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MEHCL '15

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Institute for Engineering Design and Logistics Engineering

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Faculty of Mechanical Engineering

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PREFACE

The International Conference on Material Handling, Constructions and Logistics – MHCL is the 21st event of a series that has been started just 39 years ago, in 1976 by Professor Đorđe Zrnić. Up to now the Conference gathered together scientists and researchers from all republics (now independent states) of former Yugoslavia (Serbia, Montenegro, Croatia, Slovenia, Bosnia and Herzegovina, and Republic of Macedonia), as well as from Austria, Germany, Hungary, Poland, Slovakia, Bulgaria, Romania, China, Greece, Russia, Netherlands, Italy, Switzerland, Lithuania, Republic of Korea, USA, Japan and Australia, working in the field of Material and Mechanical Handling, Constructions and Construction Machinery, as well as Transport Logistics. This year, for the second time, MHCL is organized together by the Vienna University of Technology (Institute for Engineering Design and Logistics Engineering) and University of Belgrade (Faculty of Mechanical Engineering).

The aim of the Conference is to be a forum to exchange views, opinions and experience on MHCL from technical viewpoints in order to track the current achievements, but also to look at to future developments. Most of the authors of contributed papers are experts in MHCL and related topics. Also, one of the main goals of the Conference is to make the scientific/research exchange between similar academic Departments and Institutes from different countries, as well as individual researcher in the field, in order for possible cooperation in applying for international programs or bilateral research and scientific projects.

This year the International Conference MHCL'15 is held in Austria at the Vienna University of Technology (Institute for Engineering Design and Logistics Engineering) from 23rd-25th September. The Proceedings contain 48 submitted peer-reviewed papers by authors from 14 countries: Austria, Serbia, Germany, Poland, Greece, Montenegro, Slovenia, Republic of Korea, Netherlands, Republic of Macedonia, China, Japan, Bulgaria and USA. The papers are grouped in five sessions A, B, C, D and session E:

- Session A: Hoisting and Conveying Equipment and Technologies - 13 papers
(Chairman: Prof. Nenad Zrnić)
- Session B: Construction and Mining Equipment and Technologies - 2 papers
(Chairman: Prof. Srđan Bošnjak)
- Session C: Logistics and Intralogistics Systems - 13 papers
(Co-chairmen: Profs. Georg Kartnig and Nenad Zrnić)
- Session D: Constructions and Design Engineering - 9 papers
(Co-chairmen: Profs. Georg Kartnig and Srđan Bošnjak)
- Session E: Maritime and Port Logistics – Operations Modeling and Sustainable Development - 11 papers
(Chairman: Prof. Branislav Dragović)

Proceedings contain also 5 invited papers presented in Plenary session. The invited lectures reflect the wide spectrum of important topics of current interest in MHCL. These Proceedings can also be considered as a kind of handbook on MHCL, and can be of interest for researchers, graduate students and engineers specializing or addressing attention to MHCL. We believe that a reader will take advantage of the papers in these Proceedings with further satisfaction and motivation for her or his work.

We would like to express our sincere thanks to all members of the Scientific and Organizing Committee, Session chairman and reviewers as well as to all participants including invited speakers for coming in Vienna to present their papers. On this occasion, we are particularly indebted to all people who rendered their help for the preparation of the Conference and publication of the Proceedings.

We are grateful to the authors of the articles for their valuable contributions and for preparing their manuscripts in time.

Vienna, September 2015

Editors

Georg Kartnig, Nenad Zrnić, Srđan Bošnjak