2013 IEEE 15th International Conference on e-Health Networking, Applications and Services

(Healthcom 2013)

Lisbon, Portugal
9 – 12 October 2013

Program

A1: Tutorial 1: Dr Katarzyna Wac

Methodology for Evaluating Experience of Mobile (Healthcare) Applications Used in Different Contexts of Daily Life

A2: Tutorial 2: Dr. Morcous M. Yassa

Health Care Collaborative Networked Organization

B1: Workshop 1: International Workshop on New Trends on Telemedicine (NTT 2013)

Opening Session

C1: Workshop 2: First International Workshop on Service Science for e-Health (SSH 2013)

Joint Source and Turbo Trellis Coded Hierarchical Modulation for Context-aware Medical Image Transmission
Abdulah Jeza Aljohani (University of Southampton, United Kingdom); Hua Sun (University of Southampton, United Kingdom); Soon Xin Ng (University of Southampton, United Kingdom); Lajos Hanzo (University of Southampton, United Kingdom)
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Medical Image and Video quality assessment in e-health Applications and Services
Manzoor Razaak (Kingston University-London, United Kingdom); Maria G. Martini (Kingston University, United Kingdom)
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An Intelligent System for Renal Segmentation
Yassine Aribi (University of Sfax & Enis, Tunisia); Wali Ali (University of Sfax, Tunisia); Adel M. Alimi (REGIM, University of Sfax, National School of Engineers, Tunisia)
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D1: Workshop 3: 1st International Workshop on Active and Healthy Ageing (AHA 2013)

A3: Coffee Break

A4: Tutorial 1: Dr Katarzyna Wac

Methodology for Evaluating Experience of Mobile (Healthcare) Applications Used in Different Contexts of Daily Life

A5: Tutorial 2: Dr. Morcous M. Yassa

Health Care Collaborative Networked Organization

B2: Workshop 1: International Workshop on New Trends on Telemedicine (NTT 2013)

Panel New Trends On Telehealth / Telemedicine (I)

C2: Workshop 2: First International Workshop on Service Science for e-Health (SSH 2013)

Detecting Obstructive Sleep Apnea events in a real-time mobile monitoring system through automatically extracted sets of rules
Giovanna Sannino (Institute of High Performance Computing and Networking National Research Council of Italy, Italy); Ivanoe De Falco (Institute of High Performance Computing and Networking, ICAR-CNR, Italy); Giuseppe De Pietro (ICAR CNR, Italy)
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mHealth for Cardiac Patients Telemonitoring and Integrated Care
Zviad Kirtava (Partners for Health NGO; Tbilisi State Medical University; Tbilisi, GEORGIA, Georgia); Tea Gegenava (Partners for Health NGO / Tbilisi State Medical University, Georgia); Maka Gegenava (Partners for Health NGO / Tbilisi State Medical University, Georgia)
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Platform for building eHealth streaming services
Pawel Swiatek (Wroclaw University of Technolgy, Poland); Patryk Schauer (Wroclaw University of Technology, Poland); Adam Kokot (Wroclaw University of Technology, Poland); Maciej Demkiewicz (Wroclaw University of Technology, Poland)
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Construction of Healthcare Network based on Proposed ECG and Physical-activity Sensor adopting Energy-harvesting Technologies
Makoto Kawashima (Chubu University, Japan); Taiki Nakamura (Chubu University, Japan); Kaori Hata (Chubu University, Japan)
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A Mobile Health Application for Falls Detection and Biofeedback Monitoring
Edgar Horta (Instituto de Telecomunicações, University of Beira Interior, Portugal); Ivo Lopes (Instituto de Telecomunicações, University of Beira Interior, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Mario Lemes Proença Jr. (State University of Londrina, Brazil)
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D2: Workshop 3: 1st International Workshop on Active and Healthy Ageing (AHA 2013)

AAL: The User's Perspective and Architectures
Session Chair: Henrique O'Neill

Ambient Assisted Living Technology: Comparative perspectives of users and caregivers
David Cunha (Paula Frassinetti School of Education, Portugal); Gabriela Trevisan (Paula Frassinetti School of Education, Portugal); Florbela Samagaio (Paula Frassinetti School of Education, Portugal); Liliana Ferreira (Fraunhofer Portugal AICOS, Portugal); Filipe Sousa (Fraunhofer Portugal, Portugal); José Ferreira Alves (School of Psychology University of Minho, Portugal); Ricardo Simões (University of Minho, Portugal)
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A Platform to Emulate an Ambient Assisted Living Environment
Ricardo Simões (University of Minho, Portugal); Oscar Silvio Marques de Almeida Gama (University of Minho, Portugal)
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We.Can Platform: an Open Management Architecture for the Information Persistence
Yosvany Llerena (University of Aveiro, Portugal); Alexandra Queirós (Universidade de Aveiro, Portugal); Nelson Rocha (University of Aveiro & Instituto de Engenharia Electrónica e Telemática de Aveiro, Portugal); Carlos Cardoso (Maisis, Portugal); Miguel Grade (Maisis, Portugal); Filipe Augusto (Maisis, Portugal); João Quintas (Instituto Pedro Nunes, Portugal)
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D3: Workshop 3: 1st International Workshop on Active and Healthy Ageing (AHA 2013)

