

Programme for NordDesign 2008

August 20th Wednesday

17:30 – 19:00 Registration and Welcome (Grand Hotel Tallinn, 6.th Floor, Grand Parliament Room)

August 21th Thursday (Lecture hall VII 226)

08:00 Transfer bus from Grand Hotel Tallinn to Tallinn University of Technology

08:30 – 09:00 Registration and morning coffee: (Atrium before Lecture hall VII 226)

09:00 – 09:30 Opening ceremony, welcome speeches and announcements Lecture hall VII 226

Opening: Prof. Peep Sürje, rector of Tallinn University of Technology

Welcome: Mihkel Randrüüt, Ministry of Economic Affairs and Communications

09:30 – 10:00 Keynote lecture:

Competitiveness strategy: problems, challenges and opportunities,

Dr Jüri Riives, Federation of Estonian Engineering Industry

10:00 – 10:30 Coffee/Tea

10:30 – 12:00 **Session: Product Design Methods** (Lecture hall VII 226)

Chair: Prof. Jan-Gunnar Persson

Product Design and Intentional Emergence facilitated by Serious Play

Ade Mabogunje, Poul Kyvsgaard Hansen, Ozgur Eris and Larry Leifer

A Functional Model for the Function Oriented Description of Customer-Related Functions of High-Variant Products

Daniel P. Politze and Stefan Dierssen

Synergy-Based Design of Light Fittings

Tiit Hindreus, Andres Martin and Vello Reedik

Application of evolutionary methods for solving multi-disciplinary optimization problems in engineering

Jüri Majak, Rein Küttner, Meelis Pohlak, Martin Eerme and Kristo Karjust

12:00 – 13:30 Lunch

13:30 – 15:00 **Session: Product Development, Quality and Efficiency**

Chair: Assoc. Prof. Jóhannes Sigurjónsson

Product Development and Manufacturing in High Cost Countries - Restrictions and Options

Peter Leibl, Rolf Pfeiffer and Christiane Nischler

Optical quality as a product attribute – a descriptive study from the automotive industry

Karin Forslund and Rikard Söderberg

Tactile Qualities of Materials in Consumer Product Packaging

Linda Tangeland, Kjersti Øverbø Schulte and Casper Boks

Augmented Reality Efficiency in Manufacturing Industry: A Case Study

Juha Sääsäski, Tapio Salonen, Marja Liinasuo, Jarkko Pakkanen,

Mikko Vanhatalo and Asko Riitahuhta

15:00 – 16:00 **Poster Session & Coffee/Tea**

16:00 – 17:30 **Session: Problems and goals of Product Development**

Chair: Assoc. Prof. Poul Kyvsgaard Hansen

On the content of design problems

Claus Thorp Hansen and Mogens Myrup Andreassen

A Proposal for a Mindset of a Project Manager

Joakim Eriksson and Claus Thorp Hansen

Delivery Project in the Context of Product Life Cycle

Seppo Suistoranta

Value in Conceptual Design Context

Oja, Hannu

17:35 Transfer bus from Tallinn University of Technology to Grand Hotel Tallinn

18:30 Transfer bus from Grand Hotel Tallinn to von Glehns Castle

18:45 Transfer bus from Tallinn University of Technology to von Glehns Castle

19:00 Conference Dinner at von Glehns Castle (Vana Mustamäe tee 48)

August 22th Friday

08:00 Transfer bus from Grand Hotel Tallinn to Tallinn University of Technology

08:30 – 10:00 **Session: Sustainable Design** (Lecture hall VII 226)

Chair: Prof. Peter Leibl

Nordic Post-graduate Sustainable Design and Engineering Research from a supervisor perspective

Casper Boks, Andrius Plepys, Tim McAloone, Mikko Jalas, Henrikke Baumann, Mattias Lindahl and Niki Bey

A Constraint-based Approach to Sustainable Design and Development

Helen Liang, Glen Mullineux, Geoff Hammond

The expert-layperson divide in design for sustainable behavior: Related risks and the value of involvement

Ida Nilstad Pettersen and Casper Boks

Development of a sustainable training to enhance methodological competence

Christian Geis, Herbert Birkhofer and Petra Badke-Schaub

10:00 – 10:30 Coffee/Tea

10:30 – 12:00 **Session: Product Flexibility, - Families, Education and Training**

