

Francesco Leotta

Research Interests

pervasive computing, habit mining, home automation, human activity recognition, indoor localization and tracking systems; human-computer interaction, bio-signal based control interfaces; data acquisition through crowdsourcing;

Education

2010 - Sep. 2014 **PhD in Engineering in Computer Science**, *Sapienza University*.

Supervisor prof. Massimo Mecella

Thesis "Instrumenting and Mining Smart Spaces"

Nov. 2010 **Professional Engineering Exam**, *Sapienza University*.

2006 - 2009 **Master's Degree in Computer Engineering**, *Sapienza University*.
with honours.

2003 - 2006 **Bachelor's Degree in Computer Engineering**, *Sapienza University*.
with honours.

Teaching Activities

II **Teaching Assistant for Databases course**,
Sem. 2011-12 *Sapienza University*.

II **Teaching Assistant for Databases course**,
Sem. 2012-13 *Sapienza University*.

Professional Activities

Feb 2010 - Jul 2011 **Software Engineer**, *Fondazione Santa Lucia, Roma*, Laboratory of Neuroelectrical Imaging.

Oct 2013 - Present **Research Fellow**, *Sapienza University*, Department of Computer, Control, and Management Engineering Antonio Ruberti.

Projects

2010 - 2011 **TOBI EU IP (European Union Integrated Project)**, TOols for Brain-computer Interfaces.

<http://www.tobi-project.org/>

Coordinator Prof. José del R. Millán, Ecole Polytechnique Fédérale de Lausanne (EPFL)

Design of a distributed architecture for EEG signal processing. Design of human-computer interaction interfaces aimed at controlling established Assistive Technology solutions using EEG signal.

2009 - 2010 **SM4All (European Union Specific Targeted Research Project)**, Smart Homes for All.

<http://www.sm4all-project.eu/>

- Coordinator Prof. Roberto Baldoni, "Sapienza" Università di Roma
Design and development of a platform based on stereo vision for the localization and tracking of humans into indoor environments.
- 2014 - Present **VOICE (European Competitiveness and Innovation Framework Programme)**, Virtual Open Incubation Ecosystem.
- Coordinator Prof. Ramjee Prasad, Aalborg University
Specification and automatic extraction of contents for a virtual incubation ecosystem to be developed in the framework of the project.

Publications

Journals

- [J1] F. Aloise, F. Schettini, P. Aricò, F. Leotta, S. Salinari, D. Mattia, F. Babiloni, F. Cincotti. P300-based brain-computer interface for environmental control: an asynchronous approach. *Journal of Neural Engineering*, Volume 8, 2011
- [J2] A. Riccio, F. Leotta, L. Bianchi, F. Aloise, C. Zickler, E-J Hoogerwerf, A. Kübler, D. Mattia, F. Cincotti. Workload measurement in a communication application operated through a P300-based brain-computer interface. *Journal of Neural Engineering*, Volume 8, 2011
- [J3] G. Müller-Putz, C. Breitwieser, M. Tangermann, M. Tavella, R. Leeb, F. Cincotti, F. Leotta, C. Neuper. Tobi hybrid BCI: principle of a new assistive method. *International Journal of Bioelectromagnetism*, Volume 13, 2011
- [J4] C. Zickler, A. Riccio, F. Leotta, S. Hillian-Tress, S. Halder, E. Holz, P. Staiger-Sälzer, E-J Hoogerwerf, L. Desideri, D. Mattia, A. Kübler. A Brain-Computer Interface as Input Channel for a Standard Assistive Technology Software. *Clinical EEG and Neuroscience*, Volume 42, 2011
- [J5] F. Leotta, M. Mecella. PLATHEA: A Marker-less People Localization and Tracking System for Home Automation. *Software - Practice and Experience*, To Appear, 2014

Conferences and Workshops (peer-reviewed)

- [C1] F. Leotta, M. Mecella, F. Aloise. Pericles: a performance evaluation platform for indoor localization systems. *Proceedings of the 3rd ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness (ISA2011)*, 2011
- [C2] F. Cincotti, F. Pichiorri, P. Aricò, F. Aloise, F. Leotta, F. de Vico Fallani, J. del R. Millan, M. Molinari, D. Mattia. EEG-based Brain-Computer Interface to support post-stroke motor rehabilitation of the upper limb. *Proceedings of the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS2012)*, 2012
- [C3] M. Caruso, F. Leotta, M. Mecella, S. Vassos. Benchmarking Smart Spaces Through Autonomous Virtual Agents. *Proceedings of the 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS2013)*, 2013
- [C4] M. Caruso, F. Cincotti, F. Leotta, M. Mecella, A. Riccio, F. Schettini, L. Simione, T. Catarci. My-World-in-My-Tablet: an Architecture for People with Physical Impairment. *Proceedings of the 15th International Conference HCI International (HCI2013)*, 2013
- [C5] M. Caruso, C. Ilban, F. Leotta, M. Mecella, S. Vassos. Synthesizing Daily Life Logs through Gaming and Simulation. *Proceedings of the 2nd Workshop on Recent Advances in Behavior Prediction and Pro-active Pervasive Computing (AWARECAST 2013)*, 2013

[C6] V. Degeler, A. Lazovik, F. Leotta, M. Mecella. Itemset-based Mining of Constraints for Enacting Smart Environments. *Proceedings of the 1st Symposium on Activity and Context Modeling and Recognition (ACOMORE 2013)*, 2013

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae ai sensi dell'art. 13 del D. Lgs. 196/2003.

Roma, 24-11-2014

Francesco Leotta