

Short curriculum vitae et studiorum

Daniilo Pani, Ph.D.

Current working position	danilopani.it
Since Nov 30 th 2019	Associate Professor of Biomedical Engineering - SSD: ING-INF/06 (09/G2 - Bioengineering) University of Cagliari, Italy Faculty of Engineering and Architecture Department of Electrical and Electronic Engineering
21/07/2021 – today	Vice-Director of the Department of Electrical and Electronic Engineering, University of Cagliari, Italy
Since February 13 th 2023	National scientific qualification to Full Professor, 09/G2 Bioengineering
Education	
March 3 rd , 2006	Ph.D. in Electronic and Computer Engineering – University of Cagliari, Italy
October 31 st , 2002	M.Sc. in Electronic Engineering <i>Magna cum laude</i> – University of Cagliari, Italy
Scientific Profile	
	My research activity is focused on medical devices, biomedical signal processing, and machine learning. In particular: Cardiac electrophysiology and non-invasive fetal ECG, wearable electronics for electrophysiological signals monitoring, telemedicine systems design, neural engineering and neuromotor rehabilitation. I'm the head of the Medical Devices and Signal Processing (MeDSP) Lab – http://www.medsp.it
Other commitments	
Since 2022	Member of IEEE EMB TC on Therapeutic Systems and Technologies (TST)
Since 2015	Italian Expert in the Technical Committee 251 of CEN, Working Group 2
Since 2013	Appointed expert for the Department of Electrical and Electronic Engineering in the UNINFO commission (UNI federated agency for the unification in the information technologies and their applications) for the Health Informatics
2018-2021	Member of the Board of Directors of the Italian association National Bioengineering Group (GNB)
From 2017 to 2018	Member of the Board of the National Bioengineering Group
2018-2022	Co-founder and treasurer of the IEEE Sensors Council Italy Chapter
2016-2023	Member of the Independent Ethics Committee of the University Hospital of Cagliari as expert (clinical engineering for medical-surgical studies involving medical devices).
From 2019 to 2021	Italian expert for the work group in charge of the ISO WD 13131 Health Informatics - Telehealth services – Quality planning guidelines
From 2013 to 2020	Italian expert for the work group in charge of the revision of the standard EN 1064:2005+A1:2007 Health informatics – Standard communication protocol – Computer-assisted electrocardiography (SCP-ECG)
Affiliations	
Since 2019	Member of GNB – Gruppo Nazionale di Bioingegneria
Since 2019	Member of SIAMOC – Società Italiana di Analisi del Movimento in Clinica
Since 2013	Appointed expert for the Department of Electrical and Electronic Engineering of the University of Cagliari in the UNINFO commission (UNI federated agency for the unification in the information technologies and their applications) for the Health Informatics
Since 2005	IEEE Member (Institute of Electrical & Electronics Engineers) (IEEE Member Number: 80102160)
Since October 1 st , 2003	Member of the Engineers Association of the Province of Cagliari (section A, n° bulletin board 5339)
Scientific responsibility for international and national research projects	
Fundraising for up to 1.3M€ for the research unit.	<ul style="list-style-type: none">• Active participation in more than 7 EU projects (in two of them as unit coordinator), including the current Horizon Europe project MYRTUS - Multi-layer 360° dYnamic orchestration and interopeRable design environmenT for compute-continUum Systems (funded by EC, HORIZON-CL4-2023-DATA-01-04 - Cognitive Computing Continuum: Intelligence and automation for more efficient data processing (AI, data and robotics partnership) (RIA)) – started on January 1, 2024.• Active participation in more than 14 national projects (in four of them as coordinator), including the current PRIN Project “VISIONARY - Advanced VISual feedback for neurorehabilitatIOn systems based on virtuAI RealitY” (MIUR - PRIN 2022) – started on September 28, 2023
Direction or participation in editorial committees of scientific journals	
Since 2023	Associate Editor of Scientific Data (https://www.nature.com/sdata/editorial-board)
Since 2022	Associate Editor of IEEE Transactions on Neural Systems and Rehabilitation Engineering – TNSRE (https://www.embs.org/tnsre/associate-editors/)
Since 2022	Associate Editor of PLOS Digital Health (https://journals.plos.org/digitalhealth/s/editorial-board)
2022	Editor of the books “Technologies and Signal Processing in Perinatal Medicine” – Vol 1 and 2, Springer Nature (https://link.springer.com/book/10.1007/978-3-030-54403-4 https://link.springer.com/book/10.1007/978-3-031-32625-7)
2020 - 2023	Associate Editor of BMC Cardiovascular Disorders (Springer Nature)
2018-now	Guest Editor for more than four special issues in indexed journals
PhD Boards	
	“THE HADRON ACADEMY: Risk and complexity in high tech medical innovation”, IUSS, Pavia, Italy “BIOINGEGNERIA E ROBOTICA - BIOENGINEERING AND ROBOTICS”, University of Genova, Italy

Prizes and awards	
2023	BIODEVICES 2023 - Best poster award for "A Modular BLE-Based Body Area Network Embedded into a Smart Garment for Rescuers Real-Time Monitoring in Emergency Scenarios"
2022	AIIC AWARDS2022 - INNOVAZIONE, PROCESSI, PRODOTTI, SERVIZI: Danilo Pani (Università degli studi di Cagliari) with "Domomea: la teleriabilitazione domiciliare per il paziente post-Ictus"
2019	IEEE Senior member upgrade
2018	BIOSIGNALS 2018 – Best poster award per il paper "Adaptive Filtering for Electromyographic Signal Processing in Scoliosis Indexes Estimation"
2016	XVII SIAMOC 2016 Congress – Best methodological work for "Identificazione del centro di rotazione della spalla tramite sensori magneto-inerziali"
2015	DASIP 2015 – Best paper award per l'articolo "Exploring Custom Heterogeneous MPSoCs for Real-Time Neural Signal Decoding"
2013	Biodevices 2014 – Best student paper award (first author: Nicola Carta) per l'articolo "VLSI Wavelet Denoising of Neural Signals, Critical Appraisal of Different Algorithmic Solutions for Threshold Estimation"
2008	Computers in Cardiology 2008 – 35° annual Conference: Best Poster Presentation award to Danilo Pani for the poster related to the paper "A DSP Algorithm and System for Real-Time Fetal ECG Extraction"
2005	ATMEL DSP Design Contest 2005, second prize, "Real-time Blind Source Separation (BSS) of signal mixtures on DIOPSIS 740 platform".
Invited talks, lectures, and seminars	
	12 invited talks and lectures in national and international contexts.
Current teaching activity	
	All the details for the more recent years available at danilopani.it Professor of "Fundamentals of electrophysiological signals analysis" for the BSc in Neurophysiopathology techniques, University of Cagliari, University of Cagliari. Professor of "Electronic signal processing" and "Biomedical Instrumentation", BSc in Biomedical Engineering, University of Cagliari.
Supervision and mentoring	
PhD students	During the years, supervisor of 12 PhD students in biomedical engineering (The hadron academy: risk and complexity in high tech medical innovation – IUSS-CNAO-UniCA; Bioengineering and Robotics – University of Genova; Electronic and Computer Engineering – University of Cagliari)
Undergraduate students	Supervisor for more than 180 theses in Biomedical Engineering and Electronics (Details available at danilopani.it)
Scientific Publications, datasets, and patents	
	https://www.scopus.com/authid/detail.uri?authorid=22433688800 : 132 docs, 1939 citations, h-index 19 Three public dataset, 6 patents.

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