# LOGMS 2010

*International Conference on Logistics and Maritime Systems*
*September 15th-17th, 2010, Busan, KOREA*

# Welcome Address 1

**Sung-Jin Kim**

Dear Participants,

I am pleased to welcome you to the 2010 International Conference on Logistics and Maritime Systems (LOGMS), held in one of the most beautiful harbor cities in the world.

Globalization of the world economy has remarkably boosted trade volume, resulting in a paradigm shift in logistics and maritime systems. As such, the logistics industry is being recognized as a new growth engine at the forefront of value added and job creation. International logistics and maritime systems have come to play an important role in both industrialized and developing economies.

Meanwhile, as the weight of logistics cost in the total manufacturing cost has been steadily increasing, reducing the logistics portion of the cost has become a key challenge for most global companies.

Against this backdrop, I find it particularly meaningful that experts from the academia, business community, government, and relevant areas have gathered here from 18 countries to build networks and exchange the latest information, technology, and expert knowledge.

I wish this conference becomes a platform for deeper friendships and ever greater contributions to the international logistics industry.

I would like to appreciate all the members of the organizing committee and all the sponsors for their supports. I would like to say 'thank you' to all participants and wish all of you have a fruitful, informative and enjoyable time at this conference.

Thank you.

Sung-Jin Kim

Honorary Chair of LOGMS 2010 and President of Hankyong National University

# Welcome Address 2

**Eun-Young Choi**

Dear Participants,

It gives me a great pleasure to welcome you to the 2010 International Conference on Logistics and Maritime Systems (LOGMS). Moreover, it is our honor to become the first organizer of LOGMS which is a newly launching international meeting by integrating the International Conference on Intelligent Logistics Systems (IILS) and The International Symposium on Maritime Logistics and Supply Chain Management (MLOG).

As a result of rapidly growing economic activities in Northeastern Asia, this area has become to have the highest transportation volume in the world. It is meaningful to have this maritime research conference in Busan which has been playing a key role as a logistics hub in Northeastern Asia. During this conference, I hope that you have a chance to feel the strong rhythm of heartbeats of logistics activities in Busan. Especially, the industrial tour in the program will give you a good chance to contact the recent improvements of Busan Port.

I hope that this conference becomes a useful opportunity for researchers to exchange a lot of interesting and new ideas on the latest developments in the field of logistics and maritime systems. Finally, I would like to appreciate organizing members of this conference for their efforts to make this conference successful. I also wish to thank all the participants and their contribution to this conference. I look forward to your fruitful discussions during this conference and wish you pleasant stay in this beautiful city.

Eun-Young Choi

Honorary Chair of LOGMS and Chief Director of Yanghyun Foundation

# Congratulatory Address

**Inn Se Kim**

Dear Participants,

I offer my congratulations to Yanghyun Foundation and the Institute of Logistics Innovation and Networking at Pusan National University on their successful opening of this significant international conference with researchers, companies, and institutions in the field of port, maritime transports and logistics from around ten countries including the United States and Germany.

I would like to express my hearty welcome to the scholars and experts from our nation and abroad who visited Busan to attend at this conference. Including President Sung-Jin Kim of Hankyong National University, President Eun-Young Choi of Yang Hyun Foundation, and Professor Michael G. H. Bell from Imperial College London in the United Kingdom, Professor Herbert Kopfer from the University of Bremen in Germany, and President Jang-Rim Choi of Cyber Logitec Co., Ltd. who will deliver the keynote speeches, I would like thank all the participants who will present their excellent research works. Today, the environment of logistics industries is changing rapidly. As the results of a dramatic growth of the economy in Northeastern Asia, commercial traffic has greatly increased in the region. In addition, the operation methods in logistics industries such as applications of information and automation technologies are being diversified. These circumstances are producing lots of new tasks to be solved by researchers of logistics.

I believe that this conference will be a perfect venue where we can understand the latest information and international trend and share special knowledge in port, maritime transports and logistics. Especially, it will help our industries with the development of technology by introducing the advanced technologies from abroad. I also believe that it will contribute to organizing an international network for the system of international collaboration.

Through this conference, we can establish a concrete channel for exchanging ideas among related researchers and lead to development of logistics industries with the benchmarking of the advanced technologies from different countries. I hope that all of you maintain and develop the academic and personal relationships you created at this conference.

I want to thank Professor Kap-hwan Kim, Director of the Institute of Logistics Innovation and Networking, and everyone involved in organizing this conference. I also appreciate Cyber Logitec Co. Ltd. and Total Soft Bank Co. Ltd. for their generous support to this conference. I wish an everlasting prosperity to Yanghyun Foundation and the Institute of Logistics Innovation and Networking and wish all of you a happy and healthy life. Thank you.

