

Papermaking Program
Renaissance, St. Louis
May 31st - June 3rd

- Paper Machine Measurement and Performance
- Reducing Variability
- Innovations and Best Practices: Wet End Chemistry
- Paper Machine Energy

Monday June 1
1:00pm-3:00pm

Paper Machine Measurement and Performance Kick-Off

Session Chair: **Jeff Reese**, *International Paper*

"Don't Forget the Most Important Machine..."

Jim Thompson, *Talo Analytic International*

"Measuring Paper Machine Performance"

Richard A. Reese, *Dick Reese and Associates*

PM Measurement and Performance Kick-off Roundtable

Jeff Reese, *International Paper*

Control Performance Indices & Their Applications

Session Chairs: **Shih-Chin Chen**, *ABB*; **Ian Journeaux**, *NewPage*

"A Fresh Look at Feed Forward Control"

Bill Henry, *recently retired, previously with Smurfit-Stone Container Enterprises Inc.*

"Basis Weight Variability as a Key Performance Index"

Jack Tippett, *Emerson Process Management*

"Quality Control System Performance – A Review to Evaluation Practices"

Merja Mäkelä, *University of Applied Sciences*

"New Indices for Quantifying Sheet Quality and Troubleshooting"

Shih-Chin Chen, *ABB Inc.*; **Ian Journeaux**, *New Page Corp.*

Best Practices for Microbial Control

Session Chair: **Terry Williams**, *Rohm & Haas*

"5,5-Dimethylhydantoin (DMH) a Highly Effective, Halogen Stabilizer for Wet End Applications"

M. Ludensky, **S. Kopecky**, **Philip Sweeny, Ph.D.**, *Lonza Inc.*

"Management of Broke Spoilage"

Laura Rice, *Nalco Company*

"Best Practices for Microbial Control in Additives"

Kurt Bottjer, *Ashland Hercules Water Technologies*

"Best Practices for Influent Water Treatment"

Chris Rooks, **Fred Ervin**, **Janet Woodward**, *Buckman Laboratories, Inc.*

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3:30pm-5:00pm

Pulp & Wet End PM Measurement & Performance

Session Chair: **Philip Wells**, *Wells Enterprises Inc.*

"Papermakers, Are You Getting the Pulp Property Information you Need?"
Alan F. Button, *Buttonwood Consulting, LLC*

"Refiner System Monitoring and Control Strategies"
Shawn R. Berg, *J&L Fiber Services*

"Best Practices for the Stability and Agility of a Production Line"
Seyhan Nuyan, *Metso Automation*

Forming and Forming Fabrics

Session Chair: **Jimmy Jong**, *FPIInnovations - Paprican*

"Effects of Forming Fabrics Design on Drainage, Paper Quality and Linting – Pilot Machine Trials"
Francis Fournier, *FPIInnovations – Paprican*

"Effect of Center Plane Resistance on the Drainage and Sheet Forming"
John Xu, *AstenJohnson Inc*

"Three-Dimensional Flow Field Analysis Through Forming Fabrics: Part 2"
Ali Vakil, *University of British Columbia*

Monitoring Methods for Microbial Growth - Panel Discussion

undecided

Panelists: **Janet Woodward**, *Buckman Laboratories, Inc*
Marko Kolari, *Kemira*
Laura Rice, *Nalco*
Linda Robertson, *International Microbial Associates*
Terry Williams, *Rohm & Haas*

Tuesday June 2
8:00am-10:00am

Reliability Measurement & Performance

Session Chair: **John Neun**, *Albany International*

"Paper Machine Performance & Reliability, It's All in the Numbers"
Mark Latino, *Reliability Center, Inc.*

"Reliability and Maintenance Performance Measurement"
Christer Idhammar, *IDCON, Inc.*

"Domtar Espanola Reliability Case Study: How Asset Health Data Has Been Centralized For Early Potential Failure Visibility and Avoidance"
Gary Clackett, *Domtar Espanola*; **Don Fitzgerald**, *Ivara Corporation*

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Tuesday June 2 (cont.)

