
Editorial

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Biographical notes: Imran Ghani is a Senior Lecturer from the School of Information Technology, Monash University Malaysia. He received his Master's in Information Technology from the UAAR (Pakistan), MSc in Computer Science from the UTM, Malaysia and PhD from the Kookmin University, South Korea. His research focus includes agile software development practices, semantics techniques, web services, software testing, enterprise architecture and software architecture.

Seung Ryul Jeong is a Professor from the Graduate School of Business IT at the Kookmin University, South Korea. He obtained his BA in Economics from the Sogang University, Korea, MS in MIS from the University of Wisconsin, and PhD in MIS from the University of South Carolina, USA. He has published extensively in the information systems field with over 60 publications in refereed journals like *Journal of MIS*, *Communications of the ACM*, *Information and Management*, *Journal of Systems and Software*, among others. His areas of interest are process management, software engineering, systems implementation and information resource management.

This special issue presents innovative knowledge and advances in internet computing and its applications. Its objectives are to facilitate and support research related to internet computing and its related applications. The issue brings revised and significantly extended versions of 13 papers presented and selected at International Conference on Internet (ICONI, 2015). ICONI (2015) organised by Korean Society for Internet Information (KSII). ICONI 2015 was the 7th international conference having targeted objectives to gather researchers and practitioners from academia and industry to share leading-edge knowledge and ideas. ICONI 2015 was hosted in Kuala Lumpur, the capital and largest urban agglomerate of Malaysia on December 13–16, 2015.

The article 'Validated agile cost management success factors in software development projects' by Zulkefli Mansor, Noor Habibah Arshad, Saadiah Yahya and Sukumar Letchmunan discusses the issues in agile cost management as this is one of the concerning matters of project manager. This paper outlines eight success factors that

contribute to the agile cost management. This study employed quantitative approach through the questionnaire survey to gather the data. The results show that all eight factors contributed to the agile cost management success. The authors believe that the findings will help the practitioners and academician to avoid problems in managing cost in agile software development projects.

Roy I. Morien's paper 'Pedagogical agility and agile methodologies in computer system development education', is best seen as an education paper, based on a research approach now understood as the 'teacher-researcher in the classroom'. The author draws on 30 years of experience as a teaching academic to propose a radical approach to computer systems development pedagogy. It is considered to be now an imperative to include agile development in university and college educational curriculum. As well, it is proposed that the philosophy and practices inherent in organisational agility and lean product development are adopted to inform the educational and pedagogical processes, particularly in the teaching and learning of computer system development courses, however styled; information systems, information technology, business computing, computer science.

In the paper 'A framework for collaborative information management in construction industry' by Qusay Al-Maatouk and Mohd Shahizan Othman focuses on collaboration aspect which is considered as one of the vital success factors in project management and development. Teams with high levels of collaboration and coordination have been shown to be more effective. There is a global realisation of how important it is to implement and integrate IT in the construction process in order to reduce cost and achieve more efficient projects. Their work also highlights that the ineffective use of IT in managing information exacerbates the amount of rework that occurs during many construction projects.

The paper 'A software defined networking-based resilient framework combined with power-efficient PS-LTE network' by Muhammad Afaq, Wang-Cheol Song and M.G. Kang aim to focus the challenges and solutions of resilient network. They focus on:

- 1 sFlow monitoring system that is required to make our SDN-based framework resilient against disasters
- 2 power-efficient PS-LTE network.

Their goal is also to trigger more profound discussion on combining SDN-based framework with power-efficient PS-LTE network.

The article 'Computer forensic problem of sample size in file type analysis' by Hassan Chizari, Shukor Abd Razak, Mojib Majidi and Shaharuddin bin Salleh mentions the problem related to file type identification (FTI). The main question, this article emphasises, is that how one can generalise his or her proposed FTI algorithm to all file types? In this work, firstly, a normality assessment test has been applied for various BFD's equations, which showed none of the BFD's histogram is normal distribution then using Renkonen correlation to compare non-normal distributions the proper sample sizes which is population representative, were presented based upon the file type and BFD's equations. Finally, it has been shown that using bootstrap method the BFD's distribution can be converted into a normal distribution.

In the paper 'Media-aware scheduling method for transmitting signalling message over MPEG media transport-based broadcast' by Jongho Paik, Yejin Sohn, Minju Cho, Kyunga Yu, Sunyoung Hong and Seulki Song discuss the issue of overhead size caused

by repeat transmission remains a big issue because of the limited bandwidth. To solve this problem, they proposed a media-aware scheduling method of signalling messages for MPEG media transport (MMT)-based broadcasting. MMT recommends that the sending entity may send signalling messages at regular time intervals, but our method considers the media type when it sends messages. They compared and analysed between two methods with various media encoding parameters which impact on overhead size. As a result, the proposed method not only maintained the latency time as similar as the MMT's proposal but also reduced overhead size.

