





PERSONAL INFORMATION

Leonardo Mostarda



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-  <http://www.leonardomostarda.net>

Sex Male | Nationality Italian

WORK EXPERIENCE

Current position

- Associate Professor, Computer Science Division, University of Camerino, Italy.
- CEO Bilancio CO2zero (Current Position): <http://www.bilancioco2zero.com> An innovative spinoff that combines advanced energy controlling techniques with machine learning approaches in order to improve energy efficiency while maintaining a high level of comfort. Bilancio CO2 zero has partnership with siemens and has a portfolio of various well known customers

2013 - Present

Associate Professor (Current Position) Appointment Date 01/01/2013 Computer Science Division, Camerino University, Italy.

1 January 2013 – 5 May 2017

Head of the Department, Computer Science Division, Camerino University, Italy.

2007

Appointment Date 01/03/2010, School of science and technology, Computer Communication Engineering, Middlesex, UK.

2006

Research Associate. Employer: University of L'Aquila working on the CUSPIS EU FP6 Project.

TEACHING AND LEARNING

External examiner experience

- Course: Foundation Degree (FdSc) or/and BSc Honours
- University: South Essex College
- Starting date: 1- January 2014
- Role: External Examiner

Teaching at University of Camerino

- Course Name: Embedded Systems. Role: Module Leader. Level: Master
- Course Name: Internetworking embedded systems. Role: Module Leader. Level: Master
- Course Name: Sistemi Operativi Role: Module Leader. Level: Master
- Course Name: Sensor Networking. Role: Module Leader. Level: Master
- Course Name: Distributed Systems. Role: Module Leader. Level: Master
- Course Name: IT Security. Role: Module Leader. Level: Master
- Course Name: Embedded Systems. Role: Module Leader. Level: Master

Teaching at Middlesex university

- Course Name: Network security. Role: Module Leader. Level: Master
- Course Name: Distributed Systems. Role: Module Leader. Level: BEng
- Course Name: Computer Networks, Wireless and Mobile Communication. Role: Module Leader. Level: Master

Teaching at Imperial College London

- Course Name: Network security. Role: Tutorial Helper. Level: BSc
- Course Name: Distributed Systems. Role: Tutorial Helper. Level: BSc
- Course Name: Computer Networks. Role: Tutorial Helper. Level: BSc
- Course Name: Database Management System. Role: Tutorial Helper. Level: BSc

Teaching at University of L'Aquila

- Course Name: Network security. Role: Tutorial Helper. Level: BSc
- Course Name: Distributed Systems. Role: Tutorial Helper. Level: BSc
- Course Name: Computer Networks. Role: Tutorial Helper. Level: BSc
- Course Name: Database Management System. Role: Tutorial Helper. Level: BSc

Teaching at BIT company refresh course

- Course Name: Operating Systems. Role: Tutorial Helper. Level: BSc
- Course Name: C Language. Role: Tutorial Helper. Level

Network security: Academic year 2002/2003. Role: lecturer

EDUCATION AND TRAINING

2011 PGCertHE, Middlesex University, 2011. PGCertHE, the course had duration of one year and was attended at Middlesex University

2006 Ph.D. in Computer Science - 16/01/2006. Supervisor Prof Paola Inverardi. Final evaluation: ottimo (maximum score).

2002 Degree in Computer Science (duration 5 years) - 24/07/2002. Supervisor Prof Paola Inverardi. Final evaluation: 110/110 (maximum score) "cum laude".

20 September 1999 – 13 June 2000

Erasmus - University College of London. Supervisor Anthony Finkelstein.

1 January 2002

Junior researcher: Date 01/01/2002. Employer: Ericsson Research Lab, Rome.

1995

ITIS High school – 1995: Computer science and electronics. Final evaluation: 60/60 (maximum score).

