

PERSONAL INFORMATION



Alessandro Cammarano

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Sex Male | Date of birth 16 Nov 84 | Nationality Italian

PREFERRED JOB

Employment in Information Systems and Technology field.

WORK EXPERIENCE

European Project - Junior Researcher

University of Rome "Sapienza" - Computer Science Department, Roma (Italy)

- FP7 project **SE**nsor **NE**twork for **D**ynamic and **cO**gnitive **R**adio **A**ccess (2010)
- FP7 project **CoLI**aborative **eM**bedded networks for submarine surveillance (2010/13)
- FP7 project **GrE**en sensor **NE**tworks for **S**tructural mon**I**toring (2010/13)

Tutor for postgraduate and master's courses

University of Rome "Sapienza" - Computer Science Department, Rome (Italy)

- Wireless Systems Laboratory (AA 2013/2014) (held in Inglese)
- Laboratorio di Sistemi Wireless (AA 2011/2012) (held in Italian)

These courses dealt with the development of TinyOS applications for wireless sensor networks.

Jul 10–Oct 10

Junior Researcher within the European Project STREP FP7 SENDORA (Sensor Network for Dynamic and cOgnitive Radio Access)

University of Rome "Sapienza" - Computer Science Department, Rome (Italy)

- Analysis and design of protocols for Cognitive Radio Networks
- Realization of a ns2 MIRACLE based simulator for the evaluation of the proposed solutions

Aug 10

Junior Researcher - NATO CMRE

Collaboration with NATO CMRE - Centre for Maritime Research and Experimentation, La Spezia (Italy)

Porting of medium access control (MAC) schemes for Underwater Acoustic Sensor Network in ns2 MIRACLE simulator

05–Present

IT Consultant

Studio Grafico Mikado, Roma (Italy)

EDUCATION AND TRAINING

Nov 10–Present

Ph.D. XXVI Cycle

University of Rome "Sapienza" - Computer Science Department, Roma (Italy)

4 Sep 12–7 Sep 12

Resource-Aware Machine Learning International Summer School

TU Dortmund University, Dortmund (Germany)

- Practical application of machine learning and statistics tools: Rapid Miner and R
- Analysis of energy constraint of embedded systems: battery model
- Self-powered systems, wireless sensor networks with energy harvesting capabilities

30 Oct 11–Nov 11 **SWING 2011 - 6th Bertinoro PhD School on Security of Wireless Networking**

Bertinoro International Center for Informatics, Bertinoro - Forlì - Cesena (Italy)

- Special Security Aspects of Cyberphysical Systems with focus on Smartphones
- How to Protect Cryptographic Keys in Various System Settings

27 Jun 10–2 Jul 10 **SWING 2010 - 5th Bertinoro PhD School on Security of Wireless Networking**

Bertinoro International Center for Informatics, Bertinoro - Forlì - Cesena (Italy)

- Security of the World-Wide Deployed Cellular Network
- Detection of attackers, cooperative and distributed defense, anonymity

21 Sep 09–25 Sep 09 **SCAM 2009 - The 1st BiCi International PhD School on Computational Advertising and Modelling**

Bertinoro International Center for Informatics, Bertinoro - Forlì - Cesena (Italy)

Introduction to computational advertising (CA), a new scientific discipline, at the intersection of information retrieval, machine learning, optimization, and microeconomics

07–10 **Master's Degree - Computer Science**

University of Rome "Sapienza", Roma (Italy)

Thesis: Development of a simulation framework for the evaluation of cognitive radio networks protocols.

