Preliminary Conference Programme

Monday, August 27th, 2007

19.00 Get-Together at the LogDynamics Lab (BIBA)

- Pre-Registration
- LogDynamics Lab: RFID Demonstrations
- Collaborative Research Centre 637: Poster Exhibitions
- International Graduate School for Dynamics in Logistics: Poster Exhibitions

Tuesday, August 28th, 2007

09:00 Welcome Coffee and Registration

09:30 Opening Session

Introduction to the Bremen Research Cluster for Dynamics in Logistics
Bernd Scholz-Reiter
University of Bremen

10:00 Invited Speaker

Challenges in Design, Implementation and Operation of Heterarchical Controls for Dynamic Logistical Systems
Neil A. Duffie
University of Wisconsin-Madison, USA

11:00 Coffee Break

11:30 General Session - General Aspects of Dynamics in Logistics

Review of Trends in Logistic Networks and Supply Chain Evaluation
Paul G. Maropoulos, M. Chauve, C. Da Cunha
University of Bath, United Kingdom

Dynamic Data Mining for Improved Forecasting in Logistics and Supply Chain Management
Jose Guajardo, Richard Weber
University of Chile, Republic of Chile

Introducing Bounded Rationality into Self-organization-based Semiconductor Manufacturing
Tomomi Kito, Kanji Ueda
University of Tokyo, Japan

13:00 Lunch

14:00 Parallel Sessions

Session 1 - **Routing in Dynamic Logistics Networks**

Travel Time Estimation and Deadlock-free Routing of an AGV
Hyo Young Bae, Ri Choe, Taejin Park, Kwang Ryu
Pusan National University, Republic of Korea

Integration of Routing and Resource Allocation in Dynamic Logistic Networks
Thomas Huth, Dirk Mattfeld
Technical University Braunschweig, Germany

Dynamic Vehicle Routing with Drivers' Working Hours
Asvin Goel
Zaragoza Logistics Center, Espania

Session 2 - **RFID in Logistics and Manufacturing Networks**

A Survey of RFID Awareness and Use in the UK Logistics Industry
Johann c.k.h Riedel; Kulwant S Pawar; Stefano Torroni; Emilio Ferrari
Centre for Concurrent Enterprise, Nottingham, UK; Department of Mechanical, Metallurgical Engineering (DIEM), University of Bologna, Italy

RFID-based Intelligent Logistics for Distributed Production Networks
Alexander Smirnov, Tatiana Levashova, Nikolay Shilov
St.Petersburg Institute for Informatics and Automation of RAS, Russian Federation

Methodology for Development and Objective Comparison of Architectures for Networked RFID
Béla Pátkai, Mark Harrison, Duncan McFarlane
University of Cambridge, United Kingdom

15:30 Coffee Break

16:00 Parallel Sessions

Session 3 - **Supply Chain Control Policies**

Determining Optimal Control Policies for Supply Networks under Uncertainty
Marco Laumanns
ETH Zurich, Switzerland

Adaptive Production and Inventory Control in Supply Chains against Changing Demand Uncertainty
Markus Zschintzsch, Amir Sheikh Jabbari (Iran), Walter Lang, Bernd Scholz-Reiter
University of Bremen, Germany

A Framework of Adaptive Control for Complex Production and Logistics Networks
Dimitri Ivanov, Marina Ivanova
University St. Petersburg, Russian Federation

Mechanisms of Instability in Small-scale Manufacturing Networks
Reik Donner, Uwe Hinrichs, Bernd Scholz-Reiter
Dresden University of Technology, BIBA IPS, Germany

Session 4 - **Decentralized Decision-making in Supply Chains**

Aspects of Agent Based Planning in the Demand Driven Railcab Scenario
Wilhelm Dangelmaier, Benjamin Klöpper, Nando Rüngerer, and Mark Aufenanger^
Heinz Nixdorf Institute, Germany

Merging Time of Random Mobile Agents
Shehla Abbas, Mohamed Mosbah, Akka Zemmari
University Bordeaux, France

Dynamic Decision-making on Embedded Platforms in Transport Logistics
Reiner Jedermann, Luis Javier-Antûnez Congil (Spain), Martin Lorenz (Austria), Jan D. Gehrke, Walter Lang, Otthein Herzog
University of Bremen, Germany

19:00 Senate's Reception at the City Hall of Bremen

www.ldic.org

9:30 **Special Session - The Global RF Lab Alliance: Research and Applications**

Invited Speaker

Operational Improvements with RFID: Making the Business Case for RFID
Bill C. Hardgrave
RFID Research Center, University of Arkansas, USA

10:30 The Value of RF-based Information
Dieter Uckelmann
LogDynamics Lab, University of Bremen, Germany

11:00 Coffee Break

11:30 Reengineering and Simulation of an RFID Manufacturing System
Antonio Rizzi, Roberto Montanari, Andrea Volpi, Massioma Tizzi
University of Parma, Italy

