# Preface

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**Biographical notes:** Subhash Bhalla received his PhD in Computer Science in 1984. His research interests include modelling user interactions, and new database query language interfaces.

Information systems in public utility services such as in healthcare and transportation depend on large scale computing infrastructure. Many research efforts are being made in related areas to support the public utilities and associated services, as well as business activities in e-commerce and in new segments of activity, such as healthcare. Recent research activities target web-based computing, information access by web users, security and privacy, wireless computing, mobile computing infrastructure, web data mining, information retrieval, and new query language interfaces. Government agencies in many countries plan to launch facilities in education, healthcare and information support as a part of e-government initiative. In this context, 'Business Intelligence and Information Infrastructure' has become an active research field. A number of new opportunities have evolved in design and modelling based on new computing needs of the users. Database systems play a central role in supporting networked information systems for access and storage management aspects.

In the same context, the Sixth International Workshop on Databases in Networked Information Systems (DNIS) 2010 was held on 29–31 March 2010 at the University of Aizu, Japan. The workshop programme included research contributions and invited contributions. A view of research activity in related areas was provided by special sessions on topics including

- networked information systems: infrastructure

- access to information resources

- information and knowledge management systems

- information extraction from data resources

- geo-spatial decision making.

Some invited papers were contributed by Dr. Divyakant Agrawal, Professor Joachim Biskup, Professor P. Krishna Reddy and Professor Yasuhiko Morimoto. Revised versions of these and other selected contributed manuscripts have been included in this issue.

The manuscripts in this issue begin by introducing problems concerning large-scale data management computations in cloud computing. The paper has been contributed by Agarwal et al. The manuscript by Biskup presents a model of a secure system for improved access control using improved usage control. Similarly, the manuscript by Sachdeva et al. describes an information interchange mechanism for a web services-based system for management of archival data in healthcare. The proposal considers electronic health records (EHR) databases and standards. The paper by Swamy et al. describes a web-based interface design for desktop and hand-held computing devices. In the same section, the paper by Hashimoto et al. describes a design for large-scale management of data for social media analysis using the traditional data of topic clusters from buzz marketing sites.

Apart from introducing the large-scale computing applications, the contribution by Morimoto et al. presents a computational proposal for supporting agent-based anonymous skyline set computations in cloud computing. The final paper by Sainani et al. presents algorithmic aspects of supporting large-scale computations for modern e-commerce applications. It considers product selection using an example of resumé selection from a large pool of resumés submitted by applicants.