110/110 cum laude

Sep 07–Feb 08 **Erasmus Project**

Universidad Autonoma de Madrid, Escuela Politecnica Superior - Departamento de Ingeniera Informatica, Madrid (Spain)

04–06 **Bachelor's Degree - Computer Science**

University of Rome "Sapienza", Roma (Italy)

Thesis: New functionalities for the Disk Pool Manager

107/110

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	B2
Completed the 8th level of study at the Callan School of London (2011)					

Spanish	B2	B2	B2	B2	B1
German	A1	A1	A1	A1	A1
Currently attending the A1.2 course at the Goethe-Institut Rom					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
[Common European Framework of Reference for Languages](#)

- Communication skills** Good communication and interpersonal skills acquired during European projects, international conferences and PhD schools I attended, and during my experience as a university lecturer.
- Organisational / managerial skills** Excellent capability to work in stressful situations, mostly related to deadlines, gained during European projects and the Ph.D.
- Job-related skills**

 - Excellent skills of analysis, synthesis and resolution of problems in many fields of computer science
 - Excellent ability to study and acquire rapidly new theoretical/practical concepts gained during the Ph.D.
 - Good teaching skills (also in foreign languages).
- Computer skills** Extensive computer skills that include the development of large standalone applications (C, C++, Java, Python, ...) or based on existing framework (ns2, MIRACLE), of websites (php, Javascript, HTML, CSS, mySQL), CMS (Joomla), applications for embedded systems (TinyOS, nesC).
 Currently learning smartphone applications programming (Android) and basics of electronics and circuit integration with Arduino breadboard.

ADDITIONAL INFORMATION

Publications

Alessandro Cammarano, Francesco Lo Presti, Gaia Maselli, Loreto Pescosolido, and Petrioli Chiara. **Design and evaluation of protocols for a spectrum sensing wireless sensor network.** Rome, Italy, 2013. *Computer Science Departement, University of Rome La Sapienza, Tech. Rep., Aug. 2013. senses-lab.di.uniroma1.it/documents/SensesLab_TechReport_0003_NUM_CRAHNS.pdf.*

Alessandro Cammarano, Francesco Lo Presti, Gaia Maselli, Loreto Pescosolido, and Petrioli Chiara. **Throughput-optimal Cross-layer Design for Cognitive Radio Ad Hoc Networks.** Rome, Italy, 2013. *Submitted to an international Journal.*

Alessandro Cammarano, Chiara Petrioli, and Dora Spenza. **Pro-Energy: a novel energy prediction model for solar and wind energy harvesting Wireless Sensor Networks.** *In Proceedings of the 9th IEEE International Conference on Mobile Ad hoc and Sensor Systems, IEEE MASS 2012, IEEE MASS 2012, pages 75 – 83, Las Vegas, Nevada, October, 8-11 2012.*

Alessandro Cammarano, Chiara Petrioli, and Dora Spenza. **Improving energy predictions in EH-WSNs with Pro-Energy-VLT.** *In Proceedings of the 11th ACM Conference on Embedded Networked Sensor Systems, SenSys '13, pages 41:1–41:2, Rome, Italy, November 11-13 2013. ACM.*

Alessandro Cammarano, Dora Spenza, and Chiara Petrioli. **Energy-harvesting WSNs for structural health monitoring of underground train tunnels.** *In Proceedings of the 32nd IEEE International Conference on Computer Communications, INFOCOM 2013, Student Session, IEEE INFOCOM 2013, pages 9–10, Torino, Italy, April, 14-19 2013. Best Student Poster Award.*

Danilo Porcarelli, Dora Spenza, Alessandro Cammarano, Davide Brunelli, Chiara Petrioli, and Luca Benini. **Adaptive Rectifier Driven by Power Intake Predictors for Energy Harvesting Sensor Networks.** Rome, Italy, 2013. *Under review with minors in: IEEE Journal on Emerging and Selected Topics in Power Electronics.*

- Conferences**

 - **SenSys 2013 -The 11th ACM Conference on Embedded Networked Sensor Systems**

Roma - Italia, Nov 11th - 14th, 13.

- **INFOCOM13 -The 32nd IEEE International Conference on Computer Communications**
Torino - Italia, Apr 14th - 19th, 13
- **DISC 2011 - The 25th International Symposium on DIStributed Computing**
Roma - Italia, Sep 22nd - 24th, 11.
- **SECON'09 -IEEE International Conference on Sensing, Communication, and Networking**
Roma - Italia, Jun 22nd - 26th, 09.