PERSONAL INFORMATION

Stefano Silvoni

📍 via Montessori, 2, 45100, Rovigo, Italy

📞 +39-0425-30095   📠 +39-347-1291638

✉ stefano.silvoni@libero.it

Sex Male | Date of birth 28/12/1968 | Nationality Italian

WORK EXPERIENCE

May, 2015 - Present

Researcher
Central Institute of Mental Health, Mannheim, Germany

▪ Development of software applications in the field of neuro-rehabilitation
▪ Android Apps development (first perspective Virtual Reality training)
Business or sector Neuro-rehabilitation / Neuroscience

April, 2005 - December 2015

Researcher
IRCCS San Camillo Hospital Foundation, Venice, Italy

▪ Managing of projects for assistive and rehabilitative research
▪ R&D in the field of neuro-rehabilitation (analysis of behavioural/kinematic/neurophysiological data)
▪ Editing and submission of scientific papers, projects and applications
▪ Development of brain-computer interfaces for communication and motor neuro-rehabilitation
Business or sector Neuro-rehabilitation / Neuroscience

April, 2012 - April 2015

Research assistant
Institute of Medical Psychology and Behavioral Neurobiology - Eberhard-Karls-University, Tübingen, Germany

▪ Planning/development of projects and applications in the field of neuro-rehabilitation
▪ Analysis of behavioural and neurophysiological data
Business or sector Neuro-rehabilitation / Neuroscience

October, 2001 - December, 2002

Research assistant
Consorzio Venezia Ricerche, Venice - Marghera, Italy

▪ Decision Support System development to assess Lagoon of Venice environmental quality
Business or sector Environment

May, 1999 - April, 2005

Research assistant
STMicroelectronics, Agrate Brianza, Italy (work place: IRCCS San Camillo Hospital, Venice)

▪ R&D in the field of neuro-rehabilitation (analysis of behavioural/kinematic/neurophysiological data)
Business or sector Assistive neuro-rehabilitation

1989 - 1999

Programmer
1989 -1992: 4P, Padua, Italy - 1993-1995: SGE, Padua, Italy - 1996-1999: Apelco-Carel, Brugine, Italy

▪ Development of prototypes for controlling electromechanical devices (software and firmware)
Business or sector Industry (electronic) automation

EDUCATION AND TRAINING

2002 - 2003

Bachelor of Science in Biomedical Engineering (cum laude)
Faculty of Engineering - University of Padua, Padua, Italy

▪ Biomedical instruments management and neurophysiological data analysis

1995 - 1999	**University Degree in Biomedical Engineering**

Faculty of Engineering - University of Padua, Padua, Italy

- Title of the Thesis: 'Sistema di supporto alle decisioni in emodialisi - Un approccio mediante la logica sfocata' (Hemodialysis decision support system - A fuzzy-logic based approach)
- Management, use and maintenance of biomedical instruments
- Analysis of neurophysiological data

1982 - 1987	**High school degree in Applied Electronics**

Technical and Industry Institute 'F.Severi', Padua , Italy

- Design, development and programming of electronic instruments

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B1	B2	B1	B1	C1
none				

English

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills
- team work: I usually work in development and research teams carefully and proficiently interacting with colleagues, taking their difficulties into account; positive attitude towards problem solving;
- verbal modality: clear, concise and adequate to the situation focusing on the kernel of the issue
- written modality: clear, less concise, proficient according to the goal

Organisational / managerial skills
- good time-management and prioritisation skills splitting the main topic in sub-problems to deal with

Job-related skills
- project design, development, implementation and pragmatic management, including subjects recruitment, data acquisition, data analysis and dissemination of the findings
- development of algorithms (using fuzzy-logic, support-vector-machine, data-clustering, data-mining, and neural-networks) to analyse neurophysiological, kinematic and behavioural data of healthy humans and persons in pathological conditions (amyotrophic lateral sclerosis and stroke)

Computer skills
- good command of Microsoft Office™ tools
- high-level programming skills (C, C++, VB, Matlab, first level Java for Android)
- low-level programming skills
- digital I/O connection and management

Other skills
- support in design and editing proposals for national and EU grant-applications
- training at MIT, 2011, Boston: algorithms for muscles synergies extraction
- tutoring activities (1 PhD and 5 MD students in Biomedical Engineering, University of Padua; 1 PhD in Neuroscience, University of Padua)

Driving licence   B

ADDITIONAL INFORMATION

Publications   See Annex 'Publications list of Stefano Silvoni'

