

FABIO MENECHINI
CURRICULUM VITAE



PERSONAL INFORMATIONS

Name and Surname Fabio Meneghini
Address
Telephone (home / mobile)
E-mail
Nationality
Date of birth
Marital Status

WORK EXPERIENCES

Dates (from – to) June 2009 – current
Name and address of the company Istituto Nazionale di Oceanografia e Geofisica Sperimentale (InOGS)
Borgo Grotta Gigante 42C, 34010 Sgonico (Trieste) - Italy
Field and type of activity R&D for experimental geophysics applications
Type of employment Field engineer
Principal subjects-occupational skills covered Project and development of hardware and software related to analog/digital acquisition systems

Dates (from – to) January 2007 – January 2011
Name and address of the company Università degli Studi di Trieste
Field and type of activity Research in Information Engineering
Type of employment PhD student
Principal subjects-occupational skills covered HPC-oriented computing science, applied to bioengineering and neuroscience.
Advanced in 3D scientific visualization

Dates (from – to) September 2007 – October 2007
Name and address of the company U.T.R.I. Via del Follatoio 12 34147 Trieste (TS)
Field and type of activity Unmanned Technologies and Robotics
Type of employment Developer
Principal subjects-occupational skills covered Study and development of a custom flight controller for unmanned vehicles

Dates (from – to) July 2006 – September 2006
Name and address of the company Testability s.n.c, Via Flavia 23/1 34148 Trieste (TS)
Field and type of activity Telecommunications and Test engineering
Type of employment Project-based employment
Principal subjects-occupational skills covered Test-board programmer for telecommunication devices, feasibility studies, projects analysis

Dates (from – to) January 2006 – January 2008

Name and address of the company	Centre for private studies "Quark"
Field and type of activity	Teaching
Principal subjects-occupational skills covered	C/C++ programming language course teacher

RESEARCH ACTIVITIES

MOST RELEVANT PUBLICATIONS AND MEETINGS

1. POLETTI F., PETRONIO L, MENEGHINI F, and ANDREA SCHLEIFER (2012). Seismic acquisition and processing of onshore dual fields by a reciprocal experiment . Abstract accepted at SEG 2012 International Exposition and Eighty-Second Annual Meeting in Las Vegas, Nevada.
2. MENEGHINI F., VATTA F, ESPOSITO F, MININEL S, DI SALLE F (2009). A comparative cortex-based analysis of EEG forward problem by spherical and realistic head modeling. In: Neuromath. Leuven, Belgium
3. FEDERICA VATTA, MENEGHINI F., FABRIZIO ESPOSITO, STEFANO MININEL AND FRANCESCO DI SALLE (2009). Realistic and spherical head modeling for EEG forward problem solution: a comparative cortex-based analysis. COMPUTATIONAL INTELLIGENCE AND NEUROSCIENCE, ISSN: 1687-5265
4. MENEGHINI F., FEDERICA VATTA, FABRIZIO ESPOSITO, STEFANO MININEL, FRANCESCO DI SALLE (2009). Comparison between realistic and spherical approaches in EEG forward modelling. BIOMEDIZINISCHE TECHNIK, ISSN: 0013-5585
5. VATTA F, MININEL S, BRUNO P, MENEGHINI F., DI SALLE F (2008). A high performance computing-based approach for the realistic modeling and simulation of EEG activity. In: EMSS European Modeling and Simulation Symposium
6. D'ERRICO, G, S.COLAFATI, F. VATTA, S. CALDERONI, MENEGHINI F., M. MARLETTA, S. MININEL, D. CARAMELLA, C. BARTOLOZZI, S. MALENA, A. ARAGRI, R. TANCREDI, F. MURATORI, F. DI SALLE (2008). MRI Morphometry of Basal Ganglia in Children with Pervasive Developmental Disorders. In: International Meeting for Autism Research
7. VATTA F, MININEL S, BRUNO P, MAGROFUOCO A, MENEGHINI F., DI SALLE F, HYTTINEN J (2008). Calculation of EEG problems with anisotropic conducting media by finite differences. In: 1° Convegno Nazionale di Bioingegneria. Pisa, p. 503-504
8. VATTA F, BRUNO P, DI SALLE F, ESPOSITO F, MENEGHINI F., MININEL S, RODARO M (2008). Head modeling for realistic electrical brain activity mapping: identification of a multimodal neuroimaging protocol. BIOMEDICAL SCIENCES INSTRUMENTATION, vol. 44: p. 342-348, ISSN: 0067-8856
9. MENEGHINI F., MININEL S, VATTA F, BRUNO P (2008). Three-Dimensional EEG source reconstruction on High Performance Computers: methodological and computational issues. BIOMEDICAL SCIENCES INSTRUMENTATION, vol. 44: p. 336-341, ISSN: 0067-8856
10. MININEL S, BRUNO P, MENEGHINI F., VATTA F, INCHINGOLO P (2007). Proposal and validation of a framework for High Performance 3D True Electrical Brain Activity Mapping. In: IFMBE, vol. 16, p. 513-516
11. VATTA F, BRUNO P, DI SALLE F, MENEGHINI F., MININEL S, INCHINGOLO P (2007). Multimodal imaging issues for electric brain activity mapping in the presence of brain lesions. In: IFMBE, vol. 16, p. 509-512