Health Technologies for assisting User's daily life
Session Chair: Filipe Sousa

Medical Video Streaming Utilizing MPEG-DASH
Ognen Ognenoski (Kingston University, United Kingdom); Manzoor Razaak (Kingston University-London, United Kingdom); Maria G. Martini (Kingston University, United Kingdom); Peter Amon (Siemens Corporate Technology, Germany)
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Evaluation of sensors and algorithms for person detection for personal robots
Cláudia Tonelo (Faculdade de Engenharia da Universidade do Porto, Portugal); António Moreira (Fac. Eng. da Universidade do Porto, Portugal); Germano Veiga (INESC TEC & INESC TEC Tecnologia e Ciência, Portugal)
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Trends in Mobile Medical Thermography
Ricardo Vardasca (Faculty of Engineering, University of Porto, Portugal); Joaquim Gabriel Mendes (IDMEC Pólo FEUP & Faculty of Engineering, UP, Portugal)
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A6: Tutorial 3: Prof. Ricardo Correia

Introduction to openEHR - Main Concepts, Tools and Archetype/Template Creation

A7: Tutorial 4: Prof. Tony Sahama

Designing an Information Accountability Framework for eHealth

B3: Workshop 1: International Workshop on New Trends on Telemedicine (NTT 2013)

Development and experiences on brazilian telehealth programme

C3: Workshop 2: First International Workshop on Service Science for e-Health (SSH 2013)

Planning for Composition of eHealth Services
Pawel Stelmach (Wroclaw University of Technology, Poland)
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A methodology for multi-actor evaluation of the impact of eCare services
Frederic Vannieuwenborg (Ghent University - iMinds, Belgium); Jan Van Ooteghem (Ghent University - iMinds, Belgium); Mathieu Vandenberghe (Ghent University, Belgium); Sofie Verbrugge (Ghent University - IBBT, Belgium); Mario Pickavet (Ghent University - iMinds, Belgium); Didier Colle (iMinds - Ghent University, Belgium)
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IoT as a Service System for eHealth
Pawel Swiatek (Wroclaw University of Technolgy, Poland); Andrzej Rucinski (University of New Hampshire, USA)
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Runtime Data-driven Adaptation of Composite e-Health Services
Pawel Stelmach (Wroclaw University of Technology, Poland); Łukasz Falas (Wroclaw University of Technology, Poland)
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A7: Coffee Break

A8: Tutorial 3: Prof. Ricardo Correia

Introduction to openEHR - Main Concepts, Tools and Archetype/Template Creation

A9: Tutorial 4: Prof. Tony Sahama

Designing an Information Accountability Framework for eHealth

B4: Workshop 1: International Workshop on New Trends on Telemedicine (NTT 2013)

Panel New Trends On Telehealth / Telemedicine (II)

C4: Workshop 2: First International Workshop on Service Science for e-Health (SSH 2013)

B1: Open EXPO

B2: Welcome Reception

Opening Ceremony

Henrique Martins (Chairmen of the Board, SPMS; University of Beira Interior, Portugal) - Paulo Neves (AMA President) - Joel Rodrigues (General Chair, IT-UBI, Portugal)

Keynote: Marcia Ito (IBM Research Brazil)

The Challenge of Big Data in Health: Meaningful Use of Information for Patient Centered Care

Coffee Break and EXPO Visit

Keynote: Isao Nakajima (Tokai University)

Disaster Communications after the Accidents of the Fukushima Nuclear Power Plant (Japan)

Panel 1: Telemedicine Today

Moderator: Luis Gonçalves
Participants: Portugal - Miguel Castelo Branco (University of Beira Interior, Portugal; Centro Hospitalar Cova da Beira - University Hospital, Covilhã, Portugal) USA-Eric Addeo (DeVry University)Brazil - Cláudio de Souza (State University of Minas Gerais,

Lunch Break

S1: S1: Body Area Networks-I

Energy Harvesting Aware Hybrid MAC Protocol for WBANs
Ernesto Ibarra (Telecommunications Technological Centre of Catalonia (CTTC), Spain); Angelos Antonopoulos (Telecommunications Technological Centre of Catalonia (CTTC), Spain); Elli Kartsakli (Universitat Politècnica de Catalunya (UPC), Spain); Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)
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Simulation of Human Activity in a Health Smart Home with HMM
Norbert Noury (University of Lyon & Team Biomedical Sensors, France); Tareq Hadidi (Salman bin Abdulazizi University, Saudi Arabia)
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A Bluetooth Low Energy Approach for Monitoring Electrocardiography and Respiration
Bing Zhou (University of Chinese Academy of Sciences, P.R. China); Xianxiang Chen (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Xinyu Hu (University of Chinese Academy of Sciences, P.R. China); Ren Ren (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Xiao Tan (University of Chinese Academy of Sciences, P.R. China); Zhen Fang (Chinese Academy of Science, P.R. China); Shanhong Xia (Institute of Electronics, CAS, P.R. China)
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Early Detection of Myocardial Infarction Using WBAN
Medina Hadjem (Université Paris Descartes, France); Osman Salem (University of Paris Descartes, France); Farid Naït-Abdesselam (University of Paris Descartes, France); Ahmed Mehaoua (University of Paris Descartes, France)
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Probabilistic Data Association for Wireless Passive Body Sensor Networks
Wenxing Xu (University of Bristol, United Kingdom); Robert J Piechocki (University of Bristol, United Kingdom); Geoffrey Hilton (University of Bristol, United Kingdom)