PERSONAL SKILLS

Mother tongue(s)

Italian

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2

ADDITIONAL INFORMATION

Publications
Journals

- Stefano Bistarelli, Gianmarco Mazzante, Matteo Micheletti, Leonardo Mostarda, Davide Sestili and Francesco Tiezzi. Ethereum Smart Contracts: Analysis and Statistics of their Source Code and Opcodes. Elsevier Internet of Things, 2020 (In press)
- A Bhardwaj, F Al-Turjman, M Kumar, T Stephan, L Mostarda. Capturing-the-Invisible (CTI): Behavior-Based Attacks Recognition in IoT-Oriented Industrial Control Systems IEEE Access 8, 104956-104966 2020
- S Singh, S Kumar, A Nayyar, F Al-Turjman, L Mostarda. Proficient QoS-Based Target Coverage Problem in Wireless Sensor Networks IEEE Access 8, 74315-74325 2020
- UAVs Healthcare Applications, Communication Protocols, Deployment Strategies, and Security Challenges Z Ullah, F Al-Turjman, L Mostarda Unmanned Aerial Vehicles in Smart Cities, 27-37
- Ullah, Z., Al-Turjman, F., Mostarda, L., Gagliardi, R. Applications of Artificial Intelligence and Machine learning in smart cities. Elsevier Computer Communications, 2020

