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Preface

We are experiencing an era of profound transformation in which mobile ubiquitous connection makes it possible to have real innovation in health care and well-being services.

The market availability of wearable devices that are deeply integrated in everyday objects like watches and garments also enhances the possibility to have a continuous monitoring of parameters and functions. A huge amount of data are generated and new challenges emerge from their efficient management and processing.

This is the worldwide technological scenario of the so-called wearable decade, in which various tiny pieces of high technology become part of us, as computers and mobile phones did in the 2000s.

We operate in this infinitely mutable and extraordinarily fast scenario, with the aim to design innovations and new perspectives without forgetting the human dimension, which is the key and driving factor. For many years, technology has been the hub of innovation and development, forgetting that systems and devices are developed for humans, who should indeed be the center of the entire process. We believe that starting from the human dimension, taking a cue from disciplines such as ergonomics and design, can help researchers to develop and implement real tools fitting into everyday objects and life, which in the middle/long term means health.

In this edition of the 6th EAI International Conference on Wireless Mobile Communication and Health Care – MobiHealth 2016, held in Milan, Italy, November 14–16, 2016 – we tried to integrate this multidisciplinary approach and vision in order to bring together for the first time engineers with designers and other non-engineering professionals to create a heterogeneous community that can give life to a new way of innovation.

The conference was communicated through the standard Web channels in particular reaching out to the participants of previous editions with a call for papers, and sending a dedicated invitation to recognized experts in m-health and related topics.

We received 57 papers, about 70% from the first traditional channel and about 30% from selected invitations. Each paper was reviewed by at least two independent experts identified among the Organizing Committee and the EAI experts selected by keywords. Only papers that were positively assessed by both reviewers were accepted. Specific comments were made and sent to the authors to improve the final submission.

Moreover, in keeping with the scope of the conference, at MobiHealth 2016 three distinguished experts presented talks on mobile and pervasive health innovations:

- Giuseppe De Pietro – “Mobile Health Care and Electronic Health Records” – presented the frame of “smart” m-health applications for the personal citizen agenda (PCA) in Italy.
- Enrico Profumo – “How To Make It Happen: Which Are the Driving Forces Shaping Health Care” – analyzed the digitalization in health systems and the problem related to security.

– Maria Renata Guarneri – "Multidimensional ICT System for Motivating Behavioral Changes Toward Healthier Lifestyles for Overweight and Obesity Prevention" – presented the experience of the EU-funded PEGASO F4F project, which uses mobile apps, wearable devices, and videogames to encourage teenagers to adopt a healthy lifestyle.

The papers and related presentations were divided into ten sessions:

1. Technological development for m-health applications
2. Promotion of healthy lifestyle
3. Devices for m-health
4. Smart applications for clinical care
5. IOT for m-health
6. Mobile applications for health
7. Design approach for m-health solutions
8. Feel the fall
9. Machine learning in mH_applications
10. Systems and apps for movement analysis

The conference also included a special session on "Advances in Soft Wearable Technology for Mobile Health" and three workshops:

1. Advances in Personalized Health-Care Services, Wearable Mobile Monitoring, and Social Media Pervasive Technologies
2. Emerging Experiences into Receiving and Delivering Health Care Through Mobile and Embedded Solutions
3. e-Health: The 21st Century Games Revolution

The conference ended with a final round table bringing together the scientific representatives of high-level research projects (all EU-funded projects in the e-health field) to share experiences and lay out future directions.

We are grateful to Politecnico di Milano (especially to the design department) and to the European Alliance for Innovation for sponsoring and co-organizing this event. Furthermore, generous support for the conference was provided by Istituto di Bioimmagini e Fisiologia Molecolare - CNR.

Finally, we would like to thank all the participants for their hard work in preparing the manuscripts and the presentations. The papers included in these proceedings are the final result of a great amount of creative work and a highly selective review process. We hope that they will serve as a valuable source of information on the state of the art of mobile health and technology.