8:00am-10:00am

"Enhancing Productivity through Improved Maintenance Operations: Case Study of How a Strategic Partnership Took a Paper Machine from Worst to First through Improved Operational Performance"

Daniel Konstantinovsky, ABB

Reducing PM Variability in the Thin & Thick Stock Flow Loops - Tutorial

Session Chairs: **Joe Genco**, University of Maine; **Jay Shands**, Johnson Foils

"Stabilizing Dry Fiber Flow in the Thick Stock System"

Kevin Starr, ABB Global Pulp and Paper Services

"Reducing Variability in Low Consistency Refining"

Brian Lacy, J&L Fiber Services

"Approach Flow Considerations for Reduced Variability"

Robert Blount, **Bryan Reed**, BE&K

"Stabilizing Saveall Filter Operations"

Jack Milliken, P.E., GL&V Pulp and Paper

Innovations in Retention & Drainage Technology

Session Chair: **Rosy Covarrubias**, Buckman

"Novel Retention and Drainage System Utilizes New Nanoparticle Silica Technology to Maximize Performance"

Mark Zempel, Eka Chemicals, Inc

"Improving Filler and Fines Retention While Achieving Controllable Drainage in High Speed Paper Machines - Ellipsis™ Cationic Micropolymer Technology"

Casimiro da Silva Santos, Nalco

"Second Generation Advanced Retention and Drainage Technology Continues to Improve Operational Efficiencies and Reduce Operating Costs"

John Hochu, Ashland Hercules Water Technologies

"Novel Technology Based on Dual-products for Retention Gives Increased Runnability and a Higher Ash Containing Sheet"

Lotta Kanto Öqvist, Ashland Deutschland GmbH; speaker will be **Larry Anker**, Ashland Hercules Water Technologies

Paper Machine and Vacuum System Energy Conservation

Session Chair: **Raymond J. Krumenacker**, Deublin Steam Systems

"Measuring Paper Machine Energy Performance"

Richard A. Reese, Dick Reese and Associates, Inc.

"Reducing Energy Intensity in Papermaking Through Energy Efficiency"

Tom Wroblewski, P.E., CleanTech Partners

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8:00am-10:00am

"Ten Myths Revealed about Paper Machine Vacuum Systems and Related Processes"

Douglas F. Sweet, P.E., *Doug Sweet & Associates, Inc.*

"Energy Savings in Paper Machine Vacuum System – How to Utilize Modern Process and Variable Speed Drive Technology"

Jussi Lahtinen, **Jyrki Uimonen**, *Runtech Systems Oy*

10:30am-12:00PM

Steambox Measurement & Performance - Panel Discussion

Session Chair: **Timothy Patterson**, *Ashland Hercules Water Technologies*

Panelists: Philip Wells, Wells Enterprises

Metso

Honeywell

ABB

Improving Grade Change Performance

Session Chair: **Ian Journeaux**, *NewPage*

"Challenges with Paper Machine Grade Changes"

Joyce Choi, **Danlei Chu**, *Honeywell*

"Simplified Approach to Modeling of Grade Change in Paper Machine Dryer"

Senthilmurugan S, *ABB Corporate Research Center*; **Tarun Mathur**, *ABB Corporate Research Center & IIT Bombay*; **Kartikeya Milind Shah**, *IIT Bombay*

"Raised Productivity with Virtual Sensors"

Jens Haag, **Niels Hardt**, *Voith Paper Automation gmbH & Co.KG*

Papermaking Additives Roundtable

Session Chair: **Larry Anker**, *Ashland Hercules Water Technologies*

Wet End Energy Conservation

Session Chair: **Martti Tuomisto**, *Metso*

"The Impact of Specialty Chemical Programs on Mill Energy Use"

Lisa M. Wesoloski, *Nalco Company*

"Innovative Mixing of Paper Chest with 6%-14% Consistency - Saves Energy and Improves Quality"

Dr. Wojtek Wyczalkowski, **Marc Moseley**, *Philadelphia Mixing Solutions Ltd.*

"Energy Efficiency in Paper Production using Direct Steam Injection"

David Degelau, *Hydro-Thermal Corp.*

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Paper Machine Data Management

Session Chair: **Keith Kemp**, *AstenJohnson*

"Integrated Mill Intelligence Tools Help Maximize Paper Machine Performance"

Dean Ferguson, *Capstone Technology Corp.*

"Deploying a Real-Time Data and Events Infrastructure to Improve Paper Machine Operations"

