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Program

IWEN14: International Workshop on e-health in Neurosciences

The workshop in "e-health in Neurosciences" aims at bringing together prominent researchers in this field creating a place to exchange the latest research achievements and experiences. The ongoing inclusion of new technologies such as virtual reality, wearable sensors and actuators, brain-computer interfaces, biosensors, etc., have to be accompanied by a high level debate by the scientific community and society.

Transcranial Direct Current Stimulation to Enhance Motor Function in Spinal Cord Injury: Pilot Data

Elizabeth Salmon and Cheryl Carrico (University of Kentucky, USA); Laurie Nichols (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA); Lakshmi Reddy and Sara Salles (University of Kentucky, USA); Lumy Sawaki (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA)
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Dose-Response Effects of Peripheral Nerve Stimulation and Motor Training in Stroke: Preliminary Data

Emily Salyers, Cheryl Carrico and Kenneth Chelette (University of Kentucky, USA); Laurie Nichols (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA); Cameron Henzman (University of Kentucky, USA); Lumy Sawaki (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA)
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Effects of Electrode Configurations in Transcranial Direct Current Stimulation after Stroke

Kenneth Chelette and Cheryl Carrico (University of Kentucky, USA); Laurie Nichols (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA); Emily Salyers (University of Kentucky, USA); Lumy Sawaki (University of Kentucky & Cardinal Hill Rehabilitation Hospital, USA)
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c-Fos immunoreactivity and variation of neuronal units in rat's motor cortex after chronic implants

Marco Aurelio M Freire (Edmond and Lily Safra International Institute for Neurosciences of Natal, Brazil); Jean Faber (Federal University of São Paulo, Brazil); Jose Ronaldo Santos (Federal University of Sergipe, Brazil); Nelson Lemos (Edmond and Lily Safra International Institute for Neuroscience of Natal, Brazil); Maria Adelia Aratonha (Edmond and Lily Safra International Institute of Neuroscience of Natal, Brazil); Pedro Cavalcanti (Edmond and Lily Safra International Institute for Neurosciences of Natal, Brazil); Edgard Morya (Edmond and Lily Safra International Institute for Neuroscience of Natal, Brazil)
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Limitations of principal component analysis as a method to detect neuronal assemblies

Camila Sardeto Deolindo and Ana Bione Kunicki (Edmond and Lily Safra International Institute of Neuroscience of Natal, Brazil); Fabricio Lima Brasil (IINN-ELS, Brazil); Renan Moioi (Edmond and Lily Safra International Institute of Neuroscience of Natal & Graduate School of Neuroengineering, Brazil)
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ReHis14: The 1st International Workshop on Reliability of eHealth Information Systems

The progressive evolution of eHealth Information System requirements

ReHis14.1 How Should Remote Monitoring Sensor Be Accurate?

Seiki Tokunaga, Shinsuke Matsumoto, Sachio Saiki and Masahide Nakamura (Kobe University, Japan)
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ReHis14.2 Inconsistencies in Health Care Knowledge

Diana Costa and Manuel Martins (University of Aveiro, Portugal)
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ReHis14.3 Formal Reliability Analysis of a Typical FHIR Standard based E-Health System using PRISM

Usman Pervez (NUST, Pakistan); Osman Hasan (National University of Sciences and Technology, Pakistan); Khalid Latif (NUST, Pakistan); Sofiene Tahar (Concordia University, Canada); Amjad Gawanmeh (Khalifa University, UAE); Muhammad Hamdi (Ahmed Bin Mohammed Military College, Qatar)
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ReHis14.4 A Review on Usability Features for Designing Electronic Health Records

Luis Bernardo Villa (Universidad San Buenaventura, Colombia); Ivan Mauricio Cabezas (Universidad de San Buenaventura & Sociedad Colombiana de Computacion, Colombia)
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ReHis14.5 Formalizing Electrocardiogram (ECG) Signal Behavior in Event-B

Hussam Al-Hamadi (Khalifa University for Science, Technology and Research, UAE); Amjad Gawanmeh and Mahmoud Al-Qutayri (Khalifa University, UAE)
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SSH: IEEE International Workshop on Service Science for eHealth

Technological developments in computing and networking have largely made the delivery of health services, including medical diagnosis and patient care, possible from a distance. Many funded projects have evaluated and are evaluating the use of communications technology in the implementation and performance of telemedicine activities, and examined the impact of telemedicine on medical care in terms of cost, quality, and access. Telemedicine has become a growing new interdisciplinary field, which will eventually contribute to improving the quality of health care for everyone. However, successful implementation of this vision depends not only on innovative telemedicine applications but also on networking and computing technical readiness. Furthermore, many ethical, social, and political problems arising in telemedicine need technical solutions.