- Zaib Ullah, Fadi Al-Turjman, and Leonardo Mostarda. Cognition in UAV-Aided 5G and Beyond Communications: A Survey. *IEEE Transactions on Cognitive Communications and Networking*. 2020
- Diletta Cacciagrano, Flavio Corradini, Matteo Micheletti, Leonardo Mostarda. REECHD: Energy Efficient Clustering for Heterogeneous Devices. *International Journal of Grid and Utility Computing*. 2020
- F Al-Turjman, M Abujuubbeh, A Malekloo, L Mostarda. UAVs assessment in software-defined IoT networks: An overview. *Elsevier Computer Communications*, 2020
- G Nalli, L Mostarda, A Perali, S Pilati, D Amendola Applicazione del machine learning ai learning analytics della piattaforma Moodle per creare gruppi eterogenei nei corsi on-line. *ITALIAN JOURNAL OF EDUCATIONAL RESEARCH*, 156-173 2019
- F Al-Turjman, BD Deebak, L Mostarda. Energy Aware Resource Allocation in Multi-Hop Multimedia Routing via the Smart Edge Device *IEEE Access* 7, 151203-151214 2019
- Rajkumar Kulandaivel, Monica Balasubramaniam, Fadi Al-Turjman, Leonardo Mostarda, Manikandan Ramachandran, Rizwan Patan. Intelligent Data Delivery Approach for Smart Cities Using Road Side Units *IEEE Access* 7, 139462-139474 2019
- S Jacob, VG Menon, F Al-Turjman, PG Vinoj, L Mostarda. Artificial Muscle Intelligence System With Deep Learning for Post-Stroke Assistance and Rehabilitation. *IEEE Access* 7, 133463-133473 2019
- M Micheletti, L Mostarda, A Navarra CER-CH: combining election and routing amongst cluster heads in heterogeneous WSNS. *IEEE Access* 7, 125481-125493 2019
- F Ullah, H Naeem, S Jabbar, S Khalid, MA Latif, F Al-Turjman, L Mostarda. Cyber security threats detection in Internet of Things using deep learning approach. *IEEE Access* 7, 124379-124389 2019
- F Al-Turjman, H Zahmatkesh, L Mostarda. Quantifying uncertainty in internet of medical things and big- data services using intelligence and deep learning *IEEE Access* 7, 115749-115759 2019
- F Al-Turjman, JP Lemayian, S Alturjman, L Mostarda. Optimal Placement for 5G Drone-BS Using SA and GA. *Drones in IoT-enabled Spaces*, 43-58 2019
- F Al-Turjman, JP Lemayian, S Alturjman, L Mostarda. Enhanced Deployment Strategy for the 5G Drone- BS Using Artificial Intelligence. *IEEE Access* 7, 75999-76008 2019
- F Al-Turjman, L Mostarda, E Ever, A Darwish, NS Khalil. Network experience scheduling and routing approach for big data transmission in the Internet of Things. *IEEE Access* 7, 14501-14512 2019
- A Aloisio, A Navarra, L Mostarda. Energy consumption balancing in multi-interface networks *Journal of Ambient Intelligence and Humanized Computing*, 2019
- F Al-Turjman, L Mostarda. A hash-based RFID authentication mechanism for context-aware management in IoT-based multimedia systems. *Sensors* 19 (18), 3821 2019
- E Ever, P Shah, L Mostarda, F Omondi, O Gemikonakli. On the performance, availability and energy consumption modelling of clustered IoT systems. *Computing*, 1-36 2019
