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Computational Logistics

Second International Conference, ICCL 2011
Hamburg, Germany, September 19-22, 2011
Proceedings

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Preface

Computational logistics comprises the planning and implementation of large/complex logistics tasks using computations and advanced decision support. It is applied in various areas, such as the flow and storage of goods or services as well as related information from their source to their destination. Typically, optimization models and algorithms are developed, verified and applied for planning and executing complex logistics tasks, e.g., finding the most efficient scheduling/plan for the transport of passengers or goods. These models and algorithms are integrated with advanced computer technology to get satisfactory results in appropriate time even for large-scale problem instances and to provide interactivity, visualization etc. for a better understanding and problem solution. Furthermore, computational logistics involves the use of information systems and modern communication and information technology (IT) for the design, planning and control of logistics networks as well as the complex tasks within them.

The International Conference on Computational Logistics (ICCL) provides an opportunity for researchers and practitioners in the field of computational logistics to present their latest results and findings in a fruitful and open-minded environment. This volume of the *Lecture Notes in Computer Science* consists of selected papers presented at the Second International Conference on Computational Logistics, held at the University of Hamburg, Germany, during September 19–22. ICCL 2011 was the second of its kind, the first was held in 2010 in Shanghai, China.

ICCL 2011 was located in *the* most beautiful city in Germany, Hamburg. Hamburg is part of one of the most important logistics networks. Among others, the city features two airports within the premises of the city, one of the three biggest container ports in Europe belonging to the largest container ports worldwide. As a metropolitan region, numerous trade activities involving multitudes of companies take place every day providing great challenges for optimization up- and downstream along the value chain. This makes Hamburg the perfect place to inspire new ideas in the field of computational logistics as well as information and communication sciences.

On top of this, the year 2011 also marked two specific events making Hamburg the perfect place for hosting this conference. First, Hamburg was awarded as the Green Capital of Europe 2011, making *The Challenge of Sustainability* a special focus of the conference. Moreover, the joint effort between Shanghai, host of the first ICCL, and Hamburg, being the host of this one, reveals the good collaboration between these two cities, marking the 25th anniversary of the partnership between the two cities.

The contributions presented at the conference as well as the selected papers in these proceedings highlight recent developments in computational logistics. We grouped the contributions in three parts as follows:

- Part I: Transport Services
- Part II: Logistics Systems and Production
- Part III: Maritime Shipping and Container Terminals

Organizing a conference and publishing the proceedings is of course an endeavor involving many people in numerous activities. We first want to thank all authors and presenters for their contributions. Moreover, we greatly appreciate the valuable help and cooperation from the members of the international Program Committee as well as the referees.

September 2011

Jürgen W. Böse
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