Inn Se Kim

President of Pusan National University

# Message from General Chair

**Kap Hwan Kim**

I would like to offer a very warm welcome to all the participants at the 2010 International Conference on Logistics and Maritime Systems (LOGMS 2010) and I am expecting you will have a rewarding time at this conference and most enjoyable stay in Busan. I hope this conference will provide all the global family of logistics and maritime professional with a good opportunity to share and exchange new ideas and visions. An important outcome of this conference will be the sharing ideas on the future trends and visions of logistic and maritime systems. Based on the visions, we may be able to explore promising research issues for researchers. Moreover, this conference will provide a good opportunity to globalize the network of researchers in the logistics and maritime society.

Today, as the worldwide economic situation become to be more interconnected, uncertain, and dynamic, traditional approaches to the logistics and maritime management no longer suffices. Considering the increasing importance of the Northeastern Asia in the global trade, it seems to be timely to have an international meeting to discuss various technologies related to logistics and maritime systems in Busan. I hope this conference will provide a good opportunity not only to discuss your research results but also experience various efforts in Korea to improve practices of maritime and port industries.

Finally, I would like to thank all the authors and speakers from many countries, the chairs of various committees and sessions of LOGMS 2010, members of the international advisory committee. Last but not least, I would like to thank Yanghyun Foundation, Korean Institute of Industrial Engineers, Korean Society of Supply Chain Management, and sponsors for their strong supports. I wish your pleasant stay in this beautiful city.

Kap Hwan Kim

Chair of the Organizing Committee

# ORGANIZER

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| Eun-Young Choi | Yanghyun Foundation, Korea |

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ORGANIZER

# Master Schedule of LOGMS 2010

## ▶ Day 1 – Sep. 15 (Wed) 2010

| | | | | |
|---|---|---|---|---|
| 08:30-09:00 | Registration | | | |
| 09:00-10:20 | Technical Session A1<br>SCM 1<br>(Camellia, 5F) | Technical Session A2<br>Inventory and Production<br>(Azalea & Lilac, 5F) | Technical Session A3<br>Seaport and Transportation 1<br>(Iris, 4F) | Technical Session A4<br>VRP<br>(Grand Ballroom, 5F) |
| 10:20-10:30 | Coffee Break | | | |
| 10:30-12:20 | Opening Ceremony (Grand Ballroom, 5F)<br>Keynote Speech<br>Professor Michael G. H. Bell (Imperial College London, United Kingdom) / Professor Herbert Kopfer (University of Bremen, Germany)<br>President Jang-Rim Choi (CyberLogitec Co., Ltd., Korea)<br>Welcome Address<br>President Sung-Jin Kim (Hankyong National University, Korea) / President Eun-Young Choi (Yanghyun Foundation, Korea)<br>Congratulatory Address<br>President Inn-Se Kim (Pusan National University, Korea) | | | |
| 12:20-13:20 | Lunch (Ballroom C, 5F) | | | |
| 13:20-14:40 | Technical Session B1<br>SCM 2<br>(Camellia, 5F) | Technical Session B2<br>Design & Operation 1<br>(Azalea & Lilac, 5F) | Technical Session B3<br>Seaport and Transportation 2<br>(Iris, 4F) | Technical Session B4<br>Shipping<br>(Grand Ballroom, 5F) |
| 14:40-15:00 | Coffee Break | | | |
| 15:00-16:20 | Technical Session C1<br>SCM 3<br>(Camellia, 5F) | Technical Session C2<br>Design & Operation 2<br>(Azalea & Lilac, 5F) | Technical Session C3<br>Seaport and Transportation 3<br>(Iris, 4F) | Technical Session C4<br>Maritime 1<br>(Grand Ballroom, 5F) |
| 16:20-16:40 | Coffee Break | | | |
| 16:40-18:00 | Technical Session D1<br>SCM 4<br>(Camellia, 5F) | Technical Session D2<br>Design & Operation 3<br>(Azalea & Lilac, 5F) | Technical Session D3<br>Seaport and Transportation 4<br>(Iris, 4F) | Technical Session D4<br>Maritime 2<br>(Grand Ballroom, 5F) |
| 19:00-21:00 | Banquet (Grand Ballroom, 5F) | | | |

