Welcome to the first issue of JRPIT for 2007. By the time this issue goes to print, the Australasian Computer Society Week (ACSW 2007) will have been held at the University of Ballarat. As I write this editorial, I am looking forward to an exciting and interesting week, and especially to seeing the work of the doctoral students presented at the inaugural Australasian Computing Doctorial Consortium (ACDC).

My first, and most pleasant duty is to congratulate Guangsen Zhang and Manish Parashar, the winners of this year's ANCCAC (Australian National Committee on Computation and Automatic Control) Award for their paper "Cooperative Defense Against DDoS Attacks". The paper appeared in the February 2006 issue, pp 69–84.

On the menu for this issue are five diverse and interesting papers.

"Despite significant efforts by merchants, card issuers and law enforcement to curb fraud, online fraud continues to plague electronic commerce web sites." The first paper in this issue, "Behaviour Mining for Fraud Detection" by Jianyun Xu, Andrew. H. Sung, and Qingzhong Liu, "describes a method to dynamically create user profiles for the purpose of fraud detection". The authors use a "data mining algorithm to adaptively profile legitimate customer behaviour in a form of data mining algorithm to adaptively profile legitimate customer behaviour in a form of association rule set from a transaction database. Then the incoming transactions are compared against the user profile to indicate the anomalies. A novel pattern match approach is proposed to evaluate how unusual the new transactions are. An empirical evaluation shows that we can accurately differentiate the anomaly behaviour from profiled user behaviour."

The next paper, "Dependable Dynamic Source Routing Without a Trusted Third Party" by Asad Amir Pirzada, Chris McDonald, and Amitava Datta presents a "novel technique of discovering and maintaining dependable routes in an ad-hoc network, even in the presence of malicious nodes." "Ad-hoc networks are frequently used to establish communications in improvised environments without requiring any fixed infrastructure." "The Dynamic Source Routing protocol" is one that "helps to create and maintain routes in an ad-hoc network in spite of the dynamic topology." However, "the accurate execution of this protocol requires sustained benevolent behaviour by all participating nodes." This paper "applies a similar trust and reference scheme to the Dynamic Source Routing protocol" however, "all nodes in the network operate independently", and "reward collaborating nodes for their benevolent behaviour and penalize malicious nodes".

This is followed by "Incremental Association Mining Using a Closed-Set Lattice" by Aaron Celgar and John Roddick. "This paper presents a novel technique that advances the state of incremental associations rule mining. The algorithm, Maintained Closed-set Lattice, MCL, like previous approaches, uses currently available information. Unlike previous algorithms however, it uses the concept of … closed sets to base the incremental mining upon a condensed representation of the lattice."

The fourth paper is "Generic Clustering with Constraints" by Saeed Parsa and Omid Bushehrian. "Graph clustering plays an important role in automatic distribution of sequential code … and program re-modularization". This paper introduces a tool, developed by the authors, "to extract dependency graphs from Java source code and cluster the graphs. The tool follows a framework where genetic clustering algorithms can be assembled by simply selecting the building blocks from an extensible library."

The last paper in this issue is "Preemption Policy in QoS-Enabled Networks: A Customer Centric Approach". The authors, Iftekhar Ahmad and Joarder Kamruzzman, "propose a model for the network enterprise to calculate an estimated level of user satisfaction of preemption enabled call connections in the context of service continuity and incorporate this information into a preemption

policy." The paper discusses "simulation results that show the proposed policies achieve improved customer perceived satisfaction and revenue index compared to the existing policies, while preserving good system utilization."

Finally, I record that there is an overlap between the papers: Ghosh, R. & Ghosh, M. "An Intelligent Offline Handwriting Recognition System Using Evolutionary Neural Learning Algorithm and Rule Based Over Segmented Data Points" which was submitted to the Journal of Research and Practice in Information Technology on 25 August 2003 and appeared in Vol. 37 (2005), No. 1, pp. 73–87 and Verma, B. "A Contour Code Feature Based Segmentation For Handwriting Recognition" in 7th IAPR International Conference on Document Analysis and Recognition, ICDAR'03, pp. 1203–1207. (Conference date: 3–6 August 2003, Edinburgh, Scotland, UK. Proceedings published by IEEE Computer Society 2003, ISBN 0-7695-1960-1).

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