



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>Landoline Bonnin</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
	Best paper announcement
	Conclusions