



Call Code: ASS-RIC/49_24

Departmental Faculty	Faculty of Engineering
Research theme	Design of wearable electromechanical devices and implementation of measurement techniques for the indirect estimation of hemodynamic variables.
Brief description of the research	The research project aims to develop new multi-parametric wearable systems for recording electromechanical variables of cardiac origin, as well as to develop and test biocooperative algorithms capable of extracting hemodynamic features from collected physiological data, which are useful for evaluating the interaction between the mechanical and electrical aspects of the cardiovascular system. The ideal candidate should have both engineering design skills and expertise in data analysis techniques for multi-sensor systems.
Scientific Supervisor	Ing. Carlo Massaroni
Scientific Disciplinary Sector	IMIS-01/A – Mechanical and Thermal Measurements
Duration of contract	18 months
Annual gross amount	22.700,00
Economic coverage	La copertura economica è garantita con fondi del progetto “Monitoring and prEdicting hemodynamics in patients undergoing Transcatheter Aortic valve implantation using SKin-Interfaced wearable seNsors – META-SKIN”, responsabile scientifico dott. ing. Carlo Massaroni, finanziato dal Ministero dell’Università e della Ricerca nell’ambito del bando “PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022 Prot. 2022H97E38”. CUP C53C24000790006.
Admission qualifications	University degree (as per the Old Italian System) in Biomedical Engineering or Specialist/Master’s Degree in Biomedical Engineering as per Ministerial Decrees No. 509/1999 and No. 270/2004;
Language knowledge and skills	Written and spoken English, minimum level B2
Date of the interview	21st March 2025, at 02:00 p.m. Remote candidates on Microsoft Teams platform