

# Workshop: Neuroinformatics and New Directions for biosignal processing: BCIs for Coma, Stroke and SCI Patients

g.tec medical engineering GmbH and the International Institute of Tele-Medicine (IITM)

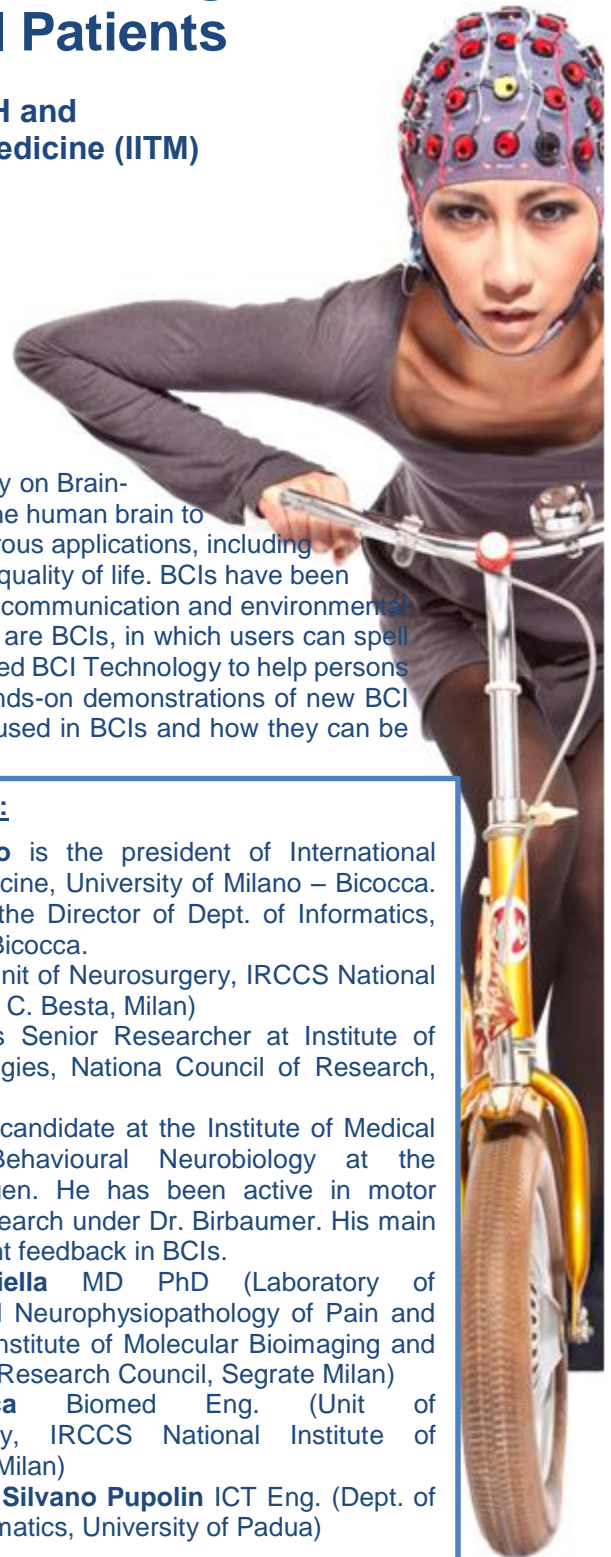
May 23th, 2016

**Venue:**

University of Milano-Bicocca, Dept. of Informatics  
 Building U14 - Seminars Room (1° Floor)  
 Viale Sarca 336, Milan

**About the Workshop**

Research groups all over the world have been working enthusiastically on Brain-Computer Interfaces (BCIs), which provide a direct connection from the human brain to a computer. BCIs translate brain activity into control signals for numerous applications, including tools to help severely disabled users communicate and improve their quality of life. BCIs have been used to restore movement, assess cognitive functioning, and provide communication and environmental control. One of the most exciting applications of biosignal processing are BCIs, in which users can spell or perform other tasks via thought alone. Very recent work has extended BCI Technology to help persons with coma, stroke and SCI diseases. We will provide interactive, hands-on demonstrations of new BCI technologies. Attendees will learn about signal processing methods used in BCIs and how they can be extended to provide real-world help for patients.



**Program:**

- 09:30 Welcome by G. Mauri and L.Milanesi
- 09:45 Introduction by F. Sicurello
- 10:00 Real and virtual Brain I. Dones
- 10:30 Introduction to BCIs major methodological approaches with relevance to stroke and coma by W.Cho and G.Biella
- 11:30 Signal processing approaches F. Panzica, G. Cisotto, S.Pupolin
- 12:30 Coffee break
- 13:00 Hands-on session: recoveriX, intendiX, mindBEAGLE
- 14:00 Final questions & discussion

Attendance is free of charge, but registration is required because space is limited.

**Speakers and hosts:**

**Francesco Sicurello** is the president of International Institute of Tele-Medicine, University of Milano – Bicocca.  
**Giancarlo Mauri** is the Director of Dept. of Informatics, University of Milano Bicocca.  
**Ivano Dones**, MD (Unit of Neurosurgery, IRCCS National Institute of Neurology C. Besta, Milan)  
**Luciano Milanesi** is Senior Researcher at Institute of Biomedical Technologies, National Council of Research, Segrate (MI).  
**Woosang Cho**, PhD candidate at the Institute of Medical Psychology and Behavioural Neurobiology at the University of Tübingen. He has been active in motor rehabilitation BCI research under Dr. Birbaumer. His main interests were afferent feedback in BCIs.  
**Gabriele E.M.Biella** MD PhD (Laboratory of Neurophysiology and Neurophysiopathology of Pain and Sensory Disorders, Institute of Molecular Bioimaging and Physiology, National Research Council, Segrate Milan)  
**Ferruccio Panzica** Biomed Eng. (Unit of Neurophysiopathology, IRCCS National Institute of Neurology C. Besta, Milan)  
**Giulia Cisotto** PhD, **Silvano Pupolin** ICT Eng. (Dept. of Electronics and Informatics, University of Padua)

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**Registration Form:**

Please fill in and fax back: 0043 7251 22240 39  
or email it to Slav Dimov: [dimov@gtec.at](mailto:dimov@gtec.at)

Venue: \_\_\_\_\_

Date: \_\_\_\_\_

Name & Degree (as to appear on conference materials):  
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Institution/Affiliation:  
\_\_\_\_\_

Department:  
\_\_\_\_\_

Business Address:  
\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Business Phone: \_\_\_\_\_

E-mail Address (important for receiving the confirmation)  
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