



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**

<i>Antonio Celesti</i>	Deep Learning in Multiomics Sciences: Where We are, Emerging Topics, and Future Challenges
<i>Ahmad Lotfi</i>	Intelligent Gait-Based Access Control System
<i>Patrick Sello</i>	Federated and Split Learning with Frugal Labelling and Label Scarcity in Healthcare Datasets
<i>Giulia Cisotto</i>	Machine Learning Based Assessment of Cognitive Performance Under Sleep Deprivation
<i>Hiba Akli</i>	A Secure and Privacy-Preserving Blockchain-Based Framework for Fraud-Resilient E-Health Systems
<i>Armando Ruggeri</i>	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. Burak Kantarci, Full Professor University of Ottawa

At the Edge of Everything: Unlocking Infinite Intelligence

10.30 – 11.00

Coffee Break

11.00 – 12.00

Session 5: **Non-contact Medical Diagnostics**

Session Chair: **Dr. Vijayalakshmi Ahanathapillai**

<i>Antonio Nocera</i>	Respiration Monitoring Through Depth Camera in Moving Scenarios
<i>Frank Conway</i>	A Biopsy / Non-Biopsy Approach to Voice Disorder Classification Using Deep Learning
<i>Michela Raimondi</i>	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**

<i>Elias Jacob de Menezes-Neto</i>	Evaluating LLMs for Healthcare-Related Named Entity Recognition in Brazilian Judicial Decisions
<i>Jean Mário Moreira de Lima</i>	Applying Large Language Models for Summarizing Oncology Patients' Electronic Health Records
<i>Andrè Gurgel</i>	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**

<i>Alessandro Santopaolo</i>	Challenges and Opportunities in Quantum-Enhanced XAI for Medical and Healthcare Systems
<i>Ilaria Basile</i>	Enhancing Alzheimer's Diagnosis Through Spontaneous Speech Recognition: Deep Learning Approach with Data Augmentation
<i>Darcey L C Gardiner</i>	Quality Assurance for Home Spirometry Using Machine Learning
<i>Giulia Cisotto</i>	Machine Learning-Based Classification of Cognitive Workload via in-Ear EEG
<i>Leonardo A. Marques</i>	AI-Based Low-Cost Approach for Cardiac Anomaly Detection

Best paper announcement

Conclusions