



## **ICTS4eHealth 2026**

*6th edition of the IEEE Conference on ICT Solutions for eHealth*  
Vilamoura, Algarve (Portugal)

### ***Final Program of ICTS4eHealth***

(All times are reported with reference to the Portugal time zone)

# Day 1 – Tuesday, June 23

13.30 – 14.00  
Registration (all day)

**14.15 – 15.30**

## Session 1: Image and Data Processing

Session Chair: **Daniele Ravi**

### Welcome to ICTS4eHealth 2026

<i>Annisa Sugiarti</i>	BioSpecular: A Benchmark of Specular Reflection Removal on Tissue Images
<i>Ciro Russo</i>	Impact of Cytology Preparation on Deep Learning for Cervical Cancer Screening
<i>Kian Anderson</i>	Automated Cleaning of Radiographic Images for Deep Learning Applications

15.30 – 16.00  
Coffee Break

**16.00 – 17.40**

## Session 2: AI and Data Science for Smart Healthcare

Session Chair: **Giovanni Lonia**

<i>Kyoko Sawamura</i>	Clustering Health-Care Institutions Based on the Dynamic Time Warping Similarity of Frequent Medical Orders
<i>Rosario Napoli</i>	Graph Data Science for Multi-Omics: Revealing Hidden Cancer Biomedical Patterns Through Global and Local Centrality
<i>Matteo Große-Kampmann</i>	Securing Brain-Computer Interfaces in Healthcare: A Systematic Review of Threats, Defenses, and Regulatory Challenges
<i>Patrick Sello</i>	From Digital Models to Intelligent Twins: A Maturity-Driven CPS Framework for Trauma Readmission in Healthcare
<i>Lorenzo Carnevale</i>	Abdominal Compliance Optimization for Laparoscopy Surgery in Pediatric Patients Using Swarm Intelligence

## Day 2 – Wednesday, June 24

08.30 – 09.00

Registration (all day)

09.00 – 10.30

### Session 3: Clinical Data, Privacy, and Interoperability

Session Chair: **Patrick Sello**

<i>Mario Dantas</i>	EHR-EHealth: A Proposal Environment Supporting Clinical Information Exchange
<i>Teresa Conte</i>	FHIR-Based Management of Patient-Generated Health Data and Granular Consent
<i>Byalau Krishnadevarajeurs</i>	Privacy-Preserving Stroke Detection from Facial Videos via Federated ResNet-BiGRU
<i>Stefano Silvestri</i>	Toward Semantic HL7 FHIR-Based Interoperability of Italian Clinical Documents Using AI and Domain Terminologies

10.30 – 11.00

Coffee Break

11.00 – 12.10

## ISCC Welcome and Keynote

**Prof. Aurel Lazar**

*Building the Foundations of Natural Olfactory Intelligence*

Session Chair: **TBA**

12.10 – 13.10

### Session 4: AI for Neurodegenerative and Speech Disorders

Session Chair: **Laura Verde**

<i>Zafi Sherhan Syed</i>	Staircase Classification with Acoustic Representations for ALS Severity Recognition
<i>Antonio Scardace</i>	A Quantitative Analysis of Multimodal Biomarkers in Alzheimer's Disease
<i>Diane Woodbridge</i>	Automated Pronunciation Evaluation for Korean Toddler Speech Using Speech Diarization and Self-Supervised Learning

13.10 – 14.00

Lunch

14.00 – 15.40

**Session 5: Image Analysis: Segmentation and Detection in Clinical Applications**

**Session Chair: Hesam Hakimnejad**

<i>Ettore Lanzarone</i>	Impact of task-informed data augmentation on U-Net-based kidney segmentation performance
<i>Maximo Rodriguez Herrero</i>	OsteoCAD: An eHealth Framework for Deep Learning-Based Large Bone Tumor Segmentation
<i>Salvatore Giugliano</i>	Saliency-Guided Regularization Framework for Enhancing Multiple Sclerosis Lesion Segmentation
<i>Tess Watt</i>	Improving the Quality of Skin Lesion Data for Training Vision-Language Models
<i>Nhung Thi Hong Tran</i>	ReMark: Augmented Reality and Image Matching for Skin Lesion Re-Identification

