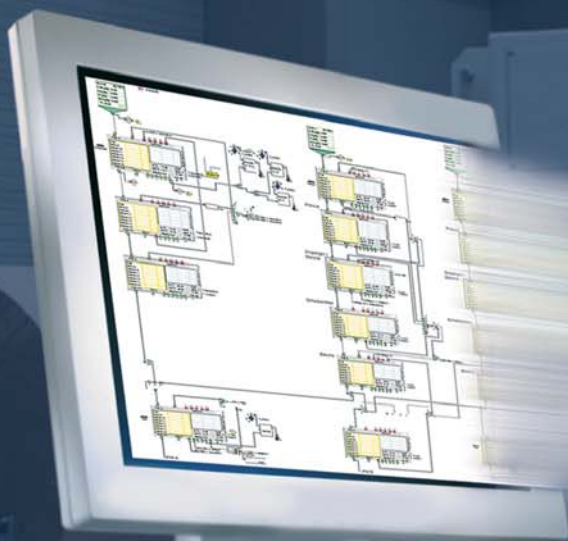


COST-PTS Symposium
Simulation & Process Control
for the Paper Industry



9 - 10 March 2004 • PTS Munich



**Official Conference within COST Action E36:
"Modelling and Simulation in the Pulp &
Paper Industry"**

☛ Technical Directorship

The technical directorship of the Symposium is in the competent hands of Dr. Johannes Kappen, a renowned researcher and consultant who has been working for the paper industry for more than ten years.

☛ The Conference Programme

Leading experts will present recent developments and findings from the areas of simulation technology, online process analysis and online process control that are relevant to paper production. A special focus will be on the selection of suitable software. An overview will be given of existing practical solutions and applications in paper mills. Main topics are:

- Current market situation
- Overview of present research activities in Europe
- Potential and limitations of static and dynamic process simulation technologies
- Simulation of paper properties - chances and limits
- Current use of simulation technology in the paper industry
- Practical examples of process simulations for design and optimisation purposes
- Current use of online process analysis and control in the paper industry
- Examples of practical applications of online process analysis and control for the evaluation and optimisation of existing processes
- Selection of suitable software programs for simulation and process analysis
- Tools to enhance the control of processes

You will be provided with condensed, practically relevant information about key issues of simulation and process control, which will be of direct use for your work and company. Target group of the Symposium are managers and experts from the manufacturing, research and development departments of paper producers and their suppliers; experts in the fields of software development, sensor application and controls development.

☛ The Speakers

We have managed to set up a programme that includes nearly all major European scientists working in the field of simulation and process control. Speakers from renowned plant engineering firms and specialist suppliers will report on their recent projects. Representatives of the paper industry will take a critical look at the future role of simulation technology in their sector. Attendees will thus be given a comprehensive overview of the state of the art in the area of simulation and process control, and presented a variety of different views and perspectives that has not been available to the paper industry in this form before.

☛ The Exchange of Experience

We know very well how important the exchange of views and experience is to our participants. The programme therefore leaves enough time for talks and discussion, and a networking social will provide ample opportunity to make new acquaintances and revive old contacts in a relaxed and entertaining atmosphere.

Date: Tuesday 9 March and Wednesday 10 March 2004

Location: PTS Munich

Registr.: PTS Munich, Fax: +49 89 121 46-36 or
Mail: pta@ptspaper.de

Code: PK 441

Fees: € 830.00. Reduced fee of € 660.00 for members of FPT, FPS, VDP and COST E36 (from mills and suppliers); special fee of € 150.00 for COST E36 members from universities and institutes.

Hotel: Reservations through Icontas-Hotelservice:
Phone: +49 89 427425-0, Fax: +49 89 427425-25

Session 1 - Chairman: Risto Ritala, Tampere University of Technology, FIN-Tampere

09:00 Reception at PTS with coffee and pretzels

09:30 *Dr. P. W. Rizzi, PTS, D-Munich*
Welcome address

09:40 *Johannes Kappen, PTS, D-Munich*
The new COST ACTION E36 on modelling and simulation in the pulp and paper industry

10:10 *Jussi Manninen and Sakari Kaijaluo, VTT Processes, FIN-Jyväskylä and J. Hakanen, University of Jyväskylä, Department of mathematical information technology, FIN-Jyväskylä*
An integrated multiobjective design tool for pulp and paper process design

10:40 Coffee break

11:00 *Erik Dahlquist, Fredrik Wallin and Janice Dhak, Mälardalen University, S-Vasteras*
Experiences of online and offline simulation in the pulp and paper industry

