

Special issue on Digital Information Management

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Nowadays, most of the society activities and business models are driven by the unprecedented evolution of data acquisition technologies together with advances in computing and communications. This has resulted in an explosive growth in the number, size, diversity of potentially useful digital information sources of various types (image, audio, video, ...) in several application domains, such as bioinformatics, education, environment, security, etc., and leads us towards a digital society. However, the massive size, semantic heterogeneity, autonomy, and distributed nature of the digital multimedia repositories present significant hurdles in acquiring useful knowledge from the available data. Naturally, issues on how to capture, store, preserve, interpret, monitor, control, deliver and manage the massive available data sources and systems become crucial and require various improvements and major modifications of the current tools to be provided to the end-user. Currently, there is notable number of research work on designing and deploying information and organizational management systems, experts systems, tutoring systems, decision support systems, and in general, industrial systems.

This special issue attempts to address these issues and includes extended and revised papers from the IEEE International Conference on Digital Information Management (ICDIM) held in Bangalore-India in 2006. ICDIM aims to bring people from academia, research laboratories and industry and offer a collaborative platform to address the emerging issues of the digital society and solutions in information science and technology.

After a very tight review process, the 12 following papers out of 80 papers presented at IEEE ICDIM'06 (acceptance rate of 15%) have been selected:

- *Cluster based Mixed Coding Schemes for Inverted File Index Compression*
Jinlin Chen, Ping Zhong, Terry Cook
- *Complex Query Processing on Web Graph: a Social Network perspective*
Susanta Mitra, Aditya Bagchi, A.K.Bandyopadhyay
- *Restricted Continuous KNN Queries on Road Networks with Caching Enhancement*
Maytham Safar, Dariush Ebrahimi, Mary Magdalene Jane F., and R. Nadarajan
- *Efficient Power Aware and Reputation-Based Routing Protocol for MANET*
S. Sankara Gomathi, Richard Chbeir, S. Krishnamurthi
- *Application Schema Mapping based on Ontology: An Approach for Geospatial Data Storage*
Manoj Paul and S.K. Ghosh
- *AnT&CoW: Share, Classify and Elaborate Documents by means of Annotation*
Gaëlle Lortal, Amalia Todirascu-Courtier, Myriam Lewkowicz
- *Classification of Digital Libraries - An e-Business Model-Based Approach*
B. Markscheffel, D. Fischer, and D. Stelzer
- *Accessing Heritage Documents according to Space Criteria within Digital Libraries*
Christophe Marquesuzaà, Patrick Etcheverry, Christian Sallaberry, Mustapha Baziz
- *Model-Driven Development of Content-Based Image Retrieval Systems*
Temenuшка Ignatova, Andreas Heuer
- *Topic Maps Management in Spatial-Temporal Multimedia Blog*
Sachit Rajbhandari, Frederic Andres, Motomu Naito, Vilas Wuwongse
- *Automating the Management of Scientific Conferences using Information Mining Techniques*
Andreas Pesenhofer, Rudolf Mayer and Andreas Rauber
- *Service-Oriented Workflow*
Youakim Badr

We hope this special issue motivates researchers to take the next step beyond building models to implementing, evaluating, comparing, and extend proposed approaches. Many people worked long and hard to help this issue become a reality. We would first like to gratefully acknowledge and sincerely thank all the reviewers for their timely and insightful valuable comments and criticism of the manuscripts that greatly improved the quality of the final versions. Of course, thanks are due to the authors, who provided excellent articles and timely extended revisions. Finally, we are grateful to the editors of JDIM for their trust in us, their efforts, patience, and painstaking editorial work during the production of this special issue.

Reviewers

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Guest Editor Biographies

Richard Chbeir is currently an Associate Professor in the Computer Science Department of the Bourgogne University, Dijon-France. His research interests are in the areas of distributed multimedia database management, object-oriented information systems, spatio-temporal applications, indexing methods, security and watermarking, Bioinformatics, and the development and the integration of information systems. Dr. CHBEIR has published in international journals and books (IEEE Transactions on SMC, Journal of Methods of Information in medicine, JDIM, etc.), conferences (ACM SAC, Visual, IEEE CIT, FLAIRS, PDCS, etc.), and has served on the program committees of several international conferences (IEEE SITIS, ACM SAC, IEEE ISSPIT, EuroPar, etc.). He is currently the Chair of the French Chapter ACM SIGAPP.

Pit. Pichappan is currently the visiting professor at the Computer Science and Information System department of the Imam Mohammad Bin Saud University, Riyadh, Saudi Arabia. He has more than 70 publications to his credit. He is the member of the IEEE, Internet Society, UN ICT panel etc. He is the member of the editorial board of 5 journals. He has chaired many international conferences and workshops. His research interests include web information retrieval, information security, web metrics etc.

Ajith Abraham is currently a Visiting Professor in the Norwegian University of Science and Technology, Norway. His primary research interests are in computational intelligence with application areas including network security, Web services, Web intelligence, financial modeling, multi criteria decision-making, data mining etc. He has authored/co-authored over 300 research publications in peer reviewed reputed journals, book chapters and conference proceedings of which five have won 'best paper' awards. He is the founding editor-in-chief of the International Journal of Computational Intelligence Research (IJCIR) and also serves the editorial board of several other International Journals. He has guest edited 21 special issues for reputed International Journals. Since 2001, he is actively involved in the Hybrid Intelligent Systems (HIS) and the Intelligent Systems Design and Applications (ISDA) series of International conferences. He has also served the technical committee of over 100 International conferences and has also given 6 conference tutorials and 10 plenary/keynote lectures. He is a senior member of IEEE and IEEE (CS) and a member of ACM, IEE (UK), IEAust and also works closely with several academic working groups like EvoNet, EUSFLAT, WFSC, etc. He received PhD degree from Monash University, Australia. More information at: <http://www.softcomputing.net>