LIT Middleware: Design and Implementation of RFID Middleware Based on the EPC Network Architecture
Ashad Kabir, Bonghee Hong, Wooseok Ryu, Sungwoo Ahn
Pusan National University, Republic of Korea

Shelf Life Prediction by Intelligent RFID - Technical Limits of Model Accuracy
Reiner Jedermann, Jean-Pierre Emond, Walter Lang
Institute for Microsensors, -actuators and –systems, Germany, UF/IFAS Center for Food Distribution and Retailing, University of Florida, USA

13:00 Lunch

14:00 Parallel Sessions

Session 5 - **Sustainable Collaboration**

Effects of Autonomous Cooperation on the Robustness of International Supply Networks
Michael Hülsmann, Bernd Scholz-Reiter, Christoph de Beer, Linda Austerschulte
University of Bremen, Germany

Sustainability and Effectiveness in Global Supply Chains
Bernd Scholz-Reiter, Enzo Morosini Frazzon (Brazil)
University of Bremen, Germany

Risk Management in Dynamic Logistic Systems by Agent Based Autonomous Objects
Boris Bemeleit, Martin Lorenz (Austria), Jens Schumacher, Otthein Herzog
University of Bremen, Germany, University of Applied Sciences Vorarlberg, Austria

Session 6 - **Knowledge Management in Logistics**

Knowledge Management in Logistic Networks
Hans-Dietrich Haasis
ISL, Germany

Knowledge Management in Food Supply Chains
Bernd Scholz-Reiter, Salima Delhoum (Algeria), César Stoll (Peru)^
University of Bremen, Germany

Service Models for Logistic Providers

Service Models for Small Sized Logistics Service Provider – A Case Study from Finland
Jukka Hemilä
VTT Technical Research Centre of Finnland

16.00 Visit to Bremenports (www.bremenports.de)

19:00 Conference Dinner

09:00 Parallel Sessions

Session 7 - **Container Logistics**

Framework for Integrating Planning Activities in Container Terminals
Seung Hwan Won, Kap Hwan Kim
Pusan National University, Republic of Korea

Electronic Seals for Efficient Container Logistics
Bernd Scholz-Reiter, Kateryna Daschkovska (Ukraine)
University of Bremen, Germany

Towards Autonomous Logistics: Conceptual, Spatial, and Temporal Criteria for Container Cooperation
Arne Schuldt, Sven Werner
University of Bremen, Germany

Distributed Process Control by Smart Containers
Jan Behrens, René Schumann, Türk Kiziltoprak, Dennis Ommen, Axel Hahn
University Oldenburg, Germany

Session 8 - **Autonomous Control in Logistics**

Autonomous Units for Communication-based Dynamic Scheduling
Karsten Hölscher, Peter Knirsch, Melanie Luderer
University of Bremen, Germany

Autonomously Controlled Adaptation of Formal Decision Models – Comparison of Generic Approaches
Jörn Schönberger, Herbert Kopfer
University of Bremen, Germany

Clustering in Autonomous Cooperating Logistic Processes
Gulshanara Singh (India), Bernd-Ludwig Wenning, Carmelita Görg
University of Bremen, Germany

Application of Small Gain Type Theorems in Logistics of Autonomous Processes
Sergey Dashkovskiy (Ukraine), Björn Rüffer, Fabian Wirth
University of Bremen, Germany

11.00 Coffee Break

11:30 Parallel Sessions

Session 9 - **Next Generation Supply Chain Concepts**

Web-service Based Integration of Multi-organizational Logistic Process
Hyerim Bae
Pusan National University, Republic of Korea

An Approach for Integration of Data within Complex Logistics Systems
Carl Hans, Klaus-Dieter Thoben, Karl Hribernik
University of Bremen, Germany

SCEM - Supply Chain Event Mangement
Wolfgang Stölzle, Jörg Hofstetter, Rebekka Sputtek, Phillip Kirst
University of St. Gallen, Switzerland

Supply Chain Event Management in Rail Traffic
Frank Arendt
ISL, Germany

Session 10 - **Logistic Processes Modelling**

Bio-analogue Autonomous Control Strategies in Production Logistics
Bernd Scholz-Reiter, Thomas Jagalski, Julia Christine Bendul
University of Bremen, Germany

Proof Principles for Process Algebra – CSP-Prover in Practice
Yoshinao Isobe, Markus Roggenbach
National Institute of Advanced Industrial Science and Technology, Japan
University of Wales Swansea, United Kingdom

Application of Markov Drift Processes to Logistical Systems Modeling
Mykhaylo Postan
Odessa National Maritime University, Ukraine

Analysis of Decentral Order-picking Control Concepts
Thorsten Schmidt, Guido Follert
University of Dortmund, Germany

13:30 Farewell Lunch