PREFACE

Six out of the twenty-nine papers presented at the 7th International Symposium on Information Systems (IS '96), held from 25 to 27 September 1996 in Varaždin, have been selected for publication in this journal. The Symposium was organized by the Faculty of Organization and Informatics Varaždin in cooperation with the following institutions:

◊ Karl-Franzens-University of Graz,
Institute of Information Sciences

◊ University of Maribor,
Faculty of Economics and Business
Faculty of Electrical Engineering, Computer and Information Sciences

◊ Bánki Donát Politechnic, Budapest,
Department of Information Technology

The diversity of the topics covered at the Symposium has made the selection of papers a rather difficult task so that the final choice is a compromise between several criteria. The basic criterion of selection was the potential contribution of the paper to the research areas covered by the Faculty of Organization and Informatics Varaždin. Applicability is another important criterion for the evaluation of ideas generated by information scientists. This criterion, therefore, was also used in the selection process.

J. Brumec's paper *A Contribution to IS General Taxonomy* presents a new genetic taxonomy of information systems. The paper draws on the author's rich experience as a practising information system designer and the proposed taxonomy is directed towards a clearly defined goal: to improve understanding between information system designers and information system users.

A. Lovrenčić's paper *The Problem of Optimization of the Process of Decomposition of an Information System* addresses the issue of dividing a system into its subsystems. In order to develop a mathematical model of the problem, it was necessary to define a measure of quality for the analysis of the system along with a number of restraints. The author pays special attention to the computational complexity of the algorithm to be applied to the solution of the mathematical model and proves the fact that such an algorithm has no polynomial time complexity.

Contemporary business activities are inconceivable without quality control and product standardization. This also holds for software production. Two papers in the bulletin deal with this topic. The paper *PROCESSUS - Methodology for Quality System Improvement and Assessment*, written by I. Rozman, R. V. Horvat, J. Györkös and M. Heričko, was presented at the Symposium as guest lecture, which in itself points out the relevance of the topic. Among the existing methods for the establishment of software quality improvement systems, two models are well known: SEI CMM and ISO standards. The PROCESSUS methodology described in this paper is based on the integration of the two models. In M. Pivka and V. Potočan's paper

entitled *How Can Software Packages Certification Improve Software Process* the authors deal with a topic similar to that discussed in the aforementioned article. They describe their experience with the classical models for software production and testing of and provide an improved model of their own.

It is a well-known fact that communication via information technology is indispensable for the effective conduct of business activities. However, C. Schlögl's paper *Rechnet sich die Informations- und Telekommunikationspolitik der EU* questions the validity of general assumptions about the overall improvement in competitiveness and productivity through the use of information technology within the EU, arguing that the expectations might be too optimistic.

Expert systems are frequently discussed in a variety of professional journals. Unlike the majority of articles that deal with expert systems on the level of concept description and expected benefits, D. Starešinčić's paper *Expert Systems in Railway Traffic Planning*, gives a detailed description of the architecture of an expert system, together with a system of attributes, also specifying the necessary requirements for its incorporation into the information system of the Croatian Railways.

Guest Editor

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