## ▶ Day 2 – Sep. 16 (Thu) 2010

| | | | | | |
|---|---|---|---|---|---|
| 08:30-09:00 | Registration | | | | |
| 09:00-10:20 | Technical Session E1<br>Simulation<br>(Camellia, 5F) | Technical Session E2<br>Business Process Management for Logistics<br>(Azalea & Lilac, 5F) | Technical Session E3<br>Seaport and Transportation 5<br>(Iris, 4F) | 09:00-09:50<br><br>09:50-10:30 | Industrial Session E4<br>Professor Sonke Hartmann<br>(Hamburg School of Business Administration, Germany)<br>President Jang-Rim Choi<br>(CyberLogitec Co., Ltd.)<br>(Grand Ballroom, 5F) |
| 10:20-10:40 | Coffee Break | | | 10:30-10:50 | Coffee Break |
| 10:40-12:00 | Technical Session F1<br>SCM 5<br>(Camellia, 5F) | Technical Session F2<br>IT<br>(Azalea & Lilac, 5F) | Technical Session F3<br>Seaport and Transportation 6<br>(Iris, 4F) | 10:50-11:40<br><br>11:40-12:20 | Industrial Session F4<br>Mr. Daniel Pagac<br>(Patrick Technology and Systems, Australia),<br>Dr. Byung-Ho Kang<br>(Total Soft Bank Ltd.)<br>(Grand Ballroom, 5F) |
| 12:00-13:00 | Lunch (Ballroom C, 5F) | | | | |
| 13:00-14:20 | Technical Session G1<br>SCM 6<br>(Camellia, 5F) | Technical Session G2<br>Intermodal<br>(Azalea & Lilac, 5F) | Technical Session G3<br>Seaport and Transportation 7<br>(Iris, 4F) | | |
| 14:20-14:40 | Coffee Break | | | | |
| 14:40-16:00 | Technical Session H1<br>SCM 7<br>(Camellia, 5F) | Technical Session H2<br>Scheduling 1<br>(Azalea & Lilac, 5F) | Technical Session H3<br>Seaport and Transportation 8<br>(Iris, 4F) | Invited Speech<br>Dr. Mitsuo Gen (Fuzzy Logic Systems Institute, Japan)<br>Professor Erhan Kozan<br>(Queensland University of Technology, Australia)<br>(Ballroom C, 5F) | |
| 16:00-16:20 | Coffee Break | | | | |
| 16:20-17:40 | Technical Session I1<br>Empty Container<br>(Camellia, 5F) | Technical Session I2<br>Scheduling 2<br>(Azalea & Lilac, 5F) | Technical Session I3<br>Seaport and Transportation 9<br>(Iris, 4F) | Invited Speech<br>Professor Loon Ching Tang<br>(National University of Singapore, Singapore)<br>(Ballroom C, 5F) | |

If you want to see the full paper, click the title of the paper.

# LOGMS 2010 Proceedings

| Day 1-Sep.15(Wed) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 09:00-10:20 | A1: SCM Ⅰ<br>Chair: Milorad Vidović | A1.1 | Afshin Mehrsai, Michael Teucke, Bernd Scholz-Reiter | Coordination of a Push-Pull Principle Logistics Network by Optimizing Material-Pull; Applying Genetic Algorithm | Germany |
| | | A1.2 | Milorad Vidović, Dražen Popović | Mip Model and Heuristics for Inventory Routing Problem in Fuel Delivery | Serbia |
| | | A1.3 | Dongwon Cho, Young Hae Lee | Quantifying the Bullwhip Effect in a Seasonal Supply Chain with Stochastic Lead Time | Korea |
| | A2: Inventory and Production<br>Chair: Roel G. van Anholt | A2.1 | Roel G. van Anholt, Iris F.A. Vis | An Integrative Online ATM Forecasting and Replenishment Model with a Target Fill Rate | Netherlands |
| | | A2.2 | Bernd Scholz-Reiter, Jens Heger, Torsten Hildebrandt, Daniel Rippel | Towards Advanced Learning in Dispatching Rule-based Scheduling | Germany |
| | | A2.3 | Jakub Piotrowski, Bernd Scholz-Reiter | Approaches for Realization of Autonomous Logistics in Practice | Germany |
| | A3: Seaport and Transportation Ⅰ<br>Chair: Won Young Yun | A3.1 | Sang-Hei Choi, Seung Hwan Won, Chulung Lee | Comparison of Alternative Ship-to-yard Vehicles with the Consideration of the Batch Process of Quay Cranes | Korea |
| | | A3.2 | Joerg Wiese, Leena Suhl, Natalia Kliewer | Planning Storage Yard Layouts of Container Terminals | Germany |
| | | A3.3 | Nils Kemme | Simulation Analysis of Crane Deployment Strategies for Automated Rail-Mounted-Gantry Crane Systems | Germany |
| | A4: VRP<br>Chair: Shiwoo Lee | A4.1 | Natthapong Nanthasamroeng, Rapeepan Pitakaso | Iterated Local Search for Multi-criteria and Multi-stage Location Allocation Problem | Thailand |
| | | A4.2 | Won-Young Yun, Wen-Fei Wang | A Hybrid SA Algorithm for Inland Container Transportation | Korea |
| | | A4.3 | Kyoung C. Kim, Shiwoo Lee | Hierarchical Approach to Vehicle Routing Problem for Delivery and Installation | Korea |

