



1st International Workshop on Telemedicine and e-Health evolution in the new era of social distancing

Pisa (Italy), March 21, 2022

FINAL PROGRAM

09:00-9:30 — Welcome from the Chairs

9:30-10:30 — Session 1 - Remote monitoring for telemedicine applications

Chair: Dr. Anna Lina Ruscelli

9:30 - Sleep Quality through Vocal Analysis: a Telemedicine application

Federica Amato, Irene Rechichi, Luigi Borzì and Gabriella Olmo (Politecnico di Torino, Italy)

10:00 - Detection of an Ataxia-type disease from EMG and IMU sensors

Tobias Dorszewski (University of Stuttgart, Germany); Weixuan Jiang and Stephan Sigg (Aalto University, Finland)

10:30-10:45 — Break

10:45-11:45 — Session 2 – Platforms for telemedicine and e-Health I

Chair: Prof. Lorenzo Mucchi

10:45 - Digital Twins Federation for remote medical care of de-hospitalized patients

Alfio Lombardo (UNICT, Italy); Carmelo Ricci (CNIT, Italy)

11:15 - An enhanced distributed computational platform for developmental and epileptic encephalopathies

Gabriele Cecchetti (Scuola Superiore Sant'Anna, Pisa, Italy), Piero Castoldi (Scuola Superiore Sant'Anna, Pisa, Italy), Anna Lina Ruscelli (Scuola Superiore Sant'Anna, Pisa, Italy), Stefano Dalmiani (Fondazione G. Monasterio, Pisa, Italy), Paolo Marcheschi (Fondazione G. Monasterio, Pisa, Italy), Federica Pieroni (Fondazione G. Monasterio, Pisa, Italy), Davide Galletti (Fondazione G. Monasterio, Pisa, Italy), Valerio Conti (Pediatric Neurology, Neurogenetics and Neurobiology Unit and Laboratories, Children's Hospital A. Meyer-University of Florence, Italy), Renzo Guerrini (Pediatric Neurology, Neurogenetics and Neurobiology Unit and Laboratories, Children's Hospital A. Meyer-University of Florence, Italy)

11:45-12:00 — Break

12:00-13:30 — Session 3 - ICT in support of quality of life

Chair: Prof. Piero Castoldi

12:00 - Wearable Decubitus Prophylaxis Tool Based on Machine Learning Methods

Lorenz Grünerbel, Martin Richter, Ferdinand Heinrich and Dominik Diebolder (Fraunhofer EMFT, Germany)

12:30 - Deploying an instance segmentation algorithm to implement social distancing for prosthetic vision

Daniela De Luca (Sant'Anna School of Advanced Studies, Italy); Sara Moccia and Silvestro Micera (Scuola Superiore Sant'Anna, Italy)

13:00 - An alternative approach to home-based rehabilitation of children with Spinal Muscular Atrophy

Lucia Billeci and Alessandro Tonacci (Institute of Clinical Physiology (IFC) National Research Council of Italy (CNR), Italy); Maria-Aurora Morales (Institute of Clinical Physiology - CNR, Italy); Guja Astrea (IRCCS Stella Maris Foundation, Italy); Roberta Battini (IRCCS Fondazione Stella Maris, Italy)

13:30-14:30 Lunch break

14:30-15:30 — Keynote lecture - “Medicine 4.0: AI and IOT, the new revolution”, Prof. Eros Pasero, Politecnico di Torino (Italy), Distinguished Lecturer of the IEEE I&M Society

Chair: Prof. Piero Castoldi

15:30-15:45 — Break

15:45-16:45 — Session 4 - In-body detection techniques

Chair: Prof. Lorenzo Mucchi

15:45 - Localization of a Nano-transmitter in a Diffusive MC System with Multiple Fully-absorbing Receivers (Invited paper)

Fardad Vakilipoor and Maurizio Magarini (Politecnico di Milano, Italy)

16:15 - Breast cancer detection feasibility with flexible antennas on wearable monitoring vest

Mariella Särestöniemi (Erkki Koiso-Kanttilan katu 1 & Center for Wireless Communication, University of Oulu, Finland); Jarmo Reponen (University of Oulu, Finland); Marko Sonkki (University of Uulu, Finland); Sami Myllymaki and Carlos A Pomalaza-Ráez (University of Oulu, Finland); Osmo Tervonen (Research Unit of Medical Imaging, Physics and Technology, Finland); Teemu Samuli Myllylä (University of Oulu, Finland)

16:45-17:00 — Break

17:00 – 18:00 — Session 5 - Platforms for telemedicine and e-Health II

Chair: Dr. Mariella Särestöniemi

17:00 - SatNav E@syCare telemedicine platform in the management of Covid-19 patients: field trial results

Silvia Panicacci (IngeniArs srl, Italy); Alessio Ruiu (IngeniArs srl); Alberto Lubrano (IngeniArs srl, Italy); Massimiliano Donati, Martina Olivelli and Luca Fanucci (University of Pisa, Italy)

17:30 - Enabling the E@syCare telemedicine platform with push notification with end-to-end acknowledgment

Martina Olivelli, Massimiliano Donati, Alessio Bechini and Luca Fanucci (University of Pisa, Italy)

18:00-18:15 — Closing remarks