EDITORIAL

Dear reader,

You have at your desk the issue no. 4/2010 of the journal AUTOMATIKA, which contains eight original scientific papers in the fields of system cotrol, digital and analog signal processing, and computing.

In the first paper, ***Motion Control and Vibration Suppression of Flexible Lumped Systems via Sensorless LQR****, Beşir Çelebi et al. address the problem of motion control along with vibration suppression of flexible systems by developing a sensorless closed loop LQR controller. The authors compare the proposed controller with other existing vibration control techniques. The following paper entitled* ***Discrete-Time, Linear Periodic Time-Varying System Norm Estimation Using Finite Time Horizon Transfer Operators*** *by Przemysław Orłowski proposes a method for norm estimation of transfer operator defined on infinite time horizon and presents theoretical considerations which are complemented by numerical examples. In the third paper,* ***On the Design of Discrete Time Repetitive Controllers in Closed Loop Configuration****, Hammoud Saari et al. consider the problem of discrete time repetitive control synthesis for non minimum phase plants, for which the authors, furthermore, propose an identification procedure. The paper entitled* ***The Innovations Approach to Single Frame Multichannel Blind Image Deconvolution*** *by Ivica Kopriva and Damir Seršić considers an application of the independent component analysis algorithms to the innovations of the linear mixture models to learn the unknown basis matrix. The authors provide simulation and experimental results to demonstrate the proposed concept. In the following paper,* ***Modified Nodal Analysis-Based Determination of Transfer Functions for Multi-Inputs Multi-Outputs Linear Circuits****, Ali Bekir Yildiz proposes a generalized method for determination of transfer functions of circuits with multi-inputs multi-outputs. Moreover, the author includes application examples to illustrate the proposed method. Dražen Jurišić et al. consider in their paper entitled* ***Low-Noise Active-RC Allpole Filters Using Optimized Biquads*** *the problem of designing active-RC filters to have low-sensitivity to passive components and at the same time possess low output thermal noise. The optimum designs, regarding both noise and sensitivity of most useful filter sections, are summarized in the table form and demonstrated on examples. The paper entitled* ***Programming Language Design for Event-Driven Service Composition*** *by Siniša Srbljić et al. presents the designed event-handling mechanisms as special-purpose Coopetition services and augmented Web Services Business Process Execution Language with primitives for their invocation, on top of which the authors designed an application-level end-user language. In the last paper,* ***Integrating Streaming Computations for Efficient Execution on Novel Multicore Architectures****, Josip Knezović et al. propose a tool which enables the implementation of the compute–intensive stream processing kernels as portable modules in general–purpose applications, which can further be efficiently reused with high degree of scalability in regard to increasing number of processing cores*

Prof. Ivan Petrović, Ph.D., Editor-in-chief