

Tuesday Afternoon, April 7, 2026

	Room 101	Room 102
	W5 - Sensors and devices for medical measurements	W6 - Sensor Fusion and Multimodal Data Analytics for Healthcare
	<i>Chairs: Pino - Scalise</i>	<i>Chairs: Postolache - Ferreira</i>
16:00 - 17:15	Backpack EKG: An Energy-Autonomous Standalone Three-Lead EKG Platform for Off-Grid Screening Applications - 1571246920	Reconstruction of Arterial Blood Pressure Waveforms from Photoplethysmogram Using a Modified Transformer-CNN Model - 1571247514
	Calibration effects on markerless system performance - 1571247798	Lightweight Modified Half U-net Model to predict Systolic and Diastolic Blood Pressure from Photoplethysmogram - 1571247561
	A Portable sEMG and Electrogoniometry Measurement System for Real-Time Sports Applications - 1571253497	Reliability-Aware Multimodal Fusion for Human Motion Measurement Using Wearable Inertial Sensors and Vision-Based Pose Estimation - 1571253464
	Design of a Wearable Device for EOG Signal Acquisition and Wireless Transmission - 1571253607	A Speech Measurement Component for a Serious Games-Based Patient Digital Twin - 1571253768
	Preliminary Design of a Skin-Tone Modulated Pulse Oximetry Prototype - 1571247509	Step-Wise Feature Selection for Surgical Gesture Recognition - 1571253783

Wednesday, April 8, 2026

	Room 101	Room 102
	W1 - Sensors and devices for medical measurements	W2 - Artificial Intelligence & Machine Learning for Biosignal Measurement and Processing
	<i>Chairs: Imbriglia - Green</i>	<i>Chairs: Uslenghi - Palermo</i>
11:00 - 12.30	Development and Validation of a Smart Temperature-Regulated Organ Transportation System for Transplantation - 1571238388	Resource-Aware 4D Cardiac MRI Segmentation with Swin UNETR - 1571247213
	Portable Ex Vivo Perfusion System for the Immediate Hemodynamic Rescue and Characterization of Ischemic Slaughterhouse Organs - 1571238396	EEG-Based Classification of Relaxed and Focused Mental States Using Machine Learning: Comparative Performance of SVM and Random Forest Models with Leave-One-Subject-Out Cross-Validation -1571245389
	Ballistocardiography for non-contact cardiorespiratory monitoring in hospital beds - A feasibility study - 1571245779	AI-enabled three-layer method to strengthen cancer patient safety plans at specialized centers in Peru - 1571253806
	Supplementary EEG Electrode Placement for Spatial Audio Processing - 1571246140	Design of a Recurrent Neural Network-Based Classifier for ECG Rhythm Classification Using Multi-Domain Hand-Crafted Features - 1571245996
	Multimodal Signal Acquisition System for Estimation of Time Varying Elastance of Left Ventricle - 1571246564	Motion Artefact's Tolerant Hybrid Deep Learning-based Artery wall tracking - 1571247575

Non-Invasive Jugular Venous Pulse Acquisition Using Impedance Plethysmography: System Characterisation and In-vivo Verification - 1571247557	Lateral Leads Drive Risk Prediction in Brugada Syndrome: A Deep Learning Study - 1571244896
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	Room 101	Room 102
	W3 - Sensors and devices for medical measurements	W4 - Artificial Intelligence & Machine Learning for Biosignal Measurement and Processing
	<i>Chairs: Daponte - Santos</i>	<i>Chairs: Ibarra - Cárdenas</i>
	Multimodal Cardiorespiratory and Autonomic Monitoring Using a Strain-Gauge-Based Ballistocardiogram Chair - 1571247152	Enhancing Sleep Apnea Detection using Sleep Positions and Breathing Signals from Respiratory Inductance Plethysmography - 1571234152
	Nanoindentation-based mechanical characterization of Poly(vinyl alcohol) for biological phantom realization - 1571247247	Class-Conditioned Synthetic Retinal OCT Dataset Generation Using Diffusion Model - 1571252818
	Experimental Investigation of PEDOT: PSS-based Films as Transparent Electrodes for Electrocardiography - 1571247387	Uncertainty-Aware Modeling of Subglottal Pressure in Pathological Voices Using Hybrid Probabilistic Bayesian Neural Networks - 1571253126
15:45 - 17:15	Characterisation and Phantom-Based Performance Evaluation of Dry Electrodes for Bioimpedance Plethysmography - 1571247542	A Model-Based Biomechanical Framework for Physiologically Interpretable Voice Measurement in Parkinson's Disease - 1571253484
	Preliminary Validation of a Hybrid Oscillometric-Auscultatory Blood Pressure Monitor: Potential for Hemodynamically Variable Populations - 1571247584	Hybrid Modeling and Measurement-Augmented Neural ODE Framework for Arterial Waveform Reconstruction and Cardiovascular Risk Stratification - 1571255052

