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Welcome to Volume 3(2) of Intelligent Data Analysis

In today's economy, most, if not all, decisions have to be made precisely and in an intelligent manner. This is becoming more and more evident, as economies become more global, systems and operations become more complex and our expectations reach a higher level of standards. In general, intelligent decisions have two effects: one that is influencing our businesses immediately, and the other that has long term effects on our economy. No matter what the effects are, intelligent decisions can only be made if we were aware of all aspects of our business and operation, have intelligently analyzed our data, and we know what the results of our data analysis mean. This is not easily achieved. It requires an in-depth know-how that can be obtained through various resources. *Intelligent Data Analysis* is one of these resources that provides the support and a forum to learn more about what is happening in this field.

Volume 3(2) of IDA consists of four articles. The first article by Davidsson, describes a method to improve the classification performance of classifiers when access to every possible category of the domain is not feasible. This approach is based on discriminating between the categories present in the training set and then characterizing each of them against all possible categories. The article includes results from several discriminators and characterizers that are integrated and tested. The second article by Vesanto presents a tool for visualizing multidimensional numerical data. The article contains both old and new methods for visualization of Self-Organizing Maps (SOM). The goal of this research is to demonstrate what kind of information can be acquired from these maps and how these maps can be used in exploratory data analysis.

Golob's article contains a concept called decomposition of multivariate control rules. This article is an application of a fuzzy logic based controller to a simple magnetic suspension system. The results of this research showed that, in a typical operational range, the fuzzy controller gives better performance over a traditional one. And finally, in the last article, Hong and Lee discuss the effects of merging order of attributes on the performance of fuzzy induction. According to their research, less relevant attributes should be processed earlier in order to reduce the complexity of the decision table and increase the accuracy of derived rules in a learning process. They have demonstrated that their algorithm can significantly reduce the time and effort required to develop fuzzy controllers or fuzzy expert systems.

Over the last three years we have had many feedback from our readers which we always appreciate. We welcome short articles and conference overviews. Since the goal of our journal is to publish 70% applied papers and 30% research, we invite authors to submit workshop summaries and lessons learnt from real world applications of data analysis techniques.

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