If you want to see the full paper, click the title of the paper.

| Day 1-Sep.15(Wed) | | | | |
|---|---|---|---|---|
| 10:30-12:20 | | **Opening Ceremony**<br>(Grand Ballroom) | | |
| | Keynote Speech<br>Chair: Kap Hwan Kim | | Michael G. H. Bell | Future for the Automation of Container Terminals | United Kingdom |
| | | | Herbert Kopfer | Trends in Operational Tranportation Planning for Road Carriage: Problems to be Solved | Germany |
| | | | Jang-Rim Choi | The Development of Maritime Logistics | Korea |
| | Welcome Address/<br>Congratulatory Address<br>Chair: Kap Hwan Kim | President Sung-Jin Kim (Hankyong National University, Korea)<br>President Eun-Young Choi (Yang Hyun Foundation, Korea)<br>President Inn-Se Kim (Pusan National University, Korea) | | |

If you want to see the full paper, click the title of the paper.

| Day 1-Sep.15(Wed) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 13:20-14:40 | B1: SCM Ⅱ<br>Chair: Marcel W. Ludema | B1.1 | Duangpun Kritchanchai, Sineenart Krichanchai | Challenges of Healthcare Supply Chain Improvement in Thailand | Thailand |
| | | B1.2 | Marcel W. Ludema | Supply Chain Engineering; a System of Systems Perspective | Netherlands |
| | | B1.3 | Mithun J Sharma, Yu Song Jin | Optimizing Critical Suppliers in the Deployment of a Lean Supply Chain | India |
| | B2: Design & Operation Ⅰ<br>Chair: Loo Hay Lee | B2.1 | Jonghoe Kim, James R. Morrison | Identification of Economically Promising Port Architectures via Enumeration and Capacity Evaluation | Korea |
| | | B2.2 | Zhuo Sun, Kok Choon Tan, Loo Hay Lee, Ek Peng Chew | A Simulation Framework for Mega-sized Container Terminals | Singapore |
| | | B2.3 | Byung-Hyun Ha, Byung Cheon Choi | An Optimal Algorithm for Single Yard Crane Scheduling | Korea |
| | | B2.4 | Yi Ding , GuoLong Lin, Yanping Meng | An Expert System Based on Multi-Reasoning Mechanism for Port Machine Diagnosis | China |
| | B3: Seaport and Transportation Ⅱ<br>Chair: Chulung Lee | B3.1 | Young Jin Han, Quang Vinh Dang, Won Young Yun | Repositioning Empty Containers in Surplus Area | Korea |
| | | B3.2 | Ki-Sung Hong, Chulung Lee | Optimal Pricing and Guaranteed Lead Time with Consideration of Lateness Penalties | Korea |
| | | B3.3 | Branislav Dragović, Dong-Keun Ryoo, Nam Kyu Park, Romeo Meštrović | Analytical and Simulation Approaches of Ship Traffic Modeling | Montenegro |
| | | B3.4 | Jaehun Park, Hyerim Bae, Sungmook Lim, Loohay Lee | Selection of Benchmark Targets using DEA Considering Direction and Unit Similarity | Korea |
| | B4: Shipping<br>Chair: Hwa-Joong Kim | B4.1 | Shuaian Wang, Qiang Meng | Liner Shipping Fleet Deployment with Cargo Transshipment and Demand Uncertainty | Singapore |
| | | B4.2 | Hwa-Joong Kim, Kwang-Tae Kim, Dong-Sik Park, Hyo-Jeong Kim, Young-Tae Chang | A Solution Algorithm for Green Fuel Management of a Ship | Korea |
| | | B4.3 | Nenad Bjelić, Milorad Vidović, Katarina Vukadinović | Allocation of Handling Devices for Barges Unloading | Serbia |
| | | B4.4 | Zhishuang Yao, Szu Hui Ng, Loo Hay Lee | A Study on the Planning of Liner Ship Service with Ship Speed and Bunkering Port Considerations | Singapore |

