EDITORIAL

Dear readers,

The editorial board of the journal AUTOMATIKA is indebted to Mr. Vladimiru Matijević, the longstanding member of the journal editorial board, for his significant contribution to the maintenance and development of the journal AUTOMATIKA, who passed away in April 2009.

This issue of the journal AUTOMATIKA contains six original scientific papers and two preliminary communications.

The first group of papers in the present issue contains four papers that were presented at the 6th EUROSIM congress on modelling and simulations held in Ljubljana, Slovenia, from 9 to 13 September 2007. I would like to take this opportunity to thank Professor Borut Župančič, the General Chair of the EUROSIM congress, for cooperation on the papers selection. In the first paper, **Self--Adaptive Predictive Functional Control of Temperature in an Exothermic Batch Reactor**, Gorazd Karer et al. introduce a new predictive control concept for a batch reactor used in the production of medicines, where they consider the reactor as a hybrid system. In the second paper, **Model-Driven Software Development and Discrete Event Simulation — Concepts and Example**, Thomas Sandu et al. describe a case study concerning the development of the architecture for discrete event simulation based on model-driven software development, what includes code generation facilities for the object oriented simulation framework DESMO-J based on a new UML profile. In the third paper, **A Pallet Packing CPN Optimization Approach for Distribution Center**, Miquel Angel Piera et al. suggest the usage of the Coloured Petri Net for formal description of the pallet loading process in distribution centers characterized by a high diversity of boxes to be fitted altogether in the same pallet and the usage of the integration of evaluation methods and search methods for its optimization. In the forth paper, **Modelling and Simulation of Transportation Systems: A Scenario Planning Approach**, George Papageorgiou et al. presents an overview on traffic simulation as well as the development process of a microscopic simulation model of a highly congested traffic network.

The second group of papers contains four papers directly submitted to the journal editorial board. In the first paper, **Free Space Representation for Biped Walking Robots**, Robert Cupec and Günther Schmidt presents a novel method for creating a free space representation for biped walking robots based on the approximation of the robot by a set of 3D hulls whose shapes allow efficient determination of feasible paths in a 3D configuration space, involving stepping over obstacles and changing the walking level. In the second paper, **Experimental Comparison of Sonar Based Occupancy Grid Mapping Methods**, Edouard Ivanjko et al. compare systematically six occupancy grid mapping methods for indoor environments based on the sonar-ring range data. In the third paper, **Multi-Agent Highway Toll Collection System**, Maja Štula and Saša Mladenović propose a possible solution to interoperability issues based on multi-agent technology and newly defined Highway Electronic Toll Collection ontologies. In the forth paper, **On Design, Measurement Tools and Robust Control of Wireless Telecommunication Networks**, Jyotirmay Gadewadikar et al. did an analysis on the need for finding common grounds between the automatic control theory and optimisation of the wireless telecommunication networks.

I have a great pleasure to inform You that the journal AUTOMATIKA have been included into the database **Science Citation Index Expanded** since the no. 1—2/2008.

Editor-in-chief:
Professor Borivoje RAJKOVIĆ, Ph.D.