The paper 'Dynamic spectrum access for M2M-WANs: the African regulator's spectrum policy reform conundrum' by Luzango Pangani Mfupe and Fisseha Mekuria presents work that has been done to address the network capacity demands for internet of things (IOT) and machine-to-machine (M2M) communications, based on efficient management and utilisation of radio spectrum resources. IOT/M2M applications are predicted to exponentially grow and cause a massive up-surge in network traffic increase. They argue that existing mobile network architectures are not optimised to handle billions of small intermittent transactions generated by M2M connections, therefore, a technology based on dynamic spectrum access (DSA)-enabled low-power M2M wide area networks (WANs) is proposed.

Jaeeon Seho and Junchul Chun introduce a sketch-based localisation approach in their paper 'An automatic detection of a natural marker and augmentation of 3D models in AR with sketch-based object matching' to detect a desired natural marker from an input video image. The proposed method also retrieves a 3D virtual object to be augmented in augmented reality from a 3D database based on the object matching method. Sketch-based image matching has been used for content-based retrieval to compare the database images with a sketch-based image drawn by users and estimate the degree of similarity between the database images and the query image. In this paper, they adopt sketch-based object matching method to localise the natural marker of the video images to register a 3D virtual object in AR system.

The article 'Low-illuminated SPOT-5 image improvement for density-based vegetation identification using three-layer colour manipulation approach' written by Nursyafikah Hamid, Hishammuddin Asmuni, Rohayanti Hassan and Razib M. Othman discuss the issue about poor illumination quality of a satellite image as one of the challenges encountered in vegetation analysis, especially with regard to pan-sharpened medium spatial resolution SPOT-5 imagery. Hence, the accuracy of vegetation identification is affected. In this paper, a 3-layer colour manipulation approach is proposed to overcome this issue of low illuminated SPOT-5 images in order to increase the performance of precise vegetation identification.

In the paper 'An integrated framework for posture recognition' by Shipra Madan, Devpriya Soni and Harvinder discuss that frames can be extracted from the given video files and transformed into a large collection of local feature vectors using scale invariant feature transform (SIFT), each of which is not affected by image translation, scaling and rotation, and to some extent invariant to illumination changes and affine or 3D projection. They used Bharatnatyam video dataset. The authors claim that the posture classification model outperforms state-of-art classification systems on videos. As per the authors, using this frame work classification accuracy achieved up to 89%.

The paper 'An improved data pre-processing method for classification and insider information leakage detection' by Sung-Sam Hong, Dong-Wook Kim and

Myung-Mook Han propose a method for the pre-processing and integration of data collected from various sources to detect insider information leakage; further, they evaluate the performance of data pre-processing by performing classification and detection experiments with collected normal and abnormal log data. An insider information leakage attack scenario was created, and the attack data for this scenario were generated in order to collect the corresponding log data. The log data in a normal environment were also collected. During the normalisation of log data, the log was extracted as atypical data to normalise as mathematical model, and dimension reduction was performed on the high-dimension feature matrix.

In the paper 'A study on the security impact of the web services implementation in the Malaysian government's online applications' by Weilin Chan, Mohammad Faidzul Nasrudin and Ibrahim Mohamed determine the relevant security factors and the degree of security of each factor provides when implementing web services in Malaysian government's online applications. The result from this study is a model of security level determinant factors with each factor colour coded base on the impact it has on security. This model consists of four core groups of factors were discovered, namely policies, expected vulnerabilities, security standards, quality of services and others.

The paper 'A method of improving PRR for WiFi interference avoidance in ZigBee networks in indoor environments' by Sung-Jae Kho, Jae-Ho Lee, Uk-Jin Jang and Youn-Sik Hong focus on how to avoid RF interference when deploying WiFi and IEEE 802.15.4/ZigBee radios simultaneously or in close proximity in indoor environments. The circumstances are particularly unfavourable for ZigBee networks that share the 2.4 GHz ISM band with WiFi senders capable of 10 to 100 times higher transmission power. However, the nature of ZigBee devices is to transmit small amount of data infrequently. Thus, they propose a solution for minimising interference from WiFi, while limits ZigBee's occupancy rate. Another important point to be considered in this paper is that packet reception ratio (PRR) varies with the shape of crossing corridors.