15.40 – 16.10

Coffee Break

16.10 – 17.50

**Session 6: Large Language Models for Health**

**Session Chair: Hasan F. Ates**

<i>Francesco Di Serio</i>	Parameter-Efficient Adaptation of Vision-Language Models for Medical Visual Question Answering
<i>Shreyas Ramachandran</i>	PULSE8: A ChatGPT-Driven Personalized Wellness App
<i>Salvatore Giugliano</i>	Influence of Speech Disfluencies and Prompt Optimization on LLM-Based Alzheimer's Disease Classification
<i>Patrick Sello</i>	A Hybrid Regex-Transformer Model for Enhanced Readmission Risk Detection from Clinical Text
<i>Francesco Mercaldo</i>	A Method for Explainable Multi-Modal Medical Image-Text Visual Question Answering Task

## Day 3: Thursday, June 25

08.30 – 09.00

Registration (all day)

09.00 – 10.40

### Session 7: Explainable and Interpretable AI in Clinical Applications

Session Chair: **Saber Sami**

<i>Artid Boonrerng</i>	Explainable ICD-10 Coding Support for Thai Clinical Text via Graph-Grounded Retrieval
<i>Francesco Mercaldo</i>	A Method for Explainable Multi-Modal Medical Image-Text Alignment Task
<i>Hasan F. Ates</i>	ATF-Attention: Attention-Based Fusion for Multi-Model Dental Object Detection in Panoramic Radiographs
<i>Antonio Della Cioppa</i>	Interpretable Evolutionary Models for Outcome Prediction in Pediatric Intracerebral Hemorrhage

10.40 – 11.10

Coffee Break

11.10 – 12.20

## ICTS4eHealth Keynote

**Prof. Francisco Martínez Álvarez**

*Quantum Machine Learning for eHealth: Foundations, Opportunities, and Emerging Applications*

Session Chair: **Giovanna Sannino**

12.20 – 14.00

Lunch

14.00 – 15.40

### Session 8: Generative AI for Next-generation e-Health

Session Chair: **Alessia Saggese**

<i>Stefano Rosini</i>	Synthetic Labeled MRI Brain Volumes via 2.5D Deep Learning
<i>Hyder Abbas</i>	Transfer Learning Based on Generative Adversarial Network for Tissue-Specific Virtual Staining
<i>Martino Giaquinto</i>	A Conditional Diffusion Model for Motor Imagery EEG Data Augmentation
<i>Hesam Hakimnejad</i>	StainFlow: Virtual Staining of Label-Free Tissue via Flow-Based Generative Models
<i>Francesco Gargiulo</i>	Sustainable Agentic AI in Medicine: Toward Energy-Aware, Equitable, and Responsible Architectures

15.40 – 16.10

Coffee Break

**16.10 – 18.00**

**Session 9: Signals and Motion Analysis for Healthcare**

**Session Chair: Daniele Ravi and Laura Verde**

<i>Summer Fleck</i>	Exploratory Study to Assess Muscle Fatigue and Recovery Using Thermal Imaging, Surface Electromyography and Goniometry
<i>Ciro Nespolino</i>	Towards an EEG-Based Method for Anaesthesia Monitoring: A Focus on Feature Extraction
<i>Valentin Fernandez</i>	A Reliability-Centred Benchmark for AI-Based Motion Analysis and Motor Biomarker Extraction
<i>Daryn Calangi</i>	Quantitative Lower-Limb Motion Analysis for Tele-Rehabilitation: A Mixed Reality Approach in a Cloud-Edge Environment
<i>Bisma Naeem</i>	Physics-Constrained Hybrid Generative Modeling for MammoWave Based Breast Cancer Classification
	<b>Best paper announcement</b>
	<b>Conclusions</b>