



PACWEST 2017 TECHNICAL PAPERS

“MANAGING RESOURCES FOR SUCCESS”

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“Presentations only” (without written papers) are not included.

Session 2A – PROCESS CONTROL

1 Evaluation of a Novel and Green COD Analysis Method for use with Canadian Pulp Mill Effluents for Benchtop and Online Applications

Brian O’Connor, Serge Genest, FPIInnovations, Quebec, ; Stephanie Horner, Robert Menegotto, Maggie Grierson, Mantech, Ontario

2 Prediction and Simulation Analysis: Production changes demanded new prediction and simulation solutions.

Timo Arra, Kenneth Lundstrom, Eurocon MOPSSys

3 Techniques and Benefits of Using a Process Simulation System during Control System Migration

Carl Sheehan, Spartan Controls and Keith St. Thomas, Harmac Pacific

4 Liquor Cycle Optimization - Recovery Boiler (Presentation only)

Jeff Butler, Valmet Automation, Savannah, GA

5 Maximization of power export profits by means of identifying and understanding the interactions between the utility system and the process in P&P mills (Presentation only)

Enrique Mateos-Espejel, Tatiana Rafione FPIInnovations, Pointe-Claire, QC; Étienne Bernier, Abdelaziz Hammache, Natural Resources Canada, CanmetENERGY, Varennes, QC.

6 Advanced Cogeneration controls design and implementation using a first-principles simulator

Ben Janvier, Enero Solutions, Montreal

Session 2B ~ PULP & PAPER

1 Optimizing Resources for Mitigating Electrical Safety Risks

Shantanav Bhowmick, Canfor Pulp Limited, Northwood; Jonathan Sehn, William Cheung, Andritz Automation

2 A Novel Synthetic Adsorbent for Pitch Control

Marcelo Xavier Ribiero, John Cowman, Andy Bell, Patrick Dauphin, Archroma, São Paulo, Brazil

3 The Design of Reliable Storage Bins and Feeder for Handling Hog Fuel and Wood Chips

Jamil Bundalli, Jeff Hrytzak, Kamengo Technology Inc., Richmond BC

4 Enzymatic Bleaching - Back from the Drawing Board

Tom Holm, Buckman International. Tell City, IN, USA

5 Advanced Control Opportunity Management – How to Identify Opportunities, Prioritize Projects and Minimize Risk

Devin Marshman, James Tung, Chris Roberts, Spartan Controls, Burnaby; David Paulson, Zellstoff Celgar Limited Partnership, Castlegar BC. Presented by Kerry Morton, Zellstoff Celgar

6 LC Refining of Mechanical Pulp: Understanding the Scale-up between Pilot Trials and Mill Operation (Presentation only)

Ali Elahimehr, Quesnel River Pulp; James A. Olson, UBC

Session 3A ~ STOCK PREP & MACHINE OPERATIONS

1 **Pulp Screening Optimization at Alberta Newsprint: Better pulp Quality with Lower Energy** (*Presentation only*)

Chad Gurney, Surendra Singh Alberta Newsprint Company; *Mathieu Hamelin*, Aikawa Fiber Technologies, Montreal

2 **The Timken ADAPT™ Bearing for Paper Machine Applications**

Ryan Fernandes, Nigel Los, The Timken Company, North Canton, Ohio

3 **Runnability of Pulp Dryer Machines - Improving Production Efficiency of No#1 Pulp Dryer Machine at Celgar Mill** (*Presentation Only*)

Javad Saberian & Frederic Parent, FPIInnovations Pointe-Claire; *Michael Pinard*, Zellstoff, Celgar, Castlegar

4 **Best Practices For Paper Mill White Water Reuse and Fiber Recovery** (*Presentation Only*)

Dave McGowan, Kadant Solutions Division

5 **Papermaking Best Practices with Vacuum-Dewatering Systems**

Douglas F. Sweet, Doug Sweet & Associates, Birmingham, Alabama

6 **Improving Reliability and Achieving the Technical Limit of the #2 Pulp Machine at Hinton Pulp**

Matthew Pors, Reece Mitchelson, West Fraser - Hinton Pulp

Session 3B ~ UBC STUDENT PRESENTATIONS

1 **Moisture Content Measurement in Paper Drying Using a Novel Technique** (*Presentation only*)

Amir Farzad Foroughi, Sheldon Green, Department of Mechanical Engineering, *Boris Stoeber*, Department of Mechanical Engineering, Department of Electrical and Computer Engineering, University of British Columbia

2 **Hydroxyethyl lignin derivatives for bioplastics** (*Presentation only*)

Liyang Liu, L. N. Sathiksunoh, M. Cho, S. Chowdury and Scott Rennekar, University of British Columbia

3 **Effect of refining of NBSK mixed with Hardwood on tensile development in PFI mill refiner**

Sudipta Mitra, D. Mark Martinez, Department of Chemical and Biological Engineering; *James A. Olson*, Department of Mechanical Engineering, University of British Columbia

4 **Processing of pulp and paper mill waste to obtain hemicellulose**

Varun Rangu, Xue Feng Chang, Rodger P. Beatson, Chemical and Environmental Technology, British Columbia Institute of Technology, Burnaby; *Heather L. Trajano*, Department of Chemical and Biological Engineering, University of British Columbia

5 **Numerical Investigation of Cone Angle Effect on Hydrocyclone Flow Field**

Ehsan Zaman, Ali Vakil, James Olson, Department of Mechanical Engineering; *Mark Martinez*, Department of Chemical and Biological Engineering, University of British Columbia, Vancouver

6 **A bio-refinery scheme to fractionate bamboo into high-grade dissolving pulp and ethanol**

Zhaoyang Yuan, Nuwan Sella Kapw D. Mark Martinez, Department of Chemical & Biological Engineering, University of British Columbia; *Yangbing Wen*, Tianjin Key Laboratory of Pulp & Paper, Tianjin University of Science and Technology, Tianjin, China; *Rodger Beatson* Department of Chemical & Biological Engineering, University of British Columbia; Chemical and Environmental Technology, British Columbia Institute of Technology, Burnaby

Session 4A ~ POWER & RECOVERY

1 **Use of Vent Stack Temperature as a Feedforward Variable for Dissolving Tank TTA Control**

Brennan Dubord, Jason Johnson, Cariboo Pulp & Paper; *Bruce Allison, Wei Ren*, FPIInnovations

2 **Biomass Gasification for Lime Kiln Fuel Substitution** (*Presentation only by Michael Trivett*, Valmet, Vancouver)

Pila Keitaaniemi, Valmet Technologies, Oy Finland, *Kerry Flick*, Valmet Inc. Charlotte, USA

3 Improved Recovery Boiler Cooling and Washing Practices

Raymond Burrelle, *Mike Trivett*, *Mike Ward*, Valmet Inc., *Timo Karjunen*, Varo Industrial Services

4 Current Steam Turbine Technology and its Application in the Pulp and Paper Market - Including Case Studies (*Presentation only*)

Montes Exor, Siemens Energy Inc. Orlando, USA

5 Control of Sulfidity in a modern Kraft pulp mill

Mats Nordgren, *Martin Wimby*, *Henrik Wallmo*, Valmet AB; *Asta Humalajoki*, *Eevi Smolander* Valmet Technologies Oy

6 Novel Chemical Solution Addresses Organic Fouling in Pulp Mill Stripping Systems

Scott Legrand, Solenis, Wesley Chapel, NC, USA