- Ivano Malavolta, Leonardo Mostarda, Henry Muccini, Enver Ever, Krishna Doddapaneni and Orhan Gemikonakli A4WSN: an architecture-driven modelling platform for analysing and developing WSNs. . *Journal of Software & Systems Modeling*, 2018
- Diletta Romana Cacciagrano, Flavio Corradini, Rosario Culmone, Nikos Gorogiannis, Leonardo Mostarda, Franco Raimondi, and Claudia Vannucchi. Analysis and verification of ECA rules in Intelligent Environments.. *Journal of Ambient Intelligence and Smart Environments*, 2018
- Claudia Vannucchi, Michelangelo Diamanti, Gianmarco Mazzante, Diletta Cacciagrano, Rosario Culmone, Nikos Gorogiannis, Leonardo Mostarda, Franco Raimondi. Symbolic verification of event- condition-action rules in intelligent environments.. *Journal of Reliable Intelligent Environment*, Feb. 2017
- KNadeem Qaisar Mehmood, Rosario Culmone, Leonardo Mostarda Modeling temporal aspects of sensor data for MongoDB NoSQL database. *Journal of Big Data*, Springer December 2017,
- Krishna Doddapaneni · Ali Tasiran · Fredrick A Omondi · Enver Ever · Purav Shah · Leonardo Mostarda · Orhan Gemikonakli. Does the Assumption of Exponential Arrival Distributions in Wireless Sensor Networks Hold? . *International Journal of Sensor Networks*, 2016
- Nadeem Qaisar Mehmood, Rosario Culmone, Leonardo Mostarda. A flexible and scalable architecture for real-time ANT+ sensor data acquisition and nosql storage . *International Journal of Distributed Sensor Networks*, 2016
- Yoney Kirsal-Ever, Agozie Eneh, Orhan Gemikonakli, Leonardo Mostarda. Analysing the Combined Kerberos Timed Authentication Protocol and Frequent Key Renewal Using CSP and Rank Functions. . *TIIS* 8(12): 4604-4623 (2014)
- Giovanni Russello, Leonardo Mostarda and Naranker Dulay. A policy-based publish/subscribe middleware for sense-and-react applications. . *Elsevier, Journal of System and software* Volume 84 Issue 4, April, 2011.
- Leonardo Mostarda and Changuy Dong and Naranker Dulay. Context-based Authentication and Transport of Cultural Assets . *Personal and Ubiquitous Computing*, Springer, Volume 14, Number 4, 321-334, DOI: 10.1007/s00779-009-0233-8.
- Leonardo Mostarda and Alfredo Navarra. Distributed Intrusion Detection Systems for enhancing Security in Mobile Wireless Sensor Networks.. *International Journal of Distributed Sensor Networks (IJDSN)*, Special Issue on "Advances in Heterogeneous Wireless Sensor Networks", devoted to the 20th IEEE International Conference on Advanced Information Networking and Applications (AINA 2006). (2008)

- M. Autili, L. Mostarda, A. Navarra and M. Tivoli. Synthesis of decentralized and concurrent adaptors for correctly assembling distributed component-based systems. *Journal of Systems and Software (JSS)*. Volume: 81. Issue: 12. Pages: 2237-2251. (2008). DOI: <http://dx.doi.org/10.1016/j.jss.2008.04.006>
- Stefania Costantini, Leonardo Mostarda, Arianna Tocchio and Panagiota Tsintza. DALICA Agents applied to a Cultural Heritage scenario. *IEEE Intelligent System Magazine* (2008).

