Editorial

Dear Colleague:

Welcome to Volume 5(5) of the journal *Intelligent Data Analysis*!

Volume 5(5) of IDA consists of five articles and a report on an IDA school that was offered last Spring in Europe. Following are some of the highlights of this issue of our journal.

In the first article, Flexer demonstrates that self-organizing maps (SOMs) can be used for clustering and visualization separately, for simultaneous clustering and visualization and even for clustering via visualization. He compares SOM's to other statistical approaches and discusses possible pitfalls of some of the existing clustering algorithms are also discussed. Chitroub etal in the next article propose a neural network model that performs the Principal Component Analysis (PCA) directly from the original spectral images data without any additional non-neuronal computations or preliminary matrix estimation. They provide a comparative study between their proposed model and the standard method of PCA and demonstrate that the proposed method is superior to the standard PCA. Aguilar etal, in the third article, introduce a new approach to data preprocessing that has a number of interesting features. These are: important reduction of the number of examples, conservation of decision boundaries, and low computational cost. They present the performance of the algorithm and provide results with an empirical study using a number of UCI databases.

The next two articles of this issue are about rough sets. Abu Bakar etal introduce an integer programming algorithm for modelling rough classifications. Their algorithm is based on creating a 0–1 integer programming model that can find minimum selection of attributes, called reduct in rough set theory. Their experimental results show that their algorithm can significantly reduce the number of rules with high percentage of classification accuracy. The last article of this issue by Shen and Tay present a discretization method for using in rough sets applications. Their approach is based on a modified Chi2 algorithm which outperforms the original one. The algorithm is a completely automatic discretization method useful for applications based on rough sets Theory.

And finally, we conclude this issue of our journal with a report on a Intelligent Data Analysis Spring school that was offered in Italy. The report contains valuable information about the field of IDA, subjects covered in the course and feedback from the attendees.

In addition to our regular quality articles, we would be happy to review and publish reports from conferences, courses or workshops related to the field of Intelligent Data Analysis. Thanks for your continuing support.

Best wishes,

A. Famili
Editor-in-Chief