S2: S2: Web based applications for eHealth

S3: S3: Applications and system development for eHealth

S4: S4: Models and algorithms for eHealth

S5: S5: Privacy, Security in eHealth

Iinatti (University of Oulu, Finland); Timo Jämsä (University of Oulu, Finland); Jarmo Reponen (University of Oulu, Finland); Tapio Seppänen (University of Oulu, Finland)
pp. 243-248

Security and Privacy in eHealth: is it possible?
Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia); Leonie R Simpson (Queensland University of Technology, Australia); William B Lane (Queensland University of Technology, Australia)
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Secured e-health data retrieval in DaaS and Big Data
David Shin (EE&CS, SEF, QUT, Australia); Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia); Randike Gajanayake (Queensland University of Technology, Australia)
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Trust Factors in the Adoption of National Electronic Health Records
Bruno Meira (Universidade do Minho, Portugal); Filipe de Sá-Soares (Universidade do Minho, Portugal)

CoSeMed - Cooperative and Secure Medical Device Cloud
Andreas Kliem (Technische Universität Berlin, Germany); Odej Kao (TU Berlin, Germany)
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S6: Poster Session 1

E-Health Support System in University Environment
Toshiyuki Maeda (Hannan University, Japan)
pp. 265-267

Stand Up from a Chair with Lesser Body Load: Biomechanical Simulation and Visual Supplement
Asuka Takai (Osaka Prefecture University & Division of Mechanical Engineering, Graduate School of Engineering, Japan); Chihiro Nakagawa (Osaka Prefecture University, Japan); Atsuhiko Shintani (Osaka Prefecture University, Japan); Tomohiro Ito (Osaka Prefecture University, Japan)
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Enabling Comfortable Sports Therapy for Patient: A Novel Lightweight Durable and Portable ECG Monitoring System
Min Chen (Huazhong University of Science and Technology, P.R. China); Yujun Ma (Huazhong University of Science and Technology, P.R. China); Jialun Wang (Huazhong University of Science and Technology, P.R. China); Dung Mau (Huazhong University of Science and Technology, Wuhan, P.R. China); Enmin Song (Huazhong University of Science & Technology, P.R. China)
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Context-Aware eHealth Information Approach for the Brazilian Primary Healthcare System
Augusto Jose Venancio Neto, Ph. D. (Universidade Federal do Rio Grande do Norte & Centro de Ciências Exatas da Terra, Brazil); Joelias Silva Pinto Júnior (Federal University of Goiás, Brazil); Jose N de Souza (UFC, Brazil); Eduardo Cerqueira (Federal University of Para & UFPA, Brazil)
pp. 274-276

WSN4QoL: Wireless Sensor Networks for Quality of Life
Stefano Tennina (WEST Aquila srl, Italy); Elli Kartsakli (Universitat Politècnica de Catalunya (UPC), Spain); Aristeidis Lalos (Technical University of Catalonia (UPC), Spain); Angelos Antonopoulos (Telecommunications Technological Centre of Catalonia (CTTC), Spain); Prodromos-Vasileios Mekikis (Universitat Politècnica de Catalunya (UPC), Spain); Marco Di Renzo (French National Center for Scientific Research (CNRS), France); Yuriy Zacchia Lun (WEST Aquila srl, Italy); Fabio Graziosi (University of l'Aquila, Italy); Luis Alonso (Universidad Politecnica de Catalunya-BarcelonaTECH & Telecommunications and Aerospatial Engineering School of Castelldefels, Spain); Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)
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An application of Brain Computer Interface in chronic stroke to improve arm reaching function exploiting Operant Learning strategy and Brain Plasticity

Giulia Cisotto (University of Padova, Italy); Stefano Silvoni (I. R. C. C. S. Fundation San Camillo Hospital, Italy); Francesco Piccione (I. R. C. C. S. Fundation San Camillo Hospital, Italy); Silvano Pupolin (University of Padua, Italy)
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Using Machine Learning to Identify Benign Cases with Non-Definitive Biopsy

Finn Kuusisto (University of Wisconsin - Madison, USA); Inês Dutra (University of Porto, Portugal); Houssam Nassif (University of Wisconsin - Madison, USA); Yirong Wu (University of Wisconsin - Madison, USA); Molly Klein (University of Wisconsin - Madison, USA); Heather Neuman (University of Wisconsin - Madison, USA); Jude Shavlik (University of Wisconsin-Madison, USA); Elizabeth Burnside (University of Wisconsin - Madison, USA)
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Leveraging XDS-I and PIX workflows for validating cross-enterprise patient identity linkage