Book chapter

- Diletta Cacciagrano, Rosario Culmone, Matteo Micheletti and Leonardo Mostarda. Energy Efficient Clustering for Wireless Sensor Devices in Internet of Things. Book chapter: *Performability in Internet of Things*, Springer. 2019
- Leonardo Mostarda and Paola Inverardi. A Distributed Monitoring System For Enhancing Dependability and Security At Architectural Level. Book chapter: *Architecting Dependable Systems IV, LNCS 4615 proceedings*. (2007).

Conferences

- Kemal Ihsan Kilic, Orhan Gemikonakli, Leonardo Mostarda. Multi-objective Priority Based Heuristic Optimization for Region Coverage with UAVs The 34th International Conference on Advanced Information Networking and Applications (AINA-2020) University of Campania "Luigi Vanvitelli", Caserta, Italy April 15 - 17, 2020
- Renato De Leone and Leonardo Mostarda. Optimal Cluster Head Rotation fo Heterogeneous WSNs The 34th International Conference on Advanced Information Networking and Applications (AINA-2020) University of Campania "Luigi Vanvitelli", Caserta, Italy April 15 - 17, 2020
- Stefano Bistarelli, Gianmarco Mazzante, Matteo Micheletti, Leonardo Mostarda, and Francesco Tiezzi Analysis of Ethereum Smart Contracts and Opcodes The 33rd International Conference on Advanced Information Networking and Applications (AINA-2019) Kunibiki Messe, Matsue, Japan March 27 to March 29, 2019
- Alessandro Aloisio, Alfredo Navarra, Leonardo Mostarda Distributing Energy Consumption in Multi- Interface Series-Parallel Networks The 33rd International Conference on Advanced Information Networking and Applications (AINA-2019) Kunibiki Messe, Matsue, Japan March 27 to March 29, 2019
- Ramon Carreras Ramirez, Quoc-Tuan Vien, Ramona Trestian, Leonardo Mostarda, and Purav Shah Multi- path Routing for Mission Critical Applications in Software-De ned Networks. INISCOM 2018 - 4th EAI International Conference on Industrial Networks and Intelligent Systems August 27-28, 2018 Da Nang, Vietnam
- Naranker Dulay, Matteo Micheletti, Leonardo Mostarda and Andrea Piermarteri. PICO-MP: De-Centralised Macro-Programming for Wireless Sensor and Actuator Networks. The 32nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA-2018) Pedagogical University of Cracow, Poland, May 16-18, 2018
- Matteo Micheletti, Leonardo Mostarda and Andrea Piermarteri. Rotating Energy Efficient Clustering for Heterogeneous Devices (REECHD). The 32nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA-2018) Pedagogical University of Cracow, Poland, May 16-18, 2018
- Claudia Vannucchi, Michelangelo Diamanti, Gianmarco Mazzante, Diletta Romana Cacciagrano, Flavio Corradini, Rosario Culmone, Nikos Gorogiannis, Leonardo Mostarda and Franco Raimondi vIRONy: a tool for analysis and verification of ECA rules in Intelligent Environments *Intelligent Environments 2017*
- Claudia Vannucchi, Diletta Romana Cacciagrano, Flavio Corradini, Rosario Culmone, Leonardo Mostarda, Franco Raimondi, Luca Tesei: A Formal Model for Event-Condition-Action Rules in Intelligent Environments. *Intelligent Environments (Workshops) 2016*: 56-65
- Zaib Ullah, Leonardo Mostarda, Roberto Gagliardi, Diletta Cacciagrano, Flavio Corradini: A comparison of HEED based clustering algorithms - introducing ER-HEED. *AINA 2016*
- Alfredo Navarra, Pietro Palazzo, Cristina M. Pinotti, Leonardo Mostarda: Algorithms for Services with Multiple Levels of Quality. *EEEWSN 2016*
- Diletta Romana Cacciagrano, Rosario Culmone, Leonardo Mostarda, Claudia Vannucchi: Towards a uniform ontology-driven approach for modeling, checking and executing WSNs. *EEEWSN 2016*
- Yonal Kirsal, Yoney Kirsal-Ever, Leonardo Mostarda, Orhan Gemikonakli: Analytical Modelling and Performability Analysis for Cloud Computing Using Queuing System. *UCC 2015*: 643-647
- N Alechina, B Logan, HN Nguyen, F Raimondi, L Mostarda. Symbolic Model-checking for Resource- Bounded ATL. *International conference on Autonomous Agents and Multi-Agent Systems, AAMAS '15, 2015*
- Krishna Doddapaneni, Purav Shah, Enver Ever, Ali Tasiran, Fredrick A. Omondi, Leonardo Mostarda and Orhan Gemikonakli. Packet Arrival Analysis in Wireless Sensor Networks. *29th IEEE International Conference on Advanced Information Networking and Applications Workshops, AINA 2015*
- Rosario Culmone, Leonardo Mostarda, Franco Raimondi and Luca Tesei. A Constrained ECA Language Supporting Formal Verification of WSNs. *29th IEEE International Conference on Advanced Information Networking and Applications Workshops, AINA 2015*

