



MMEDIA 2011

The Third International Conferences on Advances in Multimedia

April 17-22, 2011

Budapest, Hungary

MMEDIA 2011 Editors

Dumitru Dan Burdescu, University of Craiova, Romania

Philip Davies, Bournemouth and Poole College, UK

David Newell, Bournemouth University, UK

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© (4233) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (4234)

International Academy, Research, and Industry Association (IARIA)
412 Derby Way
Wilmington, DE 19810

Phone: (408) 893-6407
Fax: (408) 527-6351

petre@iaria.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: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

MMEDIA 1: FUNDAMENTALS IN MULTIMEDIA:

Context-Aware Scalable Multimedia Content Delivery Platform for Heterogeneous Mobile Devices	1
<i>Kwong Huang Goh, Jo Yew Tham, Tianxi Zhang, Timo Laakko</i>	
Low Complexity Corner Detector Using CUDA for Multimedia Applications	7
<i>Rajat Phull, Pradip Mainali, Qiong Yang, Patrice Rondao Alface</i>	
Real-Time Temporal Control of Musical Processes	12
<i>Raphael Marczak, Myriam Desainte-Catherine, Antoine Allombert</i>	
Complexity Scalable Video Decoding Scheme for H.264/AVC	18
<i>Hoyoung Lee, Jaehwan Kim, Luong Pham Van, Bongsoo Jung, Kwangpyo Choi, Younghun Joo, Byeungwoo Jeon</i>	

MMEDIA 2: MULTIMEDIA CONTENT AND MODELING:

A Formal Model for the Specification and Analysis of HLA-based Distributed Multimedia Interactive Simulation using Hierarchical Time Stream Petri Nets	23
<i>Akram Hakiri, Michel Diaz</i>	
The Anatomy of an Adaptive Multimedia Presentation System (AMPS)	30
<i>Nick Rowe, Philip Davies</i>	
A User Interface for Spatio-Temporal ‘Eventually’ Queries using Gamepad	38
<i>Vineetha Betaiah, Ramazan S. Aygün</i>	
Development of a Data Model for an Adaptive Multimedia Presentation System	44
<i>David Newell, Philip Davies, Suzy Atfield-Cutts, Nick Rowe</i>	
A Semantic Approach for the Repurposing of Audiovisual Objects	50
<i>Benjamin Diemert, Marie-Helene Abel, Claude Moulin</i>	

MMEDIA 3: MULTIMEDIA CONTENT-BASED RETRIEVAL AND ANALYSIS:

Indexing Support Vector Machines for Efficient top-k Classification	56
<i>Giuseppe Amato, Paolo Bolettieri, Fabrizio Falchi, Fausto Rabitti, Pasquale Savino</i>	
3D Object Retrieval and Pose Estimation for a Single-view Query Image in a Mobile Environment	62
<i>Yoon-Sik Tak, Eeunjun Hwang</i>	
Content-based Image Retrieval System for Medical Domain Using Spatial Color and Texture Histograms	68
<i>Cristian Gabriel Mihai, Alina Doringa, Liana Stanescu, Dumitru Dan Burdescu, Cosmin Stoica Spahiu</i>	
A Clustering-based Approach to Web Image Context Extraction	74
<i>Sadet Alciç, Stefan Conrad</i>	

MMEDIA 4: PERCEPTION AND COGNITION FOR MULTIMEDIA USERS:

Virtual Reality Technology used to Support the Buildings Inspection Activity	80
<i>Alcinia Z. Sampaio, Augusto M. Gomes, Ana Rita Gomes, Daniel P. Rosario</i>	
Cyber Physical Multimedia Systems: A Pervasive Virtual Audio Community	87
<i>Markus Duchon, Corina Schindhelm, Christoph Niedermeier</i>	
Queue-based Scheduling for Soft Real Time Applications	91
<i>Fabrizio Mulas, Salvatore Carta, Andrea Acquaviva</i>	
Email as Electronic Memory: A Spatial Exploration Interface	98
<i>Florian Muller, Martin Guggisberg, Helmar Burkhart</i>	

MMEDIA 5: MULTIMEDIA APPLICATIONS, SECURITY, AND CONTENT PROTECTION:

Changing the Middleware System for IPTV Services Telecom Operators Based on the Methodology of the Change Management Process.....	104
<i>Anel Tanovic, Fahrudin Orucevic</i>	
3D Objects Watermarking and Tracking of Their Visual Representations	111
<i>Mireia Montanola, Patrice Rondao Alface, Benoit Macq</i>	
Representative Picture Selection from Albums.....	114
<i>Gabor Szucs, Tamas Leposa, Sandor Turbucz</i>	
Accelerating Image Processing in Flash using SIMD Standard Operations.....	118
<i>Chamira Perera, Daniel Shapiro, Jonathan Parri, Miodrag Bolic, Voicu Groza</i>	

MMEDIA 6: MOBILE AND UBIQUITOUS MULTIMEDIA:

Scalable Video Coding Transmission over Heterogeneous Networks	124
<i>Reuben A. Farrugia, Lucianne Cutajar</i>	
E-meeting Web-Interface Adaptive to Changing Context and Mobile Devices.....	130
<i>Andrey Ronzhin, Viktor Budkov</i>	
Real-Time Multimedia Session Splitting and Seamless Mobility in Session Initiation Protocol Environments	136
<i>Thomas Stahle, Thorsten Kaczmarz, Jurgen Muller, Michael Massoth</i>	
Author Index	