Luís Ribeiro (University of Aveiro, Portugal); Frederico Honório (University of Aveiro, Portugal); José Luís Oliveira (University of Aveiro, Portugal); Carlos Costa (University of Aveiro, Portugal)
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S7: Coffee Break and EXPO Visit

G1: S6: Body Area Networks-II

Reliable Vital Sign Collection in Medical Wireless Sensor Networks

Amal Naseem (Paris Descartes University, France); Osman Salem (University of Paris Descartes, France); Yaning Liu (JCP-Consult, France); Ahmed Mehaoua (University of Paris Descartes, France)
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P2Care: A Dynamic Self-Organized Healthcare Network for Ubiquitous Healthcare Environment

Foteini Andriopoulou (University of Patras, Greece); Konstantinos Birkos (University of Patras, Greece); Dimitrios Lymberopoulos (University of Patras, Greece)
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A Network of Collaborative Sensors for the Monitoring of COPD Patients in their Daily Life

Norbert Noury (University of Lyon & Team Biomedical Sensors, France); Bruno Perriot (University of Lyon & Sleepinnov Technology, France); Jerome Argod (Sleepinnov Yechnology, France); Jean-Louis Pepin (Grenoble University Hospital, Sleep and EFCR & INSERM U1042, HP2 Laboratory, Joseph Fourier University, France)
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An Adaptive Access Control Model for Medical Data in Wireless Sensor Networks

Htoo Aung Maw (University of Hertfordshire, United Kingdom); Hannan Xiao (University of Hertfordshire, United Kingdom); Bruce Christianson (University of Hertfordshire, United Kingdom)
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On Designing an Ubiquitous Sensor Network for Health Monitoring

Bertrand Massot (University of Lyon & INL - INSA Lyon, France); Norbert Noury (University of Lyon & Team Biomedical Sensors, France); Claudine Gehin (INL, France); Eric McAdams (INL, France)
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Radiation Awareness in Three-Dimensional optimal WBAN model deployment

Hassine Moungla (Paris Descartes University & LIPADE Labs, France); Nora Touati (LIX, Ecole Polytechnique, France); Ahmed Mehaoua (University of Paris Descartes, France)
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G2: S7: Models and algorithms for eHealth-II

Comparative Analysis of Indoor Location Technologies for Monitoring of Elderly

Silvia Miguel-Bilbao (Health Institute Carlos III, Spain); Jose Roldan (ISCIII, Spain); Jorge Garcia (Health Institute Carlos III, Spain); Pilar García-Sagredo (ISCIII, Spain); Victoria Ramos (Institute of Health Carlos III, Spain); Fernando López (ISCIII, Spain)

G3: S8: Signal processing/Telemedicine

On Asynchronous Flow Scheduling for Wireless Body Sensor Networks

Liang Zhou (Nanjing University of Posts and Telecommunications, P.R. China); Jianxin Chen (Nanjing University of Posts&Telecommunications, P.R. China); Baoyu Zheng (Nanjing University of Posts and Telecommunications, P.R. China); Isabel de la Torre (University of Valladolid, Spain); Sudip Misra (Indian Institute of Technology-Kharagpur, India)
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Catastrophic Collision in Bio-nanosensor Networks: Does it really matter?

Nabiul Islam (Indian Institute of Technology Kharagpur, India); Sudip Misra (Indian Institute of Technology-Kharagpur, India); Judhistir Mahapatro (Indian Institute of Technology Kharagpur, India); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal)
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G4: S9: Services and Standards

Healthcare professionals as customers: A service perspective on Portuguese primary care health information systems

Jorge Grenha Teixeira (University of Porto - Faculty of Engineering, Portugal); Lia Patrício (University of Porto, Portugal); Leonel Nóbrega (University of Madeira, Portugal); Larry Constantine (University of Madeira, Portugal); Raymond Fisk (Texas State University, USA)
pp. 377-381

Norms and Standards in Modular Medical Architectures

Christoph P Thuemmler (Edinburgh Napier University, United Kingdom); Oli Mival (Edinburgh Napier University, United Kingdom); David Benyon (Edinburgh Napier University, United Kingdom); William J Buchanan (Edinburgh Napier University, United Kingdom); Alois Paulin (Edinburgh Napier University, United Kingdom); Samuel Fricker (Blekinge Institute of Technology, Sweden); Markus Fiedler (Blekinge Institute of Technology, Sweden); Bert-Jaap Koops (Tilburg University, The Netherlands); Eleni Kosta (Tilburg University, The Netherlands); Astrid Grottland (University Hospital of North Norway, Norway); Armin Schneider (TU München & Klinikum Rechts der Isar der TU München, Germany); Thomas Jell (Siemens, Germany); Anastasius Gavras (Eurescom GmbH, Germany); Maria Barros (Eurescom GmbH, Germany); Thomas Magedanz (TU Berlin / Fraunhofer FOKUS, Germany); Philippe Cousin (eGlobalMark, France); Ioana Ispas (Ministry of National Education, Bucharest, Romania); Euripides G.M. Petrakis (Technical University of Crete (TUC), Greece)
pp. 382-387

eHealth Complex Services Require Holistic Design

Nelson Pinho (University of Porto, Portugal); Lia Patrício (University of Porto, Portugal); Raymond Fisk (Texas State University, USA)

