

LogDynamics News

New Spokesman of the IGS

The international Graduate School for Dynamics in Logistics (IGS) has a new spokesman: Univ.-Prof. Dr. rer. pol. Hans-Dietrich Haasis will succeed Prof. Dr.-Ing. Scholz-Reiter from July 2012. Prof. Haasis is one of the founding members of the research cluster LogDynamics and full-professor for Business Administration, Production Management and Industrial Economics at the University of Bremen. He is also managing director of the Institute of Shipping Economics and Logistics (ISL) and head of the ISL department Logistic Systems.

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**Bremen Research Cluster for
Dynamics in Logistics**

Contact

Spokesman Log Dynamics

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The Software Does the Dispatching Aimpulse: A spin-off of the University of Bremen

The complexity of the logistics management has increased significantly in recent years. The numerous and interdependent parameters are hardly manageable for dispatchers. This is where the solution of Aimpulse Intelligent Systems comes in: The software does the dispatching and manages the standard cases across the entire process chain of a company. Logistics objects such as containers and pallets are automatically dispatched by so-called software agents. "They are able to select the warehouse at which the respective goods are received. Additionally, the agents may choose their means of transport. Train, truck or barge, whichever has most favorable terms." says CEO Jan Gehrke. The means of transport should be optimally utilized. Hence, the software agents representing the individual logistic objects communicate with each other. "The dispatchers can thus focus on exceptional cases, for example, if there are problems with customs," says CEO Arne Schuldt.



Spokesman International Graduate School (IGS)

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This solution has been partially developed in the Bremen Collaborative Research Center "Autonomous Cooperating Logistic Processes" (CRC 637). The founders have already tested it in a reference project with an international retailer of consumer products. They were able to reveal potential savings in warehouse charges corresponding to 2.6 million pallet-days per year. "Realistic simulations of the entire process chain are one of our services. There is currently no comparable software to do that." says Schuldt. The simulation enables companies to evaluate and improve their logistics strategies. Aimpulse Intelligent Systems provides this IT-based process analysis as a consulting service. "In the next step, we can transfer the results to process control by using our software," explains Gehrke.

The spin-off received funding from the German Federal Ministry of Economics and Technology as well as from the Bremen Senator for Economics, Labour and Ports. The company founders Gehrke and Schuldt received their PhDs from University of Bremen. Their profound experience in logistics and IT also includes innovative methods from Artificial Intelligence. Aimpulse already works on projects in the areas of groupage traffic and contract logistics for commerce and automotive industries.

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Invitation to Participate in the Survey „RoboScan‘12“

Participation in the online survey “Roboscan’12” is possible until the **15th of August 2012**. The aim is to provide new findings for research and development of new technologies for more efficient global logistics networks.

RoboScan’12 has been conducted at BIBA, University of Bremen in cooperation with ISEIC Pfeffermann Consulting. The survey is funded by the Kieserling Stiftung. Furthermore it is supported by Springer – Logistics for Enterprises; the central results will be published in the issue 10/12 to be distributed on the 29th Logistics Congress.

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Supply Chain for Offshore Wind Energy Plants

Scarce resources for the generation of non-renewable energy and the dangers of atomic power generation have led to a turnaround in Germany's energy policy. The electricity generation from wind energy will play a key role in the generation of future energy supplies. As great importance is ascribed to reach the energy turnaround, power generation in offshore wind farms has high potential due to high average wind speeds on the open sea. Up to now, two test wind energy plants and a test wind farm, as a joint venture of several companies, have been installed in the North Sea as well as a first commercial wind farm that is partly connected to the electricity grid. As far as the installation of the wind farms is concerned logistic processes and the related costs play a vital role. According to expert opinion, the logistic services represent a major proportion (25-30%) of the total costs of the installation costs of offshore wind farms.