QuoTe - An Extensible Platform for QoE Monitoring and Benchmarking of Telemedicine Applications

Martin Varela, Toni Mäki and Juho Merilahti (VTT Technical Research Centre of Finland, Finland);
Eva Rodriguez Rodriguez and Arnaud Runge (European Space Agency, The Netherlands)
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Big Data Reduction Using RBFNN: A Predictive Model for ECG Waveform for eHealth platform integration

Nuno Pombo (University of Beira Interior & BSAFE - Lab, Portugal); Nuno M. Garcia (Universidade da Beira Interior & Instituto de Telecomunicações, Universidade Lusófona de Humanidades e Tecnologias, Portugal); Virginie Felizardo and Kouamana Bousson (University of Beira Interior, Portugal)
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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); Timothy Rockall (Surrey University, United Kingdom); Iain Jourdan (MATTU, United Kingdom)
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Luis E. Gonzalez, LG (Universidad Politecnica Salesiana, Ecuador); David Valencia-Redrovan and Vladimir Robles-Bykbaev, VRB (Universidad Politécnica Salesiana, Ecuador); Ninfa M Gonzalez (Turuhuayco, Ecuador); Todd Panzner (New York, USA)
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Techno-economic evaluation of an ontology-based nurse call system via discrete event simulations

Frederic Vannieuwenborg and Femke Ongenae (Ghent University - iMinds, Belgium); Pieter Demyttenaere and Laurens Van Poucke (Ghent University, Belgium); Jan Van Ooteghem (Ghent

University - iMinds, Belgium); Stijn Verstichel (Ghent University & iMinds, Belgium); Sofie Verbrugge (Ghent University - iMinds, Belgium); Didier Colle (iMinds - Ghent University, Belgium); Filip De Turck and Mario Pickavet (Ghent University - iMinds, Belgium)
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Enabling automatic composition of streams computing services through ontology-based standardization

Pawel Swiatek, Pawel Stelmach, Łukasz Falas and Patryk Schauer (Wroclaw University of Technology, Poland)
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Standard-based and Distributed Health Information Sharing for mHealth IoT Systems

Danilo F S Santos, Angelo Perkusich and Hyggo Almeida (Federal University of Campina Grande, Brazil)
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Integrating Data and Network Standards into an Interoperable E-Health Solution

Carlos Pereira (Instituto de Telecomunicações & University of Porto, Portugal); Samuel Frade (Faculdade de Medicina da Universidade do Porto, Portugal); Pedro Brandão (University of Porto, Portugal); Ricardo João Cruz Correia (University of Oporto, Portugal); Ana C Aguiar (University of Porto & Instituto de Telecomunicações, Portugal)
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SPAIMEH: 1st International Workshop on Secure and Privacy-Aware Information Management in eHealth

Information security and privacy in the healthcare domain is a complex and challenging problem for computer scientists, social scientists, law experts and policy makers. Appropriate healthcare provision requires specialized knowledge, is information intensive and much patient information is of a particularly sensitive nature. Electronic health record systems provide opportunities for information sharing which may enhance healthcare services, for both individuals and populations. However, appropriate information management measures are essential for privacy preservation.

Traditional access control measures for privacy preservation may not match the eHealth record system scenario, where the roles of all stakeholders are less defined. Questions regarding data ownership and information management obligations for major stakeholders (healthcare professionals, patients, administrators) arise. Healthcare professionals require ready access to as much information as possible to support informed decision making. However, patients may want to exercise control over the entities gaining access to their personal health information, with particular concerns for information privacy. Balancing these competing concerns is a major challenge in the implementation of successful e-Health systems. This is not just a technological challenge, but a multidisciplinary problem with technological, social, legal and health policy aspects.

This workshop will focus on this major challenge in terms of these four main areas. We seek papers addressing the technological, socio-technical, legal and policy aspects related to information security and privacy issues in e-Health systems.

