Editorial

Dear Colleague:

Welcome to Volume 10(3) of *Intelligent Data Analysis* – An international Journal.

This issue consists of 6 articles that mainly cover text mining, model trees, noise detection, and unsupervised/supervised learning methods. Jaillet et al. in the first article propose using sequential patterns to extend the association rule mining approach. This research involves mining sequential patterns to build a classifier where the authors show through experiments that their approach is relevant and very interesting comparing to other methods. Vens and Blockeel, in the next article of this issue, discuss limitations of model trees and propose an alternative heuristic that results in producing equally accurate but simpler trees with better explanatory power. The proposed approach would require minimal computational costs. Their resulting model tree induction algorithm is experimentally evaluated and compared with simpler and more complex approaches on a variety of data sets. In the third article of this issue, Tjhi and Chen propose a new co-clustering approach to address the problem of high-dimensionality and inherent fuzziness in large data sets. Based on a new fuzzy co-clustering algorithm, the suggested method is able to handle overlapping clusters and allow the number of data clusters to be different from the number of feature clusters. Their experimental evaluation show some very interesting results for clustering high-dimensional data that contains overlaps with better interpretability.

Understanding data quality has been emphasized by many researchers. Khoshgoftaar and Van Hulse propose a novel technique to detect noisy instances relative to an attribute of interest. In many domains, domain experts identify some attributes as interesting set of attributes. Using real-world data they show how their method determines instances that contain noise relative to some selected attributes of interest. The effectiveness of their method is demonstrated using a number of case studies. In the fifth article of this issue, Ferrandiz and Boulé discuss the nearest neighbour rule induction and the idea behind its partitioning process which is Voronoi partitions and how it could result in overfitting. In their research, they adopt a descriptive approach for the supervised evaluation of medoid-based Voronoi partitions and show how it measures the discrimination of the classes, is parameter free and prevents overfitting. This is all presented using real and synthetic data sets. The last article of this issue by Cao et al. is about the application of support vector machines (SVM) in bond-rating in which the performance of SVM is compared with other bench marks. Using some data collected from US. Bonds they show that SVM outperforms other approaches with directed acyclic graph version of SVM having the best performance.

And finally, of the remainder of issues in this year, we have two assigned to special events. These are Volume 10(4) and 10(5) where the contents of each will be the best papers presented in some related events. Guest editors would normally select the best papers of a conference or highly technical workshop, ask the authors to submit an extended revised version and arrange a second review so that a set of high quality articles suitable for the IDA journal are prepared. As always we will try to have one or two special issues per year. We look forward to receiving your ideas in producing special issues in the future.

With our best wishes,

Dr. A. Famili
Editor-in-Chief