The research project Mon²Sea deals with the setup and the resulting organisational challenges of the complex supply chain of the offshore wind industry. The main challenge is to create transparency and reliability through the entire logistics network, although the involved companies have almost no empirical values based on past experience. A planning approach that is taking current weather conditions and the situation on construction site into account is used to improve site and installation planning. The integration of weather forecasts in site and installation planning is a relatively new approach in the field of logistics. In summary, a multi order planning and scheduling methodology is developed that optimises the use of required resources and material supplies. Moreover, the developed methodology offers a compromise between planning certainty and resource efficiency that makes the risks of the offshore wind industry manageable, even if empirical values are missing.

At the moment, specifications for the advised monitoring and control tool are established by the project partners in the Mon²Sea project. This includes the research scientists of the BIBA as well as industrial partners from the field of logistic services and construction of offshore wind turbines. The developed communication tool will provide detailed real-time status information of individual building components that is generated by applied information and communication technology. Furthermore, as a part of the project the research scientists at BIBA developed a planning and simulation software that enables the structuring of future offshore wind farm projects.

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Intermodal Transport in Europe – Fostering Cooperation of Regional Clusters



The LogDynamics Cluster participates in the INTRAREGIO project: „Towards an Intermodal Transport Network through innovative research-driven clusters in Regions of organised and competitive knowledge”. The three years project is being funded by the EU in 7th Framework Programme and has shortly been kicked-off.

The INTRAREGIO is a Coordination Action that aims to enhance the integration process and the capacity of the five European regions Canary Islands (ES), Bremen (DE), Marmara (TR), Calabria (IT) and Ruse (BG) towards their development of regional RTD and economic policies and research strategies related to transport concerns, in particular to intermodal freight and passenger transport. Through mutual learning processes and collaborative relationships among regional research-driven clusters, represented by 18 partners coming from governmental, research and industrial side, a transnational strategy will be established, directed at developing the take up of innovative measures that spin towards new collaboration among regional players and address as a joint force transport-related issues.

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The University of Bremen Awarded „University of Excellence“

The University's place at the top of the league of Germany's most excellent university institutions has been confirmed. The University of Bremen succeeded with the proposal "Ambitious und Agile" in the third funding line "Future Concepts". The university presented future development plans: the medium-scale German university wishes to establish itself permanently at the national and international top with six main research areas; logistics is one of them. At the same time, little, creative research groups would receive the possibility of answering pressing science questions of the present, with free space for scientific curiosity.



To add to the joy over the University being awarded the status "University of Excellence" came the news that two other areas receive prolongation of substantial additional funding: The Excellence Cluster in the Marine Sciences "The Ocean in the Earth System - MARUM" and the graduate school "Bremen International Graduate School of Social Sciences" (BIGSSS). For the next five years the Excellence Initiative will fund the Excellence

Cluster with a sum totaling 39 Million Euro and round 9 Million Euro for the Graduate School. BIGSSS is a joint project of the University of Bremen and Jacobs University Bremen and is proof of the functioning cooperation between the two universities.

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IGS Doctoral Students as Ambassadors of the German-Korean Cooperation

Two IGS doctoral students participated in a scientific exchange with the Pusan National University and spent three months in the period from January to April 2012 in Busan, South Korea.

Javier Palafox was guest at the Data Base Lab headed by Prof. Bonghee Hong. Javier's research activity comprised acquisition of temperature and humidity datasets in a refrigerated container, temperature and humidity variogramms fitting, T-H cross-variogram fitting and co-kriging simulations. Chanaka Lloyd conducted research at the Network Systems Lab, Faculty Engineering with Prof. Sang-Hwa Chung. Chanaka's main research activities regarded OpenTag DASH7 protocol stack programming and self-powered active RFID tag design - complete A-Z design with antenna.

An ongoing cooperation between Germany and Korea is also favored by the fact that Sanghuyk Yi, a scientist from Korea, received an IGS-grant and is doing his PhD-studies in Production Engineering at the University of Bremen since autumn 2011.