11:30 *Gert Meinl, Klaus Erhard and Johannes Kappen, PTS, D-Heidenau and D-Munich*
Computer Assisted Paper Design - From vision to reality

12:00 *Stefan Rief, Fraunhofer Institut Techno- und Wirtschaftsmathematik, D-Kaiserslautern*
Modelling and simulation of the dewatering process in the press section of a paper machine

12:30 Lunch break

Session 2 - Chairman: Leon Joore, Millvision, NL-Ramsdonk

14:00 *David Ravnjak and Adolf Moze, Pulp and Paper Institute, SLO-Ljubljana*
Two approaches to simulation of water loop closure

14:30 *Harald Grossmann, TU Dresden, D-Dresden*
Simulation of fine paper lines using steady state models

15:00 *Jean Ruiz, Guy Eymin Petot Tourtollet, Centre Technique du Papier (CTP), F-Grenoble*
An overview of CTP capabilities in terms of modelling and simulation supported by examples

15:30 Coffee break

16:00 *Cornelia Lumpe and Leon Joore, Millvision, AC Raamsdonk, NL and Marc Leenen, Van Houtum Papier B.V., NL-AA Swalmen*
Towards a virtual paper mill at Van Houtum Papier B.V.

16:30 *Shulei Zhao and Hannu Paulapuro, Helsinki University of Technology (HUT), Laboratory of Paper Technology, FIN-Helsinki, and Kauko Leiviskä, University of Oulu, Control Engineering Laboratory, FIN-Oulu*
Application of a dynamic simulator to model a pilot paper machine

17:00 *Georg Kamml and Johannes Kappen, PTS, D-Munich*
Dynamic offline simulation as a problem solver

17:30 *Bernt Lie, Telemark University College, N-Porsgrunn, Tor Anders Hauge, Falconbridge, N-Nikkelverk and Roger Slora, Norske Skog, N- Saugbrugs*
Roll-out of Model Based Control with Application to Norske Skog Paper Machines

18:00 *Controversial discussion*
The future of simulation in pulp and paper looks bright! Does it?

19:30 Networking social at "Altes Hackerhaus" in Munich

Modelling and Simulation in the Pulp & Paper Industry

COST Action E36 Duration: 2004 - 2008

The main objective of the Action is to promote the development and application of modelling and simulation techniques in pulp and paper manufacturing processes. This is intended to, among other things, reduce emissions and increase the productivity and cost efficiency of processes.



Session 3 - Chairman: Carlos Negro, Universidad Complutense de Madrid, ES-Madrid

- 09:00 *Bernhard Kodre, AUDIT GmbH, A-Graz*
Using AUDIT to perform cost cutting: Reduction of broke and material losses
- 09:30 *Sara Paunonen, Oy Keskuslaboratorio – Centrallaboratorium Ab, FIN-Espoo*
Software tools for monitoring the paper manufacturing process – case pulp mill
- 10:00 *Lothar Burchardt, BTG Eclèpens SA, CH-Eclèpens and Martin Mayer, innoversum GmbH, A-Graz*
What information your data contains, but you are not aware of - Productivity improvement by the use of multidimensional computer models
- 10:30 Coffee break**
- 11:00 *Petteri Pulkkinen and Risto Ritala, Institute of Measurement and Information Technology, Tampere University of Technology, FIN-Tampere, Matti Tienari and Aaron Mosher, Oy Keskuslaboratorio – Centrallaboratorium Ab, FIN-Espoo*
Methodology for dynamic optimisation based on simulation
- 11:30 *Janice Dhak and Kenneth Holmström, Mälardalen University, S-Vasteras and Jean Ruiz, Centre Technique du Papier, F-Grenoble*
Generic methods for paper mill optimisation
- 12:00 *Thor-Leif Lundberg and Markus Rintelen, TietoEnator MAS GmbH, D-Regensburg*
Turning data into useful information