April 2017

Paolo Perego
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Contents

Technological Development for m-Health Application

Self-Powered Implantable Electromagnetic Device for Cardiovascular System Monitoring Through Arterial Wall Deformation 3
Grigorios Marios Karageorgos, Christos Manopoulos, Sokrates Tsangaris, and Konstantina Nikita

A Custom Base Station for Collecting and Processing Data of Research-Grade Motion Sensor Units 11
Kamen Ivanov, Zhanyong Mei, Huihui Li, Wenjing Du, and Lei Wang

Energy-Efficient IoT-Enabled Fall Detection System with Messenger-Based Notification 19
Igor Tcarenko, Tuan Nguyen Gia, Amir M. Rahmani, Tomi Westerlund, Pasi Liljeberg, and Hannu Tenhunen

Promotion for Healthy Lifestyle

A Mobile Adviser of Healthy Eating by Reading Ingredient Labels 29
Man Wai Wong, Qing Ye, Yuk Kai Chan Kylar, Wai-Man Pang, and Kin Chung Kwan

Investigating How to Measure Mobile User Engagement 38
Stefano Carrino, Maurizio Caon, Omar Abou Khaled, and Elena Mugellini

Personalised Guidance Services for Optimising Lifestyle in Teen-Agers Through Awareness, Motivation and Engagement – PEGASO: A Pilot Study Protocol 45
Fulvio Adorni, Federica Prinelli, Chiara Crespi, Elisa Puigdomènech, Santiago Felipe Gomez, Espallargues Carreras Mireia, Castell Abat Conxa, Brian McKinstry, Anne Martin, Lucy McCloughan, Alexandra Lang, Laura Condon, Sarah Atkinson, Rajeeb Rashid, and On Behalf of the PEGASO Consortium

PEGASO Companion: A Mobile App to Promote Healthy Lifestyles Among Adolescents 53
Maurizio Caon, Stefano Carrino, Laura Condon, Antonio Ascolese, Sara Facchinetti, Marco Mazzola, Paolo Perego, Filip Velickovski, Giuseppe Andreoni, and Elena Mugellini

Device for m-Health

SmartMATES for Medication Adherence Using Non-intrusive Wearable Sensors 65
A.H. Abdullah and T.H. Lim

Paradigm-Shifting Players for IoT: Smart-Watches for Intensive Care Monitoring 71
Francesca Stradolini, Eleonora Lavalle, Giovanni De Micheli, Paolo Motto Ros, Danilo Demarchi, and Sandro Carrara

Toward an Open-Source Flexible System for Mobile Health Monitoring 79
Mathieu Bagot, Pascale Launay, and Frédéric Guidec

Smart Applications for Clinical Care

A System for Hypertension Management Assistance Based on the Technologies of the Smart Spaces 85
Alexander Borodin, Tatyana Kuznetsova, and Elena Andreeva

Enhancing the Early Warning Score System Using Data Confidence 91
Maximilian Götzinger, Nima Taherinejad, Amir M. Rahmani, Pasi Liljeberg, Axel Jantsch, and Hannu Tenhunen

Application of Wearable Monitoring System in Tourette Syndrome Assessment 100
Sofia Scataglini, Marcello Fusca, Giuseppe Andreoni, and Mauro Porta

Assessment of Physiological Signals During Happiness, Sadness, Pain or Anger 107
Nima TaheriNejad and David Pollreisz

Customising the Cold Challenge: Pilot Study of an Altered Raynaud's Phenomena Assessment Method for Data Generation 115
Isobel Taylor

IOT - Internet of Things

A Context-Aware, Capability-Based, Role-Centric Access Control Model for IoMT 125
Flora Malamateniou, Marinos Themistocleous, Andriana Prentza, Despina Papakonstantinou, and George Vassilacopoulos

Modular IoT Platform for AAL and Home Care Using Bluetooth Low Energy 132
Johannes Kropf, Samat Kadyrov, and Lukas Roedl