Low Delay and Secure M2M Communication Mechanism for eHealthcare

Kashif Saleem, Abdelouahid Derhab and Jalal Al Muhtadi (King Saud University, Saudi Arabia)
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Informatics to support patient choice between diverse medical systems

Isaac Golden (Centre for Informatics and Applied Optimisation, Australia); Andrew Stranieri (Federation University Australia, Australia); Tony R Sahama (Queensland University of Technology & IEEE ACM IBS ACS SSAInc HISA, Australia); Senaka Pilapitiya and Sisira Siribaddana (Faculty of Medicine and Allied Sciences Rajarata University, Mihintale, Sri Lanka); Stephen Vaughan (Centre for Informatics and Applied Optimisation, University of Ballarat, Australia)
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Georgios Kalogridis and Saraansh Dave (Toshiba Research Europe Ltd, United Kingdom)
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Shinsuke Hara and Takunori Shimazaki (Osaka City University, Japan)
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Specialized telecommunications system in the transmission of digital radiological images in hostile environments

Leonardo Melo (Diagnext.com, Brazil); Alessandro Melo (Universidade Federal Fluminense, Brazil); Julio Cesar Julio Cesar R. Dal Bello (Federal Fluminense University, Brazil); Eduardo Vale (Universidade Federal Fluminense, Brazil)
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MobiCAP: A Mobile Application Prototype for Management of Community-Acquired Pneumonia

Daniel Welfer (Unipampa, Brazil); Renato Silva (Hospital Nossa Senhora da Conceição, Brazil); Juliano F. Kazienko (Universidade Federal do Pampa (UNIPAMPA), Brazil)
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Real time neural signal processing and visuomotor integration: new perspectives for assistive technology

Maria Adelia Aratonha (Edmond and Lily Safra International Institute of Neuroscience of Natal, Brazil); Hougelle Simplicio (Edmond and Lily Safra International Institute of Neuroscience of Natal & State University of Rio Grande do Norte, Brazil); Edgard Morya (Edmond and Lily Safra International Institute for Neuroscience of Natal, Brazil); Renan Molioli (Edmond and Lily Safra International Institute of Neuroscience of Natal & Graduate School of Neuroengineering, Brazil); Fabricio Lima Brasil (IINN-ELS, Brazil)
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Htoo Aung Maw, Hannan Xiao, Bruce Christianson and James Malcolm (University of Hertfordshire, United Kingdom)
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Norbert Noury (University of Lyon & Team Biomedical Sensors, France); Julien Poujaud and Fabien Touvat (Vigilio, France)
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Abdelghani Benharref (University of Wollongong, Australia); Mohamed Adel Serhani (Concordia University, Canada); Rabeb Mizouni (Khalifa University, UAE)
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Audace Manirabona (University of Sfax & University of Paris 13, France); Lamia Chaari Fourati (Institut supérieur d'informatique et multimédia de sfax, Tunisia); Saadi Boudjit (University of Paris 13, France)
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Post-diagnosis Management of Diabetes through a Mobile Health Consultation Application

Mechelle Gittens, Reco King and Curtis Gittens (University of the West Indies, Cave Hill, Barbados); Adrian Als (Supervisor, Jamaica)
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TS2: eHealth for Aging

A Quality of Context Evaluating Approach in an Ambient Assisted Living eHealth System

Debora Nazario, Jose Todesco, Mario Dantas and Igor Tromel (Federal University of Santa Catarina, Brazil); Augusto J. Venancio Neto (Federal University of Rio Grande do Norte & Centro de Ciências Exatas da Terra, Brazil); Rafael Andrade (Federal Institute Catarinense - Campus Ibirama, Brazil)
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Analysis of Visually Guided Tracking Performance in Parkinson's Disease

Yi Liu, Chonho Lee and Bu Sung Lee (Nanyang Technological University, Singapore); James Stevenson and Martin McKeown (University of British Columbia, Canada)
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A Mobile Healthcare Solution for Ambient Assisted Living Environments

