- 26. WoWMoM 2008: IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Newport Beach/Irvine, California, USA, 23-27 June 2008, URL: http://www.ieee-wowmom.org/
- 27. AOC 2008: The Second IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Newport Beach (CA), USA, 23 June 2008, URL: http://cnd.iit.cnr.it/aoc2008/
- 28. MASS 2008: The Fifth IEEE International Conference on Mobile Ad-hoc and Sensor Systems, Atlanta (GA), USA, 29 September 2 October 2008, URL: http://www.cse.psu.edu/IEEEMASS08/
- **29. VTC-Fall 2008:** The 68th IEEE Vehicular Technology Conference, Calgary (Canada), 22-25 September 2008, URL: <u>http://www.ieeevtc.org/vtc2008fall/index.php</u>
- **30. SANET 2008:** The Second ACM Workshop on Sensor Actor Networks, Montreal, Hong Kong, China, 26-30 May 2008, URL: <u>http://www2.lifl.fr/POPS/SANET2008/</u>
- 31. PIMRC 2008: The 19th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Cannes (France), 15 – 18 September 2008, URL: <u>http://www.pimrc2008.org/</u>
- **32. PE-WASUN 2008**: The Fifth ACM Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Vancouver, CA, 27-31 October 2008, URL: <u>http://www.ens-lyon.fr/LIP/pe-wasun08/</u>
- **33. AINTEC 2008:** The 4th ACM SIGCOMM Asian Internet Engineering Conference (AINTEC 2008), 18 20 November 2008, Bangkok, Thailand, URL: http://www.interlab.ait.ac.th/aintec08/
- 34. PM2HW2N 2008: The Third ACM International Workshop on Performance Monitoring, Measurement, and Evaluation of Heterogeneous Wireless and Wired Networks, Vancouver, CA, 27-31 October 2008, URL: <u>http://www.pm2hw2n08.acca-group.info/</u>
- **35. CHANTS 2008:** The ACM Mobicom workshop on Challenged Networks, San Francisco, CA, 14 September 2008.
- **36. RDDS 2008:** The Third International Workshop on Reliability in Decentralized Distributed Systems, Monterrey, Mexico, Nov 9-14, 2008, URL: http://www.cs.rmit.edu.au/fedconf/index.html
- **37. Miss 2008:** Second Annual Symposium on Middleware for Sensor Systems, Sydney, Australia 14-17 December, 2008
- **38. PerCom 2009:** Seventh Annual IEEE International Conference on Pervasive Computer and Communications, Dallas, TX, USA, 16-20 March 2009, URL: <u>http://www.percom.org</u>
- **39. PerSeNS 2009:** Fifth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, Galveston, TX, USA, 9-13, 2009, URL: http://www.ing.unipi.it/persens/
- 40. WoWMoM 2009: The Tenth IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Kos, Greece, 15-19 June 2009, URL: <u>http://www.ics.forth.gr/wowmom09/</u>