- Nueraili Aierken, Roberto Gagliardi, Leonardo Mostarda and Zaib Ullah. RUHEED-Rotated Unequal Clustering Algorithm For Wireless Sensor Networks. 29th IEEE International Conference on Advanced Information Networking and Applications Workshops, AINA 2015
- Fredrick A. Omondi, Enver Ever, Purav Shah, Orhan Gemikonakli, Leonardo Mostarda. Performability Modelling and Analysis of Clustered Wireless Sensor Networks with Limited Storage Capacities. Internet and Distributed Computing Systems - 7th International Conference, IDCS 2014, 2014.
- Nadeem Qaisar Mehmood, Rosario Culmone, Leonardo Mostarda. An Ontology Driven Software Framework for the Healthcare Applications Based on ANT+ Protocol. 28th IEEE International Conference on Advanced Information Networking and Applications Workshops, AINA 2014
- Yoney Kirsal-Ever, Yonal Kirsal, Alberto Polzonetti, Leonardo Mostarda and Enver Ever. Challenges of Kerberos Variance in High QoS Expectations. The 2013 International Conference on Security and Management (SAM'13) Las Vegas, USA, July 22 - 25.
- Antinisca Di Marco, Francesco Gallo, Orhan Gemikonakli, Leonardo Mostarda and Franco Raimondi. Implementing Adaptation and Reconfiguration Strategies in Heterogeneous WSN. In proceeding of The 27th IEEE International Conference on Advanced Information Networking and Applications (AINA-2013).
- Yoney Kirsal-Ever, Agozie Eneh, Orhan Gemikonakli and Leonardo Mostarda. Modelling Attacker with Deciding Security Properties by Induction and Deduction. In proceeding of The 27th IEEE International Conference on Advanced Information Networking and Applications (AINA-2013)
- Krishna Doddapaneni, E. Ever, Orhan Gemikonakli, L. Mostarda and A. Navarra. Effects of IDSs on the WSNs Lifetime: evidence for the need of new approaches. In proceeding of Third International Symposium on Mobile and Wireless Network Security (MWNS-12). In conjunction with 11th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-12). Liverpool, UK, 25-27 June, 2012.
- Krishna Doddapaneni, E. Ever, Orhan Gemikonakli, Ivano Malavolta, L. Mostarda and Henry Muccini. A Model-Driven Engineering Framework for Architecting and Analysing Wireless Sensor Networks. In proceeding of Software Engineering for Sensor Network Applications (SESENA 2012) In conjunction with ACM/IEEE Intl. Conference on Software Engineering (ICSE) June 2-9, 2012, Zurich, Switzerland.
- E. Ever and R. Luchmun and L. Mostarda and A. Navarra and P. Shah. UHEED - An Unequal Clustering Algorithm for Wireless Sensor Networks. In proceeding of 11th International Conference on Sensor Networks (SENSORNET 2012).
- Krishna Doddapaneni and Enver Ever and Orhan Gemikonakli and Ivano Malavolta and Leonardo Mostarda and Henry Muccini. Path Loss Effect on Energy Consumption in a WSN. In proceeding of 14th International Conference on Modeling and Simulation (UKSim 2012).
- Vittorio Cortellessa and Catia Trubiani and Leonardo Mostarda and Naranker Dulay. An Architectural Framework for Analyzing Tradeoffs between Software Security and Performance. In proceeding of 1st International Symposium on Architecting Critical Systems Federated with CompArch 2010.
- Leonardo Mostarda and Rudi Ball and Naranker Dulay. Distributed Fault Tolerant Controllers. In proceeding of 10th IFIP international conference on Distributed Applications and Interoperable Systems (DAIS), 2010.
- Leonardo Mostarda and Daniel Sykes and Naranker Dulay. A State Machine-Based Approach For Reliable Adaptive Distributed Systems. In proceeding of 7th IEEE International Conference and Workshops on Engineering of Autonomic and Autonomous Systems, 2010.
- Leonardo Mostarda and Srdjan Marinovic and Naranker Dulay. Distributed Orchestration of Pervasive Services. In proceeding of AINA IEEE 2010 Conference (AINA 2010).
- Dimosthenis Padiaditakis, Leonardo Mostarda, Changyu Dong, and Naranker Dulay. Policies for Self Tuning Home Networks. In proceeding of IEEE International Symposium on Policies for Distributed Systems and Networks (POLICIES 2009).
- Leonardo Mostarda and Changyu Dong and Naranker Dulay. Place and Time Authentication of Cultural Assets. In proceeding of , Trust Management and Security (IFIPTM 2008). Springer Verlag (2008)
- Giovanni Russello and Leonardo Mostarda and Naranker Dulay. ESCAPE: A Component-Based Policy Framework for Sense and React Applications. In proceeding of Component Based Software Engineering Conference (CBSE 2008).
- Paola Inverardi and Leonardo Mostarda. DESERT: a decentralized monitoring tool generator. In proceedings of the 22nd IEEE/ACM International Conference on Automated Software Engineering (ASE 2007).
- Leonardo Mostarda and Arianna Tocchio and Paola Inverardi and Stefania Costantini. A geo time authentication System. In proceeding of Joint iTrust and PST Conferences on Privacy, Trust Management and Security (IFIPTM 2007). Series: IFIP International Federation for Information Processing ,Springer Verlag Vol. 238 2007
- Stefania Costantini, Arianna Tocchio, Panagiota Tsintza and Leonardo Mostarda. Agents and Security in a Cultural Assets Transport Scenario. (WOA 2007)
- Stefania Costantini, Leonardo Mostarda, Arianna Tocchio and Panagiota Tsintza. DALICA: Intelligent Agents for User Profile Deduction. In Proceedings of the 19 International Conference on Software Engineering and Knowledge Engineering, Boston, Massachusetts (SEKE'2007), USA, July 9-11, 2007. ISBN=1-891706-20-9

