

Biomedical Discussion Group

The high-density Electromyography (EMG) technology and its applications in rehabilitation research

Thursday, June 20th 2019
2:30 pm - 3:30 pm, East Campus 4 Boardroom (EC4-2101a)



Dr. Francesco Negro

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Abstract: The seminar will describe the high-density EMG technology, its application for the estimation of the neural drive to muscle, and its role in rehabilitation research. It will provide detailed description on the analysis of high-density EMG recordings, motor unit decomposition, tracking of motor unit activity in the same and different experimental sessions, and extraction of reliable neural information. Moreover, it will show recent applications of this technology in several studies.

Bio: Dr. Francesco Negro received the M.Sc. degree in Telecommunication Engineering from the Politecnico di Torino, Torino, Italy, in November 2005, and the Ph.D. degree in Biomedical Engineering from Aalborg University, Aalborg, Denmark, in April 2011. From 2006 to 2010, he was a Research Assistant and Ph.D. Fellow at Aalborg University. From 2011 to 2016, he was a Postdoctoral Researcher at the Institute of Neurorehabilitation Systems, University Medical Center Göttingen, Georg-August University, Germany, within the Bernstein Focus Neurotechnology and Bernstein Center for Computational Neuroscience. From 2016 to 2018, he has been a Marie Curie Individual Fellow on the project NeuralCon at the Department of Clinical and Experimental Sciences, University of Brescia, Brescia. From 2018, he is an Assistant Professor in the University of Brescia.

His research interests include applied physiology of the human motor system, signal processing of intramuscular and surface electromyography and modeling of spinal neural networks.

Keywords: EMG Technology, Rehabilitation research

Coffee and Timbits available - RSVP via Eventbrite is required



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