

## FOREWORD

I am very pleased to see that Volume 19 No.1 of IJCIM includes very special articles from a large pool of submissions. Research articles included in this first edition of IJCIM are a proof of our continuing commitment to serve the community of researchers all over the world. I highly appreciate the dedication of all the authors who have worked hard and sent their papers to us.

Some of you have been asking about the “Impact Factor” (IF) of the IJCIM. According to Index Copernicus the Impact Factor (F) for IJCIM in 2010 was 5.49.

We have completed the task of updating IJCIM website for a broader appeal. Please carefully look at guidelines about paper format for publication at [www.ijcim.th.org](http://www.ijcim.th.org). I invite you to send your papers on topics of current interest in computer sciences, Internet technologies and management to me ([charm@ksc.au.edu](mailto:charm@ksc.au.edu)). I will get your paper reviewed by the experts in your field, and if the initial response is favorable, I will request you to submit your camera-ready final for publication in the next editions of IJCIM to be published in 2012.

This issue of IJCIM contains 10 papers selected from a big pool which cover a good range from Bangladesh, India, Malaysia, Vietnam, Saudi Arabia, Jordan to USA and Canada. The main theme of each paper is summarized next.

The first paper titled “Inter-Firm Alliances and E-Commerce in the Global Market Place: Making a Connection” is written by **Md. Mizanur Rahman, Mehedi Hasan Md Hefjur Rahman** and **Mir Sohrab Hossain** from Bangladesh. In this paper the authors explore the growth of interfirm alliances which are growing at a phenomenal rate. It is argued that in the new global economy where rapid response to marketplace changes is imperative, interfirm arrangements are becoming a competitive necessity. Main objective of this paper is to justify the motives for formation of interfirm alliance and its role in E-commerce. Further, it raises issues on how our domestic firms can get involved in e-commerce and can benefit from the expanding markets.

The second paper titled “A Multi-Biometric Template Security: An Application of Code-Based Cryptosystem” is written by **Ajay Sharma** and **Deo Brat Ojha** from India. In this paper the authors explain the ways in which they have enhanced the accuracy and security of Multi-biometric system using code based cryptosystem. Uniqueness of their process is that they stores biometric templates in encrypted form both without the fusion of score level and decision level, which leads to a successful way of combining multiple biometric technologies, different from earlier methods. According to them the McEliece cryptosystem (Code based cryptosystem) in addition of randomness is also probabilistic, which gives them more susceptibility towards brute force attacks.

The third paper titled “Study of Workflow Management System in E-commerce” submitted by **V. R. Salkute** from India covers new and emerging aspects of E-commerce. According to the author E-commerce is the future of enterprises to improve their international competitiveness and expand their market. The migration from traditional business to E-

commerce requires fundamental changes in business operational systems. According to the author it is not sufficient to focus on the development of web-based interfaces only. The front-end of a system for E-commerce should also be supported by the back-end infrastructure. A Workflow Management System (WFMS) is important for linking front-end and back-end applications to automate business processes.

The fourth paper titled “CRM Initiatives of Banking Sector in Saudi Arabia” is written by **Muhammad Anshari, Abdullah Al-Mudimigh, and Mehmet Aksoy**. This paper explains how banking sectors in Saudi Arabia are increasingly deploying Customer Relationship Management (CRM) to produce better results and improve customer satisfaction. To ensure effective and successful implementation requires identifying potential information needs of the consumers. In this paper authors focus on the various factors contributing to successful implementation of CRM initiatives in Saudi Arabia’s banking sector.

The fifth paper titled “Supply Chain Efficiencies Through E-Kanban: A Case Study” is written by **Suprasith Jarupathirun, Andrew P. Ciganek, Thaloengsak Chotiwankeawmanee and Chayanun Kerdpitak** explains that an electronic Kanban (e-Kanban) is a system of signaling that makes use of Information technology (IT) to trigger movement of raw materials to allow for a real time view of inventory throughout the supply-chain. This paper presents a case study of the use of an e-Kanban system to minimize operational and logistics issues for a parts supplier within the automotive industry. Measures of operations and logistics performance are examined both before and after the implementation of the e-Kanban system through a series of observations, in-depth interviews, and documentation reviews. The results indicated improvements in production lead times, costs, effective and efficient work processes, and reductions in waste. The enhancement of the e-Kanban system through radio-frequency identification (RFID) is also discussed.