- **41. AWN 2009**: First International Workshop on Autonomic Wireless Networking, co-located with the 5th International Wireless Communications and Mobile Computing Conference (IWCMC 2009), June 21-24, 2009, Leipzig, Germany, http://www7.informatik.uni-erlangen.de/~dressler/awn2009/
- **42. ISWCS'09**: The Sixth International Symposium on Wireless Communication Systems 2009, Siena, Italy, September 7–10, 2009, URL: http://www.iswcs.org/iswcs2009/
- **43. PE-WASUN 2009**: The Sixth ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Tenerife, Canary Islands, Spain, October 26-30, 2009, URL: http://www.ens-lyon.fr/LIP/pe-wasun09/
- **44. AINTEC 2009:** The 5h ACM SIGCOMM Asian Internet Engineering Conference (AINTEC 2009), 18 20 November 2009, Bangkok, Thailand, URL: http://www.interlab.ait.ac.th/aintec09/
- **45. CHANTS 2009:** ACM MobiCom Workshop on Challenged Networks, Beijing, China September 25, 2009, URL: http://www.thlab.net/chants2009/
- **46. MobiOpp 2010:** The Second ACM/SIGMOBILE International Workshop on Mobile Opportunistic Networking, Pisa, Italy, 22-23 February 2010, http://cnd.iit.cnr.it/mobiopp2010/
- **47. PerCom 2010:** Eighth Annual IEEE International Conference on Pervasive Computer and Communications, Mannheim, Germany, 29 March-2 April 2010, URL: http://www.percom.org
- 48. PerSeNS 2010: Sixth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, Mannheim, Germany, 29 Marc – 2 April 2010, URL: <u>http://www2.ing.unipi.it/persens/</u>
- **49. HotPlanet 2010**: Second ACM/SIGMOBILE Workshop on Hot Topics in Planet Scale Measurements (co-located with ACM/SIGMOBILE MobiSys 2010), San Francisco, CA, USA, 15 June 2010, <u>http://www.hotplanetconf.net/10/</u>
- **50.** AOC 2010: The Foruth IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Montreal, Canada, 14 June 2010, URL: <u>http://cnd.iit.cnr.it/aoc2010/</u>
- **51. MASS 2010**: Seventh IEEE International Conference on Mobile Ad-hoc and Sensor Systems, San Francisco, CA, USA, October 2010, <u>https://mass2010.soe.ucsc.edu/home</u>
- **52. PE-WASUN 2010**: The Seventh ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Bodrum, Turkey, October 17-21, 2010, URL: http://www.ens-lyon.fr/LIP/pe-wasun10/
- **53. AINTEC 2010:** The 6h ACM SIGCOMM Asian Internet Engineering Conference (AINTEC 2010), 15-17 November 2010, Bangkok, Thailand, URL: http://www.interlab.ait.ac.th/aintec2010/
- **54. CHANTS 2010:** ACM MobiCom Workshop on Challenged Networks, Chicago, IL, USA September 24, 2010, URL: http://dtnbone.umiacs.umd.edu/chants2010/index.html
- **55. PerCom 2011:** Ninth Annual IEEE International Conference on Pervasive Computer and Communications, Seattle, USA, 21-25 March, 2011, URL: <u>http://www.percom.org</u>
- 56. PerSeNS 2011: Seventh IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, Seattle, USA, 21 March, 2011, URL: <u>http://www2.ing.unipi.it/persens/</u>
- **57. AOC 2011:** The Fifth IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Lucca, Italy, 20 June 2011, URL: <u>http://cnd.iit.cnr.it/aoc2011/</u>
- **58. SUSTAINET 2011:** The First IEEE International Workshop on Sustainable Internet and Internet for Sustainability, Lucca, Italy, 20 June 2011, URL: http://www.dinfo.unipa.it/sustainet/

- **59. MASS 2011**: Eighth IEEE International Conference on Mobile Ad-hoc and Sensor Systems, Valencia, Spain, 17-22 October 2011, <u>http://mass2011.upv.es/</u>
- **60. GLOBECOM 2011**: The IEEE Global Communications Conference (GLOBECOM) 2011, Ad hoc and Sensor Networks Symposium (AHSN), Dallas, TX, USA, 5-9 December 2011, <u>http://www.ieee-globecom.org/2011/index.html</u>.
- 61. CHANTS 2011: ACM MobiCom Workshop on Challenged Networks, Las Vegas, NV, USA September 23, 2011, <u>http://chants2011.ee.ethz.ch/</u>
- **62. PE-WASUN 2011**: The Eighth ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Miami Beach, USA, October 31- November 4, 2011, URL: <u>http://sertel.upc.edu/pe-wasun11/</u>
- **63. COMSNETS 2012**: The 4th International Conference on COMmunication Systems and NETworkS, 3-7 January 2012, Bangalore, India, <u>http://www.comsnets.org/</u>
- 64. PerCom 2012: Tenth Annual IEEE International Conference on Pervasive Computer and Communications, Lugano, Switzerland, 19-23 March, 2012, URL: <u>http://www.percom.org</u>
- **65. MobiOpp 2012:** Third International Workshop on Mobile Opportunistic Networks, March 15-16, 2012, Zürich, Switzerland, <u>http://www.cl.cam.ac.uk/conference/mobiopp2012/</u>
- 66. PerMoby 2012: International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications, March 19-23, Lugano, Switzerland, <a href="http://www.http://wwww.http://wwwww.http://wwwwww.http://wwwwww.http://wwww.http://www.http://wwww
- 67. PerSeNS 2012: Eighth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, Lugano, Switzerland, 19-23 March, 2012, URL: http://www2.ing.unipi.it/persens/index.html
- **68. MUE 2012:** The Sixth International Conference on Multimedia and Ubiquitous Engineering, Madrid 11-13 July 2012, <u>http://www.arcos.inf.uc3m.es/mue2012/index.shtml</u>
- **69. ICCCN 2012:** The 21st International Conference on Computer Communication Networks, Münich, Germany, July 30 August 2, 2012, <u>http://www.icccn.org/icccn12/index.html</u>
- **70. WoWMoM 2012:** The Thirteenth IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, San Francisco, California, USA June 25-28, 2012, URL: http://www.networks.com, http://www.networks.com"/>http://www.networks.com, http://www.networks.com"/>http://www.networks.com
- 71. AOC 2012: The Sixth IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, S. Francisco, CA, 25 June 2012, URL: <u>http://cnd.iit.cnr.it/aoc2012/</u>
- 72. MSWiM 2012: 15th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems, Cyprus, October 2012, URL: <u>http://mswimconf.com/2012/</u>
- **73. GLOBECOM 2012**: The IEEE Global Communications Conference (GLOBECOM) 2011, Ad hoc and Sensor Networks Symposium (AHSN), Anaheim, CA, USA, 3-7 December 2012, http://www.ieee-globecom.org/
- 74. PE-WASUN 2012: The Ninth ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, Cyprus, USA, October 21- 25, 2012, URL: http://sertel.upc.es/pe-wasun12/
- **75. MASS 2012**: Ninth IEEE International Conference on Mobile Ad-hoc and Sensor Systems, Las Vegas, Nevada, USA, October 8-11, <u>http://www.monarch.cs.rice.edu/mass2012/</u>
- **76. SUSTAINIT 2012:** The Second IFIP Conference on Sustainable Internet and ICT for Sustainability, Pisa, Italy, 4-5 October 2012, <u>http://cnd.iit.cnr.it/sustainit2012/</u>
- 77. CHANTS 2012: Seventh ACM Workshop on Challenged Networks, Istanbul, Turkey August 22, 2012, <u>http://www.cambridgeplus.net/CHANTS2012</u>
- **78. PerCom 2013:** Eleventh Annual IEEE International Conference on Pervasive Computer and Communications, San Diego, USA, on March 18-22, 2013, URL: <u>http://www.percom.org</u>

