



6TH INTERNATIONAL SCIENTIFIC SYMPOSIUM ON LOGISTICS

June 13-14, 2012

Coordinated Autonomous Systems

Curio-Haus, Hamburg

Programme



Coordinated Autonomous Systems

In the wake of the economic and financial crisis, natural disasters, epidemics, terrorist attacks or strikes, supply chains are more and more susceptible to disruption and it is increasingly difficult to predict the outlook for the future. At the same time, there is ever greater emphasis on efficiency in the value added chains. Outsourcing levels have increased and the size of the supplier base has been reduced, resulting in the streamlining of structures and processes.

The conflict between these trends is readily apparent, yet in view of increasingly interlinked, global and buffer-free value added chains it is of paramount importance that efficient logistics processes are also assured under the volatile and unpredictable conditions outlined above. Accordingly, factors like robustness, flexibility, agility and resilience are becoming ever more decisive.

The “cloud logistics concept” could be one way of spreading risk, increasing flexibility and securing the quality of logistics services. It takes the “cloud computing” idea from the IT sector, adapts it and transfers it to logistics systems. This creates a virtual system extending beyond company borders for the coordination of resources, capacities, processes or services. Within this framework, autonomous, decentral logistics entities are loosely integrated and coordinated to form a flexible overall system. In line with these themes, the slogan for the 6th International Scientific Symposium on Logistics is “Coordinated Autonomous Systems”.

In order to generate benefits for science and research, the aim is to facilitate the interdisciplinary discussion of topical research projects in a dialogue with the key actors in industry, trade and the supply chain service sector and to develop new models and

solutions for coordinated autonomous systems. The International Scientific Symposium on Logistics provides the logistics industry with a platform for the cross-border and interdisciplinary creation of new approaches to answer the research-related questions of real-world logistics experts. Scientists, PhD candidates and students have the opportunity to obtain information first-hand and to take with them ideas and stimuli for their own academic education and practical training, while real-world practitioners have the chance to engage in in-depth exchange with colleagues in the field as well as scientists and researchers. So why not benefit from the findings of interdisciplinary and cross-sector applications – and let yourself be inspired by forward-looking concepts? In Kühne Logistics University, we are delighted to have found a host who will join forces with us to promote the international scope of this Symposium held every two years since 2002.

We look forward to seeing you in Hamburg.



Prof. Dr.-Ing. Raimund Klinkner
Managing Partner,
IMX Institute for Manufacturing
eXcellence GmbH, Martinsried
President, BVL International, Bremen

Concept Group

We would like to thank our concept team:

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Dean of Research and Professor of Marketing and Innovation,
Kühne Logistics University – The KLU, Hamburg

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Director of the Department of Business Policy and Logistics,
University of Cologne,
Chairman of the Scientific Advisory Board, BVL

Prof. Dr. Dr. h.c. Wolfgang Kersten

Head of the Institute of Business Logistics and General Management,
Hamburg University of Technology,
Member of the Scientific Advisory Board, BVL

Prof. Dr.-Ing. Bernd Scholz-Reiter

Managing Director, BIBA GmbH, University of Bremen,
Member of the Scientific Advisory Board, BVL

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Wednesday, June 13, 2012

15th International PhD Candidates Workshop

Workshop | W | KLU, Auditorium

09:00

With the aim of promoting interaction between the various logistics and supply chain management disciplines, BVL invites PhD candidates to come together on the opening day of the 6th International Scientific Symposium on Logistics to discuss methods and trends in logistics and supply chain management research and to engage in an interdisciplinary dialogue that will help to improve the quality of their personal dissertation projects. After the workshop, the future logistics experts have the opportunity to visit the symposium to learn about forward-looking concepts, allowing them to gain new insights into the findings of the latest scientific research.

Separate registration necessary



Moderation
Prof. Dr. Alan C. McKinnon
Head of Logistics and Dean of Programs,
Kühne Logistics University – The KLU,
Hamburg



Moderation
Prof. Dr.-Ing. Thorsten Schmidt
Institute Director,
Institute of Material Handling and Industrial
Engineering, Technische Universität Dresden,
Member of the Independent
German Certification Board

Opening Speech

Keynote | A1 | Ballsaal

18:00



Prof. Dr. h.c. Klaus-Michael Kühne
Honorary Chairman of the Board of Directors,
Kühne + Nagel International AG,
Schindellegi, Switzerland,
Honorary member, BVL

The Cloud – Logistics for the Future?

