

PERSONAL INFORMATION

**Maurizio Schmid**



 Department of Engineering - Via Vito Volterra 62, 00146 Roma (Italy)

 +390657337309

 [maurizio.schmid@uniroma3.it](mailto:maurizio.schmid@uniroma3.it)

Sex Male | Date of birth 27 January 1974

WORK EXPERIENCE

- 2008–Present **Assistant Professor in Bioengineering**  
 Roma Tre University, Rome (Italy)  
 teaching and research
- 2013–Present **Member of the board of professors**  
 PhD Programme in Applied Electronics - Roma Tre University, Rome (Italy)  
 teaching, tutoring
- 2009–2013 **Member of the board of professors**  
 PhD Programme in Psychology and Cognitive Science - Sapienza University of Rome, Rome (Italy)  
 teaching, tutoring
- 2006–2008 **Research Associate**  
 Motion Analysis Lab at Spaulding Rehabilitation Hospital - Harvard Medical School, Boston, MA (United States)  
 research
- 2004–2006 **Research fellow**  
 Department of Applied electronics - Roma Tre University, Rome (Italy)  
 research

EDUCATION AND TRAINING

- 1992–2000 **MSc in Electrical Engineering**  
 Sapienza University of Rome, Rome (Italy)
- 2001–2004 **PhD in Bioengineering**  
 University of Bologna, Bologna (Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING	SPEAKING	WRITING

	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
First Certificate in English (FCE) (1989)					

[Related document\(s\):](#)

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

## ADDITIONAL INFORMATION

### Selection of recent publications

- C. De Marchis, M. Schmid, D. Bibbo, A.M. Castronovo, T. D'Alessio, S. Conforto. Feedback of mechanical effectiveness induces adaptations in motor modules during cycling. *Frontiers in Computational Neuroscience*, 7(35): 1-12, 2013
- A.M. Castronovo, S. Conforto, M. Schmid, D. Bibbo, T. D'Alessio. How to assess performance in cycling: the multivariate nature of influencing factors and related indicators. *Frontiers in Physiology*, 4(116): 1-10, 2013
- C. De Marchis, M. Schmid, D. Bibbo, I. Bernabucci, S. Conforto. Inter-individual variability of forces and modular muscle coordination in cycling: A study on untrained subjects. *Human Movement Science*, <http://dx.doi.org/10.1016/j.humov.2013.07.018>, 2013
- M. Schmid, F. Riganti-Fulginei, I. Bernabucci, A. Laudani, D. Bibbo, R. Muscillo, A. Salvini, S. Conforto. SVM versus MAP on accelerometer data to distinguish among locomotor activities executed at different speeds. *Computational and Mathematical Methods in Medicine*, 2013: Article ID 343084, 2013
- G. Severini, S. Conforto, M. Schmid, T. D'Alessio. A multivariate auto-regressive method to estimate cortico-muscular coherence for the detection of movement intent. *Applied Bionics and Biomechanics*, 9(2): 135-143, 2012
- C. De Marchis, M. Schmid, S. Conforto. An optimized method for tremor detection and temporal tracking through repeated second order moment calculations on the surface EMG signal. *Medical Engineering & Physics*, 34(9): 1268-1277, 2012
- G. Severini, S. Conforto, M. Schmid, T. D'Alessio. Novel formulation of a double threshold algorithm for the estimation of muscle activation intervals designed for variable SNR environments. *Journal of Electromyography and Kinesiology*, 22(6): 878-885, 2012
- M. Gneo, M. Schmid, S. Conforto, T. D'Alessio. A free geometry model-independent neural eye-gaze tracking system. *Journal of NeuroEngineering and Rehabilitation*, 9: 82, 2012
- R. Muscillo, M. Schmid, S. Conforto, T. D'Alessio. Early recognition of upper limb motor tasks through accelerometers: real-time implementation of a DTW-based algorithm. *Computers in Biology and Medicine*, 41(3): 164-172, 2011
- R. Muscillo, M. Schmid, S. Conforto, T. D'Alessio. An adaptive Kalman-based Bayes estimation technique to classify locomotor activities in young and elderly adults through accelerometers. *Medical Engineering & Physics*, 32(8): 849-859, 2010
- M. Goffredo, M. Schmid, S. Conforto, M. Carli, A. Neri, T. D'Alessio. Markerless Human Motion Analysis in Gauss-Laguerre Transform Domain: An Application to Sit-To-Stand in Young and Elderly People. *Information Technology in Biomedicine, IEEE Transactions on*, 13:2: 207-216, 2009
- M. Schmid. Reinforcing motor re-training and rehabilitation through games: a machine-learning perspective. *Frontiers in Neuroengineering*, 2: 3, 2009
- D. Torricelli, M. Goffredo, S. Conforto, M. Schmid. An adaptive blink detector to initialize and update a view-based remote eye gaze tracking system in a natural scenario. *Pattern Recognition Letters*, 30: 1144-1150, 2009
- S. Conforto, I. Bernabucci, G. Severini, M. Schmid, T. D'Alessio. Biologically inspired modelling for the control of upper limb movements: from concept studies to future applications. *Frontiers in Neuroinformatics*, 3: 3, 2009
- D. Torricelli, S. Conforto, M. Schmid, T. D'Alessio. A Neural-Based Remote Eye Gaze Tracker under Natural Head Motion. *Computer Methods and Programs in Biomedicine*, 92(1): 66-78, 2008
- M. Goffredo, I. Bernabucci, M. Schmid, S. Conforto. A neural tracking and motor control approach to improve rehabilitation of upper limb movements. *Journal of NeuroEngineering and Rehabilitation*, 5: 5, 2008.

