This is the fourth and final issue of the Journal of Research and Practice in Information Technology (JRPIT) for 2007 and therefore contains the index for Volume 39.

This issue marks the end of my fifth year as Editor-in-Chief of this journal. It is an honour and privilege to have held this role for so long. Indeed I am now one of the longest serving Editors of this journal, one of the oldest journals in the world of computing.

The smooth running of JRPIT depends to a very great extent on the efforts of the Associate Editors. I wish to thank each and every one of them for their tireless work on behalf of their profession. On this occasion I wish to thank Arthur Sale and acknowledge publicly not only his service over many years to JRPIT, but to the computing profession and computing education in Australia. Arthur is leaving the team of Associate Editors and his knowledge and experience and wisdom will be greatly missed.

The first paper in this issue is "Exploring the Reasons for a Failure of Electronic Payment Systems: A Case Study of an Australian Company" by Benjamin Lim, Heejin Lee and Sherah Kurnia. The paper "examines factors which lead to the failure of electronic payment systems (EPS). In order to understand these factors a single case study of a failed Australian EPS was conducted. The findings confirm the influence of EPS adoption factors identified from the literature, which include cooperation with established entities, simplicity, trust, security and mutuality of stakeholder benefits. Furthermore, this study has specifically demonstrated the importance of large partners in the adoption of EPS." "This paper contributes by examining a failed case from the system provider's perspective, which is rare in the study of EPS."

The second paper is "A Six Sigma-Based Process to Improve COTS Component Filtering" by Alejandra Cechich and Mario Piattini. "Typically, COTS component evaluations embody a first stage intended to determine rapidly which products are suitable in a target context. This stage – called "filtering" or "screening" – chooses a set of alternatives to be considered for identification and more detailed evaluation. For successful filtering processes, composers increasingly focus on closing the gap between required and offered functionality, hence reducing ambiguity of information for comparison. However, it is quite difficult to establish a framework for managing unstructured information at this early stage." In this paper the authors "introduce filtering immersed in a Six Sigma-based process, aiming at improving the filtering process itself as well as its deliverables." This is illustrated by a case study.

The third paper is "Reduced Pattern Training in Pattern Distributor Networks" by Chunyu Bao, TseNgee Neo and Sheng-Uei Guan. The authors propose "a new task decomposition method, Task Decomposition with Pattern Distributor (PD), for multilayered feedforward neural networks. The method uses a combination of network modules in parallel and series to generate the overall solution for a complex problem." It also introduces a method called "reduced pattern training in PD networks. This method aims to improve the performance of the pattern distributor network." The authors assert that their analysis and experimental results "show that reduced pattern training improves the performance of pattern distributor network significantly." They also claim that "experimental results confirm that this new method can reduce training time and improve network generalization accuracy significantly when compared to ordinary task decomposition methods such as Output Parallelism."

The fourth and final paper in this issue is by a team of researchers at an Australian university, the University of Newcastle. The topic is, no pun intended, very topical as recent advances in biology pose significant and exciting new challenges for computer scientists. The paper is entitled "Selection of Discriminative Genes in Microarray Experiments Using Mathematical Programming" and is by Regina Berretta, Alexandre Mendes and Pablo Moscato. "Microarray technologies allow

the measurement of thousands of gene expression levels simultaneously. With them biologists can have a powerful new tool to analyse the complex dynamical process of living organisms. These technologies are challenging traditional scientific disciplines, including Computer Science and Statistics. The reason of this challenge is based on the novel type of large-scale data mining applications. A typical microarray experiment is very costly and, due to budget limitations, the ratio of experiments to genes is generally on the order of 1/100." As a consequence, the authors rely on "combinatorial optimization formalisms to develop robust feature selection methods." They demonstrate "their usefulness in selecting genes that allow a molecular classification of cancer samples when they are given as labels their assumed origin (Colon, Melanoma, etc.)." In this paper they present "some results on five types of cancer presented on a public domain dataset which will allow for the reproducibility of their results."

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