# Table of Contents

## Invited Contributions

Adaptive Systems for Multimedia Information Retrieval ............... 1  
   *Gareth J.F. Jones*

Overview of Approaches to Semantic Augmentation  
   of Multimedia Databases for Efficient Access and Content Retrieval ..... 19  
   *Serhiy Kosinov and Stéphane Marchand-Maillet*

Building User Models from Observations  
   of Users Accessing Multimedia Learning Objects ...................... 36  
   *Judy Kay and Andrew Lum*

## Retrieval Systems

Personalized Support for Interaction with Scientific Information Portals... 58  
   *Eric Schwarzkopf and Anthony Jameson*

NewsFlash: Adaptive TV News Delivery on the Web ...................... 72  
   *Alan Haggerty, Ryen W. White, and Joemon M. Jose*

User Adaptive Categorization of Document Collections .................... 87  
   *Andreas Nürnberg*

## Text and Ontologies

Automatic Keyword Extraction for News Finder ......................... 99  
   *José Luis Martínez-Fernández, Ana García-Serrano,  
     Paloma Martínez, and Julio Villena*

Ontology-Based Semantic Classification of Unstructured Documents ...... 120  
   *Ching Kang Cheng, Xiaoshan Pan, and Franz Kurfess*

## Feature Extraction from Video

Intelligent Visual Descriptor Extraction from Video Sequences .......... 132  
   *Paraskevi Tzouveli, Georgios Andreou, Gabriel Tsechpenakis,  
     Yiannis Avrithis, and Stefanos Kollias*

Defining Search Areas to Localize Limbs in Body Motion Analysis ...... 147  
   *Thomas Fourès and Philippe Joly*

Learning Fuzzy Rules for Visual Speech Recognition .................... 164  
   *M.A. Anwar, Jim F. Baldwin, and Trevor P. Martin*
Adaptive Discovery of Indexing Rules for Video ........................ 176
  Marcin Detyniecki

Image

A Combination of Machine Learning and Image Processing Technologies
for the Classification of Image Regions .............................. 185
  Andreas D. Lattner, Andrea Miene, and Otthein Herzog

Neural Network-Generated Image Retrieval and Refinement ............ 200
  Kyoung-Mi Lee

Sound

Error Tolerant Melody Matching Method in Music Information Retrieval . 212
  Sung-Phil Heo, Motoyuki Suzuki, Akinori Ito, Shozo Makino, and Hyun-Yeol Chung

Author Index ................................................................. 229