- **79. COMSNETS 2013:** The 5th International Conference on COMmunication Systems and NETworkS, 7-10 January 2013, Bangalore, India, <u>http://www.comsnets.org/</u>
- **80. VTC2013-Spring:** The IEEE 77th Vehicular Technology Conference, 2-5 June 2013, Dresden, Germany, <u>http://www.ieeevtc.org/vtc2013spring/</u>
- **81. ICCCN 2013:** The 22st International Conference on Computer Communication Networks, Nassau, Bahamas, July 30 August 2, 2013, <u>http://www.icccn.org/icccn13/</u>
- 82. PerSeNS 2013: Ninth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing, San Diego, USA, 18-22 March, 2013, URL: <u>http://www.dicgim.unipa.it/~networks/persens2013/</u>
- **83. GLOBECOM 2013**: The IEEE Global Communications Conference (GLOBECOM) 2013, Ad hoc and Sensor Networks Symposium (AHSN), Atlanta, GA, USA, 9-13 December 2013, http://www.ieee-globecom.org/
- 84. WoWMoM 2013: The Fourteen IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Madrid, Spain, June 4-7, 2013, URL: <u>http://wowmom2013.tmit.bme.hu</u>
- **85. PerMoby 2013**: International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications, 18-22 March 2013, San Diego, USA, <a href="http://www.http://wwww.http://wwww.http://www.http://www.http://www.http://wwww.http://www.http:
- **86.** AOC 2013: The Seventh IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Madrid, Spain, June 2013, URL: <u>http://aoc2013.dti.supsi.ch</u>
- 87. MSWiM 2013: 16th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems, Nov 3-8, 2013, Barcelona, Spain, URL: <u>http://mswimconf.com/2013/</u>
- 88. SUSTAINIT 2013: The Third IFIP Conference on Sustainable Internet and ICT for Sustainability, Palermo, Italy, 30-31 October 2013, <u>http://www.dicgim.unipa.it/networks/sustainit2013/</u>
- **89. CHANTS 2013:** Eighth ACM Workshop on Challenged Networks, Miami, Florida 30 September 4 October 2013, URL: <u>http://acm-chants.org</u>
- **90. INFOCOM 2014:** The 33rd IEEE International Conference on Computer Communications, Toronto, Canada, April 28 to May 2, 2014, <u>http://www.ieee-infocom.org/2014</u>
- **91. PerCom 2014:** Twelfth Annual IEEE International Conference on Pervasive Computer and Communications, Budapest, Hungary, on March 24-28, 2014, URL: <u>http://www.percom.org</u>
- **92. PerMoby 2014**: International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications, 24 March 2014, Budapest, Hungary, <a href="http://www.http://wwww.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://wwww.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://wwww.http://www.http://www.http://www.http://wwwwww.http://wwww.http://wwwww.http://wwww.http://www.http://ww
- **93. WoWMoM 2014:** The Fifteenth IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Sydney, Australia, in June 16-19, 2014, URL: http://www.nute.com/au/.
- 94. MEDHOCNET 2014: The 13th IEEE IFIP Annual Mediterranean Ad Hoc Networking Workshop, Piran, Slovenia, 2-4 June 2014, URL: <u>http://netlab.cs.ucla.edu/medhocnet2014/index.html</u>
- **95. CROWDSENSING 2014:** The 1st International IEEE Workshop on Crowdsensing Methods, Techniques, and Applications, Budapest, Hungary, on March 24, 2014, URL: <u>http://odin.uncc.edu/crowdsensing2014/</u>
- 96. NetSciCom 2014: The Sixth IEEE International Workshop on Network Science for Communication Networks, Toronto, Canada, April 27-May 2, 2014, URL: <u>http://www.ctr.kcl.ac.uk/netscicom14/</u>

