

## Editorial

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Dear Colleague:

Welcome to volume 7(1) of the journal *Intelligent Data Analysis*!

This issue of IDA journal consists of five articles and it is the beginning of our seventh year of publication. The contents of this issue are related to different topics in applied and theoretical research in the field of intelligent data analysis.

The first article, by A. Safer makes an interesting comparison between two data mining techniques for their prediction abilities in the domain of stock trading. The two techniques investigated were Neural Networks (NN) and Multivariate Adaptive Regressive Splines (MARS). These techniques have revealed that event prediction can be maximized by extending the future forecast as much as possible and increasing the window for historical data used. In addition, this research reports that prediction depends on the industry and NN performed better than MARS. Hruschka and Ebecken, in the second article, introduce a new clustering approach that is based on genetic algorithms. Their algorithm maximizes both homogeneity within the clusters and heterogeneity between the clusters which is the goal of all clustering algorithms. A number of examples presented by the authors show the efficiency of their approach. In the third article, Pindur and Susmaga introduce a method for extracting exhaustive set of decision rules from data sets. The main motivation for their research was to investigate dominance relations in data sets. Their approach takes into account and exploits the preference imposed on attribute domains. Their results demonstrate the capability of this approach to generate both dominance-based and interdisciplinary-based rules in an induction process.

Al-Anit, Deriche and Chebil, in the fourth article discuss the problem of feature selection and introduce a new information based measure for feature selection. Their research presents a new evaluation measure that is based on the information gain and takes into consideration the interaction between features. They integrate their proposed measure into a robust feature selection scheme and compare it with other feature selection algorithms. This article also includes some results of testing and evaluation in certain classification tasks. The last article of this issue, by Shi-tong, Dong-jun and Jung-ju contains a new generalized rule extraction algorithm for extraction of rough domain knowledge, which are called certain and possible rules. The superiority of their approach, which uses fuzzy neural nets for rule refinement and generation of fuzzy rule sets, is demonstrated in this article for a number of applications.

And finally, we have two announcements for our readers. First, there will be a special issue of IDA journal dedicated to the topic of Incremental Learning Systems Capable of Dealing with Concept Drift. The guest editors for this issue are Professors Miroslav Kubat, João Gama and Paul Utgoff. Interested authors can contact [jgama@liacc.up.pt](mailto:jgama@liacc.up.pt). Our second announcement is about the fifth Intelligent Data Analysis symposium that will be held in Berlin, Germany from August 28–30, 2003. Interested authors can refer to the IDA-2003 website at ([www.ida2003.org](http://www.ida2003.org)) for more information. The submission deadline for the papers is March 31, 2003. Like previous events, there will be a special issue of IDA journal in early 2004 that will be dedicated to the best papers of this symposium.

We will be looking forward to contributions from our colleagues to the IDA journal and its affiliated IDA symposium.

With best wishes,

Dr. A. Famili  
Editor-in-Chief