12. BRUNO P, HYTTINEN J, INCHINGOLO P, MAGROFUOCO A, MENECHINI F., MININEL S, VATTA F (2007). Finite Difference anisotropic formulations for the EEG forward problem. INTERNATIONAL JOURNAL OF BIOELECTROMAGNETISM, vol. 9; p. 118-119, ISSN: 1456-7857

DIDACTICS

University teaching-support activities related to "Biomedical electronics" and "Biological systems modeling" (32 hours overall) (Faculty Of Engineering)

Co-supervisor for the bachelor thesis in Informatics Engineering (Faculty of Engineering, University of Trieste, 2006-07) and for three bachelor students in Biomedical Engineering, during the stage at the Brain Imaging Centre, in Maastricht, Netherlands.

EDUCATION AND TRAINING

Dates	January 2007 – January 2011
Name and type of organization providing education and training	Università degli Studi di Trieste – Dipartimento di Ingegneria Industriale e dell'Informazione
Main subjects and professionals skills related to the education awarded	Neuro-modelling High performance Computing programming Scientific visualization (f)MRI and others Biomedicine technique's data processing
Title and professional qualification obtained	PhD in Information Engineering
Dates	July 2006
Name and type of organization providing education and training	Inter-university European Consortium for Automated Computing - CINECA
Main subjects and professionals skills related to the education awarded	Parallel Programming and parallel computing-related problems and studies. Advanced Scientific Visualization: pipelines, algorithms and libraries (VTK, OpenGL)
Dates (from – to)	October 1999 – October 2006
Name and type of organization providing education and training	Università degli Studi di Trieste – Faculty of Engineering
Main subjects and professionals skills related to the education awarded	Electronics and electronic devices Systems theory and Automation Electromagnetism and Electromagnetic fields Bioengineering e neurocognitive science
Title and professional qualification obtained	Electronic Engineering degree, with Bioengineering curriculum
Level in national classification	105 / 110
Dates (from – to)	September 1994 – July 1999
Name and type of organization providing education and training	Liceo Scientifico statale "Galileo Galilei" in Trieste, Italy
Main subjects and professionals skills related to the education awarded	Math and Physics Computer science (laboratory) Natural sciences
Title and professional qualification obtained	Italian equivalent of A-level
Level in national classification (if applicable)	82 / 100

PERSONAL SKILLS AND EXPERTISE

Mother tongue	ITALIAN
Other language	ENGLISH
Reading skills	excellent
Writing skills	excellent
Verbal skills	good
Social skills and competences	Currently, I am working on projects within a research team, with people from different countries. my sociability and curious nature make me really appreciate foreign working experiences (I have been in the Netherlands for over 10 months), in multicultural environment. I usually find both short as well as long time foreign journey a very exciting and improving experience. Nevertheless many times I found myself working, during short time windows, on single-handed activities, and still feeling at my ease.
Organisational skills and expertise	During the past months I successfully coordinated, several research activities carried out by a little group of bachelor students, for which I have been also the co-examiner at the bachelor and master degree examination
Technical skills and expertise	<p>Applied Electronics:</p> <ul style="list-style-type: none"> • usage of common measuring/laboratory electronic equipment such as tester and digital multimeters, wave generators, oscilloscopes, logic networks analyzers. • electronic c.a.d software: Orcad Pspice, Eagle • programmable hardware devices or microprocessors: FPGA and PIC family microcontrollers (MPLAB platform) • generic data acquisition systems interfacing for signals coming from different kind of sensors, such as position, velocity, acceleration and mechanical vibrations. <p>Bioengineering skills:</p> <ul style="list-style-type: none"> • use of various neuroimaging software, based on the analysis of neuroradiological images • bioimaging e cognitive neuroscience applications • morphological and functional magnetic resonance imaging (MRI/fMRI) data analysis • Brainvoyager QX © software advanced training course, for eeg/mri/fmri data combined analysis <p>Informatics and computer science skills:</p> <ul style="list-style-type: none"> • Matlab e Simulink® • LabVIEW® • scientific programming in High Performance Computing (hpc) environment, on linux clusters, using specific-purpose message-passing libraries (mpi, petsc) • scientific visualization: complex real time 3D rendering algorithms and pipelines, with vtk libraries (visualization toolkit) and opengl • C / C++ and Java programming • development environments: eclipse, netbeans, visual studio • excellent knowledge of Microsoft o.s. • in-depth knowledge of linux and unix o.s. • confident with office suites such as Microsoft Office® and Open(Libre)Office.
Driving License	Italian B-class driving license