12:30 Lunch break

Session 4 - Chairman: Johannes Kappen, PTS, D-Munich

- 13:30 *Arjo Sinon and Dario M.R. Lo Cascio, TNO-TPD, NL-Delft*
On-line monitoring of the papermachine performance
- 14:00 *Peter Fisera and Gernot Plevnik, Andritz AG, A-Graz*
Simulation of technological processes - current situation of Andritz AG
- 14:30 *Taisto Huhtelin, Metso Automation Inc., FIN-Tampere*
Dynamic Simulator as a tool for automated product design and the optimisation of automation and process tasks
- 15:00 Coffee break**
- 15:30 *Klaus Villforth, Institution for Paper Science and Technology, D-Darmstadt*
Online measurement of residual ink and ink elimination for deinking control
- 16:00 *Thomas Runkler and Rainer Palm, Siemens AG, CT IC 4, D-Munich, Klaus Villforth, Institution for Paper Science and Technology, D-Darmstadt, Markus Dinkel and Thomas Schmidt, Gebr. Lang GmbH Papierfabrik, D-Ettringen, Reinhold Götz, Siemens AG, I&S IP PEP PM, D-Erlangen*
Whiteness modelling and closed loop optimisation for flotation deinking
- 16:30 *Controversial discussion*
Simulation is a profitable business! Is it?
- 17:00 *Johannes Kappen, PTS, D-Munich*
Synopsis of the presentations and outlook on the activities of COST ACTION E36
- 17:30 Close**

☛ Research and Consultancy for the Paper Industry

Since 1951, PTS has built a reputation as an innovative and independent partner of the paper industry and its related supply chains from machine builders through to chemical or process equipment suppliers.

☛ Research and Development

PTS research focuses on the economical use of resources, optimised chemical additions, clean waters, innovative products, high-quality surfaces, high-performance packagings and superior process control. Publicly funded or contract research projects are tailored to industry- and client-specific issues. Principal research areas include

- Recovered paper and pulp technology,
- Chemical management, water and the environment,
- Surface and packaging technology,
- Sensor, measuring and testing technology.

☛ Consultancy

Drawing on in-depth knowledge and practical experience, PTS specialist consultants cover the areas of process optimisation and product development. Their focus in the area of process optimisations is on:

- Optimisation of stock preparation and wet end,
- Design, planning & engineering of effluent treatment systems,
- Mill process optimisation,
- Packaging optimisation, food hygiene,
- Environmental management.

☛ Measuring & Testing

The new pilot plant opened at PTS Heidenau in May 2002 offers excellent facilities for product tests, feasibility studies, simulations for mill test optimisation as well as for the design of new products and papermaking processes. PTS experts conduct material tests and analytics in state-of-the-art laboratories. Apart from providing dedicated measuring & testing services, PTS develops software programs and measuring systems for production control and product quality assurance. This new PTS business line focuses on the identification and quantification of materials and on the measuring of paper structures and surface parameters. Key service offers are:

- Measuring and sensor technology,
- Pilot plant for innovative paper design and fibre upgrading,
- Materials testing and analysis,
- VESTRA pilot coater.

☛ Continuing Education

The continuing education programme of PTS covers a multitude of subjects related to papermaking, paper converting, water and environmental management, quality management, markets and products. Major types of events include:

- Introductory courses for newcomers to these areas,
- Advanced courses for skilled professionals,
- Technical seminars on selected practical issues and optimisation tasks,
- Technology-oriented symposia disseminating the latest trends, findings and solutions to practical problems,
- Product-oriented symposia with the focus on networking and customer contacts.

The main benefit will be a better understanding of the mechanisms of processes and their control loops. This will help to find solutions for currently pending problems in the paper industry: improving the paper quality, optimising the wet end chemistry, enhancing the runnability and reducing emissions through improved process design, process monitoring and decision support during operation. In the long run this action should also contribute to designing superior or new product properties.

See also: <http://cost.cordis.lu>

Registration - PK 441

The Paper Technology Specialists
PTS

PTS MUNICH
Hess-Strasse 134 - D-80797 Munich
Tel: +49(0)89/12146-0 - Fax: +49(0)8912146-36
www.ptspaper.de

