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Dear Readers,

This issue of JITA contains four regular research papers. The first of the presented papers, entitled “Using 3D models for improving face recognition”, by Zoran Bickicki, Ivan Milenković, and Dušan Starčević is dealing with PCA face recognition algorithm. PCA (Principal Component Analysis) has a significant performance drop when comparing photographs taken from the different angle. In this paper a 3D model was used for improving PCA performance in this case. Using captured face image as the texture, 3D model enables transformation of the two-dimensional face to the three-dimensional face model. Three-dimensional face model is then rotated in order to transform face images from profile to en face position. Model has been tested against collected biometric database. Study results show that PCA algorithm precision on biometric verification and identification has been seriously improved.

In the paper “E-textbook development capacities within the current context in the Republic of Serbia”, by Željko Stanković and Ljiljana Tešmanović the problem of e-books and e-textbooks has been presented. In digital age and with the adoption of new technologies, new educational digital platform has become an integral part of our everyday life and education which requires adjustments and changes in the educational system structure. In order to make the students be equal and functional members of the society and to prepare them for contemporary digital era, it is the entire society's most important responsibility to enable educational system to provide, in most optimal and proficient way, equal opportunities for each and every student to gain knowledge. Expensive process of a book digitalization will, in time, become economically acceptable for all in the broader community.

In the paper “Hybrid methodology of nonlinear goal programming”, Lazo Roljić presents a nonlinear goal-programming (NGP) algorithm based on hybrid connection of the modified simplex method of goal programming, gradient method of feasible directions and method of optimal displacement size finding-called HNGPM. Proposed methodology is given in five steps: (1) linearization of the set of nonlinear constraints at particular point, (2) solving the problem of normalized linear goal programming, (3) feasible direction computation, (4) calculating optimal step length displacement, and (5) testing out convergence problem. Basic idea was to apply Euler's theorem for the “total” linearization of the nonlinear constraints (in the space) around particular point. According to Euler's theorem, it is possible to apply this methodology to solve the problems of NGP whether the nonlinear constraint functions are linearly or positively homogeneous.

Finally, the last article "Aquaculture cloud management system" presents a specific approach to the management system for aqua-farms. The proposed management system is based on expert system paradigm implemented in cloud environment and makes use of the Internet of Things. The system employs RFID sensors to monitor the aqua-farms, allowing personnel to keep tabs on the facilities at any time. Such design facilitates 24 hour monitoring of facilities while reducing con-



sumption of resources. In the first design phase, the experts on aqua-farming are interviewed. Collected data were compiled and stored in the database. The inference engine was then used to store the data in the knowledge base, achieving the aim of knowledge management. Apart from helping aqua-farms conserve resources and improve quality, presented aquaculture cloud management system allows consumers to understand the production process and make informed purchasing decisions.

With this 8th issue, the Journal of Information Technology and Application (JITA) successfully completes the 4th year of publishing. A brief analysis indicates that in these eight issues, a total of 46 scientific papers have been published, that is around 6 papers per issue. By the type of published scientific contribution, 20 papers relate to the improvement of scientific methods in the area in question, 14 papers illustrate the results of research based on the case study, 8 papers contain a breakdown of condition in the part of scientific area, and 4 papers represent a critical review of well-known scientific procedures.

If we look at the analysis of published papers from the perspective of geographical distribution of institutions where the original authors of papers are employed, then we have data as follows: most of the published papers, 40 out of 46 belong to the region, which amounts to around 87% of the total number of papers. From the territory of Serbia, we had around 43% out of the total number of papers, where around 30% of papers come from the Republic of Srpska, and from the Federation of Bosnia and Herzegovina around 9% of the total number of papers. The participation of authors from Montenegro and Macedonia in the previous period was modest 2% of the total number of papers. Out of the remaining six published papers, according to geographical setting, three papers come from the North America (two from Canada and one from the USA), two from Europe (one from Italy and one from Portugal), and one paper from Asia (Taiwan). Based on the stated analysis, it can be concluded that, in this moment, the JITA holds a status of regional journal.

Ministry of Science and Technology of the Republic of Srpska, the Commission for categorization of scientific journals, at the meeting held on 11/06/2013, categorized the Journal of Information Technology and Application, published by the PanEuropean University Apeiron, Banja Luka, in the first category of scientific journals.

We invite all interested parties to send to the journal Editorial Board the results of their scientific and research work, about which, as they believe, the scientific community should be informed.