

16th International Conference on Distributed Multimedia Systems (DMS 2010)

Oak Brook, Illinois, USA
14 – 16 August 2010

ISBN: 978-1-5108-4155-0

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2010) by KSI Research Inc.
All rights reserved.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact KSI Research Inc.
at the address below.

KSI Research Inc.
156 Park Square Lane
Pittsburgh, PA 15238
USA

Phone: 412-606-5022

office@ksiresearch.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Foreword	iii
-----------------------	------------

Conference Organization	v
--	----------

Keynote

Challenges in a New Data Explosion Environment <i>David J wpi /Ej cpi 'Du.....</i>	xxi
From Computing to Informatics <i>Yi Deng</i>	xxii

Content distribution

A Global Data Source for Temporal Web Mining (S) <i>Mireille Samia.....</i>	3
Metrics for best practice networks analysis (S) <i>Pierfrancesco Bellini, Daniele Cenni, Alice Fuzier, Paolo Nesi, Gianni Pantaleo, Michela Paolucci.....</i>	7
Software Architecture for Web-based Project Management System (S) <i>Antonio Marcos Neves Esteca, Rogéria Cristiane Gratão de Souza, Adriana Barbosa Santos....</i>	11

Software understanding and reuse

Software Clustering Using Drools Tool (S)	
<i>Nenad Rogulja, Branko Milosavljević, Zora Konjović</i>	17
A model proposal for program comprehension	
<i>Francesca Arcelli, Marco Zanoni, Riccardo Porrini, Mattia Vivanti</i>	23
Software Process Reuse Based on Knowledge and Process Components (S)	
<i>Andr'e Luiz Peron Martins Lanna, Carlos Alberto Marques Pietrobon</i>	29

Slow Intelligence Systems & Panel

Ontological Filters for Slow Intelligence Systems	
<i>Shi-Kuo Chang, Emilio Zegarra, Chia-Chun Shih, Ting-Chun Peng, Francesco Colace and Massimo De Santo</i>	33
Modeling Human Intelligence as A Slow Intelligence System	
<i>Tiansi Dong</i>	41
SINMS: A Slow Intelligence Network Manager based on SNMP Protocol	
<i>Francesco Colace, Shi-Kuo Chang and Massimo De Santo</i>	47
Building Topic/Trend Detection System based on Slow Intelligence (S)	
<i>Chia-Chun Shih, Ting-Chun Peng</i>	53

Emergency Management and Security

A Generic Architecture for Surveillance Systems	
<i>Erland Jungert, Christina Grönwall, Niklas Hallberg, Birgitta Kylesten, Fredrik Lantz, Lars Eriksson</i>	57
Privacy Enforcement by Identity Management in Smart Surveillance Systems (S)	
<i>H. Vagts, E. Krempel and J. Beyerer</i>	64

Digital Home and HealthCare

RFID Applications in Hospitals – A Case Study for Emergency Department <i>Yen-Chieh Huang, Chih-Ping Chu, Yu-Shih Lin, Chia-Hao Kuo</i>	70
A Technical Model Using Genetic Algorithm For the Cosmetic Tourism Business <i>Chi-Lu Yang, Yen-Chieh Huang, Yeim-Kuan Chang, Chih-Ping Chu</i>	76

Networking and reconfiguration

Remote Query Processing in Wireless Sensor Networks using Coordinated Mobile Objects <i>Juzheng Li and Sol M. Shatz</i>	82
Congestion Optimization in Data Networks <i>Doraid Dalalah</i>	88
SICSDA: an Adaptive Configurable Distributed Software Architecture Applied to Satellite Control Missions (S) <i>Adriana Cursino Thome, Mauricio G. V. Ferreira, Joao Bosco S. Cunha</i>	94

Media Distribution and e-commerce

A Media Sharing Platform Built With Open Source Software <i>Karel Braeckman, Robbie De Sutter, Mike Matton, Tine Blomme</i>	98
Electronic Payment and Online Gaming (S) <i>Gerald Draxler, Johannes Sametinger, Andreas Wiesauer</i>	104

Architectures for communities and management

An Engine for Local Communities Sharing Services and Content (S) <i>Pierfrancesco Bellini, Daniele Cenni, Vladimiro Corsi, Paolo Nesi</i>	110
THE EXPLAINER: Using the Computer to Help Collaborate in Connecting the Dots to Resolve Complex Problems (S) <i>Donald V Steward, Josh Knight</i>	114
Verification of Security Policy of Service Oriented Systems <i>Antonio Maña, Gimena Pujol</i>	120

Multimedia Analysis and Processing

Software-Only M-JPEG Performance for Emerging Multimedia Applications (S) <i>Varun Kulkarni and Jonathan C.L. Liu</i>	126
A 3D Curve Chain Code Representation for the Analysis of Human Motion Similarity <i>Francisco Torres, Edward Chow</i>	132
iRock Interactive Multimedia System <i>Chris Ellison, Bee Ong and Kia Ng</i>	137

Media, metadata and semantics

Towards Hybrid Index Structures for Multi-Media Search Criteria <i>Richard Göbel, Carsten Kropf</i>	143
Common Interoperability Framework for Defense Architectures, A Web Semantic approach (S) <i>Abdullah S. Alghamdi, Zeeshan Siddiqui</i>	149
Assessing Open Archive OAI-PMH implementations <i>Emanuele Bellini, Marcel Aime Deussom, Paolo Nesi</i>	153
Advanced Pattern Match techniques for identifying Similar Transactions in a Database System (S) <i>Vj cpi ctcl'MtqnlUwctv!'Zhiwei Xu</i>	159

