

Preface

Dear distinguished delegates, guests and readers of this book:

In modern times where globalization and competition know no limits and have stopped being friendly in the marketplace, Logistics has already come to play a primordial role at each business level and dimension. The main problems we usually find in Logistics can be defined as design, planning, optimization and control problems. Nowadays the improvement of such logistic aspects not only encompass all those conventional techniques based on the expert knowledge and best practices, but also modern approaches like the Artificial Intelligence, Evolutionary Computation, Fuzzy Logics, and the use of specialized software, among others.

Taking all this into account and having a solid experience in the logistic field, The Institute of Production Systems and Applied Mechanics, belonging to the Faculty of Materials Sciences and Technology (MTF) of the Slovak University of Technology (STU) organized the 2012 Central European Conference on Logistics (**CECOL 2012**). The event took place in the city of Trnava, Slovak Republic, during November 28th-30th, 2012.

The **CECOL 2012** proceedings book is aimed at publishing scientific achievements in the field of logistics as well as at enhancing the worldwide cooperation among young and senior academicians and/or practitioners, and specially those of the central European region. This present edition has been enriched taking into account previous experiences, resulting from the scientific collaboration among higher education centers of such central European zone and two previous successful editions of the conference held in Miskolc, Hungary (2010) and Częstochowa, Poland (2011). Some of the main topics included in the book are those related to manufacturing process design, optimization and control of logistic processes, manufacturing automation, manufacturing process simulations, analysis of the material flow, maintenance, production planning, production scheduling, new teaching and research approaches, intelligent manufacturing systems and cells, robots implementation into the logistic processes, among others. This way, the book also constitutes a valuable reference and study material for all the persons working and studying logistics.

During the process of revision, edition and analysis of the contents of these proceedings book, we have had the chance of acquiring a rich overview on the trends and research lines of Logistics. We have also felt fulfilled when having had the chance of putting all of our effort, modest knowledge and experience in the improvement and adequacy of the contents. At the same time we have been enriched both as human beings or logisticians throughout this process and thus, we strongly believe, it could be a material from which you will certainly acquire knowledge in a similar way. The book is structured in sessions and in each one of them the reader can find similar topic-related works.

Finally, we would like deeply thank the organizing committee for its valuable and persistent work even out of working time and days, we would also like to thank the scientific committee for its valuable expertise, advises and chairing activities during the conference and last but not least, our sponsors for their contributions to this successful edition of the **CECOL 2012**.

With our warmest and most sincere regards,

Prof. h.c. Prof. Karol Velišek

Assoc. Prof. Peter Košťál

Assoc. Prof. František Pecháček

Developed countries already have a greater share of resources, and globalization will only reinforce their wealth and power. The richest countries, including the United States, will pool their resources and gain a monopoly over the global market. Some believe that globalization should proceed, if at all, under a set of restrictive new rules on issues such as labor, the environment, and human rights. In fact, America is not really a melting pot in the sense that immigrants' cultures dissolve into American culture. In fact, they remain distinct. They fear that a sense of shallowness might come from living in "the global village", as tastes and cultural attitudes become more homogeneous. Human beings enjoy being different, feeling unique. Time spent on playing computer games can be limited by parents with the help of computer settings. So, a pupil has more time on studying. In conclusion, I would like to stress once more that under no circumstances should parents ignore installing a computer. If everything is controlled by adults, the process of getting education becomes more efficient. It will not be an exaggeration to claim that in the epoch of technologies a lot of money is allocated to exploring the space, while the humanity is still facing an innumerable host of social and economic problems. I totally agree with the statement above that before travelling to other planets all problems on your own one should be solved. Some people are concerned that this is because young people spend too much time online and not enough time socialising with their friends and playing outside. In the past, nearly all children walked to school because their parents didn't have a car. They didn't have all the luxuries that many children have now, so they used their imaginations and played outdoors in the fresh air. c. Years ago, when people wanted to stay in touch with their friends and family, they wrote letters. Modern equipment is often very expensive and does not last a long time. It is important to consider how much we really need these things and the impact they have on our health, the environment and society.

3. How modern technology has changed communication. But already at the beginning of the Modern Age it got quite a definite interpretation in the works by Machiavelli, Bodin, Hobbs and others. Within the Westphalian system of international relations, (it formed after the Thirty Year War and 1648 Peace Treaties of Westphalia), the principles of state sovereignty gradually obtained the all-European, and then universal appreciation. Globalization is a result of a very complicated alloy of political, social, economic, civilizational and many other processes of the modern world. Globalization and reducing sovereignty. As has been stated above, in practice the sovereign rights and powers both of states and nations were always limited by various factors.