Non-conventional Use of Smartphones: Remote Monitoring Powered Wheelchairs in MARINER Project 138
Paolo Meriggi, Ivana Olivieri, Cristina Fedeli, Diana Scurati, Giovanni Ludovico Montagnani, Elena Brazzoli, Marina Rodocanachi, and Lucia Angelini

Intelligent Automated EEG Artifacts Handling Using Wavelet Transform, Independent Component Analysis and Hierarchal Clustering. 144
Shaibal Barua, Shahina Begum, and Mobyen Uddin Ahmed

Mobile Application for Health

Crowdsourced Data Collection of Physical Activity and Health Status: An App Solution. 151
Daniel Kelly, Brian Caulfield, and Kevin Curran

Skinhealth, A Mobile Application for Supporting Teledermatology: A Case Study in a Rural Area in Colombia 160
Juan Pablo Sáenz, Mónica Paola Novoa, Darío Correal, and Bell Raj Eapen

Smartphone-Based Detection of Location Changes Using WiFi Data 164
Anja Exler, Matthias Urschel, Andrea Schankin, and Michael Beigl

Adaptive Motif-Based Alerts for Mobile Health Monitoring 168
Ekanath Rangan and Rahul Krishnan Pathinarupothi

A Portable Real Time ECG Device for Arrhythmia Detection Using Raspberry Pi 177
C.A. Valliappan, Advait Balaji, Sai Ruthvik Thandayam, Piyush Dhingra, and Veeky Baths

Design Approach for mHealth Solutions

A Didactic Experience in Designing Smart Systems for mHealth Services . . . 187
Carlo Emilio Standoli, Maria Renata Guarneri, Marinella Ferrara, and Giuseppe Andreoni

DIABESITY: A Study for mHealth Integrated Solutions 195
Italo Zoppis, Giancarlo Mauri, Ferancesco Sicurello, Eugenio Santoro, Giada Pietrabissa, and Gianluca Castelnuovo

A Reference Framework of mHealth Patents for Innovative Services 200
Massimo Barbieri and Giuseppe Andreoni

Monitoring Patients in Ambulatory Palliative Care:
A Design for an Observational Study 207
Vanessa C. Klaas, Alberto Calatroni, Michael Hardegger, Matthias Guckenberger, Gudrun Theile, and Gerhard Tröster

System for Fall Detection and Prediction

Fall Detection Using a Head-Worn Barometer 217
Guglielmo Cola, Marco Avvenuti, Pierpaolo Piazza, and Alessio Vecchio

Investigation of Sensor Placement for Accurate Fall Detection 225
Periklis Ntanasis, Evangelia Pippa, Ahmet Turan Özdemir, Billur Barshan, and Vasileios Megalooikonomou

Fall Detection with Orientation Calibration Using a Single Motion Sensor . . . 233
Shuo Yu and Hsinchun Chen

A Neural Network Model Based on Co-occurrence Matrix
for Fall Prediction 241
Masoud Hemmatpour, Renato Ferrero, Bartolomeo Montrucchio, and Maurizio Rebaudengo

Machine Learning in mHealth Applications

Using Smartwatch Sensors to Support the Acquisition of Sleep Quality
Data for Supervised Machine Learning 251
Cinzia Bernardeschi, Mario G.C.A. Cimino, Andrea Domenici, and Gigliola Vaglini

Multilayer Radial Basis Function Kernel Machine 260
Mashail Alsalamah and Saad Amin

Improving the Probability of Clinical Diagnosis of Coronary-Artery
Disease Using Extended Kalman Filters with Radial Basis
Function Network 269
Mashail Alsalamah and Saad Amin

A Hypothetical Reasoning System for Mobile Health
and Wellness Applications 278
Aniello Minutolo, Massimo Esposito, and Giuseppe De Pietro

Systems and Apps for Movement Analysis and Detection

Accuracy of the Microsoft Kinect System in the Identification of the Body Posture 289
Paolo Abbondanza, Silvio Giancola, Remo Sala, and Marco Tarabini

