

EDITORIAL

In this edition of Computación y Sistemas, five papers and a PhD. Thesis resume are presented, these works are described as follows:

In the first paper, from Alexander Gelbukh, A data structure useful for prefix search in a very large dictionary with an unlimited query string is discussed. In order to illustrate its usefulness, the algorithms of exact and approximate search are described, with application to morphological analysis and spelling correction. Also, the algorithms for building, exporting, and updating the data structure are explained.

The second paper, from Francisco Gallegos, Volodymyr Ponomaryov, Oleksiy Pogrebnyak & Luis Niño de Rivera, present an implementation of robust filters for images that features impulsive noise suppression and detail preservation. The filtering schemes presented in this paper use a technique similar to the KNN filter, in order to preserve fine details. On the other hand, the combination of M-estimators with the median or Wilcoxon estimator perform the impulsive noise suppression.

In the third paper, from Evgenii Kurmyshev, Francisco Cuevas & Raúl Sánchez, a technique based on the coordinated cluster representation (CCR) is examined for the recognition of binary computer generated, as well as natural, texture images corrupted by additive noise. For this work, a normalized local property histogram of the CCR is used as a unique feature vector.

In the fourth paper, from de José Antonio Ruz, Evgen Shelomov, Dionisio Suárez & Alejandro Villavicencio, an application of artificial intelligence techniques for the improvement of the operation of a thermoelectric unit is presented. For this work, a neuro-fuzzy model for the steam generator start-up process is obtained from experimental data. This neuro-fuzzy model is combined with a predictive control algorithm to produce a control strategy for the heating stage of the steam generator.

The fifth paper, from de Félix Calderón & José Luis Marroquín, present a novelty algorithm for the optic flux calculation based on summation of squared differences of corresponding points, this along with a relaxation term that allows the avoiding of erroneous observations. This algorithm only needs information from a couple of frames and is robust under noisy conditions.

Finally, the PhD. thesis resume: "Methodologies for Reducing the Amount of Required Images used for Articled-object Recognition", from Luis Altamirano, is presented. In this PhD. Thesis, the usage of non-uniform sampling is introduced for building the working image set. Non-uniform sampling is held by a linear interpolation technique, which is used to determine the strictly necessary images.

On behalf of the journal CyS, I am glad to invite to all colleagues, interested on publishing their original contributions, to submit their works for revision by consulting our editorial rules published at the end of the journal.

*Juan Luis Díaz de León Santiago
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