

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 - Sett. 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*.

II **Teaching Assistant for Computer Science Foundations course**,
Sem. 2014-15 *Sapienza University*.

II **Teaching Assistant for Databases course**,
Sem. 2016-17 *Sapienza University*.

Professional Activities and Research Activity

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

Scientific Coordinator: Md. Donatella Mattia

Oct 2013 - Sept 2014 **Research Assistant**, *Sapienza University*, Department of Computer, Control, and Management Engineering Antonio Ruberti, Interfacce utente avanzate per tutti in smart spaces (Advanced user interfaces for everyone in smart spaces).

Scientific Coordinator: Prof. ssa Tiziana Catarci

Oct 2014 - June 2016 **Research Assistant**, *Sapienza University*, Department of Computer, Control, and Management Engineering Antonio Ruberti, Metodi, tecniche e strumenti per il supporto a Virtual Open Incubation Ecosystems (Methods, techniques and tools for supporting a Virtual Open Incubation Ecosystems).

Scientific Coordinator: Prof. Massimo Mecella

- June 2016 - **Research Assistant**, *Sapienza University*, Department of Computer, Control, and Management Engineering Antonio Ruberti - Palermo Branch, Attività di ricerca innovativa sul social signal processing applicato alla fruizione di beni culturali, localizzazione in ambienti indoor, mining di habit (Innovative research activity on social signal processing applied to the fruition of cultural heritage, indoor localization, habit mining.).
- November 2016 - **Research Assistant**, *Sapienza University*, Department of Computer, Control, and Management Engineering Antonio Ruberti, Sviluppo di un sistema informativo per l'incontro tra domanda e offerta di competenze scientifiche (Development of an information system targeting the scientific competences match between demand and offer).
Scientific Coordinator: Prof. Alberto Marchetti Spaccamela

Projects

- 2016 - Present **SAPIENTIA (Progetto Regionale FILAS)**.
Project Coordinator Prof. Cinzia Daraio, "Sapienza" Università di Roma
Development of a platform based on semantic technologies enabling institutions to meet requirements of industry with research products and researchers.
- 2014 - Present **VOICE EU CIP (European Union Competitiveness and Innovation framework Programme)**, Virtual Open InCubation Ecosystem.
<http://www.voice-project.eu/>
Project Coordinator Prof. Ramjee Prasad, Center for TeleInfrastruktur (CTiF) of Aalborg University (AAU)
Development the innovoice platform, an open online collaborative ideation system that empowers crowd to innovate and prosper. Innovoice facilitates startup idea development by evolving concepts, enriching their content, creating partnerships, matchmaking with business and product developers, enabling the development of minimum viable products (MVP) and solid business models.
- 2010 - 2011 **TOBI EU IP (European Union Integrated Project)**, TOols for Brain-computer Interfaces.
<http://www.tobi-project.org/>
Project 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/>
Project 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.

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, Number 2, 2011. IOP Publishing Ltd, UK, DOI: 10.1088/1741-2560/8/2/025025.
- [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, Number 2, 2011. IOP Publishing Ltd, UK, DOI: 10.1088/1741-2560/8/2/025028.
- [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*, Vol. 13, No. 3, pp. 144 - 145, 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, Number 4, pp. 236-244, 2011. EEG and Clinical Neuroscience Society, DOI: 10.1177/155005941104200409.
- [J5] F. Leotta, M. Mecella. PLaTHEA: A Marker-less People Localization and Tracking System for Home Automation. *Software: Practice and Experience*, Volume 45, Issue 6, pp. 801-835, 2011. John Wiley & Sons, Ltd., DOI: 10.1002/spe.2262.

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)*, pp. 23-30, 2011. ACM New York, NY, USA, ISBN 978-1-4503-1035-2.
- [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)*, pp. 4112-4115, 2012. IEEE, ISBN: 978-1-4244-4119-8 DOI: 10.1109/EMBC.2012.6346871.
- [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)*, pp. 1229-1230, 2013. ACM, ISBN: 978-1-4503-1993-5.
- [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. *Human-Computer Interaction. Interaction Modalities and Techniques. Lecture Notes in Computer Science*, Volume 8007, pp. 637-647, 2013. Springer, ISBN: 978-3-642-39329-7
- [C5] M. Caruso, C. Ilban, F. Leotta, M. Mecella, S. Vassos. Synthesizing Daily Life Logs through Gaming and Simulation. *Proceedings of the 2013 ACM conference on Pervasive and ubiquitous computing adjunct publication*, pp. 451-460, 2013. ACM New York, NY, USA, ISBN: 978-1-4503-2215-7
- [C6] V. Degeler, A. Lazovik, F. Leotta, M. Mecella. Itemset-based Mining of Constraints for Enacting Smart Environments. *Proceedings of the 2014 IEEE International Conference on Pervasive Computing and Communications Workshops (PERCOM Workshops)*, pp. 41-46, 2014. IEEE, DOI: 10.1109/PerComW.2014.6815162

- [C7] F. Leotta, M. Mecella, J. Mendling. Applying Process Mining to Smart Spaces: Perspectives and Research Challenges. *Advanced Information Systems Engineering Workshops*, pp. 298-304, 2015. Springer, ISBN: 978-3-319-19242-0
- [C8] G. Cucari, F. Leotta, M. Mecella, S. Vassos. Collecting Human Habit Datasets for Smart Spaces through Gamification and Crowdsourcing. *Proceedings of the Games and Learning Alliance conference (GALA 2015)*, 2015
- [C9] M. Dimaggio, F. Leotta, M. Mecella, D. Sora. Process-Based Habit Mining: Experiments and Techniques. *Proceedings of the 13th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2016)*, 2016
- [C10] F. Leotta, M. Mecella, S. Vassos. Ideas matchmaking for supporting innovators and entrepreneurs. *Proceedings of the Workshop on Data-Driven Innovation on the Web (DDI 2016)*, n. 4, 2016. ACM New York, NY, USA, ISBN: 978-1-4503-4360-2
- [C11] F. Leotta, M. Mecella, D. Sora, G. Spinelli. Pipelining User Trajectory Analysis and Visual Process Maps for Habit Mining. *Proceedings of the 14th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2017) - TO APPEAR*, 2017
- [C12] S.Porreca, F. Leotta, M. Mecella, S. Vassos, T. Catarci. Accessing Government Open Data through Chatbots. *Proceedings of the International Workshop on The Practice of the Open Web (Practi-O-Web 2017) - TO APPEAR*, 2017

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

Roma, 29-09-2017