



MMEDIA 2012

The Fourth International Conferences on Advances in Multimedia

April 29 - May 4, 2012

Chamonix / Mont Blanc, France

MMEDIA 2012 Editors

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© (2012) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2012)

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 I

Synchronization Techniques in Distributed Multimedia Presentation	1
<i>Shahab Ud Din, Dick Bulterman</i>	
Low Complexity Multiple Candidate Motion Estimation Based on Constrained One-bit Transforms	10
<i>Changryoul Choi, Jechang Jeong</i>	
Popularity Based Distribution Schemes for P2P Assisted Streaming of VoD Contents.....	14
<i>Sasho Gramatikov, Julián Cabrera, Narciso García</i>	
A Domain Pool Classification Method for Better Fractal Volume Compression	20
<i>Mihai Popescu, Mihai Panu, Razvan Tudor Tanasie</i>	

MMEDIA 2: FUNDAMENTALS II

Video Casting Application Oriented Key Exchange	24
<i>Abdullah Rashed, Henrique Santos</i>	
Multi-Connected Ontologies	29
<i>Philip Davies, David Newell, Abigail Davies, Damla Karagözlü</i>	
Adaptive Virtualisation for Multi Modal Learning Objects	37
<i>David Newell, Philip Davies, Suzy Atfield-Cutts, Andrew Yearp</i>	
Towards Distributing Multimedia Applications on a Virtualized Cloud Infrastructure.....	44
<i>Mak Sharma, David Newell, Philip Davies, Benjamin Todd</i>	

MMEDIA 3: MULTIMEDIA CONTENT-BASED RETRIEVAL AND ANALYSIS I

Nonmetric Earth Mover's Distance for Efficient Similarity Search.....	50
<i>Jakub Lokoc, Tomas Skopal, Christian Beecks, Thomas Seidl</i>	
File Size Comparisons of Modeled and Pixel-Based Video in Five Scenarios.....	56
<i>Juergen Wuenschmann, Christian Feller, Albrecht Rothermel</i>	
A Q-Learning Approach to Decision Problems in Image Processing.....	60
<i>Alexandru Gheregă, Monica Radulescu, Mihnea Udrea</i>	
A Video Semantic Annotation System Based on User Attention Analysis	67
<i>Jin-Young Moon, Chang-Seok Bae, Wan-Chul Yoon</i>	

MMEDIA 4: MULTIMEDIA CONTENT-BASED RETRIEVAL AND ANALYSIS II

Video Retrieval by Managing Uncertainty in Concept Detection using Dempster-Shafer Theory.....	71
<i>Kimiaki Shirahama, Kenji Kumabuchi, Kuniaki Uehara</i>	
A Database of Artificial Urdu Text in Video Images with Semi-Automatic Text Line Labeling Scheme	75
<i>Imran Siddiqi, Ahsen Raza</i>	
Text Driven Recognition of Multiple Faces in Newspapers.....	82
<i>Nicola Adami, Sergio Benini, Riccardo Leonardi</i>	

MMEDIA 5: APPLICATIONS I

Optimisation of JPEG XR Quantisation Settings in Iris Recognition Systems	88
<i>Kurt Horvath, Herbert Stögner, Andreas Uhl</i>	
The Design of an Adaptive Multimedia Presentation System	94
<i>Nick Rowe</i>	
Image Rotation Rectification in Steroscopic 3D on Multi-core Architectures.....	101
<i>Ivan Velciov, Cormac Brick, Marius Predut, Valentin Muresan</i>	
CrossTale: Shared Narratives as a New Interactive Medium	106
<i>Joaquim Colas, Alan Tapscott, Ayman Moghnieh, Josep Blat</i>	

MMEDIA 6: APPLICATIONS II

Silent Voice Elements for Text Input	112
<i>Peng Teng, Yunde Jia</i>	
Summarization of Real-Life Events Based on Community-Contributed Content	119
<i>Manfred Del Fabro, Anita Sobe, Laszlo Böszörményi</i>	
Healthcare Multimedia Application for Multi-modal Mobile Device Interaction.....	127
<i>Marek Penhaker, Jan Kijonka</i>	
Distribute the Video Frame Pixels over the Streaming Video Sequence as Sub-Frames.....	133
<i>Hussein Muzahim Aziz, Markus Fiedler, Håkan Grahm, Lars Lundberg</i>	

MMEDIA 7: PERCEPTION AND COGNITION IN VISUALIZATION

A Robust and Fast Gesture Recognition Method for Wearable Sensing Garments	142
<i>Ali Boyali, Manolya Kavakli</i>	
Influence of Culture in Gesture Behavior Between Anglo-Celtic and Latin-Americans.....	148
<i>Karime Nasser Alvarez, Manolya Kavakli</i>	
Automatic Discovery and Composition of Multimedia Adaptation Services.....	155
<i>Jean-Claude Moissinac</i>	
Author Index	