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| Day 1-Sep.15(Wed) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 15:00-16:20 | C1: SCM Ⅲ<br>Chair: Bongju Jeong | C1.1 | Matthias Kannegiesser, Hans-Otto Günther, D. Otten | Global Supply Chain Sustainability in the Consumer Goods Industry | Germany |
| | | C1.2 | Seungbae Sim, Jisoo Oh, Bongju Jeong | Greenhouse Gas Emissions for the Transportation Sector in Korea | Korea |
| | | C1.3 | Susanne Wruck, Iris F.A. Vis, Jaap Boter | Batching Management in Warehouses for Companies with High Return Flows - Design and Categorization of Models and Approaches | Netherlands |
| | C2: Design & Operation Ⅱ<br>Chair: Amir Hossein Gharehgozli | C2.1 | Lu Zhen, Loo Hay Lee, Ek Peng Chew | Design Methodology for a New Type of Automated Container Terminal | Singapore |
| | | C2.2 | Amir Hossein Gharehgozli, Yugang Yu, Rene de Koster, Jan Tijmen Udding | Sequencing Container Storages and Retrievals | Netherlands |
| | | C2.3 | Lu Chen, André Langevin | An Iterative Search Algorithm for Load Scheduling and Storage Allocation in a Maritime Container Terminal | China |
| | | C2.4 | Dong-Won Jang, Kap Hwan Kim | Optimizing Bay Dimension in Mixed Pyramid Stacking Storage Systems | Korea |
| | C3:Seaport and Transportation Ⅲ<br>Chair: Hans-Dietrich Haasis | C3.1 | Byung Soo Kim, Woon Seek Lee | A Multi-product Dynamic Inbound Ordering and Shipment Scheduling Problem at a Third-party Warehouse | Korea |
| | | C3.2 | Marco Lewandowski, Bernd Scholz-Reiter | A Framework for Systematic Design and Operation of Condition-Based Maintenance Systems: Evidence from a Case Study of Fleet Management at Sea Ports | Germany |
| | | C3.3 | Ki Ho Chung, Hyun Jeung Ko, Friska Natalia Ferdinand, Chang Seong Ko | Decision Making Model for Strategic Alliance of Service Centers and Consolidation Terminals in Express Courier Services | Korea |
| | | C3.4 | Hans-Dietrich Haasis | Seaport Container Terminal Services are Moving Inland – Challenges and Solutions | Germany |
| | C4: Maritime Ⅰ<br>Chair: Won Young Yun | C4.1 | Jiyeong Pak, Gitae Yeo | A Study on Selection Criteria of Green Port and Evaluation of Major Korean Port | Korea |
| | | C4.2 | Ann-Kathrin Pallasch, Jan Heitkötter, Bernd Scholz-Reiter | Innovative Transport System for Seaport Terminals - Ropeway for Marine Containers | Germany |
| | | C4.3 | Sufen Chen, Louie Nan Liu, Guoqing Liu | An Analysis of the Competition of Ports in Shanghai International Shipping Hub | China |
| | | C4.4 | Mu Han Mu, Guolong Lin, Bin Yang | Using DEA to Measure the Seaports Efficiency of China and Five Member Countries from ASEAN | China |

If you want to see the full paper, click the title of the paper.

| Day 1-Sep.15(Wed) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 16:40-18:00 | D1: SCM Ⅳ<br>Chair: Kwangyeol Ryu | D1.1 | Paul Childerhouse, Hyung Jun Ahn, Habin Lee, Wen Luo, Gottfried Vossen | Logistical Service Provider Triadic Relationships | New Zealand |
| | | D1.2 | Seungjin Oh, Kwangyeol Ryu, Hyunbo Cho, Mooyoung Jung | Production and Procurement Plans for the Diversification of Supply Network Risks | Korea |
| | | D1.3 | Frank Arendt, Nils Meyer-Larsen, Rainer Müller | Heading Towards Supply Chain Predictability and Security | Germany |
| | D2: Design & Operation Ⅲ<br>Chair: Gang Chen | D2.1 | Gang Chen, Zhongzhen Yang | Integrated Tactical Planning Problem in Marine Container Terminals | Denmark |
| | | D2.2 | Rommert Dekker, Sander van der Heide, Eelco van Asperen | A Chassis Exchange Terminal to Reduce Truck Congestion at Container Terminals | Netherlands |
| | | D2.3 | Xuejing Yang, Joyce M.W. Low, Loon Ching Tang | Goal Programming Approach for Port Captive Hinterland Analysis | Singapore |
| | | D2.4 | E. Zehendner, G. L. Rodriguez-Verjan, N. Absi, Stephane Dauzere-Peres, D. Feillet | Optimizing and Simulating Loading/Discharging Resource Allocation in a Multimodal Container Port Terminal | France |
| | D3: Seaport and Transportation Ⅳ<br>Chair: Stefan Voß | D3.1 | Robert Stahlbock, Stefan Voß | Empty Container Management – State of the Art | Germany |
| | | D3.2 | Shiwoo Lee, Weerakit Denkaew | Operating Yard Cranes over Storage Blocks to Minimize the Handling Time in a Container Yard | Korea |
| | | D3.3 | Christian Bierwirth, Frank Meisel | Scheduling Reshuffle Operations and Double Cycles on a Single Quay Crane | Germany |
| | | D3.4 | Hyung Rim Choi, Hyun Soo Kim, Soon Goo Hong, Min Je Cho, Ki Nam Choi, Chang Hyun Park, Byung Ha Lee, Jeong Soo Ha | Development of E-Marketplace System for Improving the Market Structure of Korean Overland Transportation | Korea |
| | D4: Maritime Ⅱ<br>Chair: Namkyu Park | D4.1 | Jovin Joseph Mwemezi, Youfang Huang | The Logistics of Facility Location on Spherical Surface | China |
| | | D4.2 | Namkyu Park, Chaekwan Lim, Branislav Dragović | Sensitivity Model of Transshipment Cargo by System Dynamics | Korea |
| | | D4.3 | Erpiani Siregar, Reni Meivayana, Sumarto, Nerli Haryani B, Jonny Zain, Mashur Siregar | Fishing Port in the Riau Province | Indonesia |
| | | D4.4 | Ralf Elbert, Roman Grig, Fabian Walter | Collaborative Planning: Interorganizational Planning Approach in the Maritime Transport Chain | Germany |

