



Engineering User Group Italia- Delsys EMG and Movella Xsens

University of Modena and Reggio Emilia

Date and Time: October 30th 2025

Location: Tecnopolo di Reggio Emilia (Building 19), Piazzale Europa 1, Reggio Emilia

Cost: Free

Registration link (MANDATORY):

<https://6iveq.r.ag.d.sendibm3.com/mk/cl/f/sh/1t6Af4OiGsDg0kXnfn1CkLXHU1coBX/TEmsUD9f9K09>

Overview:

Leveraging bio-signals namely EMG and kinematic data obtained from IMUs are frequently used in tandem to modulate locomotory movement in the HMI and Human Robotics based studies.

The intention of this user group is to explore the use case scenarios of the named technologies and how they have contributed to the advancement of Human Robotics.

Industry Highlights:

- Delsys Linux Beta program
- ROS compatible pathways for EMG integration
- Xsens Humanoid
- The new integration with our Trigno Centro system and Xsens



Agenda

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| 14:00-14:15 | Registration |
| 14:15-14:20 | Greetings |
| 14:20-14:40 | Using Physiological Signals in Human-Robot Collaboration, Dr. Lorenzo Sabattini and Dr. Valeria Villani , University of Modena and Reggio Emilia, Italy |
| 14:40-15:00 | Adaptive EMG-Based Descriptors towards Cross-User Multi-DOF Motor Task Decoding in Myoelectric Control Systems, Dr. Oluwarotimi Samuel , University of Derby, United Kingdom |
| 15:00-15:20 | Tele-Impedance control of a virtual avatar based on EMG and M-IMU sensors, Dr. Silvia Buscaglione , University Campus Bio-Medico di Roma, Italy |
| 15:20-16:00 | Coffee Break |
| 16:10-16:30 | The role of minimally supervised learning in human-in-the-loop (myo)control of artificial hands, Dr. Roberto Meattini , University of Bologna, Italy |
| 16:30-16:40 | Delsys Product Presentation- Ms. Monique McLaughlin , United Kingdom |
| 16:40-16:50 | Xsens Product Presentation- Ms. Rosalie de Zeeuw , Netherlands |
| 16:50-17:20 | Hands-on test drive Delsys and Xsens |
| 17:20-17:30 | Break |
| 17:30-17:55 | Xsens and Delsys Integration Live Demonstration |
| 17:55-18:00 | Closing Remarks, Dr. Lorenzo Sabattini and Dr. Valeria Villani |