- **97. Networking 2014:** The 13th IFIP-TC6 Networking conference, Trondheim, Norway, 2-4 June 2014, URL: <u>http://networking2014.item.ntnu.no/index.php</u>
- 98. AOC 2014: The Eighth IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Sidney, Australia, 16 June 2014, URL: http://aoc2014.conference.nicta.com.au
- 99. MSWiM 2014: 17th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems, 21-26 September 2014, Montreal, Canada, URL: <u>http://mswimconf.com/2014/</u>
- **100.Mobiquitous 2014:** The 11th International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services, December 2–5, 2014 London, Great Britain, URL: <u>http://mobiquitous.org/show/home</u>
- **101. SMARTCOMP 2014:** The First International Conference on Smart Computing, Hong Kong, China, 3-5 November 2014, <u>http://smartcomp2014.comp.polyu.edu.hk/</u>
- **102. PerCom 2015:** Thirteenth Annual IEEE International Conference on Pervasive Computer and Communications, St. Louis, Missouri, USA, on March 23-27, 2015, URL: <u>http://www.percom.org</u>
- **103.PerMoby 2015**: International IEEE Workshop on the Impact of Human Mobility in Pervasive Systems and Applications (in conjunction with IEEE PerCom 2015), 27 March 2015, St. Louis, Missouri, USA, <u>http://vecchio.iet.unipi.it/permoby/</u>
- 104.CASPER 2015: The 2nd International Workshop on Crowd Assisted Sensing, Pervasive Systems and Communications (in conjunction with IEEE PerCom 2015), 27 March 2015, St. Louis, Missouri, USA, <u>http://casper2015.uns.ac.rs/</u>
- 105.DAMASCA 2015: IEEE Workshop on Data Mining And Smart Cities Applications, colocated with IEEE ICDE, Seoul, Korea, April 13-17, 2015, <u>http://kdd.isti.cnr.it/damasca2015/</u>
- 106.NetSciCom 2015: The Seventh IEEE International Workshop on Network Science for Communication Networks, Hong Kong, April 26-May 1, 2015, URL: <u>http://infocom2015.ieee-infocom.org/</u>
- **107.Networking 2015:** The 14th IFIP-TC6 Networking conference, Toulouse, France, 20 22 May 2015, URL: <u>http://www.irit.fr/networking2015/</u>
- 108.WoWMoM 2015: The Sixteenth IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, June 14-17, 2015, Boston, MA, USA, URL: <u>http://csr.bu.edu/wowmom15/index.html</u>
- **109.MEDHOCNET 2015**: The 14th IEEE IFIP Annual Mediterranean Ad Hoc Networking Workshop, Algarve, Portugal, on June 17-19, 2015, URL: <u>http://medhocnet2015.uc.pt</u>
- **110. SUSTAINIT 2015:** The Fourth IFIP Conference on Sustainable Internet and ICT for Sustainability, Madrid, Spain, 14-15 April 2015, http://www.networks.imdea.org/sustainit2015/index.html
- 111. MSWiM 2015: 18th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems, November 2-6, 2015 in Cancun, Mexico, URL: <u>http://mswimconf.com/2015/</u>
- **112. INFOCOM 2016:** The 35th IEEE International Conference on Computer Communications, S. Francisco, CA, USA 10-15 April 2016, <u>http://www.ieee-infocom.org/2016</u>
- **113. PerCom 2016:** Fourteenth Annual IEEE International Conference on Pervasive Computer and Communications, March 14-18, 2016 Sydney, Australia, URL: <u>http://www.percom.org</u>
- 114. WoWMoM 2016: The Seventeenth IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, 21-24 June 2016, Coimbra, Portugal, URL: <u>http://wowmom2016.uc.pt/</u>