Chair: Prof. Martin Eerme

A close look on product flexibility

Andreas Bischof, Patrick Müller and Lucienne Blessing,

Integrating Product Structures, Production Processes and Networks for the Development of Product Families

Antti Pulkkinen, Petri Huhtala and Asko Riitahuhta

Design Students' Preferences and Conceptions of Idea Generation in Groups

Lassi A. Liikkanen and Matti K. Perttula

A reflection on cross-cultural study trips with large groups of industrial design students

Casper Boks, Jóhannes Sigurjónsson and Ida Nilstad Pettersen

12:00 – 13:30 Lunch

13:30 – 15:00 Session: Knowledge Management

Chair: Prof. Johan Malmqvist

The Semantic Interaction of Knowledge, Data and Processes within the Product Development Process

Markus Zoier, Michael Maletz and Dan Brisson

Issues and challenges for improving email use In engineering design

Craig Loftus, James Wasiak, Ben Hicks and Chris McMahon

Comparing and Integrating Methods of Design Activity Documentation Across Synchronous and Asynchronous Modes of Collaborative Work

N. L. Eng, M. D. Giess, A. P. Conway, R. H. Bracewell, W. J. Ion and C. A. McMahon

Designing work procedures for Project Portfolio Management

Ernesto Gutiérrez, Jenny Janhager, Sofia Ritzén and Gunilla Ölundh Sandström

15:00 – 16:00 **Poster Session & Coffee/Tea**

16:00 – 17:30 Session: System and Component Design, Product Service

Chair: Dr Petri Makkonen

Over- and understeering with a Limited Slip Differential

Jüri Resev, Lembit Roosimölder and Marko Siitas

What characterise an attractive Machine Element?

Sören Andersson

Describing a mechanical model of a novel axial piston type steam expander

Rasmus Grip and Jan-Gunnar Persson

Considerations towards Systematic Engineering of Product Service Systems

Christoph Schendel, Tobias Spahl, Herbert Birkhofer

17:40 Transfer bus from Tallinn University of Technology to Grand Hotel Tallinn

August 23th Saturday

08:30 Transfer bus from Grand Hotel Tallinn to Tallinn University of Technology

09:00 – 11:00 **Workshops:** (Atrium and lecture hall VII 226)

1. **Industry:** Augmented Assembly

chair: Prof. Asko Riitahuhta

2. **Research in Product development:** Status and emerging topics

chair: Assoc. Professors Poul H.K. Hansen and Claus Thorp Hansen

11:30 – 12:00 **Plenary session:** Summary and conference closing

Cultural Event:

Visiting Estonian Open Air Museum

12:10 Transfer bus from TTU to Estonian Open Air Museum

12:30 Lunch in tavern Kolu Kõrts

13:30 – 15:00 Guided tour to museum

15:00 - Transfer bus from Open Air Museum to Grand Hotel Tallinn

Conference Posters (Atrium before lecture hall VII 226)

Micro Surgical Design Knowledge Organisation

Alexia K. Grech and Jonathan C, Borg

Systematic Generation of Innovative Sheet Metal Profiles using Modified TRIZ

Nils Hirsch, Markus Mauf and Herbert Birkhofer

New Demands on Design for Disassembly to Improve Recycling of Electrical and Electronical Products

Kristoffer Aagaard Eriksen

Towards Integrated Modelling of Product Lifecycle Management Information and Processes

Dag Bergsjö, Amer Ćatić and Johan Malmqvist

The embodied mind in relation to thinking about form development

Shahriman Zainal Abidin¹, Hans V. Bjelland, and Trond Are Øritsland

Biomimicry – a useful tool for the industrial designer

Nina Louise Volstad and Casper Boks

Design education with simulation games

Tero Juuti, Timo Lehtonen and Poul Kyvsgaard Hansen

Comprehensive design and development projects as master project assignments – Renewing engineering design education

Knut Aasland

Device and software for educational simulation and design of dynamic dampers

Petri Makkonen, Huszár István, Eric Coatanéa and Tanja Saarelainen

Simplified Shape Optimisation Technique For The Design of Notched Machine Parts TS

Hans-Bernhard Woyand, Mihail Aignatoaie, Rolf Kamps, Nicolas Hoppe

Actively articulated suspension for a four-wheeled vehicle

Ardi Seidla