A Web Based Version of the Cervical Joint Position Error Test: Reliability of Measurements from Face Tracking Software 297
Angelo Basteris, Luke Hickey, Ebony Burgess-Gallop, Ashley Pedler, and Michele Sterling

Motion Capture: An Evaluation of Kinect V2 Body Tracking for Upper Limb Motion Analysis 302
Silvio Giancola, Andrea Corti, Franco Molteni, and Remo Sala

Use of Wearable Inertial Sensor in the Assessment of Timed-Up-and-Go Test: Influence of Device Placement on Temporal Variable Estimation 310
Stefano Negrini, Mauro Serpelloni, Cinzia Amici, Massimiliano Gobbo, Clara Silvestro, Riccardo Buraschi, Alberto Borboni, Diego Crovato, and Nicola Francesco Lopomo

Advances in Soft Wearable Technology for Mobile-Health

Development of a Sustainable and Ergonomic Interface for the EMG Control of Prosthetic Hands 321
Emanuele Lindo Secco, Cedric Moutschen, Andualem Tadesse Maereg, Mark Barrett-Baxendale, David Reid, and Atulya Kumar Nagar

Synergy-Driven Performance Enhancement of Vision-Based 3D Hand Pose Reconstruction 328
Simone Ciotti, Edoardo Battaglia, Iason Oikonomidis, Alexandros Makris, Aggeliki Tsoli, Antonio Bicchi, Antonis A. Argyros, and Matteo Bianchi

A Quantitative Evaluation of Drive Patterns in Electrical Impedance Tomography 337
Stefania Russo, Nicola Carbonaro, Alessandro Tognetti, and Samia Nefti-Meziani

Wearable Augmented Reality Optical See Through Displays Based on Integral Imaging 345
Emanuele Maria Calabrò, Fabrizio Cutolo, Marina Carbone, and Vincenzo Ferrari

Emerging Experiences into Receiving and Delivering Healthcare Through Mobile and Embedded Solutions

Interference Between Cognitive and Motor Recovery in Elderly Dementia Patients Through a Holistic Tele-Rehabilitation Platform 359
Alberto Antonietti, Marta Gandolla, Mauro Rossini, Franco Molteni, Alessandra Pedrocchi, and The ABILITY Consortium

Supporting Physical and Cognitive Training for Preventing the Occurrence of Dementia Using an Integrated System: A Pilot Study 367
Mauro Marzorati, Simona Gabriella Di Santo, Simona Mrakic-Sposta, Sarah Moretti, Nithiya Jesuthasan, Andrea Caroppo, Andrea Zangiacomi, Alessandro Leone, Marco Sacco, and Alessandra Vezzoli

A New Personalized Health System: The SMARTA Project 375
Massimo W. Rivolta, Paolo Perego, Giuseppe Andreoni, Maurizio Ferrarin, Giuseppe Baroni, Corrado Galzio, Giovanna Rizzo, Marco Tarabini, Marco Bocciolone, and Roberto Sassi

Advances in Personalized Healthcare Services, Wearable Mobile Monitoring, and Social Media Pervasive Technologies

Identification of Elders' Fall Using the Floor Vibration 383
Marco Bocciolone, Filip Gocanin, Diego Scaccabarozzi, Bortolino Saggin, and Marco Tarabini

The Role of Design as Technology Enabler: A Personalized Integrated Predictive Diabetes Management System 392
Venere Ferraro and Venanzio Arquilla

Detecting Elderly Behavior Shift via Smart Devices and Stigmergic Receptive Fields 398
Marco Avvenuti, Cinzia Bernardeschi, Mario G.C.A. Cimino, Guglielmo Cola, Andrea Domenici, and Gigliola Vaglini

A Pilot Study of a Wearable Navigation Device with Tactile Display for Elderly with Cognitive Impairment. 406
Rosalam Che Me, Venere Ferraro, and Alessandro Biamonti

Author Index 415