Dave Stockford, *OSIsoft*

"Real-Time Costing for the Pulp and Paper Industry. Make Smarter Decisions and Become More Profitable"

Jim Pigott, *Tieto*

MD Weight Variability in the Time Scale of 1 min-1Hz - Panel Discussion

Session Chair: **Scott Pantaleo**, *International Paper*

Panelists: **Phil Taber**, *AstenJohnson (recently retired)*

Timo Balse, *Voith*

Jim Ewald, *Paperchine*

Filler Tutorial

Session Chair: **Scott Yeakey**, *OMYA Inc.*

Scott Yeakey, *Omya Inc.*

Bruce Evans, *Specialty Minerals, Inc.*

Dryer Section Energy Conservation

Session Chair: **Pekka Korman**, *Deublin Steam Systems*

"Energy Focused Dryer Performance Indicators"

Jeff Chaloux, **Jim Maggard**, *Kadant Johnson*

"A Systematic Approach to Optimize Dryer Performance and Energy Savings – Case Studies"

Ajit K. Ghosh, *Visy Technical and Innovation Centre*

"Dryer Fabrics and Energy Consumption in the Drying Section"

Ian Lang, *AstenJohnson*

Tuesday June 2

3:30pm-5:30pm

Press Section Measurement & Performance

Session Chair: **Ian Lang**, *AstenJohnson*

"Reducing Variability in the Press Section"

Daniel Hedou, *AstenJohnson*

"Press Section Performance Monitoring"

Ross MacHattie, *Honeywell*

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3:30pm-5:30pm

"Maximizing Machine Efficiency in the Press Section for Graphic Papers"

Robert M. Lowe, **Melissa Callejo**, **Terry Lemerande**, **Bob Barlow**, *Nalco Company*

"Enter Mini Shoe Presses"

Martti Tuomisto, *Metso Paper USA, Inc.*

Filler Technology Innovations

Session Chair: **Larry Anker**, *Ashland Hercules Water Technologies*

"Going from Acid to Neutral Papermaking and GCC Filling in Newsprint"

Louis Morimanno, **Matti Forsblom**, *Omya*

"Improved Productivity in Linerboard Using Kaolin Filler"

Leslie McLain, **Perry Veal**, **Roger Wygant**, *IMERYS*; **Dr. Bill Smith**, *Paradigm Chemical Company*; **Eddy Turner**

"Carbon Dioxide based Applications for Optimization of Calcium Carbonate Containing Papermaking Processes"

Lotta Jansson, *Linde AG*

"Innovative Process to Manufacture Calcium Carbonate by the Causticizing Process in a Kraft Pulp Mill"

Haruo Konno, *Nippon Paper Industries, Co., Ltd*

Tuesday June 2

3:30pm-5:00pm

Additional Energy Conservation Opportunities

Session Chair: **Jeff Reese**, *International Paper*

"Cost Savings with Effective Chemicals Mixing System at Mitsubishi Paper Hachinohe Mill PM 7"

Jouni Matula, *Wetend Technologies Ltd.*; **Ryouhei Watanabe**, *Mitsubishi Paper Mills Limited*

"Life Cycle Cost Based Optimization of PM Heat Recovery System for Machine Room Ventilation"

Kalle Riihimaki, *Balance Engineering Ltd.*

"Insulation, the Forgotten Technology; For Energy Conservation and Emission Reduction"

Ronald King, *National Insulation Association*

New Technology Showcase

Session Chair: **Bill Butterfield**, *Stowe Woodward*

Wednesday June 3

8:00am-10:00am

Clothing Performance Monitoring - Panel Discussion

Session Chair: **Richard A. Reese**, *Dick Reese and Associates*

Panelists: **John Neun**, *Albany*

Eric Diamond, *Weavexx*

David Buchanan, *Voith*

Dave Burton, *AstenJohnson*

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Wednesday June 3 (cont.)
8:00am-10:00am

Paper Machine Sensors Handbook - Tutorial

Session Chair: **Kerry Figiel**, *International Paper*

Green Papermaking Additives

Session Chair: **Philips Orianan**, *Georgia Pacific*

"Green Papermaking – Chemical Innovations to Reduce Environmental Impact"

