

## EDITORIAL

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In this issue of *Computación y Sistemas* five articles and a PhD thesis abstract, coming from an european country (Spain) and two american countries (Venezuela and Mexico), are presented. These papers are devoted to five topics: applications of artificial neural networks, software quality, watermarking, dynamical systems, and real-time digital filtering.

The two initial articles apply artificial neural networks to solve specific problems. In the first paper (pp. 176-186), Omar Castañeda Trujillo and Carlos Felipe García Hernández apply an artificial neural network to develop a wireless ATM scheduler based on the traffic prediction, which is installed at the ATM switch entrance, in order to control and shape the traffic in the switch exit connection (wireless link). Consequently, this reduces the congestion conditions mainly originated for the bursty traffic from the VBR and ABR services.

The second paper's authors (pp. 187-195), Gerardo Barrera C., Guillermo Carreón G. and Alberto Ruiz M., apply artificial neural networks, namely Kohonen and Fuzzy c-means algorithms, as a classification tool in quality control of ceramic pieces. The neural networks's training signals are generated by a technique that detect internal or external cracks on ceramic mosaics, by means of vibration analysis.

The third article (pp. 196-217), authored by Luis E. Mendoza, María A. Pérez y Anna C. Grimán, proposes the integration of two quality models, namely the Product Quality Model and the Development Process Quality Model, to generate the Prototype of Software Quality Systemic Model (SQSM). This model is supported by the concepts of systemic total quality.

Marco A. Acevedo M., José Luis López Bonilla and Roberto Linares y Miranda, describe in the fourth article (pp. 218-230), a robust watermarking method to be introduced in audio files. The novelty of this method is the use of the wavelet Haar transform in combination with Patchwork algorithm in the frequency domain. The new method generates a watermarking which is robust against compression, filtering and resampling.

In the last article (pp. 231-251), J. A. Ortega, R. M. Gasca, J. Torres, M. Toro, L. González, F. Velasco and C. Angulo, propose a methodology to reason over semiquantitative models built for dynamical systems with qualitative and quantitative knowledge. The proposed methodology allows to study not just about the stationary regime, but also it makes possible to carry out a study of the transitory regime of the systems.

Finally, Pedro Guevara López presents an abstract of his PhD thesis (pp. 252-264). The work describes the real-time digital filtering (RTDF) by means of a computational analysis for parameters estimation in stochastic stationary linear systems; besides, the temporal characteristics and the local and global response of the RTDF are presented. The Guevara's advisor, José de Jesús Medel Juárez, is coauthor of this PhD thesis abstract.

On behalf of the journal *Computación y Sistemas*, I want to invite to the authors interested in publishing their original contributions in a high quality journal, to submit us their works for revision.

**Cornelio Yáñez**  
**Editor Asociado**