Bioimpedance Spectroscopy Meter for in vivo human rectal tissue measurements - 1571260702	Auditing myocardial infarction detection models: Spatial and temporal XAI-based evaluation of Bi-LSTM networks using Grad-CAM and LIME - 1571243817
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Thursday, April 9, 2026

	Room 101	Room 102
	T1 - Biosignal processing	T2 - Bioengineering and rehabilitation
	<i>Chairs: Biancardi - Galli</i>	<i>Chairs: Apa - Oreggioni</i>
	Template for Neurostimulation Artifact Cancellation in a Closed-Loop Platform - 1571240929	Parkinson's Disease Gait Events Detection Modeled as Flow Charts - 1571245699
	Comparing diaphragmatic EMG and thoracic respiratory inductance plethysmography to characterize respiratory effort in obstructive sleep apnea - 1571245841	Development of a simplified FEM model for cell-ECM mechanical interaction - 1571247234
11:00 - 12.30	Assessing the Impact of Inter-Electrode Distance on EHG-based Features for Contraction Analysis - 1571247042	Electrical Signature of Engineered Muscle Tissue: multi-frequency impedance analysis of X-MET - 1571247237
	Analysis of Dominant Sensitivity Modes in Electrical Impedance Tomography - 1571247482	Neuromuscular Control Assessed by Entropy during Isometric Contractions in Physically Active and Sedentary Young Adults - 1571248879
	Processing motion data C3D files: a Python script repository for human gait analysis - 1571252843	Lower Limb Joint Angles Measurements during Gait using Videophotogrammetry and CANGURO - 1571253426

Estimating Cricothyroid Muscle Activation from HDsEMG Using a Neural Network-Based Framework: A Case Study - 1571253805	A Wearable Device for Proprioception Restoration in Lower-Limb Amputees: preliminary validation on healthy subjects - 1571253502
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	Room 101	Room 102
	T3 - Wearable solutions for patient monitoring	T4 - Physiological modeling and monitoring
	<i>Chairs: Del Prete - Guerrero</i>	<i>Chairs: Grassini - Cortela</i>
15:45 - 16:45	Metrological Characterization of MediaPipe for Knee Joint Angle Estimation During Squat Execution - 1571241172	Mono-Exponential VO2 On-Kinetics and Off-Kinetics in Sprinters: Age-Related Differences from Breath-by-Breath CPET - 1571246983
	Multi-class Classification of Parkinsonian Gait using inertial sensors: A preliminary study - 1571246221	Estimating Ventilatory Thresholds from Heart Rate Dynamics During Incremental Exercise Using Supervised Learning - 1571247078
	A Low-Cost Sensorized Mask for Respiratory Monitoring: Calibration and Proof-of-Concept Evaluation - 1571247260	Challenges in non-invasive measurement of ice swimmers' physiological parameters - 1571247439
	Skin-Sock-Shoe Friction Energy and Plantar Thermography During Stairs Climbing - 1571253690	Development and Validation of an Ex Vivo Pulsatile Platform for Controlled Accelerated Vascular Ageing: Understanding Pressure-Stiffness Decoupling - 1571247582