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| Day 2-Sep.16(Thu) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 09:00-10:20 | E1: Simulation<br>Chair: Taesik Lee | E1.1 | Matthew E. H. Petering, Katta Murty | Comparison of Real-Time Container Storage Location Assignment Strategies for Seaport Container Transshipment Terminals | USA |
| | | E1.2 | Te Xu, Seungsin Lee, Hyowon Suh | The Development of 3D Simulation Platform for Mobile Harbor Logistics and Opertation System | Korea |
| | | E1.3 | Woo-Sung Kim, Jong Hoe Kim, Hyoyoung Kim, Heyon Kwon, James R Morrison | Capacity and Queueing Evaluation of Port Systems with Offshore Container Unloading | Korea |
| | | E1.4 | Yanping Meng, Youfang Huang, Zhihua Hu, Bing Yang, Yi Ding | The Simulation Models and Technologies for Port Logistics based on Emergency Management | China |
| | E2: Business Process Management for Logistics Chair: Jaehyun Kong | E2.1 | Marcel W. Ludema, Jan J.T. de Vlieger | Towards Profitable Supply Chains by Means of the Innovation Profit Model | Netherlands |
| | | E2.2 | Jaehyun Kong, Hyerim Bae | A Context-Based Framework for Flexible Control of Business Process in Logistics Environments | Korea |
| | | E2.3 | Jeong-Hyun Park, Hoyon Kim, Byung-Chul Cha, Jong-Heung Park | Maintenance System of Mail Sorting Machine | Korea |
| | | E2.4 | Bernardo Nugroho Yahya and Hyerim Bae | Similarity Measurement for Logistic Processes | Korea |
| | E3: Seaport and Transportation V Chair: Frank Meisel | E3.1 | Frank Meisel, Christian Bierwirth | Benchmark Generation for Quay Crane Scheduling Problems | Germany |
| | | E3.2 | Duc Vu Nguyen, Kap Hwan Kim | Comparing Various Strategies for Transporter Pooling in Container Terminals | Korea |
| | | E3.3 | Rico Gujjula, Hans-Otto Günther | Storage Block Assignment for Import Containers in Automated Seaport Container Terminals | Germany |

