Editorial

Dear Colleague:

Welcome to volume 9(1) of *Intelligent Data Analysis* – An International Journal!

Eight complete years of our publication from 1997–2004, have been the result of an enormous support from our colleagues who have been the prime movers that made dissemination of this large amount of information possible, i.e. 44 issues of the IDA journal so far. This shows the significance of this field of applied and theoretical research and how important dissemination of the information is.

Following is an overview of this issue. In the first article, Khoshgoftaar et al present a new approach to improve the accuracy of classification through enhancing the quality of training data. An ensemble approach that uses 25 classification techniques, and attempts to eliminate potential noise from data is the core of their algorithm. The effectiveness of the approach is presented using some software measurement data with interesting results. The second article, by Berberidis and Vlahavas propose a concept to deal with periodicity in time series data. The algorithm, partly an auto-correlation one, is based on a filter/refine paradigm. Results of their evaluation include a number of experiments using real-world data.

The next two articles are on microarray data analysis. Chen et al, introduce a new statistical measure to evaluate the significance of attributes in gene expression data. The new measure that has a closure property is primarily for the summarization stage of data mining that has been evaluated on a microarray data set. The article by Besson et al. is also in the same domain, overlaps with concept learning and involves identifying Boolean contexts to discover sets of objects (cases) that are associated with certain attributes. This idea has been incorporated in a data mining tool and the results that are included in their paper are from a number of genomics data sets. The authors demonstrate how data enrichment is useful for concept mining the results of which help in evaluating the relevancy of extracted concepts.

Bodon et al. in the fifth article of this issue, propose an automated method to identify locally frequent item sets. The approach which is primarily for association learning is based on dividing the database into partitions according to problem needs and automatically searching for item sets that are more frequent in partitions. The results that are from evaluation of this technique on various data sets demonstrate how effective and efficient the method is. And finally, in the last article of this issue, Rossignol and Sébillot introduce a new approach to generate keywords from textual data based on the idea of identifying keywords whose occurrence in a document is strongly connected with the presence of a given topic. The approach is fully automatic, does not require any a-priori linguistic knowledge or topic to search for. The introduced algorithm is not sensitive to noise and the results given in this paper include evaluation of their approach on archives from a well-known French newspaper with a relatively high accuracy.

In the first issue of this year, we would like to remind our readers that the 6th International Symposium of Intelligent Data Analysis (IDA-2005) will be held Madrid. Conference information regarding call for papers and scope of the conference, are available at the IDA Society home page at: http://www.ida-society.org or at the conference home page at: http://www.ida-2005.org. We will have a special issue of the IDA journal, in early 2006, that would be dedicated to the extended versions of 5–6 of the best papers

presented at this symposium. We look forward to the participation of researchers and practitioners of the IDA field in this big important bi-annual event.

With our best wishes,

Dr. A. Famili
Editor-in-Chief