**Synthesis of data on the scientific production**

As of January 8, 2014 (reference 2001-2014):

- from SCOPUS database: 63 publications, 289 citations, h-index: 9.
- from ISI Web of Knowledge: 35 publications, 153 citations, h-index: 7.
- from SCHOLAR: 82 publications, 445 citations, h-index:12.

**Participation to programmes funded by national and international bodies**

- MIUR project PRIN: A new generation of personal interactive technologies to support motor skill learning and neuro-rehabilitation, grant agreement no 2009X3L8SW, 2009 (2011-2013).
- EU-FP7 Program FP7-ICT-2007-2 Project #224051: "TREMOR — An ambulatory BCI-driven tremor suppression system based on functional electrical stimulation" (2008-2011).
- CIMIT Award #500107: "Wearable wireless sensor network to monitor motor recovery in post stroke patients" (2007-2008).
- CIMIT Award # 07-43: "Development of a Markerless System for Clinical Analysis of Gait Abnormalities" (2006-2007).
- DITAS Project - Disease Management and Teleassistance Service: "Teleassistance for the management of dependent critical patients - Mobile phone Application development" (2005-2007)
- MIUR Program PRIN #2005098195\_004: "Neural and myoelectric correlates of adaptation, learning and motor control mechanisms" (2005-2007)

**Patents**

Co-inventor of two international industrial patents:

- Bibbo D, Conforto S, D'Alessio T, Schmid M (2008). System for evaluating the pedalling efficiency of a cyclist. WO2008IB03640, Roma Tre University.
- D'Alessio T, Conforto S, Schmid M, Bibbo D (2011). Body for instrumented pedal and production process thereof . WO2012059812 (a1), uRoma Tre University, Elite s.r.l.

**Teaching activity - courses taught**

- Neural Engineering: MSc in Bioengineering, School of Engineering, Roma Tre University (2009-11, 12-13).
- Health Management Systems - BSc in Electronics Engineering, School of Engineering, Roma Tre University (2004-present).
- Telemedicine - MSc in Electronics Engineering, School of Engineering, Roma Tre University (2008-09).
- Essentials of Mathematics - Preliminary course for prospective freshmen, School of Engineering, Roma Tre University (2010-11, 12-present).
- Biomedical Instrumentation - Diploma Course for Audiologists and Hearing instrument specialists, Tor Vergata University of Rome (2002-03).
- Electronics and Measurements Instrumentation - Diploma Course for Audiologists and Hearing instrument specialists, Tor Vergata University of Rome (2002-03).