Michael O'Byrne, *Ashland Hercules Water Technologies*

"The Promise of Biobased and Biodegradable Polymer Materials in Paper & Paperboard Products - Reducing Carbon Footprint and Improving Environmental Performance"

Ramani Narayan, *Michigan State University*

"Agricultural Based Solvent Cleaners for the Pulp and Paper Industry"

George Thomas, *Buckman Laboratories*

"New Biosolvent Technology Addresses Environmental, Health, and Safety Issues of Traditional Solvents"

Mike Miller, *Ashland Hercules Water Technologies*

Wednesday June 3
10:30am-12:00pm

Papermaking Roundtable

Session Chair: **Gary Nyman**, *International Paper*

MD Weight Variability in the Frequency Range of 1-40 Hz - Panel Discussion

Session Chair: **Paul Kristopeit**, *AstenJohnson*

Panelists: **Phil Taber**, *AstenJohnson (recently retired)*

Ann Timberlake, *Metso*

TBD

Sizing Innovations

Session Chair: **Darren Swales**, *Kemira*

"Fatty Acid-Starch Complex in the Application of Linerboard Surface Sizing"

Jinhua Yan, *Guangdong Industry Technical College*; **Yulin Deng**, *IPST @ Georgia Tech*

"Dramatic Enhancements of the Ink-Jet Printability of Uncoated Paper"

Dr. Daniel F. Varnell, *Ashland Hercules Water Technologies*

"Alternative ASA Technology Advantage and Disadvantage"

Manuel Ruiz, *Buckman Laboratories, Inc.*

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Paper Machine Auxiliary System Measurement & Performance

Session Chair: **Jon Kerr**, Andritz

"Practical On-Line Vibration Monitoring for Paper Machines"
J. Michael Robichaud, P.Eng., CMRP, Bretech Engineering Ltd.

"Papermachine Room Ventilation Guidelines"
John Nielsen, BE&K

"Monitoring the Performance of Pumping Systems"
Joe Ruggiero, ITT/Goulds; **Mike Pemberton**, ITT Industrial Process

Paper Machine Measurements and Control

Session Chair: **Ross Elliot**, Emerson

"Optimized Cross Direction Control of Weight and Porosity"
Amor Lahouaoula, Honeywell; **Ross MacHattie**, Honeywell

"Multivariable Control and Energy Optimization of Tissue Machines Using Multiple Moisture Measurement"
Stephen Chu, **Johan Backstrom**, Honeywell

"Multivariable CD Control of a Large Linerboard Machine Utilizing Multiple Multivariable MPC Controllers"
Cristian Gheorghe, **Amor Lahouaoula**, Honeywell

Innovations in Deposit Control Technology

Session Chair: **Eric Wagner**, MWV

"Advanced Control of Hydrophobic Contaminants in the Paper Machine Wet End"
Laura Sherman, Nalco Company

"Sustainable Cleaning & Deposit Control"
John Schwamberger, DuBois Chemicals

"How Can Measuring Colloidal Organic Variability Improve Paper Machine Runnability?"
Danny Haynes, Eka Chemicals, Inc.

Wednesday June 3
3:30pm-5:00pm

PM Measurement & Performance Wrap-up Roundtable

Session Chair: **Jeff Reese**, International Paper

Fiber Scale Formation

Session Chair: **Dr. Cyrus Aidun**, IPST @ Georgia Tech

Panelists: "Mechanics of fiber-fiber interaction and paper formation: Theory and Practice"
Dr. Cyrus Aidun, IPST @ Georgia Tech

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"Wet end Chemistry of papermaking and paper formation: Theory and Practice "
Dr. Yulin Deng, *IPST @ Georgia Tech*

"Modeling of flexible fiber suspensions and web formation"
Dr. Dewei Qi, *Western Michigan University*

Innovations in Strength Technology

Session Chair: **Rosy Covarrubias**, *Buckman Laboratories*

"Strength for the Future - Modern Concepts and Mechanisms"
Anton Esser, *BASF Corporation*

"Enhanced Fiber Additives for Strength and Machine Performance Improvement"
Jagannadh Satyavolu, *Cargill, Inc.*

"Use of PLA as a Paper-reinforcing Agent"
Asif Hasan, **Biljana Bujanovic, Ph.D.**, **Tom Amidon**, *SUNY-ESF*