- Stefania Costantini, Paola Inverardi, Leonardo Mostarda, Arianna Tocchio and Panagiota Tsintza. User Profile Agents for Cultural Heritage fruition. Symposium on Artificial Societies for Ambient Intelligence (ASAmI 2007)
- Leonardo Mostarda, Paola Inverardi and Alfredo Navarra. Distributed IDSs for enhancing Security in Mobile Wireless Sensor Networks. In proceeding of AINA IEEE 2006 Conference (AINA 2006)
- Leonardo Mostarda and Paola Inverardi. A Distributed Intrusion Detection Approach for Secure Software Architecture. European Workshop on Software Architecture (EWSA 2005). Lecture Notes in Computer Science, vol. 3527. Springer, 2005.
- Leonardo Mostarda, Paola Inverardi, Marco Autili and Massimo Tivoli. Synthesis of correct and distributed adaptors for component-based systems: an automatic approach. In proceeding of 20th IEEE/ACM International Conference on Automated Software Engineering 2005. (ASE 2005)
- Leonardo Mostarda. Distributed Intrusion Detection Systems for Secure Software Architectures. Ph.D. Thesis 2006 University of L'Aquila.

Grants

- 4Helix+ EU project. The project funded under the Interreg MED Programme aims at stimulating, coaching and funding innovation within the Blue Growth sector in the Mediterranean (MED) area. It is intended to improve the gap between the 8 Mediterranean regional maritime clusters and within their four helixes through an open source, knowledge sharing, and community-based approach, resulting from cooperation with new innovation agents and cultural and creative industries. The 4helix+ project will upgrade transnational innovation process in traditional and emerging Blue sectors in these 8 MED regions by establishing and organizing a cyberspace, bootcamps, transnational brokerage event, regional info days and innovation voucher scheme. The Project's cyberspace will enable a matchmaking environment between the Blue SMEs/START-UPS, and new innovation agents (fab labs, co-working spaces, creative hubs, etc.) and cultural and creative industries (high- skilled companies, RDI entres, etc.). The 4helix+ will award EUR 480.000 to at least 48 blue projects under its Innovation Voucher Scheme. With its transnational partnership network and objectives, the project contributes to relevant EU macro-regional strategies and innovation policies. Role: Scientific coordinator.
- IOT - INTELLIGENT ONCOLOGY TELECARE This project (Nationally funded by POR MARCHE FESR 2014- 2020 -Asse 1 – Os 3 – Azione 3.1) is a regional project made in collaboration with 10 companies, two departments of research of the "Università Politecnica delle Marche", one department of the "Università degli Studi di Camerino" and "Asur Marche". The project started in October 2017 and will last three years. The IOT project develops an integrated system for managing oncology patients through innovative telecare devices that over and above current telemedicine standards, proposes a new and efficient home-based management system for the oncologist and the use of advanced data analysis systems. This project wishes to be an innovative service solution and model for improving the quality of care services. The IOT project targets the development of a new medical device, to detect the endothelial dysfunction, in particular in the cancer patients that follow a chemotherapeutic therapy. Nowadays, the endothelial dysfunction is evaluated by a Doppler ultrasound exam, that is a non-invasive measure, but is highly operator-dependent. On the other hand, the new device, intended to give a non-invasive, operator-independent measurement, which can be obtained through a simple and automatic procedure which can be used by unqualified personnel. The project will create a small and highly usable device for measuring endothelial dysfunction at home. At the end of the project, the device will be ready to be placed on the market of diagnostic biomedical devices. Role: Principal Investigator.
- Blue_Boost: Blue_Boost is an EU project co-financed by the Interreg ADRION Programme. It aims at enhancing the innovation potential of traditional and emerging Blue Growth sectors in the Adriatic-Ionian region. The project focuses on transnational and cross-sectoral cooperation and innovation of maritime clusters through knowledge sharing and a community-based approach among 7 coastal regions in Albania, Croatia, Greece and Italy. It addresses Micro and Small Medium-sized Enterprises (MSMEs) through a set of combined actions aimed at facilitating encounters between them and research & innovation agents. This will be pursued by developing a coaching path tailored to the innovation needs of MSMEs, as well as by implementing an innovation voucher scheme and promoting transnational networking. Role: Principal Investigator.
- INDUSTRY 4.0 This project (Nationally funded by POR MARCHE FESR) is a regional project made in collaboration with 27 companies and a total buget of 5.1 milioni. The project aim at introducing INDUSTRY 4.0 inside marche region companies and at conceiving an innovative lab for knowledge transfer. Role: Scientific coordinator. Role: Principal Investigator.
- Homeland security This is an ongoing project in cooperation with University of L'Aquila and Thales. This project (Nationally funded by MIUR, L297, art. 10) focuses on how the technologies of heterogeneous and cooperative wireless networks can provide a significant contribution in monitoring and control of land and/or sensitive perimeters. Role: Subcontractor/Leader
- Shell project This is an ongoing project in cooperation with e-elios and various companies. This project (Nationally funded by Region Marche) focuses on new technologies for building home automation solutions for elderly. Role: Subcontractor
- UBIVAL project This project included several uk partners such as Oxford, Imperial College, UCL, University of Birmingham, British Telecom and HP Labs. This is an EPRC project funded by the UK government. The Ubival project aims to define and implement a suite of sound,

systematic methods that software engineers can use to create correctly functioning, efficient and secure mobile and ubiquitous applications. My task was to implement novel middleware for programming body sensor networks. Role: Named researcher

