EDITORIAL

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The present issue of *Computación y Sistemas*, as always, contains five research papers and a PhD thesis overview that cover the areas of database, applications of the artificial neural networks, software engineering, digital signal processing, and natural language.

J. Silva *et al*. from the Universidad Politécnica de Valencia, Spain, propose a classification of criteria of comparison of OO conceptual schemes. The features of each criterion are enumerated, and the emphasis on its strong and weak points is made by mentioning examples. Also, the statistics of comparison of industrial conceptual schemes is presented. This statistics is compared with previous theoretical analysis. The present work comprises of the development of a tool for the automatic databases migration.

G. M. J. Ramírez Alonso and M. I. Chacón Murguía from the Instituto Tecnológico de Chihuahua, Mexico, describe a neural classifier to classify seven different wood defects called knots. 2D Gabor filters are used for feature extraction and the method of principal component analysis for reduction of the number of features generated by the Gabor filters. The implemented neural network is a multilyer perceptron with three layers and trained with the Resalient backpropagation algorithm. The performance of the classifier reported in this work is superior of 83%.

I. Baruch y J. L. Olivares Guzmán from the CINVESTAV-IPN, Mexico, implements Neural Hierarchic Multimodel (MNJ) based on the similarity with the diffuse model of Takagi-Sugeno. MNJ has three parts: 1) fuzzification; 2) inference at the low level, using Neural Recurrent Networks (RNR); 3) defuzzification at high hierarchic level, using a RNR. The learning and the operation of both hierarchic levels are independent. MNJ is implemented as an identifier and controller (feedforward and feedback) in two schemes of adaptable direct control. Both schemes of control are applied to a mechanical plant with friction and compared with other schemes of neural and diffuse control.

J. L. Ortega Arjona form the UNAM, Mexico, presents a software design method for designing object-oriented applications. It is based on the fundamental principles of object-oriented design: objects and their cooperation. He considers the modelling notations as well as steps from collecting customer requirements to implementing code. The approach can be used in very first object-oriented projects of a company, and in domains and environments that are clear and simple enough, such as a design course in a computing school.

J. García López *et al*., from the IPN, Mexico, present a digital signal processing training module (DSPTM). The DSP target system is enclosed in a portable case with the necessary accessories: A host port interface connector, power supply, function generator, audio amplifier, speaker, input/output audio sockets and selector switches. DSP demonstration software is bundled with custom windows 98/XP virtual instrumentation programs that run on a host personal computer (PC). An installation and exercise manual accompanies the trainer. The developed host-target software and suggested experiments assist students in understanding data acquisition, DSP and image processing fundamentals.

Finally, M. Montes y Gómez from the INAOE, Mexico, and his adviser report the results of the thesis dedicated to the text mining. A method sets out for text mining at level of details. This method uses the conceptual graphs such as representation of the content of the texts, and obtains some descriptive patterns of documents, applying several types of operations on these graphs.

These articles will be of interest for the researchers and students of the involved areas.

Serguei Levachkine
Associate Editor