The sixth paper titled “Proper Noun Extracting Algorithm for Arabic Language” is written by **Riyad Al-Shalabi, Ghassan Kanaan, Bashar Al-Sarayreh, Khalid Khanfar, Ali Al-Ghonmein, Hamed Talhouni, and Salem Al-Azazmeh** from Jordan. According to these authors many of Natural Language Processing (NLP) techniques have been used in Information Retrieval but the results are not encouraging. Proper names are problematic for cross language information retrieval (CLIR), detecting and extraction. The proper nouns in Arabic language do not start with capital letter as in many other languages such as English, so special treatment is required to find them in a text. This research uses a new technique to retrieve proper nouns from the Arabic text by using set of keywords and particular rules to represent the words that might form a proper noun and the relationships between them. To test this system, researchers used 20 articles extracted from the Al-Raya newspaper published in Qatar and Alrai newspaper published in Jordan.

The seventh paper titled “Becoming Pandits Through Avatars: Leveraging Multi-User Virtual Environments for Education in the Digital Age” is written by **Metha Kijawongwong** from Canada. According to this researcher there are more than 200 educational institutions that currently utilize Multi-User Virtual Environments (MUEs) as teaching tools, suitable for today’s digital generation. Research on educational MUEs is for the most part is in the early phases. As proposed in the U.S. Department of Commerce’s 2020 Visions, there should be more studies to explore the potentials of the MUEs while minimizing negative outcomes of their applications. This paper intends to classify MUEs and explore other current educational applications. It outlines the potential features and challenges of MUEs. In

addition, it also presents research on applications of MUVES for social studies, sciences and medical education and their pedagogical values.

The eighth paper titled “Market Value Added and Internet-Dependent Firms (Some Empirical Evidence from Asian Region)” is written by **R Shanti D Ottemoesoe., SE** from Indonesia explores the issues of value addition to firms doing business on the Internet. According to the author the choice to being an Internet Firm may impact the firm’s overall performance. Good performance can be achieved by market value added (MVA). The market value added (MVA) is influenced by many sectors such as liquidity and solvability.

The ninth paper titled “Ontology Matching Techniques: a 3-Tier Classification Framework” is written by **Nelson K. Y. Leung, Seung Hwan Kang, Sim Kim Lau and Joshua Fan** explores various aspects of Ontology Matching Techniques. According to these researchers ontology matching can be defined as the process of discovering similarities between two ontologies, and it can be processed by exploiting a number of different techniques. To provide a common conceptual basis of ontology matching for the Semantic Web, researchers have started to develop classifications to distinguish various ontologies. This paper also proposes a design and input-specific classification framework of ontology matching techniques to address several problems. The proposed framework consists of the 3-layers: executive approach layer, basic technique layer and input layer. According to these researchers this new framework provides an effective way to design a new mediation tool that not only identifies the type of matching technique but also provides a practical executive approach that incorporates input of mediation system with the input layer.

The last paper titled “Formal Validation of DNA Database Using Theorem Proving Technique” is written by **Julaily Aida Jusoh, Md Yazid Mohd Saman, and Mustafa Man** from Malaysia. This paper discusses the formal validation of a DNA database system. A DNA database is a large, organized body of persistent data, usually associated with software designed to update, query, and retrieve components of the data stored within the system. One of the common difficulties faced by the developer is in designing a robust database system. In order to solve this problem, developers have to focus their efforts on the formal specifications. Consequently, to validate this problem the authors specify the DNA database system using Z-language and prove it by using Z/EVES theorem proving tool. Using this tool helps to reduce time, energy and errors.

**(Prof. Dr. Srisakdi Charmonman)**

**Editor-in-Chief of IJCIM**  
Srisakdi Charmonman IT Center  
Assumption University of Thailand