EDITORIAL

Dear reader,

You have at your desk the issue no. 1/2010 of the journal AUTOMATIKA with which begins my direct responsibility for its future development in the capacity of the Editor-in-chief. I would like to thank the KOREMA presidency for entrusting me with this responsibility. Special thanks to my predecessor Prof. Borivoj Rajković for the enormous effort he invested in regular publishing of the journal and for keeping its quality during an eighteen year period. I hope that I will in cooperation with the editorial board successfully accomplish the mission of adapting editing functions to the spirit of contemporary journals, thus insuring that for the long term our journal joins the leading European scientific journals in the area of engineering it covers. In accomplishing that mission, I still look forward to the advices of Prof. Rajković in the form of honorary Editor-in-chief.

This issue of the journal AUTOMATIKA contains seven original scientific papers and one review paper. In the first paper, ***Applying optimal sliding mode based load-frequency control in power systems with controllable hydro power plants****, Krešimir Vrdoljak et al. propose application of an optimal full-state feedback sliding mode controller for load-frequency control in nonlinear power systems with controllable hydro power plants. In the second paper,* ***Hybrid fly-by-wire quadrotor controller****, Matko Orsag et al. present a solution to a quadrotor control problem that is based on a discrete automaton, which combines PID and LQ controllers to create a hybrid control system. In the third paper,* ***Speed Sensorless Variable Structure Torque Control of Induction Motor****, Karel Jezernik et al. propose a control method, which allows operation at low and zero speed, optimizing both torque response and efficiency. In the fourth paper* ***Modeling, Control and Experimental Investigation of a Novel DSTATCOM Based on Cascaded H-bridge Multilevel Inverter****, Lin Xu et al. propose a novel static synchronous compensator for reactive power compensation of distribution system (DSTATCOM). The validity of the proposed multilevel DSTATCOM and its control strategies is substantially confirmed by the extensive simulation results and the experimental results from the prototype system. In the fifth paper,* ***Low-Sensitivity Active-RC Allpole Filters Using Optimized Biquads****, Dražen Jurišić et al. present an optimal design procedure for second- and third-order active resistance-capacitance (RC) single-amplifier building blocks that are used to build a high-order tolerance-insensitive allpole filter. In the sixth paper,* ***Neural Network Based Quality Increase of Surface Roughness Results in Free Form Machining****, Marjan Korošec et al. concern with free form surface reorganization and assessment of free form model complexity, grouping particular surface geometrical properties within patch boundaries, using self organized Kohonen neural network. In the seventh paper,* ***Development of Acoustic Model for Croatian Language Using HTK****, Branimir Dropuljić et al. present development of the acoustic model for Croatian language for automatic speech recognition and a novel algorithm for Croatian language transcription which is based on phonetic assimilation rules that are applied within uttered words. In the eighth paper,* ***Risk Analysis of Global Software Development and Proposed Solutions****, Liguo Yu et al. analyze the impacts of globalization on software development, especially its long term impact on software product quality and software industry competitiveness.*

Editor-in-chief:
Prof. Ivan Petrović, PhD