

FABIO ANGELETTI

EDUCATION

- From 2015* **Università degli Studi "La Sapienza", Rome**
PhD Faculty: *Engineering in Computer Science*
PhD proposal: *Re-engineering plants as biological sensor devices*
Description: Plants have extraordinary detection capabilities, each root apex can monitor simultaneously at least five chemical and physical parameters. I focus on researching these features in order to obtain important information about the environment, exploiting the plants as biological sensors.
Advisor: Prof. Andrea VITALETTI
- 2012-2015* **Università degli Studi "La Sapienza", Rome**
2nd level degree Faculty: *Master of Science in Engineering in Computer Science*
Evaluation: 110 cum laude
Thesis: *Modular Wireless System for Structural Health Monitoring*
Description: The project presents a novel low-power wireless node, designed to accomplish Structural Health Monitoring tasks. It permits real-time and long-lasting sensors monitoring with a modular design.
Advisors: Prof. Andrea VITALETTI & Ph.D. Ugo Maria COLESANTI
- 2008-2012* **Università degli Studi "La Sapienza", Rome**
1st level degree Faculty: *Automatic and Automation Systems Engineering*
Thesis: *Design and making of an Arduino and ZigBee-based control system for domotic applications*
Description: Within this project, I realized a low-cost device that converts a standard HVAC system into a domotic one, using Arduino in conjunction with ZigBee. This service is then announced over an IP network through the use of the UPnP protocol.
Advisors: Prof. Francesco DELLI PRISCOLI & Eng. Silvano MIGNANTI
- 2003-2008* **Liceo Classico "Amedeo di Savoia", Tivoli**
High school degree This high school was focused on classical studies, including ancient Latin and Greek languages and cultures.

SCIENTIFIC PUBLICATIONS

- August 2015* **Wireless Sensor Networks in Structural Health Monitoring: a Modular Approach**
SENSORCOMM 2015 The **paper** was presented in *The Ninth International Conference on Sensor Technologies and Applications SENSORCOMM2015*. The work is based on my 2nd level degree thesis, "Modular Wireless System for Structural Health Monitoring".
Authors: Fabio ANGELETTI, Mario PAOLI, Ugo Maria COLESANTI, Andrea VITALETTI
- November 2015* **A Modular Design for Wireless Structural Health Monitoring Applications**
Sensors & Transducers The **article** was published in *Sensors & Transducers journal (ISSN: 2306-8515, e-ISSN 1726-5479), Vol. 194, Issue 11, November 2015, pp. 134-142*. The work is a further development of my paper, "Wireless Sensor Networks in Structural Health Monitoring: a Modular Approach".
Authors: Fabio ANGELETTI, Mario PAOLI, Ugo Maria COLESANTI, Andrea VITALETTI

CONFERENCES AND EVENTS

	<i>August 2015</i>	Conference	
SENSORCOMM 2015			I presented the paper <i>Wireless Sensor Networks in Structural Health Monitoring: a Modular Approach</i> during <i>The Ninth International Conference on Sensor Technologies and Applications SENSORCOMM2015</i> that taken place in Venice, Italy.
	<i>October 2015</i>	Conference	
ICT 2015			I presented the European project <i>GENESI: Green systems for structural health monitoring and safe transport of artworks</i> at <i>Innovate, Connect, Transform 2015</i> event that taken place in Lisbon, Portugal.
	<i>October 2015</i>	Faire	
Maker Faire Rome 2015			I showed my master degree's thesis work, along with the project <i>SafeArt</i> from <i>Wsense</i> , within the <i>Maker Faire 2015</i> event that taken place in Rome, Italy. The booth was placed in the "Culture and Heritage" pavilion just after the entrance.
	<i>October 2015</i>	Workshop	
ST Microelectronics			I attended the hands-on workshop organized by <i>ST Microelectronics</i> in one of its branch near Naples, Italy. During the event, they presented the new <i>Cortex-M7</i> microcontroller solution, from both theoretical and practical point of view.

PROJECTS

	<i>August 2015</i>	Remote monitoring system for 9 DoF IMUs	
Remote IMU			I designed, realized and tested a low frequency datalogger for 9 DoF (Degree of Freedom) IMUs (Inertial Measurement Unit) that includes a wireless connection over the 868MHz band for remote monitoring through a JAVA application. It will be used for the monitoring of container movement cranes in the commercial harbor of Cagliari, Sardinia. Advisor: Prof. Paolo DI GIAMBERARDINO
	<i>September 2016</i> <i>March 2017</i>	Monitoring system for Dynamic Structures	
RealTMS			I designed and realized a high frequency datalogger for 8 DoF (Degree of Freedom) IMUs (Inertial Measurement Unit) that includes a wireless connection for remote monitoring and a local high speed and synced logging. The remote viewer was implemented through a dynamic webserver based on C3 and D3 libraries. It was successfully tested and validated by the Department of Structural Engineering at University of Rome - "La Sapienza" and used to monitor a tower and a gondola of the ski station at La Croix de Chamrousse - France. Advisor: Prof. Walter LACARBONARA

ENGINEERING SKILLS

Operative Systems	Microsoft Windows, Linux (especially Debian-based distros), Mac OSX, TinyOS
Office Software	Microsoft Office, OpenOffice, Adobe Photoshop, Adobe Illustrator, Adobe Dreamweaver, Adobe Lightroom
CAD Software	SolidWorks, Autodesk AutoCAD, CadSoft E.A.G.L.E.
Hardware	Maintenance, repair and modify of electronic devices (both digital and analog), design and realization of circuits and PCBs

PROGRAMMING LANGUAGES

Good Knowledge	Java, Javascript, Python, C, C++, Html, L ^A T _E X, NetLogo, nesC
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Basic Knowledge PHP, CSS, MySQL, GIT, SVN, jQuery, Apache Web Server

OTHER INFORMATION

Spoken Languages ITALIAN · Mothertongue
ENGLISH · Intermediate/Advanced (conversationally fluent)
SPANISH · Basic (simple words and phrases only)

Courses Attended Cisco Certified Network Associate · Cisco Certified Network Professional ·
Basic Life Support (BLS)

Interests Travel · Photography · Running · Sport · Cooking

Causes Environment · Human Rights · Poverty Alleviation

March 7, 2017