Daniel Rodrigues, Edgar Horta, Bruno Silva, Fábio Guedes and Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal)
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Claude-Vivien Toulouse (University of Lyon & University Jean Monnet Saint-Etienne, LASPI - Roanne, France)
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Benjamin Bockstege and Aaron D Striegel (University of Notre Dame, USA)
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Fabio Vitali (Università di Bologna, Italy); Alessandro Amoroso and Marco Rocchetti (University of Bologna, Italy); Gustavo Marfia (Università di Bologna, Italy)
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Lucas Silva (Universidade Federal do Pará, Brazil); Roberto Araujo (Universidade Federal do Para, Brazil); Felipe da Silva (Universidade Federal do Pará, Brazil); Eduardo Cerqueira (Federal University of Para & UCLA & UFPA & UCLA, Brazil)
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Christoph P Thuemmler, Oli Mival, Ai Keow Lim and Ivo Holanec (Edinburgh Napier University, United Kingdom); Samuel Fricker (Blekinge Institute of Technology, Sweden)
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Antonio Oliveira (Federal Institute of Ceara, Brazil); Luiz Andrade (Federal University of Ceara, Brazil); Marcos Santos (State University of Ceará, Brazil); Roberto Alcântara (Federal Institute of Ceara, Brazil); Germanno Teles (State University of Ceará, Brazil); Agoulmine Nazim (University of Evry Val d'Essonne, France)
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Antonis Michalas (Swedish Institute of Computer Science (SICS), Sweden); Nicolae Paladi (Swedish Institute of Computer Science & Lund University, Sweden); Christian Gehrman (Swedish Institute of Computer Science, Sweden)
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Marlon C. Domenech (University of Vale do Itajaí, Brazil); Eros Comunello (University of Itajaí Valley & Programm on Applied Computing, Brazil); Michelle Silva Wangham (UNIVALI, Brazil)
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Anders Andersen, Kassaye Y. Yigzaw and Randi Karlsen (UiT The Arctic University of Norway, Norway)
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Richard Rauscher (Dept. of Computer Science, Penn State University, USA); Raj Acharya (Dept. of Computer Science, Penn State University, India)

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Osman Salem, Yacine Rebhi, Abdelkrim Boumaza and Ahmed Mehaoua (University of Paris Descartes, France)
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Gabriel Arrobo, Calvin Perumalla, Yang Liu, Thomas Ketterl, Richard D. Gitlin and Peter Fabri (University of South Florida, USA)
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Isao Nakajima (Tokai University School of Medicine, Japan); Toshihiko Kitano (Tokai University, Japan); Kaoru Nakada (Tokai University, Jordan); Jun-Ichi Hata (Tokai University, Japan); Masuhisa Ta (Tasada Works, Japan)
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Low Complex, Programmable FPGA based 8-Channel Ultrasound Transmitter for Medical Imaging Researches

Chandrashekar Dusa (IIT Hyderabad, India); Pachamuthu Rajalakshmi (Indian Institute of Technology Hyderabad, India); Suresh Puli and Uday B Desai (IIT Hyderabad, India); Shabbir N Merchant (IIT Bombay, India)
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Konda Divya Krishna (IIT Hyderabad, India); Akkala Vivek and Pachamuthu Rajalakshmi (Indian Institute of Technology Hyderabad, India); Ramkrishna Bharath (Indian Institute of Technology, India); Abdul Mateen Mohammed (Asian Institute of Gastroenterology, India)
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Ai Keow Lim (Edinburgh Napier University, United Kingdom); Ioana Ispas (Ministry of National Education, Bucharest, Romania); Christoph P Thuemmler and Oli Mival (Edinburgh Napier University, United Kingdom); Eleni Kosta (Tilburg University, The Netherlands); Patricia Casla (IK4. Tekniker, Spain); Sonia Ruiz de Azua and Ana Gonzalez-Pinto (University of the Basque Country, Spain)
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Murthy Devarakonda (IBM Research and Watson Group, USA); Dongyang Zhang (None, USA); Ching-Huei Tsou and Mihaela Bornea (IBM Research and Watson Group, USA)
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Chonlatee Khorakhun (Computer Science, University of St Andrews, United Kingdom); Saleem N Bhatti (University of St Andrews, United Kingdom)
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Andreas Kliem, Anett Bölke, Anne Grohnert and Nicolas Traeder (Technische Universität Berlin, Germany)
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Olga Valéria (State University of Piauí - UESPI, Brazil); Anderson Ribeiro (OPALA/UESPI, Brazil); Liliam Leal and Marcus Lemos (University of Fortaleza, Brazil); Carlos Giovanni Nunes de Carvalho (State University of Piauí, Brazil); José Bringel Filho (University of Evry, France); Raimir Holanda (University of Fortaleza, Brazil); Agoulmine Nazim (University of Evry Val d'Essonne, France)
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Vitor Almeida (Pontifícia Universidade Católica do Rio de Janeiro & Petrobras, Brazil); Markus Endler (PUC-Rio, Brazil); Edward Haeusler (Pontifícia Universidade Católica (PUC-Rio), Brazil)
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Natália Franco (Federal University of Pernambuco & Federal University of Alagoas, Brazil); Robson Fidalgo, Edson Silva and Ticia Cavalcante (Federal University of Pernambuco, Brazil); Patrick Brito (UFAL-Universidade Federal de Alagoas, Brazil)
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A Mobile Application System for Diagnosis and Management of Community-Acquired Pneumonia