- **115. Networking 2016**: The 15th IFIP-TC6 Networking conference, Vienna, Austria, 17 19 May 2016, URL: <u>http://networking2016.univie.ac.at</u>
- **116. MEDHOCNET 2016**: The 15th IEEE IFIP Annual Mediterranean Ad Hoc Networking Workshop, Vilanova i la Geltrú, Barcelona, Spain, on June 20-22, 2016, URL: http://www.craax.upc.edu/medhocnet2016
- 117. SMARTCOMP 2016: 2nd IEEE International Conference on Smart Computing), St. Louis, Missouri, USA May 18-20 2016, <u>http://www.smart-comp.org</u>
- **118. INSCI 2016**: The 3rd international conference on Internet Science, Florence, Italy, 12-14 Sept. 2016, <u>http://internetscienceconference.eu/</u>
- **119. COMPLEX NETWORKS 2016**: The 5th International Workshop on Complex Networks and their Applications, Milan, Italy, 30 Nov. 2 Dec., 2016, http://www.complex.networks.org/index.html#home
- **120.MSWIM 2016:** The 19th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems, November 14-18, 2016, Malta, <u>http://mswimconf.com/2016/</u>
- 121. NetSys 2017: The IEEE/ACM International Conference on Networked Systems, Goettingen, Germany, 13-17 March 2017, <u>http://netsys17.uni-goettingen.de/</u>
- 122.INFOCOM 2017: The 36th IEEE International Conference on Computer Communications, Istanbul, Turkey, 23-27 April 2017, , <u>http://www.ieee-infocom.org/2017</u>
- **123.PerCom 2017:** Fifteen Annual IEEE International Conference on Pervasive Computer and Communications, March 13-17, 2017 Kona, Big Iland, Hawaii, URL: <u>http://www.percom.org</u>
- 124.WoWMoM 2017: The Eighteen IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, 12-15 June 2017, Macao, China, URL: http://wowmom2017.eecs.qmul.ac.uk/
- **125.Networking 2017**: The 16th IFIP-TC6 Networking conference, Stockholm, Sweden, 13 15 June 2017, URL: <u>http://networking.ifip.org/2017/</u>
- 126.SMARTCOMP 2017: 3rd IEEE International Conference on Smart Computing, Hong Kong, China, May 29-31 2017, http://www.smart-comp.org
- 127.MECCOM 2017: ACM SIGCOMM 2017 Workshop on Mobile Edge Communications, Los Angeles, CA, USA, August 21-25, 2017, http://conferences.sigcomm.org/sigcomm/2017/workshop-mecomm.html
- **128.COMPLEX NETWORKS 2017**: The 6th International Conference on Complex Networks and their Applications, Lyon, France, November 29 December 01 2017, <u>http://www.complexnetworks.org/index.html#home</u>
- **129.INFOCOM 2018:** The 37th IEEE International Conference on Computer Communications, Honolulu, HI, USA, April 15 19, 2018, <u>http://www.ieee-infocom.org/2018</u>
- **130.PerCom 2018:** Sixteenth Annual IEEE International Conference on Pervasive Computer and Communications, March 19-23, 2018 Athens, Greece, URL: <u>http://www.percom.org</u>
- **131.WONS 2018:** 14th IEEE/IFIP Wireless On-demand Network systems and Services Conference, 6-8 February 2018, Isola 2000, France, <u>http://2018.wons-conference.org/</u>
- **132.WoWMoM 2018:** the 2018 IEEE 19th International Symposium on "A World of Wireless, Mobile and Multimedia Networks" (WoWMoM), to be held in Chania, Crete, Greece, during June 12-15, 2018, <u>http://it.murdoch.edu.au/wowmom2018/</u>.
- **133.Networking 2018**: The 17th IFIP-TC6 Networking conference, Zurich, Switzerland, May 14-16, 2018, URL: <u>http://networking.ifip.org/2018/</u>