**Teaching - assistantships and other activities**

2001-05: teaching assistant, and member of the examination committee for the following courses: Biomedical Instrumentation, Biomedical Signal Processing, Biomedical Electronics - BSc and MSc in Electronics Engineering, School of Engineering, Roma Tre University.

2004-present: teaching advisor for around 30 theses and final exams within the BSc and MSc in Electronic Engineering, and MSc in Bioengineering, School of Engineering at Roma Tre University.

2013-present: tutor for 2 Phd students within the PhD programme in Applied Electronics, School of Engineering, Roma Tre University.

**Invited keynotes**

- "Virtual reality, Games and Rehabilitation" invited keynote delivered at the III Biomedical Engineering Conference of Young Biomedical Engineers and Researchers YBERC 2008, Ostrava (CZ), July 8-10,

2008.

#### Scientific Associations and Centres

- Member of the Italian National Bioengineering Group (GNB)
- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Member of the IEEE Engineering in Medicine and Biology Society (EMBS)
- Member of the Interuniversity Centre of Bioengineering of the Human NeuroMuscoloSkeletal System (BOHNES)
- Member of the University Centre on Behavioral Imaging & Neural Dynamics (BIND), Università degli Studi G. D'Annunzio
  
- Member of the Scientific Committee of the Interuniversity Centre for Research on Cognitive Processing in Natural and Artificial Systems (ECONA) Sapienza Università di Roma

#### Participation to programme committees

- Member of the Program Committee for IDAMAP 2012: Intelligent Data Analysis in Biomedicine And Pharmacology Pavia, November 22, 2012.
- Member of the organizing committee, and co-editor of the Proceedings of the Third Congress of the National Group of Bioengineering (GNB2012) Roma, June 26-29, 2012.
- Member of the Scientific Committee of the International Workshop IREHSS 2011, Interdisciplinary Research on E-health Services and Systems, within the IEEE Conference WoWMoM 2011 Lucca, June 20-24, 2011.
- Member of the Scientific Committee for the International Conference ITAB 2010 - the 10th IEEE International Conference on Information Technology and Applications in Biomedicine, Corfu (GR), November 2-5, 2010.
- Member of the Review Committee of the XII Mediterranean Conference on Medical & Biological Engineering, Chalkidiki (GR), May 27-30, 2010.
  
- Member of the Scientific Committee of the International Workshop IREHSS 2011, Interdisciplinary Research on E-health Services and Systems, within the IEEE Conference WoWMoM 2010 Montreal (Canada), June 15, 2010.
  
- Member of the Scientific Committee for the International Conference IREHSS 2009, Interdisciplinary Research on E-health Services and Systems, Kos (GR) June 15, 2009.

#### Editorial and reviewing activities

- Member of the editorial board for the upcoming "Journal of Healthcare Informatics"
- Reviewer for Archives of General Psychiatry
- Reviewer for Experimental Brain Research
- Reviewer for European Journal of Pediatrics
- Reviewer for IEEE Pervasive Computing
- Reviewer for IEEE Transactions on Information Technology in Biomedicine
- Reviewer for IEEE Transactions on Neural Systems and Rehabilitation Engineering
- Reviewer for Journal of Neuroengineering and Rehabilitation
- Reviewer for Journal of Vestibular Research
- Reviewer for Medical and Biological Engineering and Computing
- Reviewer for Medical Engineering and Physics
- Reviewer for Neuroreport
- Reviewer for Signal, Image and Video Processing
- Reviewer for Computational Intelligence and Neuroscience

#### Institutional activities

- ERASMUS Coordinator for the Board in Electronic Engineering at the School of Engineering, Roma Tre University (2012-13).
- President of the Committee for didactic career (Commissione Pratiche Studenti), for the Board in

Electronic Engineering at the Department of Engineering, Roma Tre University (2013-present).

-Responsible of BioLab3 Laboratory of Biomedical Engineering, at the Department of Engineering, Roma Tre University (2010-present).