

EDITORIAL

Dear readers,

The initial segment of the AUTOMATIKA journal No. 1-2/2004 contains six original scientific papers selected out of the 17th International Conference on Applied Electromagnetics and Communications ICECOM 2003 held in Dubrovnik, Republic of Croatia from 1 to 3 October 2003. Conference Proceedings contain 107 papers by 234 authors and co-authors from 27 countries covering the fields of **antennas, electromagnetics, mobile communications and opto-electronics**.

These selected papers present a simplified electromagnetic thermal analysis of human exposure to radiation from base station antennas; Stability of microwave and RF devices and circuits, the application of a method of stability analysis based on dynamical systems theory; Electromagnetic model for twin slot terahertz mixers; Current density dominant mode on spiral patch antennas; Single and multi element printed Minkowski monopole antennas for portable terminal devices; Digital image transmission simulation using the DVB forward error correction codes.

More information about the ICECom 2003 conference is available under no. 3-4/2003 of AUTOMATIKA.

The following segment of the present issue of AUTOMATIKA contains three papers: the first one is a contribution to the 10th International POWER ELECTRONIC and MOTION CONTROL Conference held in Cavtat, Republic of Croatia from 8 to 12 September 2002. Other two contributions have been sent direct to the editorial board:

- G. Knercer, L. Nagy, P. Korondi, S. Perczegi, T. Mezö: **Compact Motors and Drives for Electric Vehicles**. This paper presents experimental results of a newly developed technique in brushless motors and the drive systems (the inverter motor and controlling software) for electronic vehicles. The paper is a preliminary report.
- T. Kilić, S. Milun, G. Petrović: **Parallel Active Power Filter with Predictive Structure for Reference Current Determination-Experimental System**. This paper presents a laboratory prototype of three-phase active power filter 16,5 kVA, which is realised using three serial inductance, three-phase IGBT based current control voltage inverter. This is an original scientific paper.
- F. Kolonić, Đ. Kunjašić, Ž. Jakopović: **Interaction of DC link Supply Unit and Supplied Inverters with Regenerative Load**. Basic system properties, problems, solutions and experiences acquired during system commissioning have been analysed, particularly during regenerative braking. This is an expert contribution.

The section »Comments and Opinions« under the title **European and Croatian Technical Legislation** describes the principles of harmonisation and the procedures for acquiring of EU Certificates; goals of regulating technical legislation in the Republic of Croatia relating to the so called horizontal laws and definition of terms (norms, certification, examination, inspection organisations and accreditation).

The section »Robotics in Words and Figures« describes androids – man-like robots mainly developed in Japanese companies (Honda, Sony, Toyota and Kawada Industries) having imposed global standards through their own development and solutions, followed less or more successfully by others. Improvement of perceptive and communication skills of robots and an intensive development of the robotics society may lead to the changes of social relations within 20 and especially 50 years to come.

Editor-in-chief
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