- **134.PerCrowd 2018**: 1st International PerCom Workshop on Context-Awareness for Multi-Device Pervasive and Mobile Computing, March 19, 2018 Athens, Greece, https://percrowd.blogspot.fi/
- 135.ICDCS 2018: 38th IEEE International Conference on Distributed Computing Systems, research track on "Social Networks and Crowdsourcing", Vienna, Austria, July 2-6, 2018, http://icdcs2018.ocg.at/
- **136.MMSys 2018**: ACM Multimedia Systems Conference 2018 special session on "Human-centric Internet and Multimedia Systems", Amsterdam, June 12 15, 2018, https://sites.google.com/site/mmsys2018humancentric/
- 137.SECON 2018: the 15th IEEE International Conference on Sensing, Communication and Networking, Hong Kong, June 2018
- **138.SMARTCOMP 2018**: the 4th IEEE International Conference in Smart Computing, Taormina, Italy, 18-20 June 2018, <u>http://www.smart-comp.org/</u>
- **139.HT 2018:** The 29th ACM Conference on Hypertext and Social Media, Baltimore, Maryland, 9-12 July, 2018, https://ht.acm.org/ht2018/

Invited Speaker

- Intel Research Cambridge: "Understanding the Real Behavior of Mote and 802.11 Ad hoc Networks: an Experimental Approach", Cambridge (UK), 27 April 2005, URL: <u>http://www.intel-research.net/ViewSeminarAbstract.asp?Index=461</u>
- Cost 290: "MobileMAN Project: Building Campus-Wide MANETs through Cross-Layering", 4th Cost 290 Management Committee Meeting, Wuerzburg, Germany, 13 October 2005, <u>http://www3.informatik.uni-wuerzburg.de/COST290/</u>
- 3. University of Parma: "Ad hoc & Sensor Network design: it's all about Cross Layering", Parma, Italy, 7 November 2005, http://www.tlc.unipr.it/events/WirelessAdHocSensorNetworks.htm#passarella
- 4. **Helsinki University of Technology**: "HiBOp: Exploiting Context to Route Data in Opportunistic Networks", HUT NetLab, Helsinki, Finland, 24 November 2006.
- 5. **Computer Laboratory, University of Cambridge (UK):** "Context-Aware Routing Exploiting Social Links", Workshop BIOWIRE 2007, Cambridge (UK), 4 April 2007.
- 6. AOC 2007: IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications, Helsinki, Finland, 18 June 2007, panellist.
- 7. Institute for Advanced Studies IMT of Lucca (I): "Opportunistic and Delay-Tolerant Networks", May 27, 2009.
- 8. **ISWPC 2010**: IEEE International Symposium on Wireless Pervasive Computing, Panel Speaker, Modena (I), May 6, 2010.
- 9. ICT Labs, Trento Node, BigData Seminars (I): Characterising Social Structures in Online Social Networks from Logs of Users Interactions, Trento (I), May 14, 2013.
- 10. SmartCrowds seminars: FriendsNet, Trento (I), 17 December 2014.
- 11. IFIP WONS 2016, Cortina d'Ampezzo, Italy, 20-22 January 2016, Keynote Speaker.
- 12. Institute for Advanced Studies IMT of Lucca (I): (Some examples of) Inter-disciplinary research in a Cyber-Physical Converging World, 1 March 2016, Invited Talk.

Papers Reviewer

I currently serve as reviewer for reference journals, conference and workshops in the area of mobile computing, such as: *IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Parallel and Distributed Systems, IEEE Journal on Selected Areas in Communications, IEEE*

Transactions on Industrial Informatics, IEEE Transactions on Vehicular Technologies, IEEE Communications Magazine, IEEE Network, Elsevier Ad Hoc Networks Journal, ACM Wireless Networks, Elsevier Computer Networks, Elsevier Computer Communications, Elsevier Pervasive and Mobile Computing, EURASIP Journal of Wireless Communications and Networking, Springer Mobile Networks and Applications, Wiley Wireless Communications and Mobile Computing.

Teaching and Supervising

Teaching

2015-: "Social Network Analysis" Master in BigData, CNR & University of Pisa (Italy) <u>http://www.sobigdata.eu/master/bigdata</u> I'm in charge of lecturing the course, and of the final exams

2014

"Mobile and Online Social Networks" Course in the PhD Doctoral School IMT Institute for advanced Studies of Lucca (I) http://www.imtlucca.it/phd/computer_decision_system/coursework_aa.php?sec=CDSS

<u>#c125</u>

I have been in charge of the course, and responsible for delivering about 70% of the

lectures

2014: "Smart Participation", Lecturer Master in Smart Cities, IIT-CNR & University of Pisa (Italy) http://www2.ing.unipi.it/smart-cities/ I'm in charge of lecturing the course, and of the final exams

2006-2012:

"Database Management", Teaching Assistant Master in Internet Technology, IIT-CNR & University of Pisa (Italy) I was in charge of the Lab classes of the Course, I supervise student projects for the exams, and I am one of the Course's examiners.

