4 convincing reasons to participate:

**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: pts@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

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**Tuesday, 9 March 2004**

**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 Kaikaluto, 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 Meini, 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

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**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.
Wednesday, 10 March 2004

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 Eclépens SA, CH-Eclépens and Thomas Schmidt, Gebr. Lang GmbH Papierfabrik, D-Ettringen,
Villforth, Institution for Paper Science and Technology, D-Darmstadt, Markus
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 Pulkkinnen and Risto Ritala, Institute of Measurement and Information Technology, Tampere University of Technology, FIN-Tampere, Mati Tienari and Aaron Moshey, 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

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

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 is on 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 upgradings,
- 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.
COST-PTS Symposium Simulation & Process Control / 9 - 10 March 2004

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**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 to 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.