Editorial

This thematic issue was made for commemorating the 39th anniversary of the Photonics in México. In 1980 the group was created at the Center of Optics Research (CIO) at León, Guanajuato City, and it moved in 1991 to the National Institute of Astrophysics, Optics and Electronics (INAOE) at Puebla city. The Photonics group has graduated several master and doctoral students, that later were hired in different Institutes and Universities in México. Now they have created their groups. In this number, you can find the areas where these new groups are working, not just in specific photonics area but in areas where Photonics had a great impact, for example; numerical simulations. Then, from the papers, it is possible to find pure photonics works, optics materials, image processing, and finite elements simulations.

This volume of the journal "Computacion y Sistemas" contains selected papers related to numerical simulation for computational image processing, optics, and photonics. The papers were carefully chosen by the editorial board by at least two reviews by the members of the reviewing committee or additional reviewers. The reviewers took into account the originality, scientific contribution to the field, soundness and technical quality of the papers.

Related with image processing; the content includes papers in the area of medical physics, including cancer therapy and vessels imaging and one application related to seed selection. In the electronics area, it is possible to find papers about MEMS design and other related with FPGAs holography image. Fiber optics are also included through the polarization states and other shows the use of a novel configuration to detect ethanol concentration. In this number, optical materials are the hottest topic because its frequency in several papers; two of them present the use of Er+3 trivalent for luminescent properties, other involves the use of polymers dispersed liquid crystal, and other presents the supercontinuum generation with nanowires. Finally, there is a paper, which presents a numerical study of the cutting forces in the steel.

It must be mention that the adscription of the authors represents several institutes in México and E.E.U.U. as: INAOE, CIO, UGto, UDEMor, UACoahuila, UNAM, UVeracruz, UDGuadalajara, UCFlorida, BUAPuebla, UTSOE, UPJRosas, INIFAP, ITESGuanajuato and CONACyT.

In the regular papers included in this issue, we have: Omar Avalos and collaborators from Universidad of Guadalajara, present the paper "A Comparative Study of Evolutionary Computation Techniques for Solar Cells Parameter Estimation." In this work, the authors present a comparative study of Evolutionary Computing (EC) for solar cells parameter estimation, where they made evaluations about the performance of the most popular EC approaches. Cesar Seijas and collaborators from Yttrium Technology Corp. present the paper "Identification of rodent species using deep learning." In this paper, the authors can identify four different types of rodents in their habitat. They used a data set of 1411 images of 4 classes for supervised training, with a multiclass classifier identifier based on deep learning. Their results are significantly higher than those reported previously. Edgar Serna et al. from the Instituto Antioqueño de Investigación in Medellín present the paper "A review of reality of software test automation." This is a review work, where the authors pretend to provide an overview of experiences related to testing automation.

Naim Terbeh and collaborators from the Department of Sciences in Monastir, Tunisia, present the paper " Arabic discourse analysis: A Naïve algorithm for defective pronunciation correction". This manuscript presents a novel study to detect and correct voice anomalies contained in Arabic discourses. Their results show 90 % correction performance on 52 Arabic voice sequences covering male and female. Eder Vázquez and coauthors, from the Universidad Autónoma del Estado de México (UAEM), present "Learning relevant models using symbolic regression for automatic text summarization." The manuscript proposes eight novel models using a method for describing the ideal behavior of an Automatic Text Summarization (ATS). The authors claim that got better results than those presented in the literature. Smita Das et al. from National

Institute of Technology in Triura, India present "Node position estimation coverage hole-detection in wireless sensor network." In this work, the authors present a low-cost solution obtaining first the distance between Anchor Node (AN) and Unknown Node (UN) based on RSSI profiling in a Sensor Network. They adjust their algorithm using theoretical and simulations proofs. Yomna Ben Jmaa and collaborators from Tunisia and France present the paper "A comparative study of sorting algorithms with FPGA acceleration by high-level synthesis." The authors propose an efficient hardware implementation for different sorting algorithms as BubbleSort, InsertionSort, SelectionSort, QuickSort, HeapSort, ShellSort, MergeSort and TimSort from high-level descriptions in the zynq-7000 platform. They compare the performance of different algorithms in terms of execution time, standard deviation and resource utilization. Their results show that SelectionSort is 1.01-1.23 times faster than other algorithms when N < 64. Otherwise, TimSort is the best algorithm. Laidy de Armas and coauthors from Cuba, present the paper "Solutions to storage spaces allocation problem for import containers by exact and heuristic methods." In this work, the authors compare the performance of two methods: the integer linear programming method and a metaheuristic method, as solutions to the problem of optimizing the storage space allocation to imported containers regarding the optimization value and the computational time.

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Guest Editors