2003 - 2004:

"Fundamentals of Networking and Operating Systems", Teaching Assistant Master in Internet Technologies, IIT-CNR & University of Pisa (Italy) I was in charge of the Lab classes of the Course, I supervised student projects for the exams, and I was one of the Course's examiners

2003:

"Fundamentals of Computer Engineering – Part II", Teaching Assistant MS in Computer Engineering, University of Pisa (Italy) I taught the topics of the Course related to databases

2002:

"Web Programming", Lecturer, University of Messina (Italy) I was in charge of the whole Course, which included lectures and Lab classes, I supervised students' projects, and I was the Course's examiner

2002 - 2004:

"Fundamentals of Networking and Operating Systems", Teaching Assistant MS in Computer Engineering, University of Pisa (Italy) I was in charge of the Lab classes of the Course, I supervised student projects for the

exams, and I was one of the Course's examiners

Supervising

from January 2007:

co-supervisor of a number of PhD thesis on Ubiquitous and Pervasive Computing and Online Social Networks; graduated PhD students: Chiara Boldrini, Valerio Arnabodi, Fabio Pezzoni, Massimiliano La Gala, Davide Mascitti current PhD theses: Antonino Masaracchia, Elisabetta Biondi

from 2002:

co-supervisor of MS Theses in Computer Engineering and Computer Science (University of Pisa) in the area of Ubiquitous and Pervasive Computing.

List of Publications

Books

B1 V. Arnaboldi, A. Passarella, M. Conti, R.I.M. Dunbar, "Online Social Networks: Human Cognitive Constraints in Facebook and Twitter Personal Graphs", *Elsevier*, October 2015, http://store.elsevier.com/Online-Social-Networks/Valerio-Arnaboldi/isbn-9780128030233/

Journal Papers

- J1 G. Anastasi, M. Conti, E. Gregori, A. Passarella, "Performance Comparison of Power Saving Strategies for Mobile Web Access", *Elsevier Performance Evaluation*, Vol. 53, Issue 3-4, August 2003, pp. 273-294
- J2 G. Anastasi, M. Conti, E. Gregori, A. Passarella, "A Performance Study of Power-Saving Policies for Wi-Fi Hotspots", *Elsevier Computer Networks*, Vol. 45, Issue 3, June 2004, pp. 295-318.
- J3 G. Anastasi, E. Borgia, M. Conti, E. Gregori, A. Passarella, "Understanding the Real Behavior of Mote and 802.11 Ad hoc Networks: an Experimental Approach", *Elsevier Pervasive and Mobile Computing*, Vol. 1, Issue 2, July 2005, pp. 237-256.
- J4 G. Anastasi, M. Conti, E. Gregori, A. Passarella, L. Pelusi, "An Energy-Aware Multimedia Streaming Protocol for Mobile Users", *Journal of Pervasive Computing and Communications*, Vol. 1, Issue 4, December 2005.
- J5 L. Pelusi, A. Passarella, M. Conti, "Opportunistic Networking: data forwarding in disconnected mobile ad hoc networks", *IEEE Communications Magazine*, Vol. 44, No. 11, November 2006, pp. 134-141.
- J6 A. Passarella, F. Delmastro, "Usability of Legacy p2p Multicast in Multi-hop Ad hoc Networks: an Experimental Study", EURASIP Journal of Wireless Communications and Networking, available on-line: http://dx.doi.org/10.1155/2007/62089, Vol. 2007, No. 1, January 2007.
- J7 F. Delmastro, A. Passarella, M. Conti, "P2P Multicast for Pervasive Ad Hoc Networks", *Elsevier Pervasive and Mobile Computing*, available on-line: http://dx.doi.org/10.1016/j.pmcj.2007.03.001, Vol.4, No. 1, February 2008, pp. 62-91.
- J8 G. Anastasi, E. Ancillotti, M. Conti, A. Passarella, "Design and Performance Evaluation of a Transport Protocol for Ad hoc Networks (TPA)", *The Computer Journal*, in press, Access published on May 2, 2008; doi: doi:10.1093/comjnl/bxn025.
- J9 C. Boldrini, M. Conti, A. Passarella, "Exploiting users' social relations to forward data in opportunistic networks: the HiBOp solution", *Elsevier Pervasive and Mobile Computing*, Volume 4, Issue 5, October 2008, Pages 633-657.
- J10 C. Boldrini, M. Conti, A. Passarella, "Autonomic behaviour of opportunistic network routing", Inderscience International Journal of Autonomous and Adaptive Communications Systems, Vol. 1, No. 1, pp. 122-147, 2008.

