



Call for applications for the assignment of 1 research fellowship grant for carrying out Category B research activities, as per Article 22 of Italian Law No. 240/2010, for the Scientific Disciplinary Sector of ING-IND/34 – Industrial Bioengineering, at the facilities of the CIR - Integrated Research Centre and of the Departmental Faculty of Engineering of Università Campus Bio-Medico di Roma.

Call Code: ASS-RIC/17_23

Departmental Faculty	Engineering
Research theme	The multisensory and interactional nature of music experience. Merging aesthetics with bioengineering to investigate the multidimensional structure of musical sound.
Brief description of the research	The research project is focused on developing and testing a wearable system for the empirical investigation of enhanced human-human communication in musical ensembles and multisensory sound perception in individual listeners. The wearable device system will embed magneto-inertial sensors and vibrotactile stimulators in order to detect the conductor's movements and provide salient feedback to musicians. The different devices will be connected through a body area network based on low-energy wireless transmission in order to detect relevant motion features of the upper limbs of the conductor, identify optimal stimulation patterns, and transmit them in real-time to the tactile stimulators worn by the musicians. The system will be designed to include 1 motion-sensing device for the conductor and 5 stimulator devices for the musicians.
Scientific Supervisor	Prof. Domenico Formica
Scientific Disciplinary Sector	ING-IND/34 – Industrial Bioengineering
Language knowledge and skills	Written and spoken English, minimum level B2
Date of the interview	18th December 2023, at 10:00 a.m. Remote candidates on Microsoft Teams platform