The Role of Perceived Usefulness and Attitude on Electronic Health Record Acceptance

Randike Gajanayake (Queensland University of Technology, Australia); Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia); Renato Iannella (Queensland University of Technology, Australia)
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Interoperability in Ambient Assisted Living Using OpenEHR

Eduardo Osório (Fraunhofer Portugal Research Center for Assistive Information and Communication Solutions, Portugal); Liliana Ferreira (Fraunhofer Portugal AICOS, Portugal); Rui Abreu (Faculty of Engineering, University of Porto, Portugal); Filipe Sousa (Fraunhofer Portugal, Portugal)
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Analyzing open-source and commercial EHR solutions from an international perspective

Isabel de la Torre (University of Valladolid, Spain); Borja Martínez-Pérez (University of Valladolid, Spain); Miguel López-Coronado (University of Valladolid, Spain)
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G5: S10: Applications and system development for eHealth

Control and Personalization Approach for an ICT-enabled Wearable Artifical Kidney
Lukas Pielawa (OFFIS, Germany); Torben Wallbaum (OFFIS - Institute for Information Technology, Germany); Melina Frenken, (born Brell) (OFFIS Institut für Informatik Oldenburg, Germany); Andreas Hein (Universität Oldenburg, Germany)
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Development of a Real-Time Vital Data Collection System from Players during a Football Game
Shinsuke Hara (Osaka City University, Japan); Tetsuo Tsujioka (Osaka City University, Japan); Toui Kanda (Osaka City University, Japan); Hajime Nakamura (Osaka City University, Japan); Takashi Kawabata (Kansai University, Japan); Kenji Watanabe (SYNTHESIS Corporation, Japan); Masanao Ise (SYNTHESIS Corporation, Japan); Noa Arime (SYNTHESIS Corporation, Japan); Hiroyuki Okuhata (Synthesis Corporation, Japan)
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IntellWheels: intelligent wheelchair with user-centered design
Marcelo R Petry (INESC TEC and University of Porto, Portugal); António Moreira (Fac. Eng. da Universidade do Porto, Portugal); Brigida Monica Faria (ESTSP, Polytechnic Institute of Porto and IEETA, University of Aveiro, Portugal); Luis Paulo Reis (DSI/EEUM, University of Minho, Portugal)
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A System for Assessment of Limb Movements in Sleep
Adriana Adami (University of Caxias do Sul, Brazil); André G Adami (University of Caxias do Sul, Brazil); Zachary Beattie (Oregon Health and Science University, USA); Tamara Hayes (Oregon Health and Science University, USA)
pp. 419-423

Linear Time-Invariant System Based Assessment Model for Coronary Heart Disease
Zening Qu (Tsinghua University & Tsinghua University, P.R. China); Lyu Yongqiang (Tsinghua University, P.R. China); Yida Tang (Fuwai Hospital, P.R. China); Wenyao Wang (Fuwai Hospital, P.R. China); Zihan Wang (Tsinghua University, P.R. China); Jiaming Hong (Tsinghua University, P.R. China); Agoulmine Nazim (University of Evry Val d'Essonne, France)
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TeleMDID: Mobile Technology Applications for Interactive Diagnoses in TeleDermatology Clinics
Mirna Becevic (University of Missouri & Missouri Telehealth Network, USA); Blake Anderson (University of Missouri, USA); Jing Ginger Han (University of Missouri, USA); E. Rachel Mutrux (Missouri Telehealth Network, USA); Karen Edison (University of Missouri, USA); Lanis L Hicks (University of Missouri & School of Medicine, USA); Chi-Ren Shyu (University of Missouri, USA)
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G6: S11: Applications

ARPEGE: Assessment of Frailty at Home
Rana Jaber (Université de Technologie de Troyes, France); Aly Chkeir (University of Technology of Troyes, France); David Hewson (Université de Technologie de Troyes, France); Jacques Duchêne (Université de Technologie de Troyes, France)
pp. 434-438

Fall Detection on the Road
Felix Büsching (Technische Universität Braunschweig, Germany); Henning Post (Technische Universität Braunschweig, Germany); Matthias Gietzelt (PLRI, Germany); Lars C Wolf (Technische Universität Braunschweig, Germany)
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KiReS: A Kinect-based telerehabilitation system
David Antón (University of the Basque Country UPV/EHU, Spain); Alfredo Goñi (University of the Basque Country, Spain); Arantza Illarramendi (University of the Basque Country, Spain); Juan José Torres-Unda (University of the Basque Country UPV/EHU, Spain); Jesús Seco (University of León, Spain)
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F1: Conference Banquet