User Interface

A Display Adaptation Model for Nomadic Users (S) <i>Luis Carlos Niño-Tavera, Angela Carrillo-Ramos, Edgar Enrique Ruiz</i>	164
A Hybrid Approach for Adapting Web Graphical User Interfaces to Multiple Devices using Information Retrieved from Context <i>Carlos E. Cirilo, Antonio F. do Prado, Wanderley L. de Souza, Luciana A. M. Zaina</i>	168
Agile User Interfaces in Disaster Management <i>Veselina Milanova, Kay-Uwe Schmidt, Jorg Dorhinger, Axel Spriestersbach, Susan Thomas</i>	174
Analysis of the UCD process of a web-based system <i>Carmelo Ardito, Paolo Buono, Maria F. Costabile</i>	180

DET Workshop

Eclipse and Jazz Technologies for e-Learning

Enforcing Team Cooperation: an example of Computer Supported Collaborative Learning in Software Engineering (S) <i>Mauro Coccoli, Paolo Maresca, and Lidia Stanganelli</i>	189
The assessment of knowledge requirements in a network of goal oriented organization <i>G. Franco, P. Maresca, G. Nota</i>	193

Learning Objects

A Model for Teaching Distributed Computing in a Distance-based Educational Environment <i>Petra le Roux, Alta van der Merwe, AURORA Gerber</i>	200
How do archaeologists work? A multimedia digital object to learn their investigation process <i>C. Ardito, R. Lanzilotti</i>	206
An Adaptive Test for Learning Objects: item calibration <i>P. Di Bitonto, M. Laterza, T. Roselli, V. Rossano</i>	211

e-Learning

Barriers to Distance Learning in Web Accessibility for Persons with Blindness and Visual Impairment <i>Kathleen A. Stirbens, Angela Guercio, Charles Haiber, Joseph Williams</i>	216
A Novel Approach for Attention Management in E-learning Systems <i>Gennaro Costagliola, Mattia De Rosa, Vittorio Fucella, Nicola Capuano, Pierluigi Ritrovato</i>	222
Full Formative Assessment based on Educational Video Games (S) <i>Salvatore Cuomo, Vittorio Fucella, Aniello Murano</i>	228
Opencast, the Opencast Community and Opencast Matterhorn – A global community-driven project to build a management system for academic video (S) <i>Todd Jensen, Olaf A. Schulte</i>	232

e-Learning and e-Collaboration

Sakai 3: the Co-evolution of Product and Community <i>Clay Fenslason</i>	235
Towards Integration of Data Base Management System for Open-source Course Management Systems (S) <i>Yuki Terawaki, Yuichi Takahashi, Yuji Tokiwa, Yasushi Kodama, Kazuo Yana</i>	239
3D virtual space for a quality e-Learning environment in collaborative study (S) <i>Yoshiyuki Hino, Kazuo Yana, Hisato Kobayashi, Kimiyoshi Hayashi, Yasushi Kodama, Billy Pham</i>	243

VLC Workshop

Visual computing for expert communities

Visualizing the Commonalities Between Hierarchically Structured Data Queries
Chad Jones, Ryan Armstrong, Kwan-Liu Ma..... 251

Towards Security-aware Program Visualization for Analyzing In-lined Reference Monitors (S)
Aditi Patwardhan, Kevin W. Hamlen, and Kendra Cooper..... 257

Geovisualization

Immersive Gesture-based Interface for Effective 3D Geographic Data Manipulation (S)
Andrea F. Abate, Vincenzo Del Fatto, Michele Nappi, Stefano Ricciardi, Genoveffa Tortora..... 261

Augmented Map navigation through Customizable Mobile Interfaces
D. De Chiara, L. Paolino, M. Romano, M. Sebillio, G. Tortora, G. Vitiello..... 265

A design methodology for the development of GIS applications
Rosanna Cassino, Monica Sebillio, Maurizio Tucci..... 271

Formal theory of Visual Languages

Visual Spatio-Temporal Programming with a 3D Region Connection Calculus (S)
Julia Albath, Jennifer L. Leopold, Chaman L. Sabharwal..... 277

On the Relative Expressiveness of Second-Order Spider Diagrams and Regular Expressions (S)
Peter Chapman and Gem Stapleton 283

Visual Interfaces and Environments

Image Annotation System Using Visual and Textual Features <i>Swapnil Barai and Alfonso F. Cardenas</i>	289
Reverse Engineering Visual Design Models from Code: What are the Issues? (S) <i>Kendra M.L. Cooper, Jeffrey Koch</i>	297
CAVEMANDER: Creating 3-D Command-and-Control Scenarios for the CAVE Automatic Virtual Environment (S) <i>Muhanna Muhanna, Sermsak Buntha, Sohei Okamoto, Michael J. McMahon, Jr., Sergiu Dascalu, Frederick C. Harris, Jr.</i>	300

Sketch Computing

Recognizing Sketches of Euler Diagrams Drawn with Ellipses <i>Aidan Delaney, Beryl Plimmer, Gem Stapleton, Peter Rodgers</i>	305
Automated Clock Drawing Test through Machine Learning and Geometric Analysis (S) <i>Anupam Guha, Hyungsin Kim, Ellen Yi-Luen Do</i>	311
Interpreting Gestures for Text Entry on Touch Screen Devices <i>Gennaro Costagliola, Vittorio Fucella, Michele Di Capua</i>	315
Evaluation of Paper-Pen based Sketching Interface (S) <i>Pankaj Rajan, Paul Taele, Tracy Hammond</i>	321
Sketch-a-Doc: Using Sketches to Find Documents (S) <i>Manuel J. Fonseca, Daniel Goncalves</i>	327
Reviewer's Index	331
Author's Index	333

Note: (S) means short paper.