

# Editorial

IT IS my pleasure to present the readers of the journal the selection of papers devoted to the theme of the Artificial Intelligence, which is one of the breathtaking topics of the Computer Science.

This issue contains twelve papers written by the authors from eight countries that cover various topics of the Artificial Intelligence: image analysis, reasoning, and natural language processing.

The paper “*Automatic Bubble Detection in Cardiac Video Imaging*” by Ismail Burak Parlak, Ahmet Ademoglu, Salih Murat Egi, Costantino Balestra, Peter Germonpre, and Alessandro Marroni (Turkey, Belgium) presents a recognition method for bubble detection that is applied to cardiac videos and allows for emboli candidates revealing.

The work “*Automated Classification of Bitmap Images using Decision Trees*” by Pavel Surynek and Ivana Lukšová (Czech Republic) addresses the design of a method of automated classification of bitmap images on the basis of their natural language descriptions.

A problem of automatic recognition of emotions present in voice data is treated in the paper “*Automatic Emotional Speech Recognition with Alpha-Beta SVM Associative Memories*” by José Francisco Solís Villarreal, Cornelio Yáñez Márquez and Sergio Suárez Guerra (Mexico). The authors present the model of application of a special type of associative memories to the voice data coded with speech energies.

Rafael A.M. Gonçalves, Diego R. Cueva, Marcos R. Pereira-Barreto, and Fabio G. Cozman (Brasil) present a paper “*A Dynamic Model for Identification of Emotional Expressions*” that presents a model for basic emotion recognition on the basis of face analysis at video frames using Kalman filtering.

The paper “*Optical Parameter Extraction using Differential Evolution Rendering in the Loop*” by Mauricio Olguín Carbajal, Ricardo Barrón Fernández, and José Luis Oropeza Rodríguez (Mexico) presents a method for evaluation of optical parameters like illumination, using differential evolution algorithm.

A model of decision making based on persuasion that is applied to massively multiplayer online role-playing games is presented in the paper “*A Model of Decision-Making Based on the Theory of Persuasion used in MMORPGs*” by Helio C. Silva Neto, Leonardo F. B. S. de Carvalho, Fábio Paraguaçu, and Roberta V. V. Lopes (Brasil). The formalism of Petri nets is used.

Andrey Ronzhin, Jesus Savage, and Sergey Glazkov (Russia, Mexico) present in their paper “*User Preference Model for Conscious Services in Smart Environments*”

important issues related to the smart environments, namely, the user preferences in given contexts.

The paper “*FPGA Implementation of Fuzzy Mamdani System with Parametric Conjunctions Generated by Monotone Sum of Basic t-Norms*” by Prometeo Cortés Antonio, Ildar Batyrshin, Herón Molina Lozano, Marco Antonio Ramírez Salinas, and Luis Villa Vargas (Mexico) presents an implementation of certain complex logic functions in FPGA.

The problem of automatic music generation and its evaluation by humans is the theme of the paper “*Automatic Music Composition with Simple Probabilistic Generative Grammars*” by Horacio Alberto García Salas, Alexander Gelbukh, Hiram Calvo, and Fernando Galindo Soria (Mexico).

The paper “*An Approach to Cross-Lingual Textual Entailment using Online Machine Translation Systems*” by Julio Castillo and Marina Cardenas (Argentina) deals with the problem of textual entailment that is an edge in natural language processing nowadays. The authors analyze cross-lingual textual entailment using machine translation systems available on the web.

Maria Chondrogianni (UK) in her paper “*Identifying the User’s Intentions: Basic Illocutions in Modern Greek*” deals with various manners of expressing user intentions analyzing basic illocutions in Modern Greek and the ways of their expressions.

The paper “*Inference of Fine-grained Attributes of Bengali Corpus for Stylometry Detection*” by Tanmoy Chakraborty and Sivaji Bandyopadhyay (India) presents stylometric features based on lexical markers that are obtained from a corpus. The experiments are made for Bengali language corpus, though the system is language independent.

The papers selected for publication in this thematic issue give the reader a wide panorama of the methods used in Artificial Intelligence.

Grigori Sidorov  
Research Professor,  
Center for Computing Research,  
National Polytechnic Institute,  
Mexico City, Mexico