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e-Health 2012

EDITED BY
Mário Macedo



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IADIS INTERNATIONAL CONFERENCE
E-HEALTH 2012

part of the

**IADIS MULTI CONFERENCE ON COMPUTER SCIENCE AND
INFORMATION SYSTEMS 2012**

**PROCEEDINGS OF THE
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DOCTORAL CONSORTIUM

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FOREWORD

These proceedings contain the papers of the IADIS International Conference e-Health 2012, which was organised by the International Association for Development of the Information Society in Lisbon, Portugal, 17 – 19 July, 2012. This conference is part of the Multi Conference on Computer Science and Information Systems 2012, 17 - 23 July 2012, which had a total of 1036 submissions.

The use of ICTs (Information and Communication Technologies) in Healthcare Services is the main mechanism to improve efficiency and effectiveness.

The IADIS e-Health (EH) 2012 conference aims to draw together information systems, practitioners and management experts from all quadrants involved in developing computer technology to improve healthcare quality.

Submissions were accepted under the following topics:

A. Research Issues

- Computers and Primary Care
- Clinical Data Visualisation Standards
- e-Health Architectures
- Healthcare Data Architecture and Terminology Standards
- Federated Electronic Health Records
- Personalized Medicine
- Health Informatics and Education
- Human Computer Interaction
- Infrastructure and Architecture
- Internet and Medicine
- Interoperability issues
- IT and Patient Care
- Nursing Informatics
- RFID and localization techniques
- Usability and Ubiquity in e-Health
- e-Health Virtual Communities
- Business Process Management Systems
- Second Life for Healthcare Support and Education

B. Management Issues

- Case Studies
- Management Change
- Confidentiality and Privacy
- e-Health Collaborative Strategies and Techniques
- e-Training
- Healthcare Management Dashboards
- Legal issues

- Balanced scorecards models to improve Hospital Performance and Productivity
- Business Intelligence in Healthcare
- e-Health to improve Healthcare Quality and Patient Safety.
- Healthcare Information Systems Regulatory issues
- Security in e-Health
- Service Models
- Social implications
- Stakeholders involvement

C. Applications

- Clinical Information Systems
- Data Mining and Clinical Studies
- Medical Guidelines
- e-Health Decision Support Systems
- e-Logistics and e-Pharmacy
- Intelligent Medical Systems
- Mobile Applications
- Patient Electronic Health Records
- Healthcare Portals to inform and connect Patients with Physicians
- Patients and Public Health
- Social Networks in Healthcare contexts
- e-Health Marketing
- e-Procurement and e-Commerce
- Telemedicine
- Automatic Identification and Data Collector Systems
- Unified data processing and communication Systems
- Web Based Applications
- e-Health 2.0

The IADIS e-Health 2012 conference received 112 submissions from more than 32 countries. Each submission has been anonymously reviewed by an average of four independent reviewers, to ensure that accepted submissions were of a high standard. Consequently only 18 full papers were approved which means an acceptance rate of 16 %. A few more papers were accepted as short papers, reflection papers and posters. An extended version of the best papers will be published in the IADIS International Journal on Computer Science and Information Systems (ISSN: 1646-3692) and/or in the IADIS International Journal on WWW/Internet (ISSN: 1645-7641) and also in other selected journals including journals from Inderscience.

Besides the presentation of full papers, short papers, reflection papers, doctoral consortium and posters, the conference also included a keynote presentation from an internationally distinguished researcher. We would therefore like to express our gratitude to Prof. Frank Sullivan, FRSE FRCP FRCGP Director of the Health Informatics Centre, University of Dundee, Scotland.

This volume has taken shape as a result of the contributions from a number of individuals. We are grateful to all authors who have submitted their papers to enrich the conference proceedings. We wish to thank all members of the organizing committee, delegates, invitees and guests whose contribution and involvement are crucial for the success of the conference.

Last but not the least, we hope that everybody will have a good time in Lisbon, and we invite all participants for the next edition of the IADIS International Conference on e-Health 2013, that will be held in Prague, Czech Republic.

Mário Macedo,
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e-Health 2012 Conference Program Chair

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MCCSIS 2012 General Conference Co-Chairs

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