



MMEDIA 2017

The Ninth International Conferences on Advances in Multimedia

April 23 - 27, 2017

Venice, Italy

MMEDIA 2017 Editors

Marco Martalò, SMARTEST Research Center, E-Campus University, Italy &
Department of Information Engineering, University of Parma, Italy

Riccardo Raheli, Department of Information Engineering, University of Parma,
Italy

Hiroshi Ishikawa, Information and Communication Systems, Faculty of System
Design, Tokyo Metropolitan University, Japan

Shohei Yokoyama, Faculty of Informatics, Shizuoka University, Japan

Masaharu Hirota, National Institute of Technology, Oita College, Japan

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© (2017) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2017)

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: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

MMEDIA 1: MULTIMEDIA SERVICES

The Research of Critical Success Factors for Performance-oriented Electronic Support Systems - Resource-Based View	1
<i>J. Lee, W. Yan, C. Yu</i>	
3D Model Representations and Transformations in the Context of Computer-Aided Design: A State-of-the-Art Overview.....	10
<i>C. Schinko, U. Krispel, E. Eggeling, T. Ullrich</i>	

MMEDIA 2: MULTIMEDIA APPLICATIONS

Investigating the Use of Semi-Supervised Convolutional Neural Network Models for Speech/Music Classification and Segmentation.....	16
<i>D. Doukhan, J. Carrire</i>	
Adaptive Queue Management Scheme for Flexible Dual TCP/UDP Streaming Protocol.....	20
<i>A. Dhamodaran, K. Gatimu, B. Lee</i>	
Improving Feature Extraction Accuracy for Skin Analysis.....	26
<i>W. Kim, H. Kim, E. Hwang</i>	

MMEDIA 3 / SBD I: SOCIAL AND BIG DATA I

A Data Model for Integrating Data Management and Data Mining in Social Big Data	32
<i>H. Ishikawa, R. Chbeir</i>	
Examination of Best-time Estimation using Interpolation for Geotagged Tweets	38
<i>M. Endo, S. Ohno, M. Hirota, Y. Shoji, H. Ishikawa</i>	
Classification of Unlabeled Deep Moonquakes Using Machine Learning.....	44
<i>S. Kikuchi, R. Yamada, Y. Yamamoto, M. Hirota, S. Yokoyama, H. Ishikawa</i>	

MMEDIA 4 / SBD II: SOCIAL AND BID DATA II

Analysis of Spatial and Temporal Features to Classify the Deep Moonquake Sources Using Balanced Random Forest.....	51
<i>K. Kato, R. Yamada, Y. Yamamoto, M. Hirota, S. Yokoyama, H. Ishikawa</i>	
Measurement-based Cost Estimation Method of a Join Operation for an In-Memory Database	57
<i>T. Tanaka, H. Ishikawa</i>	
A Proposal of Activation Mechanism for User Communication based on User Behavior Analysis on Wedding Community Sites	67
<i>T. Hayashi, Y. Wang, Y. Kawai, K. Sumiya</i>	
A Node Access Frequency based Graph Partitioning Technique for Efficient Dynamic Dependency Analysis.....	73
<i>K. Kusu, I. Kume, K. Hatano</i>	

MMEDIA 5 / STCD I: MODELS AND ALGORITHMS FOR SPATIALLY AND TEMPORALLY CORRELATED DATA I

A Message Passing Approach for Decision Fusion of Hidden-Markov Observations in the Presence of Synchronized Attacks.....	79
<i>A. Abrardo, M. Barni, K. Kallas, B. Tondi</i>	

MMEDIA 6 / STCD II: MODELS AND ALGORITHMS FOR SPATIALLY AND TEMPORALLY CORRELATED DATA II

Modelling Temporal Structures in Video Event Retrieval using an AND-OR Graph.....	85
<i>M. Boer, C. Escher, K. Schutte</i>	
Resolution Enhancement of Incomplete Thermal Data of Earth by Exploitation of Temporal and Spatial Correlation	89
<i>P. Addesso, M. Longo, R. Restaino, G. Vivone</i>	
Extraction of Periodic Features from Video Signals.....	95
<i>D. Alinovi, R. Raheli</i>	
Author Index	