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| Day 2-Sep.16(Thu) | | | | | |
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| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 10:40-12:00 | F1: SCM Ⅴ<br>Chair: Jirapan Liangrokapart | F1.1 | Chang Seong Ko, Eun Mi Yoon, Ki Ho Chung, Hyun Jeung Ko | Collaboration Based Reconfiguration of Package Service Network with Multiple Consolidation Terminals | Korea |
| | | F1.2 | Min Kwan Cho, Young Hae Lee | A Supply Chain Performance Measurement Using the Concept of Momentum | Korea |
| | | F1.3 | Jirapan Liangrokapart | Key Performance Indicators for Logistics and General Management of Manufacturers in Plastic Industry | Thailand |
| | | F1.4 | Kai Zheng, Yihong Ru, Ruijiang Wang, Yu Zhu | Benefits Analysis on Circular Construction Products Supply Chain：Case Study in Beijing | China |
| | F2: IT<br>Chair: Bonghee Hong | F2.1 | Que Son Vo, Bernd-Ludwig Wenning, Carmelita Görg, Andreas Timm-Giel | Enhanced Intelligence of Wireless Sensor and Actuator Networks in Logistics by Application of Context-Awareness | Germany |
| | | F2.2 | Yongxu Piao, Wooseok Ryu, Bonghee Hong | Index Construction for RFID Sensor Tag Data in RFID Middleware | Korea |
| | | F2.3 | Hae Kyung Lee, Taioun Kim | Agent-based Control Architecture to Improve the Performance of RFID | Korea |
| | F3: Seaport and Transportation Ⅵ<br>Chair: Hans-Otto Günther | F3.1 | Xiaoning Shi, Stefan Voß | Port Choice Behavior of Liners under Cost and Demand Uncertainty - From the Perspective of Node Games | Germany |
| | | F3.2 | Olcay Polat, Osman Kulak, Hans-Otto Günther | Short-term Routing and Transportation Planning in Spoke Networks in the Black Sea Region | Germany |
| | | F3.3 | Il-Kyeong Moon, Anh-Dung Do Ngoc | The Capacity Expansion Problem in Container Terminals | Korea |
| | | F3.4 | Frank Schwartz, Stefan Voß | A Quantitative Approach for Supporting the Adaptation of Seaports to Modern Supply Chain Concepts | Germany |

If you want to see the full paper, click the title of the paper.

| Day 2-Sep.16(Thu) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 09:00-09:50 | E4: Industrial Session Ⅰ Chair: Kwang Ryel Ryu | E4.1 | Sonke Hartmann | Planning and Operating Automated Container Terminals: Lessons Learned | Germany |
| 09:50-10:30 | | E4.2 | Jang-Rim Choi | Automation of HJNC Terminal and Expected Results | Korea |
| | | | | | |
| 10:50-11:40 | F4: Industrial Session Ⅱ Chair: Kwang Ryel Ryu | F4.1 | Daniel Pagac | Automation at Patrick Container Terminals: the AutoStrad Solution | Australia |
| 11:40-12:20 | | F4.2 | Byung-Ho Kang | Performance Assessment of CATOS and CHESS through Emulator | Korea |

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| Day 2-Sep.16(Thu) | | | | | |
|---|---|---|---|---|---|
| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 13:00-14:20 | G1: SCM Ⅵ<br>Chair: SangHeon Lee | G1.1 | MyungJin Choi, SangHeon Lee | Heuristic Approach for the Uncapacitated Multiple Traveling Purchaser Problem | Korea |
| | | G1.2 | Bernd Scholz-Reiter, Michael Teucke, Anne Schweizer, Mehmet-Emin Özsahin | Flexible Product Allocation in Distribution Processes in an Apparel Supply Chain | Germany |
| | | G1.3 | Vanina M. D. Silva, Antônio G. Novaes, Bernd Scholz-Reiter, Jakub Piotrowski | Introducing the Concept of Autonomous Agents as a Tool to Assist the Analysis of the Collaboration between Manufactured Exporters and Maritime Shippers | Brazil |
| | | G1.4 | Min Kyu Hwang, Young Hae Lee | Development of Optimization Model for Service Supply Chain | Korea |
| | G2: Intermodal<br>Chair: Takashi Amemiya | G2.1 | Ikju Jang, Suk-Chul Rim | A Heuristic Algorithm for Multi-Period, Multi-Modal Transportation Problem | Korea |
| | | G2.2 | Katsuhisa Okita, Takashi Amemiya | Optimization of Inter-Modal International Logistics | Japan |
| | | G2.3 | Albert Veenstra, Rob Zuidwijk | The Future of Seaport Hinterland Networks | Netherlands |
| | | G2.4 | Takashi Amemiya, Katsuhisa Okita | For the Optimal Allocation of Three Modes for the Intercontinental Transportation | Japan |
| | G3: Seaport and Transportation Ⅶ<br>Chair: Joachim R. Daduna | G3.1 | Herbert Kopfer, Jörn Schönberger, Sebastian Sterzik, Ruiyou Zhang | Optimization of Inland Container Transportation with and without Container Sharing | Germany |
| | | G3.2 | Joachim R. Daduna | Short Sea Shipping and River - Sea Shipping in the Multimodal Transport of Containers | Germany |
| | | G3.3 | Byung-Hyun Ha, Tao Qin | A Conflict-Free Shortest-Time Routing Algorithm for Intermediate-Scale Path Network | Korea |
| | | G3.4 | Hans-Otto Guenther | Operative Transportation Planning in Consumer Goods Supply Chains | Germany |