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Events

Call for Participation LOGMS – Second International Conference on Logistics and Maritime Systems



Date: **22. – 24. August 2012**

Venue: Universität Bremen, **Bremen**

The second International Conference on Logistics and Maritime Systems will take place from 22nd to 24th August 2012 in Bremen. The objective is to provide a forum for exchanging ideas on the latest developments in the field of logistics and maritime systems among participants from universities and related industries, and to seek opportunities for collaboration among the participants. Logistics activities worldwide have been rapidly increasing. As a result, global freight networks are emerging which combine maritime transport, inland waterways and onshore road and rail transportation systems.

The first conference of this series took place in Busan, Korea in 2010 integrating various predecessor conferences like the International Conference on Intelligent Logistics Systems (IILS), held in Busan, Korea (2005), Brisbane, Australia (2006), Kitakyushu, Japan (2007), Shanghai, China (2008), and Gold Coast, Australia (2009), and the Supply Chain Management (MLOG) conference held in Singapore (2008).

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Details and Programme: www.logms2012.uni-bremen.de

Registration: www.logms2012.uni-bremen.de/reg.html

Log Dynamics on the 29th German Logistics Congress

Date: **17. – 19. October 2012**

Venue: **Berlin**

The 29th German Logistics Congress of Bundesvereinigung Logistik (BVL) themed " Networks of Excellence" will be held from 17th to 19th of October in Berlin. A fundamental idea behind the German Logistics Congress was and is to disseminate logistics knowledge of experts to the general public. Since 1985 the congress is also accompanied by a trade exhibition.

The Bremen Research Cluster for Dynamics in Logistics will again demonstrate innovative solutions for the logistics sector in the exhibition. The highlight at this year's booth is the model of a sea port terminal: tracking and tracing cars in the transshipment process from the vessels to the trucks. During the whole process the vehicles will be identified by using RFID-technology. Based on the RFID-technology event messages will be generated and shared with all relevant partners in the process chain. The demonstrator was developed within the RAN (RFID-based Automotive Network) project. The goal of the whole project is to create better transparency in the supply chains of the automotive industry.

All interested participants of the conference are warmly invited to visit us at the **Log Dynamics booth** number 22 in the Pavillon (**PV/22**).

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HWK Symposium „Material Life Cycles for Wind Energy”

From 19th to 20th of June 2012 the Symposium “Sustainable Material Life Cycles for Wind Energy – is Wind Energy really sustainable?” took place in the Hanse-Wissenschaftskolleg in Delmenhorst. The approximately 40 participants discussed in a relaxed atmosphere topics from various areas of the Material Life Cycles with regard to Wind Energy. Participants came from different countries and work areas, thereby it was possible to get new insights and suggestions. At the first day the Keynote Speaker Jeetendra Bisht from the company Suzlon Energy Ltd, India and the Keynote Speaker Athanasia Arapogianni from the EWEA, Brussels, at the second day gave some insight information on the market situation. Thus the participants could compare the European and the Indian market. Further sessions focused on topics like sustainability, Life Cycles (included Recycling), logistics and rotor blades. One of the main topics in logistics was the synchronization of material and information flows in the logistic network of Offshore wind energy. The Symposium - organised by Dr.-Ing. Alexandra Pehlken, Universität Bremen, and Dipl.-Wirt. Inform. Andreas Solsbach, Carl von Ossietzky Universität Oldenburg - included two days workshops and research and projects from practice. The symposium was supported funded by ForWind (Institut for wind energy research) and the Hanse-Wissenschaftskolleg in Delmenhorst.



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Details: www.radiobremen.de/nordwestradio/sendungen/nordwestradio_journal/windrad-holz100.html

Advanced Notice: Conference Logistics Management 2013

Date: **11. - 13. September 2013**

Venue: **Bremen**

The scientific conference "Logistics Management 2013: Markets - Products - Players - Technologies" will take place from 11th – 13th of September 2013 at the University of Bremen. The conference addresses scientists and practice representatives who work on current and future challenges in logistics. This will offer a framework for the exchange of concepts and potential solutions for an efficient and sustainable dealing with the variety of current and future tasks in logistics. All interested scientists are invited to contribute to the conference program with the organization of one or more "Special Interest Sessions".

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