



## ICTS4eHealth 2024

*4<sup>th</sup> edition of the IEEE Conference on ICT Solutions for eHealth*

**The program of ISCC 2024 is at the link below:**

<https://2024.ieee-iscc.org/program/>

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

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



Funded by  
the European Union  
NextGenerationEU



Ministero  
dell'Università  
e della Ricerca



Italiadomani  
PIANO NAZIONALE  
DI RIPRESA E RESILIENZA



Future  
Artificial  
Intelligence  
Research

# Day 1 – Thursday, June 27

8.30 – 9.00  
Registration

09.00 – 10.00

## ICTS4eHealth Keynote

Session Chair: **Giovanna Sannino ICAR-CNR, Italy**

**Prof. Hani Hagrais:** *Towards Explainable Artificial Intelligence enabled Effective Health Care*  
Lecture Hall (Amphi): 0260

10.00 – 10.30  
Coffee Break

10.30 – 11.30

## Keynote (joint with ISCC)

**Prof. Shay Gueron:** *Cryptographic Acceleration*  
Lecture Hall (Amphi): 0260

11.30 – 12.00  
Break

12.00 – 13.00

Session 1: **Advanced Models for eHealth**  
Session Chair: **Antonio Celesti, University of Messina, Italy**  
room: 1409

### Welcome to ICTS4eHealth 2024

---

*Itamir de Morais  
Barroca Filho*

Natural Language Processing in the Context of Cancer: A Systematic Review

---

*Youness Amadiaz*

Decision Support for Patient Transport Efficiency Based on V2X Communications in a Healthcare System

13.00 – 14.30  
Lunch Break

**14.30 – 16.30**

**Session 2: Computer Vision and Multimedia Analysis**

**Session Chair: Itamir de Moraes Barroca Filho, Federal University of Rio Grande Do Norte, Brazil**

room: 1409

<i>Junaid Khan</i>	Innovative Video-Based Approach for Epileptic Seizure Detection in Mice
<i>Davide Ciraoalo</i>	Comparing CNN and ViT in Both Centralised and Federated Learning Scenarios: A Pneumonia Diagnosis Case Study
<i>Naeem Ullah</i>	Bridging Clinical Gaps: Multi-Dataset Integration for Reliable Multi-Class Lung Disease Classification with DeepCRINet and Occlusion Sensitivity
<i>Bushra Jalil</i>	Utilizing Time-Distributed Layers to Estimate Vital Parameters from Video Sequences
<i>Antonio Celesti</i>	Leveraging Audio Biomarkers for Enriching the Tele-Monitoring of Patients

**16.30 – 17.00**

**Coffee Break**

**17.00 – 18.00**

**Session 3: Signal Processing for eHealth**

**Session Chair: Yu-Sheng Lin, Southern Taiwan University of Science and Technology, Taiwan**

room: 1409

<i>Pranita Shedage</i>	Stress Detection Using Multimodal Physiological Signals with Machine Learning from Wearable Devices
<i>Bithi Banik</i>	Bi-Directional Estimation of Infant Heart and Respiration Rates Using Machine Learning Algorithms
<i>Luca Carmisciano</i>	Investigating Functional Data Analysis for Wearable Physiological Sensor Data in Stress Evaluation

**20.30**

**Gala Dinner**

## Day 2 – Friday, June 28

8.30 – 9.00  
Registration

**09.00 – 10.00**  
**Keynote (joint with ISCC)**

**Prof. Sanjay Ranka:** *Machine Learning Techniques for Data Reduction of Scientific Applications*  
Lecture Hall (Amphi): 0260

10.00 – 10.30  
Coffee Break

**10.30 – 11.30**  
**Keynote (joint with ISCC)**

**Prof. Themis Palpanas:** *Scalable Vector Analytics: A Story of Twists and Turns*  
Lecture Hall (Amphi): 0260

11.30 – 11.45  
Break

**11.45 – 13.15**  
Session 4: **Special Session GAIMHS:**  
**Generative AI for Medical and Healthcare Systems**  
Session Chair: **Antonio Di Marino, ICAR-CNR, Italy**  
room: 3101

<i>Eranga Bandara</i>	WedaGPT --- Generative-AI (with Custom-Trained Meta's Llama2 LLM), Blockchain, Self Sovereign Identity, NFT and Model Card Enabled Indigenous Medicine Platform
<i>Vincenzo Bevilacqua</i>	Cross-Domain Super-Resolution in Medical Imaging
<i>Hanzhi Wang</i>	Improving High-Frequency Details in Cerebellum for Brain MRI Super-Resolution
<i>Antonio Pilato</i>	Generative AI and Emotional Health: Innovations with Haystack

13.13 – 14.45  
Lunch Break

**14.45– 16.00**

**Session 5: Infrastructure Optimization for eHealth Applications**  
Session Chair: **Ray B. Jones, University of Plymouth, United Kingdom**  
room: 3101

<i>Andreea Ancuta Corici</i>	5G Wound Management System for Remote Areas
<i>Rui Jesus</i>	DICOM Gateway Anonymizer: A Cloud Architecture for a Scalable Research PACS
<i>Aymen Belghith</i>	Balancing Detection Speed and Resource Efficiency in Healthcare Vulnerability Scanning

**16.45 – 17.15**  
**Coffee Break**

**17.15 – 18.15**

**Session 6: IoT and Edge Applications**  
Session Chair: **Antonio Celesti, University of Messina, Italy**  
room: 3101

<i>Yu-Sheng Lin</i>	HandyCare: A Digital Approach for Home-Based Hand Edema Treatment
<i>Reda Chefira</i>	Smart Data Imputation Techniques for Indoor Air Quality Monitoring in e-Health-Like Environments
<i>Ray B. Jones</i>	Remote Scoping of an Audio-Reminiscence Tool for Care Home Residents

**Best Paper announcement**  
**Conclusions**