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| Day 2-Sep.16(Thu) | | | | | |
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| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 14:40-16:00 | H1: SCM Ⅶ<br>Chair: Ho Gyun Kim | H1.1 | Duangpun Kritchanchai, Wirachchaya Chanpuypetch | Supply Chain Champion in Thailand: A Case of Rubber to Tire Industry | Thailand |
| | | H1.2 | Gyu Sung Cho, Young Jun Lee, Dae Wook Lee, Ho Gyun Kim | A Simulation Design Method of Refrigerated Warehouses Using an Aspect Oriented Approach Modeling | Korea |
| | | H1.3 | Rainer Müller | Security Event Management | Germany |
| | H2: Scheduling Ⅰ<br>Chair: Rommert Dekker | H2.1 | Kun-Chih Wu, Ching-Jung Ting | A Beam Search Algorithm for Minimizing Reshuffle Operations at Container Yards | Taiwan |
| | | H2.2 | Kyuhyeon Shin, Taesik Lee | A GA-Based Approach for Container Unloading Scheduling Problem with Mobile Harbor's Stability Constraint | Korea |
| | | H2.3 | Eelco van Asperen, Bram Borgman, Rommert Dekker | Evaluating Impact of Truck Announcements on Container Stacking Efficiency | Netherlands |
| | | H2.4 | Inkyung Sung, Hochang Nam, Taesik Lee | A Study of Scheduling Algorithms for Mobile Harbor with An Extended M-parallel Machine Problem | Korea |
| | H3: Seaport and Transportation Ⅷ<br>Chair: Herbert Kopfer | H3.1 | Marco Caserta, Silvia Schwarze, Stefan Voß | Container Rehandling at Maritime Container Terminals | Germany |
| | | H3.2 | Albert Douma, Henk Zijm | Aligning Barge and Terminal Operations in the Port of Rotterdam by Means of a Multi-Agent System | Netherlands |
| | | H3.3 | Herbert Kopfer, Jörn Schönberger, Kap Hwan Kim, Su Min Jeon | Collision-Save Routing of a Fleet of Automated Guided Vehicles through a Network: The Forward-Positioning Planning Problem | Germany |
| | | H3.4 | Kiyeok Park, Taejin Park, Kwang Ryel Ryu | Planning for Selective Remarshaling in a Container Terminal Using Evolutionary Algorithms | Korea |
| | H4: Invited Speech<br>Chair: Il-Kyeong Moon | H4.1 | Mitsuo Gen | Flexible Logistics Network Model: Evolutionary Approach and Case Study | Japan |
| | | H4.2 | Erhan Kozan | Techniques for Inserting Additional Container Trains into Existing Timetables | Australia |

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| Day 2-Sep.16(Thu) | | | | | |
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| **Time** | **Session** | **PID** | **Authors** | **Title** | **Country** |
| 16:20-17:40 | I1: Empty Container Chair: Michael G. H. Bell | I1.1 | Loo Hay Lee, Ek Peng Chew, Yin Long, Yi Luo, Jijun Shao | A Computer Simulation Model of Empty Container Movement | Singapore |
| | | I1.2 | Michael G. H. Bell | A Frequency-based Maritime Container Assignment Model | United Kingdom |
| | | I1.3 | Yin Long, Loo Hay Lee, Ek Peng Chew | A Study on Stochastic Empty Container Repositioning Problem | Singapore |
| | I2: Scheduling Ⅱ Chair: Byung-In Kim | I2.1 | Byung-In Kim, Sooyoung Chang | Berth and Unloader Scheduling Problem at a Raw-Material Port | Korea |
| | | I2.2 | K L Mak, Di Sun | An Exact Algorithm for the Berth Allocation Problems with Time Windows | Hong Kong |
| | | I2.3 | Brad Casey, Erhan Kozan | Optimising Container Storage Processes at Multimodal Terminals | Australia |
| | | I2.4 | Etsuko Nishimura, Akio Imai, Yoshiyasu Urushibara | Container Storage Planning by Meta-Heuristics | Japan |
| | I3: Seaport and Transportation Ⅸ Chair: Axel Hahn | I3.1 | Robert Stahlbock, Stefan Voß | Container Logistics and Data Mining | Germany |
| | | I3.2 | Axel Hahn | Virtual Terminal Operation System for Joint Evaluation of Operation Strategies | Germany |
| | | I3.3 | Young-Man Park, Jong-Wook Bae | The Integrated Truck Sequencing and Storage Location of Export Containers Problem in a Container Terminal | Korea |
| | I4: Invited Speech Chair: Il-Kyeong Moon | I4.1 | Loon Ching Tang | Maritime Trade Evolutions and Port City Developments in Asia | Singapore |

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