



ICTS4eHealth 2025

*5th edition of the IEEE Conference on ICT Solutions for eHealth
Bologna (Italy)*

The final program of ISCC 2025 is at the link below:

<https://ieee-iscc.computer.org/2025/program/>

Final Program of ICTS4eHealth

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

Day 1 – Wednesday, July 02

08.30 – 09.30
Registration

09.30 – 11.00

Session 1: Image Analysis

Session Chair: **Antonio Celesti and Giovanna Sannino**

Welcome to ICTS4eHealth 2025

<i>Sibusiso Jeremiah Mwali</i>	Using OpenPose for Enhancing CPR Training: a Data-Driven Approach
<i>Bushra Jalil</i>	A Preliminary Study on Attention Unet Based Skin Segmentation and Vital Parameters Monitoring for Enhanced Diver Safety
<i>Martina Russo</i>	Deep Learning-Based Classification for Circulating Tumor Cells
<i>Anirudh Shankar</i>	Automated Breast Cancer Detection and Segmentation Using Image Processing Techniques

11.00 – 11.30

Coffee Break

11.30 – 13.00

Session 2: eXplainable Artificial Intelligence for Medical and Healthcare Systems

Session Chair: **Antonio Di Marino and Vincenzo Bevilacqua**

<i>Naeem Ullah</i>	Enhancing AI Explainability and Performance in Pulmonary Condition Classification with Data Segmentation and Augmentation
<i>Tamer ElBatt</i>	Towards Automated CVD Diagnosis: Deep Learning-Based ECG Feature Extraction
<i>Muhammad Hassan</i>	Enhancing Plankton Classification with Multimodal Learning: Combining InceptionResNetV2 and Handcrafted Features with Explainability
<i>Antonio Pilato</i>	Visual Question Answering and XAI: Multimodal Approach for Automatic Diagnosis from Lung Radiographs

13.00 – 14.00

Lunch

14.00 – 15.30

Session 3: mHealth

Session Chair: **Marta Campos Ferreira and Armando Ruggeri**

<i>Elisa Salatti</i>	eHealth and GDPR: Designing a System for People with ASD to Manage Anxiety Accessing ENT Visits
<i>Molka Gharbaoui</i>	Next-Generation Healthcare: a Secure and Voice-Driven App for Seamless Patient Engagement
<i>Ademola Adekoyejo Plumptre</i>	A Gamified Approach to Training Caregivers of Stroke Survivors
<i>Antonio Celesti</i>	Analysis on Parameters Influencing Non-Immersive Virtual Reality-Based Tele-Rehabilitation in Parkinson's Disease: an Exploratory Study

15.30 – 16.00

Coffee Break

16.00 – 18.00

Session 4: Machine Learning

Session Chair: João Manuel Ribeiro da Silva Tavares and Ilaria Basile

Antonio Celesti Deep Learning in Multiomics Sciences: Where We are, Emerging Topics, and Future Challenges

Ahmad Lotfi Intelligent Gait-Based Access Control System

Patrick Sello Federated and Split Learning with Frugal Labelling and Label Scarcity in Healthcare Datasets

Giulia Cisotto Machine Learning Based Assessment of Cognitive Performance Under Sleep Deprivation

Hiba Akli A Secure and Privacy-Preserving Blockchain-Based Framework for Fraud-Resilient E-Health Systems

Armando Ruggeri Deep Learning Approaches to Enhance COVID-19 Detection

19:45

Welcome Cocktail

Day 2: Thursday, July 03

08.30 – 09.00

Registration

09.00 – 10.30

ISCC Keynote

Prof. TBA

TBA

10.30 – 11.00

Coffee Break

11.00 – 12.00

Session 5: Non-contact Medical Diagnostics

Session Chair: **Dr. Vijayalakshmi Ahanathapillai**

Antonio Nocera

Respiration Monitoring Through Depth Camera in Moving Scenarios

Frank Conway

A Biopsy / Non-Biopsy Approach to Voice Disorder Classification Using Deep Learning

Michela Raimondi

Indoor Tracking for Motion-Robust Respiration Rate Extraction with FMCW Radar

12.00 – 13.00

Session 6: Generative AI for Healthcare

Session Chair: **Andrè Gurgel**

Elias Jacob de

Menezes-Neto

Evaluating LLMs for Healthcare-Related Named Entity Recognition in Brazilian Judicial Decisions

*Jean Mário Moreira
de Lima*

Applying Large Language Models for Summarizing Oncology Patients' Electronic Health Records

Andrè Gurgel

Fine-Tuning of a BERT Model for Oncology EHR Analysis in Brazilian Portuguese

13.00 – 14.00

Lunch

14:00 – 15:00

ICTS4eHealth Keynote

Prof. Salvador García López

Multi-modality approaches for medical support systems: where we are and where we are going

Session Chair: **Giovanna Sannino**

15.00 – 15.30

Coffee Break

15.30 – 17.30

Session 7: Signal Processing

Session Chair: Antonio Celesti and Jean Mário Moreira de Lima

Alessandro Santopao Challenges and Opportunities in Quantum-Enhanced XAI for Medical and Healthcare Systems

Ilaria Basile Enhancing Alzheimer's Diagnosis Through Spontaneous Speech Recognition: Deep Learning Approach with Data Augmentation

Darcey L C Gardiner Quality Assurance for Home Spirometry Using Machine Learning

Giulia Cisotto Machine Learning-Based Classification of Cognitive Workload via in-Ear EEG

Leonardo A. Marques AI-Based Low-Cost Approach for Cardiac Anomaly Detection

Best paper announcement

Conclusions