- J11 G. Anastasi, M. Conti, E. Gregori, A. Passarella, "802.11 Power-Saving Mode for Mobile Computing in Wi-Fi hotspots: Limitations, Enhancements and Open Issues", *ACM/Springer Wireless Networks (WINET)*, Vol 14, No. 6 December 2008, available on-line: http://dx.doi.org/10.1007/s11276-006-0010-9.
- J12 Giuseppe Anastasi, Marco Conti, Mario Di Francesco, Andrea Passarella, "Energy Conservation in Wireless Sensor Networks: a Survey", *Elsevier Ad Hoc Networks Journal*, Vol. 7, No. 3, pp. 537-568, May 2009, available on-line at <u>http://dx.doi.org/10.1016/j.adhoc.2008.06.003</u>. Elsevier Top Cited Article 2005-2010, Most downloaded Ad Hoc Networks paper of the year 2011 and 2012.
- J13 C. Boldrini, M. Conti, A. Passarella, "Design and performance evaluation of ContentPlace, a socialaware data dissemination system for opportunistic networks", *Elsevier Computer Networks* (2009). doi:10.1016/j.comnet.2009.09.001
- J14 G. Anastasi, M. Conti, I. Giannetti, A. Passarella, "A BitTorrent proxy for Green Internet file sharing: Design and experimental evaluation", *Elsevier Computer Communications*, Volume 33, Issue 7, 3 May 2010, Pages 794-802, DOI: doi:10.1016/j.comcom.2009.11.016.
- J15 Chiara Boldrini and Andrea Passarella, "HCMM: modelling spatial and temporal properties of human mobility driven by users' social relationships", *Elsevier Computer Communications*, Vol. 33, Issue 9, June 2010, pp. 1056-1074, DOI: 10.1016/j.comcom.2010.01.013.
- J16 Chiara Boldrini, Marco Conti, Franca Delmastro and Andrea Passarella, "Context- and Socialaware Middleware for Opportunistic Networks", *Elsevier Journal of Network and Computer Applications*, Vol. 33, Issue 5, Sept. 2010, pp 525-541, available online at http://dx.doi.org/10.1016/j.jnca.2010.03.017.
- J17 Andrea Guazzini, Pietro Liò, Andrea Passarella, and Marco Conti, "Modeling perisaccadic time perception," Journal of *Biomedical Science and Engineering* (JBiSE), 2010.
- J18 Marco Conti, Silvia Giordano, Martin May and Andrea Passarella, "From Opportunistic Networks to Opportunistic Computing", *IEEE Communications Magazine*, Vol. 48, Issue 9, pp. 126-139, Sept. 2010.
- J19 Andrea Passarella, Mohan Kumar, Marco Conti and Eleonora Borgia, "Minimum-Delay Service Provisioning in Opportunistic Networks", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 22, Issue 8, pp. 1267-1275, Aug 2011, available online at http://doi.ieeecomputersociety.org/10.1109/TPDS.2010.153.
- J20 Chiara Boldrini, Marco Conti and Andrea Passarella, "From Pareto inter-contact times to residuals", *IEEE Communication Letters*, Vol. 15, Issue 11, Nov. 2011.
- J21 Dmytro Karamshuk, Chiara Boldrini, Marco Conti, and Andrea Passarella, "Human Mobility Models for Opportunistic Networks", *IEEE Communications Magazine*, Vol. 46, Issue 12, pp. 157-165, Dec 2011.
- J22 Andrea Passarella, "A survey on content-centric technologies for the current Internet: CDN and p2p solutions", *Elsevier Computer Communications*, Vol. 35, Issue 1, Jan 2012, pp 1-32, available online at http://dx.doi.org/10.1016/j.comcom.2011.10.005.
- M. Conti, S.K. Das, C. Bisdikian, M. Kumar, L.M. Ni, A. Passarella, G. Roussos, G. Tröster, G. J23 Tsudik and F. Zambonelli, "Looking Ahead in Pervasive Computing: Challenges and Opportunities in the Era of Cyber-Physical Convergence", Elsevier Pervasive and Mobile Computing, Vol. 8, Issue 1, pp. 2-21, Feb. 2012, available online at http://dx.doi.org/10.1016/j.pmcj.2011.10.001.
- J24 Andrea Passarella, Robin I.M. Dunbar, Marco Conti, Fabio Pezzoni, "Ego network models for Future Internet social networking environments", *Elsevier Computer Communications*, Vol. 35, Issue 18, December 2012, available online at <u>http://dx.doi.org/10.1016/j.comcom.2012.08.003</u>

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