TRAM
Linie 20/21: tram stop Lothstraße
Linie 12: tram stop Infanteriestraße

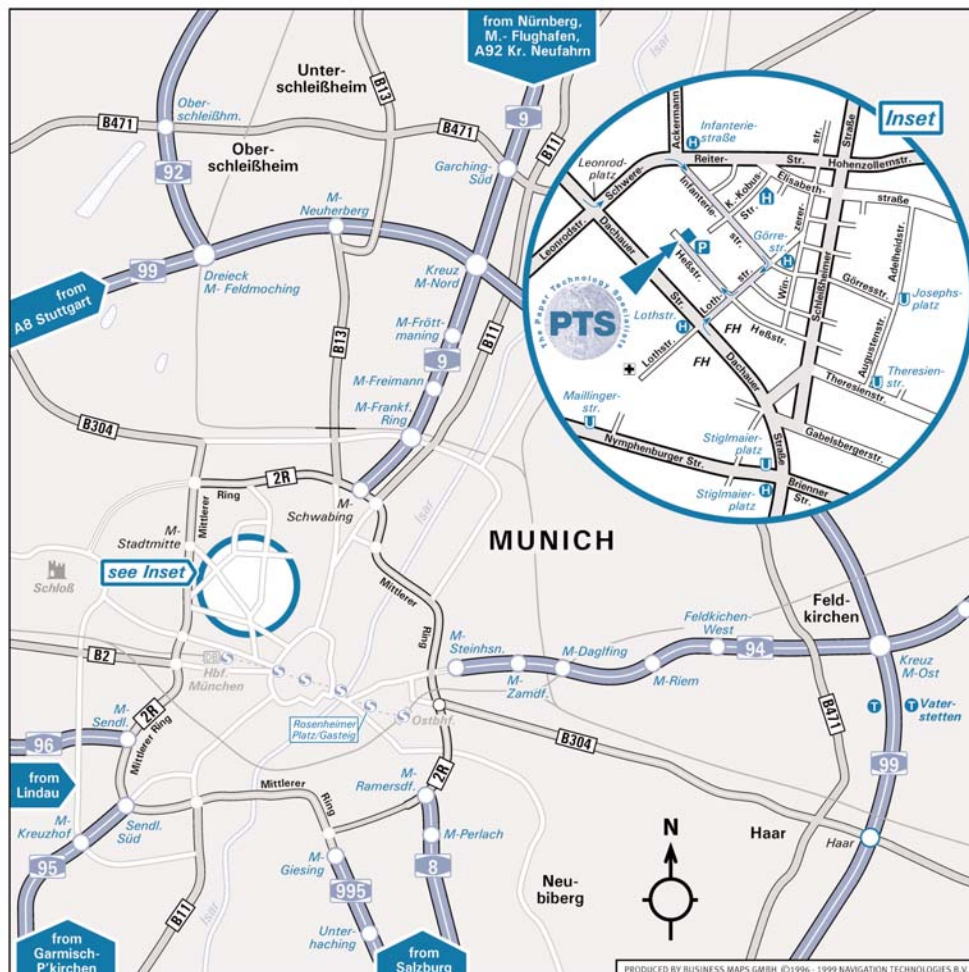
BUSES
Line 33: bus stop Infanteriestraße
Line 53: bus stop Görresstraße

UNDERGROUND
Hohenzollernstraße
Josephsplatz
Theresienstraße

HOTEL
Hotel Vitalis

ARRIVAL BY CAR
From **Salzburg** take Mittlerer Ring (middle ringroad) at the end of the highway (exit 'Ramersdorf') towards 'Nürnberg', then further towards 'Stuttgart' and 'Stadtmitte' (Munich centre). Turn left into Dachauer Strasse.
From **Nürnberg** take exit 'Schwabing', then Mittlerer Ring (middle ringroad) heading towards 'Stuttgart', exit at 'Stadtmitte' (Munich centre). Turn left into Dachauer Strasse.
From **Stuttgart** follow the signs to 'Nürnberg'. On Wintrich-Ring proceed to Dachauer Strasse and turn right heading for 'Stadtmitte' (Munich Centre).
When you reach 'Leonrodplatz' proceed as shown in the Inset. A parking lot is available outside PTS at the end of Hess-Strasse.

ARRIVAL BY AIR OR RAIL
At Munich airport, board the S8 or S1 railway shuttle to main station (departure every 20 min.). Travel time about 45 min. Outside main station transfer to the # 20 or 21 tramway bound for Moosach or Westfriedhof and exit at Lothstrasse (5th stop).



COST-PTS Symposium Simulation & Process Control / 9 - 10 March 2004

Name	First Name	Department	Position
1)			
2)			
Company		Address	
City, ZIP-Code, Country		Phone	Fax
e-mail		Date, Signature	

We are members of ☐ FPT ☐ FPS ☐ VDP ☐ Cost E36 (mills & suppliers) ☐ COST E36 (universities and institutes)

Fees

Registration fees (€ 830.00) are exempt from VAT. They include a buffet dinner, lunches, drinks during breaks and the conference preprints. Upon receipt of invoice, please remit the amount to our account, indicating the invoice no. and your customer no. Participants from abroad who register too late for remittance to be received in time are requested to pay by cheque or in cash on site or to present a copy of the bank transfer. We regret that no credit cards can be accepted. Reduced fee (€ 660.00) only for members of FPT, FPS, VDP and COST E36 members from mills and suppliers. Special fee (€ 150.00) for COST E36 members from universities and institutes.

Cancellation

Full cancellation refund available if PTS receives a written notification at the latest 7 days before the affair. After that date no refund will be given. A cancellation charge of € 50.00 will be payable.