H1: Keynote: Prof. Henrique Martins (Faculty of Health Sciences, Universidade da Beira Interior)

eHEALTH in Europe

H2: Keynote: Dr.-Ing. Heike Vallery (TU Delft)

Transparent Robot-Assisted Gait Training in Neurorehabilitation

H3: Coffee Break and EXPO Visit

I1: S12: Cloud for eHealth

Fault- and Disaster-Resistant Medical Cloud System for Various Medical Applications
Yasushi Hirano (Yamaguchi University, Japan); Nobuya Negishi (Kozo Keikaku Engineering Inc., Japan); Yoshiyuki Ipposhi (Kozo Keikaku Engineering Inc., Japan); Junichi Yamaguchi (Kozo Keikaku Engineering Inc., Japan); Noboru Sonehara (National Institute of Infomatics, Japan); Shu Kuramoto (Kochi Organization for Medical Reformation and Renewal, Japan); Tsutomu Sawada (Kochi Health Sciences Center, Japan)
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I2: S13: Sensors for Healthcare applications

Ultra Low-Power Smart Medical Sensor Node for In-Body Biomonitoring
Maykel Alonso-Arce (Centro de Estudios e Investigaciones Técnicas, Spain); Jon Legarda (Deusto Institute of Technology, Spain); Beatriz Sedano (CEIT, Spain); Paul Bustamante (CEIT, Spain)
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Ultra-Compact Bird-Borne S-band Transceiver Aiming to Search Low Pathogenic Avian Influenza
Isao Nakajima (Tokai University School of Medicine, Japan); Leonid Androuchko (International University Geneva, Switzerland); Toshihiko Kitano (Tokai University, Japan); Kaoru Nakada (Tokai University, Japan); Masaaki Katayama (Nagoya University, Japan)
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A Multi-Sensor Surveillance System for Elderly Care
Bassant Selim (Khalifa University, UAE); Youssef Iraqi (Khalifa University, UAE); Ho-Jin Choi (Korea Advanced Institute of Science and Technology (KAIST), Korea)
pp. 502-506

A Low Noise Wearable Wireless ECG System with Body Motion Cancellation for Long Term Homecare
Yishan Wang (RWTH Aachen University & Chair of Integrated Analog Circuit and RF-System, Germany); Ralf Wunderlich (RWTH Aachen University, Germany); Stefan Heinen (RWTH Aachen, Germany)
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Embedded Implementation of Modular Closed-Loop Control of Diabetes and In Silico Validation
Maurizio Gentili (STMicroelectronics & Scuola Superiore Sant'Anna, Italy); Caltabiano Daniele (STMicroelectronics, Italy); Roberto Sannino (STMicroelectronics, Italy); Chiara Toffanin (University of Pavia, Italy); Federico Di Palma (University of Pavia, Italy); Lalo Magni (University of Pavia, Italy); Stephen Lane (Triteq Ltd, United Kingdom)
pp. 512-517

Biometric Recognition System Using Low Bandwidth ECG Signals
André Matos (Instituto Superior de Engenharia de Lisboa, Portugal); Andre R. Lourenço (Instituto Superior de Engenharia de Lisboa, Portugal); José Nascimento (Instituto Superior de Engenharia de Lisboa and Instituto de Telecomunicações, Portugal)
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I3: S14:Smart eHealth

Consumer Engagement with eHealth Information through Smartphones and tablets
Lynda Andrews (Queensland Unversity of Technology, Australia); Randike Gajanayake (Queensland University of Technology, Australia); Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia)
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A Smartphone-Based Fall Risk Assessment Tool: Measuring One Leg Standing, Sit to Stand and Falls Efficacy Scale
Vânia Guimarães (Fraunhofer Portugal AICOS, Portugal); David Ribeiro (Fraunhofer Portugal AICOS, Portugal); Luís Rosado (Fraunhofer Portugal AICOS, Portugal)
pp. 529-533

Localization with WLAN on Smartphones in Hospitals

Chien-Hsing Lu (National Tsing Hua University Hsinchu, Taiwan); Hsuan-Hung Kuo (National Tsing Hua University, Taiwan); Cheng-Wei Hsiao (National Tsing Hua University, Taiwan); Yi-Lwun Ho (National Taiwan University Hospital, Taiwan); Yen-Hung Lin (National Taiwan University Hospital, Taiwan); Hsi-Pin Ma (National Tsing Hua University, Taiwan)
pp. 534-538

Body movement analysis during sleep based on video motion estimation

Adrienne Heinrich (Philips Research Laboratories, The Netherlands); Xavier Louis Aubert (Philips Research Laboratories Europe, Germany); Gerard Haan (Philips Research Laboratories, The Netherlands)
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Wireless Solutions for Improving Health and Safety Working Conditions in Industrial Environments

Jose Antonio Palazón Selva (Universidad Miguel Hernández de Elche, Spain); Javier Gozalvez (Universidad Miguel Hernandez de Elche, Spain); Juan Maestre (Universidad Miguel Hernandez de Elche, Spain); Jose Ramon Gisbert (Universidad Miguel Hernandez de Elche, Spain)
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Activity Classification using a SmartPhone