Daniel Welfer (Unipampa, Brazil); Renato Silva (Hospital Nossa Senhora da Conceição, Brazil); Juliano F. Kazienko (Universidade Federal do Pampa (UNIPAMPA), Brazil)
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Thiago F F Dias, Domingos Alves and Joaquim Cezar Felipe (University of São Paulo, Brazil)
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Leonardo Minelli (Federal University of Santa Maria, Brazil); Marcos d Ornellas (UFES & Animati Computação Aplicada, Brazil); Ana Trindade Winck (Pontifícia Universidade Católica do Rio Grande do Sul, Brazil)
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Luca Lianas, Francesca Frexia, Giovanni Delussu, Paolo Anedda and Gianluigi Zanetti (CRS4, Italy)
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Lynda Andrews (Queensland University of Technology, 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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Valter Roesler, Guilherme Lima, Augusto Klinger and Guilherme Longoni (Federal University of Rio Grande do Sul (UFRGS), Brazil)
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Color Energy as a Seed Descriptor for Image Segmentation with Region Growing Algorithms on Skin Wound Images

Jose Luis Seixas, Jr. (Universidade Estadual de Londrina, Brazil); Sylvio Barbon Junior (State University of Londrina, Brazil); Claudia Siqueira, Ivan Frederico Dias, André Castaldin and Alan S Felinto (Universidade Estadual de Londrina, Brazil)
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Simulation Inverse Problems of Reconstruction of Image Data Using Patterned Electrical Impedance Tomography Female Breast

Helber Ferreira (University of Rio Grande do Norte (UERN), Brazil); Harold Bustos (UERN, Brazil); Wilfredo Blanco (University of Rio Grande do Norte (UERN), Brazil)

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Jochen Meyer (OFFIS Institute for Information Technology, Germany); Susanne Christine Johanna Boll (University of Oldenburg & Department for Computing Science, Germany)
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Marijke Vandermaesen and Karel Robert (University Hasselt- tUL- iMinds, Belgium); Kris Luyten (Hasselt University & Expertise Center for Digital Media, Belgium); Karin Coninx (Hasselt University, Belgium)
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Fletcher Lu (University of Ontario Institute of Technology, Canada)
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Osman Salem (University of Paris Descartes, France); Yaning Liu (JCP-Connect, France); Ahmed Mehaoua (University of Paris Descartes, France)
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An ECG Monitoring System For Prediction Of Cardiac Anomalies Using WBAN

Medina Hadjem (Université Paris Descartes, France); Osman Salem (University of Paris Descartes, France); Farid Naït-Abdesselam (Paris Descartes University, France)
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Lei Song (Institute for Interdisciplinary Information Sciences, Tsinghua University, P.R. China); Yongcai Wang and Ji-Jiang Yang (Tsinghua University, P.R. China); Jianqiang Li (School of Software Engineering, Beijing University of Technology, P.R. China)
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Elements of a Real-Time Vital Signs Monitoring System for Players during a Football Game

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TS13: Body Area Networks (II)

A global methodology for modeling and simulating medical systems

Charbel El Gemayel (INSA de Lyon & Lebanese University, Lebanon); Fabrice Jumel (INSA de Lyon, France); Joseph Constantin (Lebanese University Faculty of Sciences II, Lebanon); Doumit Zaouk (Lebanese University, Lebanon); Nacer Abouchi (CPE Lyon, France)
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Context-aware Mobility Management with WiFi/3G Offloading for eHealth WBANs

El Hadi Cherkaoui (IBISC Lab University of Evry Val d'Essonne France, France); Agoulmine Nazim (University of Evry Val d'Essonne, France)
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