

Preface

Contemporary transport systems require new decisions pertaining to planning, organization and control of traffic to be made on an ongoing basis. These decisions entail the necessity of seeking increasingly efficient solutions. The main challenges faced in this respect include increasing availability and quality of the transport services rendered, improving safety and reducing the negative environmental impact of transport.

This publication, *Contemporary Challenges of Transport Systems and Traffic Engineering*, provides an excellent opportunity to become familiar with the latest trends and achievements in the field of contemporary transport systems as well as traffic engineering challenges and solutions. It has been divided into four parts:

- Part I Quantitative and Qualitative Determinants of the Development of Transport Systems,
- Part II Optimisation of Transport Systems,
- Part III Safety Analysis in Advanced Transport Systems,
- Part IV Advanced Systems of Traffic Engineering and Travel Models.

The publication contains selected papers submitted to and presented at the 13th Scientific and Technical Conference “Transport Systems. Theory and Practice” organized by the Department of Transport Systems and Traffic Engineering at the Faculty of Transport of the Silesian University of Technology (Katowice, Poland). The topics addressed include the current problems of transport systems, among other subjects discussed. Using numerous practical examples, authors have analyzed various opportunities for improvement of the current state of matters, bearing the well-being of people, sustainable development of transport systems and protection of natural environment in mind.

We would like to use this occasion to express our gratitude to the authors for the papers they have submitted and their substantial contribution to the discourse on the multiple challenges facing transport systems and traffic engineering in the contemporary world as well as for rendering the results of their research and scientific

work available. We would also like to thank the reviewers for their insightful remarks and suggestions which have made it possible to ensure high quality of the publication.

And to all readers, we wish intellectually stimulating reading.

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