- CUSPIS FP6 project This project included several partners such as University of L'Aquila, Vodafone Greece, University of Sapienza Rome, Ministry of Cultural Heritage Italy, Ministry of Cultural Heritage Greece/a> and Next S.p.A.. The CUSPIS project deployed operative solutions for the transportation and fruition of secure assets in open archaeological areas using EGNOS and Galileo. CUSPIS is unique within the cultural heritage user community in merging GNSS aspects, authentication capabilities and "infomobility" services in a single solution. In the context of the CUSPIS project I created novel security protocols in order to authenticate works of art. Role: Named researcher.
- PASS project This project is a project funded by the Marche region. The project aims to promote active longevity of the elderly in their own home, a place where he can continue to carry out usual activities, with the benefit of innovative services based on technological features user-friendly. Pass, launched in February 2013, has a term of 24 months and intends to contribute to the spread of a new culture of the concept of smart home by placing the user at the center of the house of technological solutions developed. Role: Named researcher
- Choreos EU FP7 project CHOReOS will implement a framework for scalable choreography development. The goal is to enable domain experts to develop decentralized ultra-large scale (ULS) solutions composed of heterogeneous services that are adaptable and QoS (Quality-of-Service) aware. Prior to this, these solutions were only possible with the support of dedicated IT professionals to provide the skills needed for architectural design and software engineering. CHOReOS will deliver formally grounded abstractions and models, dynamic choreography-centric development processes, governance and service-oriented middleware manipulated via an Integrated Development Runtime Environment (IDRE) aimed at overcoming the ULS impact on software system development. Role: Named researcher

EXTERNAL AND INTERNAL
ACADEMIC LEADERSHIP OR
EVIDENCE OF ACADEMIC
STANDING

Editorial board

- Journal On Advances in Security
- Journal of Distributed Sensor Network:
- Security and Communication Network Journal

Charing

- Advanced Information Networking and Applications 2020
- The Int. Symposium on Engineering Energy Efficient WSNs, E3WSN 2018
- IEEE international conference on internet of People, IoP 2015
- Int. Symposium on Engineering Energy Efficient WSNs, EEEWSN 2016
- Int. Workshop on Engineering Energy Efficient WSNs, EEEWSN 2015
- Int. Workshop on Engineering Energy Efficient WSNs, EEEWSN 2014

Committee

Committee membership

Conferences: PC IE'14, IE'13, MOBS-2013, IWCMC2013-WSN, ICON 2012, SECURWARE 2012, ISARCS 2011, SECURWARE 2011, AINA 2010, SECURWARE 2010, SECURWARE 2009, ADVCOMP 2008, SECURWARE 2008, ADVCOMP 2007, SECURWARE 2007.

Co-reviewer

- Conferences: ASE 2010, ASE 2009, FSE 2009, FSE 2008, ICSE 2007.
- Journal: Automated Software Engineering Journal; IEE journal; Elsevier, Journal Of System and Software; IEEE transaction on software engineering.
- Journal: Automated Software Engineering Journal; IEE journal; Elsevier, Journal Of System and Software; IEEE transaction on software engineering.

INDUSTRIAL EXPERIENCE

Bilancioc02 zero: I am the CEO of an innovative company <http://www.bilancioco2zero.com>.

- 2006 - 2007 Next S.p.A: I have built an authentication and monitoring system for works of art. Period: 2006/2007: Role: external consultant.
- 2004 – 2005 FIAT: I built a software/hardware monitoring system for FIAT S.p.A. plants. Role: external consultant.
- 2003 - 2004
- FIAT: I have implemented a web portal for the Fenice company www.idricamirafiori.it . Role: external consultant.
 - Prexis S.p.A.: I have implemented the Prexis S.p.A web portal. www.prexis.it. Role: external consultant.