Keynote | A2 | Ballsaal

18:15



Prof. Dr. Dr. h.c. Werner Delfmann
Director of the Department of
Business Policy and Logistics,
University of Cologne,
Chairman of the Scientific Advisory Board, BVL

Coordinated Autonomous Systems – Requirements for Corporate Best Practices

Panel discussion | A3 | Ballsaal

18:45



Moderation
Prof. Dr. Dr. h.c. Wolfgang Kersten
Head of the Institute of Business Logistics and
General Management,
Hamburg University of Technology,
Member of the Scientific Advisory Board, BVL



Dr. Andreas Otto
Member of the Executive Board,
Lufthansa Cargo AG,
Frankfurt



Daniel Weber
Vice President/Head of Global
Supply Chain Management,
Beiersdorf AG,
Hamburg



Mohammad Mosavi
Managing Director,
saymo GmbH,
Berlin

Networking Event

Foyer

19:30



09:00

Advantages from Cooperative Networks

Special-topic sequence | B1 | Ballsaal



Moderation

Prof. Dr. Britta Gammelgaard
Professor of Logistics and Supply Chain Management,
Department of Operations Management,
Copenhagen Business School,
Frederiksberg, Denmark

Cooperation networks pave the way for greater flexibility and valuable synergies. While vertical cooperation models are already well-established in the supply chain, there are often reservations when it comes to entering into partnerships on horizontal level with potential competitors. And this is despite the fact that the joint use of resources not only has the potential to boost productivity but can also minimise the susceptibility of supply chains. How can the performance of partnerships be measured? And what do optimum organisational structures look like?



Achieving Supply Chain Robustness by Horizontal Cooperation

Prof. Dr. Ralf Elbert
Head of Chair of Management and Logistics,
Technische Universität Darmstadt



Integrating Alliance Partners into Performance Measurement

Prof. Dr. Carl Marcus Wallenburg
The Kühne-Foundation Professor of
Logistics and Services Management,
WHU – Otto Beisheim School of Management,
Vallendar



An Institutional View on Coordinated Autonomous Systems

Prof. Dr. Herbert Kotzab
Chair of Logistics Management,
University of Bremen,
Member of the Scientific Advisory Board, BVL

09:00

Smart Technology Solutions

Special-topic sequence | B2 | Weißer Saal



Moderation

Prof. Dr. ir. Gabriel Lodewijks
Vice Dean of the Faculty of Mechanical,
Maritime and Materials Engineering,
Chairman of the Dept. of Marine & Transport Technology,
Delft University of Technology, Netherlands

Technological innovations have the potential to revolutionise existing processes and drive a paradigm shift in the field of technical logistics. How can companies use the cloud logistics model to develop innovative technological solutions? The integration of autonomous sub-systems to create a coordinated network calls for the creation of compatible interfaces. Moreover, these autonomous sub-systems need to interact in such a way that they result in cross-system optimisation. The sequence profiles novel approaches to the implementation of these processes in the real world.



Smart Standardized Logistics Zones

**Prof. Dr.-Ing. habil. Prof. E.h.
Dr. h.c. mult. Michael Schenk**
Director,
Fraunhofer Institute for Factory Operation and
Automation IFF, Magdeburg,
Member of the Scientific Advisory Board, BVL



Autonomously Controlled Product Manufacturing Utilizing Flexible Order Allocation

Prof. Dr.-Ing. Katja Windt
Professor of Global Production Logistics,
Jacobs University Bremen gGmbH,
Member of the Executive Board, BVL



Cognitive Logistics for Warehousing

Prof. Dr.-Ing. Ludger Overmeyer
Head of the Institute of Transport and
Automation Technology,
Leibniz Universität Hannover, Garbsen,
Member of the Scientific Advisory Board, BVL

Thursday, June 14, 2012

Intelligent Information Systems

Special-topic sequence | C1 | Ballsaal

11:00



Moderation

Prof. Dr. Lauri Ojala

Professor, Chair of Logistics,
Turku School of Economics,
University of Turku, Finland

Information and communication systems perform cross-sectional functions in the logistics field and are therefore a major factor in successful business. I&C systems play a central role in the cloud logistics model, as resources, capacities, processes or services are coordinated not only internally but also on a cross-company basis. The availability of information 24/7, on demand and in real time is key to this concept. The sequence profiles specific real-world approaches and focuses on the application fields, potentials and challenges for intelligent information systems.



Dynamic Scheduling for Logistics Service Providers

Prof. Dr. Matthias Klumpp

Scientific Director,
ild – Institute for Logistics and Service Management,
FOM University of Applied Sciences Essen



A Cloud Based Collaboration Platform for Transport and Logistics Business Networks

Prof. Dr. J. Rod Franklin

Adjunct Professor of Logistics and
Academic Director of Executive Education,
Kühne Logistics University – The KLU,
Hamburg



Logistics Information Systems and Cloud Computing – Application Areas, Potentials and Challenges

Prof. Dr.-Ing. Bernd Hellingrath

Professor for Information Systems and
Supply Chain Management,
Westfälische Wilhelms Universität,
Münster

Innovative Technical Logistics Approaches

Special-topic sequence | C2 | Weißer Saal

11:00



Moderation

Prof. Dr.-Ing. Bernd Scholz-Reiter

Managing Director,
BIBA GmbH, University of Bremen,
Member of the Scientific Advisory Board, BVL

The concept of decentralised control has gained in significance in the field of technical logistics in recent years. What are the advantages compared to central control concepts? How does decentralised control impact the performance of a system? The sequence outlines innovative approaches to the use of coordinated autonomous systems in the field of technical logistics and compares factors like productivity and flexibility relative to conventional systems.