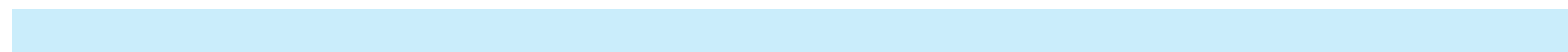
	Room 101	Room 102
	T5 - Smart Sensing and Advanced Monitoring Technologies	T6 - Innovation and quality control in healthcare
	<i>Chairs: Postolache - Braidot</i>	<i>Chairs: Taborri - Ballarin</i>

17:00 - 18:15	A Flexible Hybrid Graphene-Silver Electrode Grid for Dry Surface EMG Monitoring - 1571253710	Measuring Facial Expressions in Italian Sign Language Using ARKit: Repeatability Study - 1571234819
	A Compact Wearable sEMG-FES System for Bilateral Post-Stroke Rehabilitation - 1571252864	Tracking Instrument Handling During Laparoscopic Surgical Training Using Hand Landmarks - 1571247229
	Performance Evaluation of a Wearable CorSeg ECG System with MIT-BIH Arrhythmia Database - 1571253689	Experimental Evaluation of Dentin Alterations Induced by Different Endodontic Irrigation Protocols - 1571253446
	Active Learning Informed Anomaly Detection on a Remote Monitored Pulmonary Assist System - 1571253712	Design and Validation of a Modular Blood Leukocyte Filtration System for Slaughterhouse Organ Perfusion Studies - 1571246438
	A Preliminary Study on a Device to Test Skin Bioelectrical Impedance Characteristics Related to Acupuncture Theory - 1571260016	Consistency Measurements of Skin Impedance using Different Electrode Types - 1571234938

Friday, April 10, 2026

	Room 101	Room 102
	F1 - Metrology and embedded systems	F2 - Medical imaging and communication
	<i>Chairs: Armentano - Tesis</i>	<i>Chairs: Sivaprakasam - Lopez</i>
	Biomedical Engineering Education in Europe, the United States, and Uruguay - 1571235107	Locally Deployable LLMs for Automated Endoscopy Reporting: Benchmarking Generalist vs. Specialist Models - 1571247073
	MATeRa: design of a wearable system for tremor quantification in experimental rat models - 1571239913	Maternal care orchestrator agent for processing obstetrics intent-driven questions - 1571247485

11:00 - 12.30	Comparison of frame-rate enhancement strategies for brachial pulse wave velocity estimation by ultrafast ultrasound - 1571245629	Dynamic infrared thermography and computed tomography angiography fusion for DIEP flap perforator selection: a novel measurement system - 1571235043
	Home Blood Pressure Monitoring Devices Verification for the Population at Large - 1571247157	Efficient Multi-Task Classification for Real-Time Endoscopic Assistance - 1571245603
	SiELAR: high-resolution electronic system for pulse oximeter calibration - 1571253786	The LAMAS Mammography Image Database: A BI-RADS-Oriented Temporal Framework for Knowledge Transfer in Breast Imaging AI - 1571246056
	Vision-Based Automatic Registration for Surgical Navigation: Accuracy Assessment on Phantoms - 1571253808	DECK WebTransport: a new medical web imaging alternative to DICOMweb for complex air networks - 1571247083



Poster session 1	Poster session 2
<i>Chairs: Grassini, Scalise</i>	<i>Chairs: Grassini, Del Prete</i>
A Novel Device for Early Rheumatoid Arthritis Assessment and Patient Rehabilitation - 1571231980	Design and analysis requirements for an electrical stimulation research platform for infection control in osseointegrated bionic interfaces - 1571253772
Vision-Language Model Classification of Neonatal Resuscitation Interventions - 1571247365	Clinical Engineering Management Audits in High Tech Medical Centers - 1571255922

Development of a semi-automatic calibration system for infusion pumps - 1571246817	Modeling of ocular risk for the city of Fray Bentos, Uruguay - 1571253796
	Sleep Apnea Detection Through Respiratory Flow Using a Low-Cost Temperature Sensor - 1571253709