# FOREWORD

I am very pleased to see that third edition of IJCIM for the year 2010 is finally published and would like to see more submissions of papers on topics of current interest in computer sciences, Internet technologies and managements. I will get the papers reviewed by the experts in the field, and if the initial response is favorable, I will request you to submit your camera-ready final paper as soon as a possible for publication in the first edition of IJCIM for the year 2011.

The research articles included in this edition of IJCIM are a proof of our commitment to continue to serve the community of learners. I highly appreciate the dedication of all the authors who have worked days and month finalizing and getting their research work published and share it with the scientific community. I highly appreciate your effort in bringing your work in public domain.

This issue of IJCIM received more than 20 papers. Few papers were rejected. Remaining papers were sent back to authors for further changes. After 3 independent reviews, a total of nine papers are selected. This issue of IJCIM features research papers from countries ranging from Africa, Canada, India, Korea and Middle East.

The first paper is written by **Adesina Abdul Akeem Agboola**, **Misturah Adunni Alaran, Adio Taofiki Akinwale and Olusegun Folorunso** from Nigeria and titled "An Improved Intravenous Fluid Rate Determination Using Fuzzy Logic" **s**tipulate that medical experts have shown that the determination of appropriate intravenous fluid rate (IFR) for intensive care unit (ICU) patient is not efficient when it is based on two factors, Mean Arterial Pressure (MAP) and Hourly Urine Output (HUO). These researchers increased the parameters to four by including Heart Beat Rate (HBR) and Central Venous Pressure (CVP) to determine the exact value of IFR. The developed software permits the saving of information which could form a medical database for decision making by the medical experts.

The second paper titled "Implementing of Virtual Books Sharing on Grid Infrastructure using Web Services" is an excellent effort by **Riri Fitri** and **Marcel Vijaya** from University of Indonesia. Their paper discuses a prototype of Grid Infrastructure they implemented to share Virtual books. Users will be able interact with the manuscripts as if they interact with the real book. In their work, a system of virtual book driven by Grid services is built.

The third paper is written by **Roma Chouhan** from India titled "Semantically Enabled Enterprise 2.0 Knowledge Management System: Implementing Ontology Web Language" explores the exponential growth of data within the enterprises there is tremendous need to develop efficient knowledge management system that semantically stores and retrieves the data wherever required by the user on-demand. The paper illustrates the need of better semantically enabled KMS and the development phases required to build up Enterprise 2.0 using lightweight semantics for information integration, enabling a better and easier search

process for the end-users. The approach is undertaken to achieve the desired objective of improved search through the usage of Ontology Web Language (OWL).

The fourth paper titled “A Reduced Complexity Two-Stage Neural Classifier for Quantified Identification of Gases/Odors Using an Integrated Thick Film Sensor Array” is written by **N.S. Rajput** and **V.N.Mishra**, from BHU, India focuses on a reduced complexity of two-stage feed-forward neural network. At the classification stage, sensor response for an unknown gas/odor sample is processed to identify its class. Now, at the quantification stage, concentration of this sample is predicted by an expert neural network, dedicatedly trained for quantification of that kind of gas/odor. Their work reported that a reduced complexity two-stage ANN, designed following the proposed scheme, can reproducibly discriminate varieties of gases/odors.

The fifth article “An Ordeal Random Data Encryption Scheme (ORDES)” submitted by **Ramveer Singh** and **Deo Brat Ojha** from Goel Institute of Technology, India examines a new Data encryption scheme named as Ordeal Random Data Encryption Scheme (ORDES). Through this paper, authors encourage the user to use ORDES with more efficiency and security. Using a variable random number and a function, the new generated key for each block of message make this approach attractive and more usable. This approach ORDES motivates the user to use DES (Data Encryption System) with new destiny of confidence, integrity and authentication.

The sixth article titled “A strategy framework for the risk assessment and mitigation for large e-Government projects” is written by **Ali M. Al-Khouri**, **Nasser M. Al-Mazrouie** and **Mohan Bommireddy** from Emirates Identity Authority, Abu Dhabi, United Arab Emirates examines the issue of e-Government which has become an effective tool for civic transformation. In the recent y ears e-Government development gained significant momentum despite the financial crisis that crippled the world economy. In addition, there is a growing demand for governments to transform from traditional agency/department centric approach to “Citizen-Centric” approach. This necessitates a strategic framework comprehensive enough to visualize and enable the leaders in addressing the potential roadblocks or resistance. This paper presents the outcome of a research to define a strategic framework that models the opposing and propelling forces dormant during a project time.

The seventh article titled “Prediction of Ready Queue Processing Time in Multiprocessor Environment Using Lottery Scheduling (ULS)” is written by **Diwakar Shukla, Anjali Jain**, and **Amita Choudhary** from India discusses that in multi-user environment, CPU has to manage lot of requests generated over the same time. Waiting queue of processes generates a problem of scheduling for processors. Lottery scheduling is one such method where processes in waiting queue are selected through a chance manner. This paper explains how processing time of jobs in ready queue is predicted using the sampling method under the k-processors environment (k >1). Some theorems are established and proved to get desired results in terms of confidence intervals.

The eighth article titled “Reliable Caching-A Novel Approach to Caching Web Pages” is written by **C. Mala, R. Shriram Shashank Agrawal, K.Geetha** and **Narendran Rajagopalan** covers a novel Reliable Caching scheme to solve the problem by capitalizing

on the nature of web pages and provide recent pages to the user thereby enabling the users to get only valid documents from the web than those provided by conventional schemes under the same circumstances. It also identifies the un-cacheable pages and discards them. The simulation results of this work show that even in a heavily loaded user network, the Reliable Caching scheme significantly reduces congestion and the load on the web server whose pages are being accessed.

The ninth article "ETFRC: Enhanced TFRC for Media Traffic" is written by **Mohammad A. Talaat, Magdi A. Koutb, and Hoda S. Sorour** who are working with Cloud Computing Project Information Technology Institute (ITI). Due to the remarkable increase in media traffic over Internet, its congestion state is expected to worsen. TCP-friendly rate control protocol TFRC is one of the most promising congestion control techniques developed so far. TFRC has been thoroughly tested in terms of being TCP friendly, responsive, and fair. Yet, its impact on the visual quality and the peak signal-to-noise ratio (PSNR) of the media traffic traversing Internet is still questionable. In this paper the authors aimed to point out the enhancement required for TFRC that enables producing the maximum PSNR value for Internet media traffic.

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