A High-Density System for Carton Sequencing

Prof. Dr. Kevin R. Gue

Associate Professor, Department of Industrial and
Systems Engineering,
Auburn University,
Auburn, Alabama, United States



Performance of Decentral Control Strategies in Material Handling Systems

Prof. Dr.-Ing. Thorsten Schmidt

Institute Director, Institute of Material Handling
and Industrial Engineering, Technische Universität
Dresden, Member of the Independent German
Certification Board



Cellular Transport Systems in Facility Logistics

Prof. Dr. Michael ten Hompel

Managing Director,
Fraunhofer Institute for Material Flow and Logistics,
Dortmund,
Member of the Executive Board, BVL



13:30

Methods to Improve Robustness and Flexibility

Special-topic sequence | D1 | Ballsaal



Moderation

Prof. Mag. Dr. Herwig Winkler
Head of Department Production
Management & Business Logistics,
Alpen-Adria Universität Klagenfurt,
Austria

Events like natural disasters, terrorist attacks or uprisings are changing the external conditions for business activities, making accurate forecasts more difficult than ever before. In view of these developments, methods that can enhance the robustness and flexibility of logistics systems are becoming increasingly important. How can companies position themselves to minimise risks and react faster to changing market conditions while maintaining high levels of efficiency at the same time?



**Cloud Logistics as a Risk Management Strategy –
An Agent Based Simulation Scenario Analysis**

Prof. Dr. h.c. Wolfgang Kersten
Head of the Institute of Business Logistics and
General Management,
Hamburg University of Technology,
Member of the Scientific Advisory Board, BVL



Planning Changeability in Distribution Systems

Dr.-Ing. Katja Klingebiel
Head of Research Center Assistance Systems,
Chair of Factory Organization,
Technische Universität Dortmund



**Improving Logistics System Flexibility
by Multi-Path-Network Flows**

PD Dr. Jörn Schönberger
Senior Researcher, Chair of Logistics,
University of Bremen

13:30

Dynamic Transport Planning

Special-topic sequence | D2 | Weißer Saal



Moderation

Prof. Dr. Michael Bourlakis
Professor in Supply Chain Management,
Brunel University,
London, United Kingdom

Dynamic transport planning increases planning reliability along the supply chain. Precise forecasts are not always possible in the transport sector, however. And during the transport process itself, there is often a lack of transparency regarding current locations or probable arrival times. This applies in particular to the maritime segment but is also frequently a problem in road freight transport. The question, therefore, is how to ensure greater transparency during the transport process and to identify the obstacles to this transparency.



**Autonomous Ships as Prerequisite for Coordinated
Autonomous Maritime Logistics Systems**

Prof. Dr.-Ing. Carlos Jahn
Director of Fraunhofer CML and Head of Institute for
Maritime Logistics,
Hamburg University of Technology



**Dynamic Truck Meeting – A Blueprint for
Coordination of Different Autonomous IT Systems**

Prof. Dr.-Ing. Hartwig Baumgärtel
Professor for Logistics and Supply Chain Management,
University of Applied Sciences Ulm,
Vice Chairperson Chapter Allgäu/Bodensee, BVL



Dynamic Navigation of Delivery Fleets

Prof. Dr.-Ing. Uwe Clausen
Director,
Fraunhofer Institute for Material Flow and Logistics,
Dortmund,
Member of the Scientific Advisory Board, BVL

Thursday, June 14, 2012

Coordinated Autonomous Systems – What has been confirmed during the discussions?

Panel discussion | E1 | Ballsaal

15:15



Moderation

Prof. Dr. Alan C. McKinnon
Head of Logistics and Dean of Programs,
Kühne Logistics University – The KLU,
Hamburg



Prof. Dr. ir. René de Koster
Professor of Logistics and Operations Management,
Erasmus University Rotterdam,
Netherlands,
Member of the Scientific Advisory Board, BVL



Prof. Dr. Douglas Lambert
Professor of Marketing and Logistics,
Director of The Global Supply Chain Forum,
The Ohio State University,
Columbus, Ohio, United States



Prof. Dr. ir. Luk van Wassenhove
Professor of Technology and Operations Management,
INSEAD,
Fontainebleau, France

Farewell Coffee

Foyer

16:00

Your Registration

You can conveniently register for the 6th International Scientific Symposium on Logistics either

- online at www.bvl.de/issl or
- by phone on +49 / 421 / 173 84 34.

Participation fees:

€ 455 for BVL members and € 510 for non-members
Details of special rates for scientists and students on request

Presentation Options

The International Scientific Symposium on Logistics offers a wide range of options to showcase your company. Are the core fields of expertise and the area of activity of your company, organisation or institute closely connected to key themes of the symposium?

Anja Bormann, phone +49 / 421 / 173 84 28, bormann@bvl.de will be happy to inform you about sponsoring options and about the parallel special-topic exhibition.

Project Team



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