

## **EDITORIAL**

**Dear readers,**

The first segment of four contributions featuring in the present issue of the *AUTOMATIKA* journal are the papers selected at the **10<sup>th</sup> International Conference EPE-PMC 2002**, held in Cavtat, Republic of Croatia in 8-12 September 2002 (10<sup>th</sup> International POWER ELECTRONICS and MOTOR CONTROL Conference).

The aforementioned papers belong to the following units: **Motion Control, Electrical Machines and Actuators, Electromagnetic Compatibility and Industrial Drive Systems**. There are: one original scientific paper, two preliminary communications and one professional paper. These papers disclose: fuzzy adaptive control of an induction motor drive with fast learning features and very good tracking and regulation characteristics; application, calculation and analysis of doubly fed long stator linear motor for investigations on new railway vehicles; active filter for compensation of harmonic distortion, line neutral current and reactive power in three-phase four-wire systems; experimental analysis of acoustic noise generated by PWM controlled AC motor drives. You may find more information on the Conference EPE-PMC 2002 in the issue 3-4/2002 and nine selected papers from that Conference were published in the issue 1-2/2003 of our journal.

The second segment of the present issue of *AUTOMATIKA* contains three papers that have directly been sent to the editorial board:

- Z. Blažević, I. Zanchi, I. Marinović: **Satelite Propagation Channel Analysis Via Ray-Tracing Simulation**. Diagrams of impulse response and Doppler power spectra of satellite propagation channel are analysed using simulation methods. The contribution is a preliminary communication.
- V. Matko: **Porosity Determination by Using Stochastic Method**. A method and a sensor for porosity measurement of small solid rock samples with sensitive capacitive-dependent crystal have been developed; it is an original scientific paper.
- A. Šabanović, N. Šabanović, K. Jezernik: **Sliding Modes in Sampled-Data Systems**. Since the sliding mode application in discrete-time systems can result in unwanted oscillations of the controlled variable, a new approach in the design of sliding mode control is proposed that considerably reduces oscillations. The contribution is an original scientific paper.

»**Robotics in Words and Pictures**« describes the state of the art and the trends in the development of industrial robots and service robots. In the 21<sup>st</sup> century robotics is expected to become the leading branch of industry.

Global goals of research and development in the European Union are discussed under »**Comments and Opinions**«. The European Council issued Directives regarding these researches at the sessions in Lisbon 2000 and Barcelona 2002. These ambitious goals refer to the coming decade: realisation of the most competitive and dynamic economy in the world taking account of sustainable development and higher social sensibility.

Editor-in-chief  
Prof. Borivoje RAJKOVIĆ, Ph.D