Editorial

Sangkyun Kim

Department of Industrial Engineering, Kangwon National University,
Chunchon, Republic of Korea
E-mail: drsaviour@naver.com

Biographical notes: Sangkyun Kim is a lecturer at the Programme in Electronic Commerce, Yonsei University. He received his MS and PhD in Industrial Engineering from the Yonsei University. His research interests cover information security, information engineering methodology, and electronic commerce. This year, he takes on the responsibilities of guest editor of *Journal of Systems and Software* and *Future Generation Computer Systems*, and workshop chair of ICCSA2006 and KES2006.

Information Engineering (IE) and Enterprise Architecture (EA) link the empirical and theoretical studies with a constructive view of research on how to design and deliver enterprise information systems effectively for industrial information management. With the research results of IE and EA, we can undertake practical activities on industrial information management. This special issue is aimed at providing a variety and wealth of contributions in the area of information engineering and enterprise architecture for industrial information management.

The first paper, entitled *Framework for E-mail Records Management in Corporate Environments*, is authored by Sangkyun Kim. In this paper, the management framework of e-mail records in corporate environments is provided. Based on the literature reviews on security management and regulations, and according to the result of questionnaires that investigated an industrial state of e-mail records management, the purpose of e-mail record management is provided. Finally, a management framework is suggested to improve the management level of corporate e-mail records.

The second paper, entitled *The Relationship between Implementation Variables and Performance Improvement of ERP Systems*, is co-authored by Wen-Hsien Tsai, Yi-Wen Fan, Jun-Der Leu, Li-Wen Chou, and Ching-Chien Yang. This paper provides a measure that evaluates an improvement in the performance of ERP systems after implementing ERP systems with a study on the implementation variables. The implementation variables investigated in this study are the ERP implementation status, ERP system source and ERP implementation strategy. The structured questionnaires sent to companies listed in the top 5000 largest corporations in Taiwan show that the companies, who have implemented non-packaged ERP systems with integral planning and the planned ERP modules, achieved the strongest improvement of corporate performance with ERP systems.

The third paper, entitled *A Virtual Enterprise based Information System Architecture for Tourism Industry*, is co-authored by Shuchih Ernest Chang and Ying Chen Chou. This paper suggests an Integrative Information Architecture (IIA), which provides dynamic, flexible and innovative strategic and tactical management of the integration of business

management systems by using the conceptual model of virtual enterprise (VE). In this paper, the application of VE is to integrate employees, the business process, and resources within the tourism industry. Finally, this paper provides the potential of applying IIA to contemporary tour companies for developing a cross-organisational tourism system.

The fourth paper, entitled *Formation of a Generic Technique for Manufacturing Systems Monitoring*, is co-authored by C.S. Tang, C.Y. Chan and K.L. Yung. Computer Integrated Manufacturing (CIM) techniques for dispersed manufacturing systems have been applied widely to enhance resource utilisation. However, the complicated hardware/software integrations and signal conditioning requirements take up a significant amount of resources. This paper develops a new methodology, which needs little configuration, by making use of simple counting devices attached at transition points along a fabrication line to count the number of entities that pass through. With the help of the formulated mathematical model, both the quantitative and the qualitative matters in a manufacturing system can be monitored, and a problematic location can be identified accordingly.

The fifth paper, entitled *A Study on Development Methodology of Business Model in a Ubiquitous Technology Environment*, is co-authored by Hong Joo Lee and Sangkyun Kim. This paper presents a new methodology which supports the development of a new business model in ubiquitous technology environments based upon the characteristics of recently available techniques and application systems. This methodology can be widely used by various companies in diverse industries. In this paper, customers' needs in the mobile industry are analysed and a development methodology for relevant business factors is presented with the validity verification.

The final paper, entitled *A Research on Advanced Enterprise Computing Platform*, is co-authored by Ruey-Shyang Wu, Shyan-Ming Yuan and Kai-Chih Liang. This paper presents a reference model for the enterprise-computing platform that supports the utilisation and adoption of emerging computing technologies into the existing platform of enterprise computing. Based on a survey on enterprise application architecture, a reference model for the enterprise-computing platform has been designed. An integration framework named iCell is also proposed to solve the problem of integration gaps in the suggested reference model. Finally, a case study is provided to evaluate the impacts of the proposed model both on technology and on business.

Finally, the guest editor of this special issue wishes to thank the authors for their contributions including those whose papers were not included in this issue. Furthermore, special thanks are due to the reviewers who provided invaluable evaluation and fruitful comments.