Francisco João Duarte (Instituto Superior de Engenharia de Lisboa, Portugal); Andre R. Lourenço (Instituto Superior de Engenharia de Lisboa, Portugal); Arnaldo J. Abrantes (Instituto Superior Engenharia de Lisboa, Portugal)
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I4: S15: Mobile Health

Reducing Adolescent Obesity with a Mobile Fitness Application: Study Results of Youth Age 15 to 17

Fletcher Lu (University of Ontario Institute of Technology, Canada)
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A Multi-Communication-Fusion Based Mobile Monitoring System for Maternal and Fetal Information

Pei Lyu (Hunan University, P.R. China); Manman Peng (Hunan University, P.R. China); Lyu Yongqiang (Tsinghua University, P.R. China); Yu Chen (Tsinghua University, P.R. China); Jijiang Yang (Tsinghua University, P.R. China)
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Digital Signature of Network Segment using PCA, ACO and Holt-Winters for Network Management

Luiz F. Carvalho (State University of Londrina, Brazil); Marcos V. O. de Assis (State University of Londrina, Brazil); Gilberto Fernandes, Jr. (State University of Londrina, Brazil); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Mario Lemes Proença Jr. (State University of Londrina, Brazil)
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A Software Model of Mobile Notification System for Medication Misuse Prevention

Petar Rajkovic (University of Nis, Serbia); Dragan Jankovic (University of Nis, Serbia); Aleksandar Milenkovic (University of Nis, Serbia)
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Electrochemical Detection of Arsenic via a Microfluidic Sensor and Mobile Interface towards Affordable, Rapid, and Point-of-Use Water Monitoring

Unyoung Kim (Santa Clara University, USA); Benjamin Demaree (Santa Clara University, USA); Jessica VanderGiessen (Santa Clara University, USA); Mary Reynolds (Santa Clara University, USA); Kyle Perricone (Santa Clara University, USA); John Seubert (Santa Clara University, USA); Zuhayr Elahi (Santa Clara University, USA); Sonny Gandhi (Santa Clara University, USA); Shoba Krishnan (Santa Clara University, USA); Silvia Figueira (Santa Clara University, USA)
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STAlz: remotely supporting the diagnosis, tracking and rehabilitation of patients with Alzheimer's

Hélder Moreira (Associação Fraunhofer Portugal Research, Portugal); Nuno Flores (University of Porto, Portugal); Renato Oliveira (Associação Fraunhofer Portugal Research, Portugal); Vânia Guimarães (Fraunhofer Portugal AICOS, Portugal)

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I5: Demos

I6: Lunch Break

K1: S16: AAL

A Testing and Certification Methodology for an Ambient-Assisted Living Ecosystem

João Pascoal Faria (University of Porto - Faculty of Engineering, Portugal); Bruno Lima (University of Porto - Faculty of Engineering & INESC TEC, Portugal); Tiago Boldt Sousa (INESC TEC & University of Porto - Faculty of Engineering, Portugal); Angelo Martins (Instituto Superior de Engenharia do Porto, Portugal)

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Automatic fall detection: complementary devices for a better fall monitoring coverage

Pierre Barralon (Tecnalia Research & Innovation, Spain); Inigo Dorronsoro (Tecnalia Research & Innovation, Spain); Erik Hernandez (Tecnalia Research & Innovation, Spain)

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Real Time Falls Prevention and Detection with Biofeedback Monitoring Solution for Mobile Environments

Edgar Horta (Instituto de Telecomunicações, University of Beira Interior, Portugal); Ivo Lopes (Instituto de Telecomunicações, University of Beira Interior, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Sudip Misra (Indian Institute of Technology-Kharagpur, India)

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An approach for the Management of an AAL Ecosystem

Ana Inês Oliveira (New University of Lisbon - FCT & Uninova, Portugal); Filipa Ferrada (New University of Lisbon - FCT, Portugal); Luis M. Camarinha-Matos (New University of Lisbon - FCT, Portugal)

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Non-Intrusive Human Activity Monitoring in a Smart Home Environment

Mohsen Amiri (University of British Columbia & Sharif University of Technology, and Simon Fraser University, Canada); Mahsa T. Pourazad (TELUS Communications Company, Canada); Panos Nasiopoulos (University of British Columbia, Canada); Victor CM Leung (The University of British Columbia, Canada)

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Real-Time Physiological Stream Processing for Health Monitoring Services

Lawrence Chow (Stanford University, USA); Nicholas Bambos (Stanford University, USA)

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K2: S17: CDSS

Clinical-based Prediction of Side Effects in Colon Cancer Chemotherapy

Mouna Kacimi (Free University of Bozen-Bolzano, Italy); Ognjen Savkovic (Free University of Bozen-Bolzano, Italy); Manfred Mitterer (Hospital Franz Tappeiner, Italy)

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K3: S18: Knowledge aquisition