Conferences

- Turolla A, **Silvoni S**, Agostini M, Genna C, Cattin D, Tonin P, Venneri A. Relation between brain lesion and muscle synergies activation in stroke patients. Proc. of 20th Annual Meeting of the Organization for Human Brain Mapping (OHBM), 2014, Hamburg, Germany, Vol. 5.
- **Silvoni S**, Prats-Sedano MA, Cavinato M, Volpato C, De Massari D, Piccione F, Birbaumer N. Automatic classification of vibro-tactile Event-Related Potentials. Proc. of Society for Psychophysiological Research, 53rd Annual Meeting, 2013, Firenze, Italy.
- **Silvoni S**, Genna C, Cisotto G, Cavinato M, Volpato C, De Massari D, Cattin D. Comparison of Vibro-tactile ERPs Classification Methods. Proc. of IV TOBI Workshop, 2013, Sion, Switzerland.
- **Silvoni S**, Mellinger J. Brain-Computer Interface and ERP Recordings: a Close Look on Trigger Signal. Proc. of 5th International Brain-Computer Interface conference, 2011, Graz, Austria.
- Piccione F, **Silvoni S**. P300-based Brain-computer Interface: clinical applications and new possible directions. Proc. of 2nd International Conference on Simulation, Modelling and Programming for Autonomous Robots, 2010, Darmstadt.
- Piccione F, Volpato C, Marchetti M, Priftis K, Merico A, Cavinato M, Sorarù G, Palmieri A, Tonin L, **Silvoni S**. Amyotrophic lateral sclerosis patients are able to direct a computer screen cursor using a P300-based BCI. Proc. of 4th International Brain-Computer Interface Workshop and Training Course 2008, Graz, Austria.
- Piccione F, Palmas G, Beverina F, Giorgi F, Priftis K, Piron L, Cavinato M, **Silvoni S**. P300-Based Brain Computer Interface: Multiple Letter Keys vs. Four Arrows Displays. Proc. of 3rd International Brain-Computer Interface Workshop and Training Course, 2006, Graz, Austria.
- Beverina F, **Silvoni S**, Palmas G, Piccione F, Giorgi F, Tonin P, Andreoni G. P300-based BCI: a real time working environment to test HCI on healthy and tetraplegic subjects. In Biomedizinische Technik, Proc. of 2nd International Brain-Computer Interface Workshop and Training Course, 2004, Graz, Austria.
- Critto A, Giove S, Marcomini A, Nadal N, Samiolo M, Carlon C, **Silvoni S**, Foramiti S. DESYRE-DEcision Support sYstem for REhabilitation of contaminated sites: objectives and structures. Proc. of International Environmental Modelling and Software Society Conference (iEMSs2002), 2002, Lugano, Switzerland, pp. 211-216.

Patent

US Patent: US20050085744 A1, Man-machine interfaces system and method, for instance applications in the area of rehabilitation (F.Beverina, G.Palmas, S.Silvoni, 2005)

Reviewer activity

Clinical Neurophysiology, Sensors, Journal of Neural Engineering, Neurorehabilitation and Neural Repair, Frontiers in Human Neuroscience, Clinical EEG and Neuroscience, European Research Council Executive Agency.
Review board of the International BCI Conference, Graz, Austria (years 2011 and 2014)

Seminars

- Student seminar "Clinical applications of BCI-techniques for neuro-rehabilitation", Faculty of Engineering, Department of Electronic and Informatics, University of Padua, Apr-2016 and Apr-2015, Padua, Italy
- Lab. seminar "Clinical brain-computer and brain-machine interface applications", School VI - Medicine and Health Sciences, Department of Psychology, University of Oldenburg, Feb 2015, Oldenburg, Germany
- Student seminar "Clinical applications of BCI-techniques for neuro-rehabilitation", Faculty of Engineering, Department of Electronic and Informatics, University of Padua, Apr-2014, Padua, Italy
- Event "Brain-computer interface (BCI) Workshop & hands-on seminar", University of Padua, presentation "Clinical applications of BCI-techniques for neuro-rehabilitation", Oct-2013, Padua, Italy
- Event "Bioetica e Neuroscienze Riabilitative", Fondazione Marcianum Venezia, presentation, "Mezzi di valutazione e strumentazione per la ripresa di contatto con l'ambiente.", May-2013, Venice, Italy

Collaborations (present)

Prof. Niels Birbaumer, neurophysiological data analysis, Institute of Medical Psychology and Behavioral Neurobiology - Eberhard-Karls-University, Tübingen, Germany

Collaborations (old)

Associate Professor José del R. Millán, Neurophysiological signal processing, Ecole polytechnique fédérale de Lausanne (EPFL), Lausanne, Switzerland

Professor Duncan Turner, development of a Networking Action (COST), School of Health, Sport and Bioscience, NeuroRehabilitation Unit, University of East London, London, United Kingdom

Associate Professor Silvio Giove, development of algorithms for neurophysiological data analysis, Applied Matemathics, Department of Economy, Ca' Foscari Univeristy Venice, Venice, Italy