K4: S19: Image & 3D Models

Classification of Retinal Image for Automatic Cataract Detection
MeiMei Yang (Beijing University of Posts and Telecommunications, P.R. China); Jijiang Yang (Tsinghua University, P.R. China); Qinyan Zhang (Beijing University of Posts and Telecommunications, P.R. China); Yu Niu (Tsinghua University, P.R. China); Jianqiang Li (NEC, P.R. China)
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Quality Evaluation of Asymmetric Compression for 3D Surgery Video
Chaminda T. E.R. Hewage (University of Kingston, United Kingdom); Harsha Appuhami (Kingston University-London, United Kingdom); Maria G. Martini (Kingston University, United Kingdom); Ralph Smith (MATTU, United Kingdom); Iain Jourdan (MATTU, United Kingdom); Timothy Rockall (Surrey University, United Kingdom)
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Comparing Limb-Volume Measurement Techniques: 3D Models from an Infrared Depth Sensor versus Water Displacement
Guannan Lu (University of Missouri, USA); Guilherme N. DeSouza (University of Missouri-Columbia, USA); Jane Armer (University of Missouri, USA); Chi-Ren Shyu (University of Missouri, USA)
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A Framework toward Detecting and visualizing Kinematic Data for Children with Hemiplegia
Md. Abdur Rahman (Umm Al-Qura University, Saudi Arabia); Saleh Basalamah (Umm Al-Qura University, Saudi Arabia); Asad Toonsi (MCH - Makkah, Saudi Arabia); Abdulmotaleb El Saddik (University of Ottawa, Canada)
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An Improved Digital Pain Body Map
Ellen Jaatun (NTNU & St Olav University Hospital, Norway); Dagny Haugen (NTNU, Norway); Yngve Dahl (SINTEF, Norway); Anders Kofod-Petersen (SINTEF, Norway)
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A Skillet-Based Recoloring Algorithm for Dichromats
Madalena Ribeiro (University of Beira Interior, Portugal); Abel Joao Gomes (Universidade da Beira Interior, Portugal)
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K5: Poster Session 2

A cloud based architecture for medical imaging services
Carlos Viana-Ferreira (University of Aveiro, Portugal); Carlos Costa (University of Aveiro, Portugal)
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Towards Design of Technologies Persuading more Physical Activity
Yao Meng (Inje University, Korea); Hee-Cheol Kim (Inje University, Korea)
pp. 710-715

Active Protection of Patient Data by Reverse Cloud Approach
Tom Pfeifer (Technische Universität Berlin, Germany); Stefan Covaci (Technische Universität Berlin, Germany)
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Fall Risk Assessment by means of a pocket size screening tool: preliminary results
Andrea Cattabriga (University of Bologna, Italy); Marco Corbelli (University of Bologna, Italy); Sabato Mellone (University of Bologna, Italy); Chiara Mussi (University of Modena, Reggio Emilia, Italy); Lorenzo Chiari (University of Bologna, Italy)

Automatic Verification of Health Regulatory Compliance in Cloud Computing
Khaled Md Khan (Qatar University, Qatar); Yun Bai (University of Western Sydney, Australia)
pp. 719-721

Design of adaptive IEEE 802.11 WLAN in hospital environments
Sunghwa Son (Daegu Gyeongbuk Institute of Science & Technology, Korea); Kyung-Joon Park (DGIST, Korea); Eun-Chan Park (Dongguk University, Korea)

K6: Meeting: IEEE Comsoc TC on Health

K7: Coffee Break and EXPO Visit

K8: Panel 2: Cloud or not to Cloud for eHealth (Cisco)

Moderator: Masum Z Hasan
Participants: Monique Morrow (CTO, Cisco Service); Nazim AGOULMINE (University of Evry, France); Gerard Parr (University of Ulster, UK); Benjamin Hirsch (BT-Etisalat Innovation Center, Abu Dhabi, UAE)

K9: Organiser/Volunteers Regognition Meeting

L1: Welcome

Welcome - Henrique Martins (Chairmen of the Board, SPMS; University of Beira Interior, Portugal), Helena Monteiro (Operation Co-Chair; ISCSP, UL, Portugal)

L2: Medicine in 2020

António Murta (Pathena Group, President)

L3: The Governance of the NHS with new management tools (Activity Based Cost)

Ana Paula Harfouche, (IPO and ISCSP, UL, Portugal)

L4: Facilitators and Inhibitors in Hospital Management in Portugal

Francisco Velez Roxo (Hospital Center of Leiria Pombal and Catholic University, Portuga)

L5: Coffee Break and EXPO Visit

L6: Panel 1

Moderador - Adalberto Campo Fernandes (Presidente SAMS President and National Public Health School

L7: Keynote

SNS systems and infrastrutures - Arquitetura e Governance - Henrique Martins (Chairmen of the Board, SPMS, Portugal; University of Beira Interior, Portugal)

L7: Closing Session

Paulo Macedo, Portuguese Minister of Health & Joel Rodrigues (General Chair, Instituto de Telecomunicações, University of Beira Interior, Portugal)

L8: Half-day Tours