



PACWEST 2016 TECHNICAL PAPERS *“Embracing Technology”*

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

Session 2A – PROCESS CONTROL

- 1 Achieving Chemical Cost Saving at a Paper and Pulp Mill by Implementing Advanced Control for Bleach Plant**
*Ankur Mehrotra, Andritz Technologies Pvt. Ltd; presented by **Juri Lahtinen**, Andritz Automation*
- 2 Kiln Infrared Cameras for Brick Loss Detection and Residual Carbonate Control**
Barry Hirtz, Canfor Pulp; Devin Marshman, Carl Sheehan, Spartan Controls
- 3 The Development of Reliable On-Line Fiber Wall Thickness Measurement, from laboratory to Commercial Reality (presentation only)**
Lars Norin, PulpEye Canada
- 4 Online Quality Measurements are the Key to Understanding and Optimizing your Fibreline**
James Goldman, Valmet Automation
- 5 Troubleshooting a Black Liquor Concentrator Solids Control Problem via Modeling and Simulation**
Wei Ren, Bruce Allison, FPInnovations,
- 6 Auditing Your Lab to Insure Sensor Reliability**
Sandy Beder-Miller, BTG Americas

Session 3A ~ PULP & PAPER

- 1 Application of Low Consistency Refining of reject Pulp in Producing Multi Ply Folding Boxboards (presentation only)**
Hanya Hemasian Etefagh, Ramin Farnood, Chemical Engineering & Applied Chemistry Department, University of Toronto; Ivan Pikulik, IPConsulting, Pointe Claire, QC
- 2 Simplified Model Predictive MD Control of Paper Machines**
Cristian Gheorghe, Michael Forbes, Joyce Choi, Pezhman Nafissi, Honeywell Process Solutions
- 3 Improving Runnability at the Wet-End of Pulp Drying Machines (presentation only)**
Javad Saberian, Frederic Parent, Nina Deng & Makhlof Laleg, FPInnovations, Pointe-Claire
- 4 Revival of a 40 Year Old Drying Line to Compete in Today's Market**
Victor Zamora, John Toivanen, Andritz Canada
- 5 The Importance of Fibre Transverse Dimensions for Specifying Pulp Quality (presentation only)**
Ho Fan Jang, Bill Francis, FPInnovations, Vancouver
- 6 Maximizing the Value of ARC Flash studies in Pulp and Paper Mills**
William Cheung, Andritz Automation

Session 3C ~ UBC STUDENT PRESENTATIONS

- 1 Cellulose-Mycelia Foam: Novel Bio-composite Material (*presentation only*)**
*Hoda Ahmadi*¹, *Reza Koreheil*, *Mark Martinez*² and *James Olson*¹
1 Department of Mechanical Engineering, The University of British Columbia, 2 Department of Chemical and Biological Engineering, The University of British Columbia
- 2 Optimization and Modelling of Hemicellulose Oligomers Production from Pulp Mill Residues for use as Pulp Strength Additives**
*Jingqian Chen*¹, *Xue Feng Chang*^{1,2}, *Xinyi Chen*¹, *Rodger P. Beatson*², *Heather L. Trajano*^{1,*}
¹Dept. of Chemical and Biological Engineering, University of British Columbia ²Chemical and Environmental Technology, British Columbia Institute of Technology
- 3 Mechanics of Creping in Tissue Making (*presentation only*)**
Kui Pan, *A. Srikantha, Phani*, and *Sheldon Green*, Department of Mechanical Engineering, University of British Columbia
- 4 Absorption and out-of Plane Swelling in Paper (*presentation only*)**
Mathias Kvick and *Mark Martinez*, Pulp and Paper Center, Chemical and Biological Engineering, University of British Columbia
- 5 Multiobjective Economic Model reductive Control and Its Application in the Mechanical Pulping Process**
*Hui Tian*¹, *Bhushan Gopalunil*, *Victor Zavala*²
1 Department of Chemical and Biological Engineering, University of British Columbia, 2 Computation Institute at the University of Chicago and Mathematics and Computer Science Division at Argonne National Laboratory, Chicago
- 6 Effect of Alkaline Pre-extraction of Silica and Hemicellulose on the Kraft Pulping of Bamboo (*presentation only*)**
Zhaoyang Yuan^{1*}, *Nuwan S. Kapu*¹, *Xue Feng Chang*², *Rodger Beatson*², *D. Mark Martinez*¹ 1 Department of Chemical & Biological Engineering, University of British Columbia, Vancouver; 2 Chemical & Environmental Technology, British Columbia Institute of Technology, Vancouver; Corresponding author: Zhaoyang Yuan

Session 4A ~ BIOPRODCUTS & ENERGY

- 1 Energy Efficiency and Profit Optimization Using Advanced Controls in Cogeneration Applications**
Ben Janvier, Enero Solutions
- 2 Biogas Treatment and Utilization for Slave Lake Pulp Biomethanation with Power Generation Project**
*Megan DiJulio*¹, *Shannon Fehr*¹, *Daniel P. Bertoldo*², *Peter J. McCarthy*²
1 Slave Lake Pulp, Division of West Fraser Mills Ltd., 2 ADI Systems Inc.
- 3 The Importance of Considering Operating Regimes in P&P Mill for Efficient Energy Management (*Presentation only*)**
Tatiana Rafione, *Enrique Mateos-Espejel*, FPInnovations, Pointe-Claire;
Zoé Périn-Levasseur, *Luciana Savulescu*, CanmetENERGY, Natural Resources Canada
- 4 Benchmarking Energy Use in the P&P Industry: Approaches, Challenges and Benefits (*Presentation only*)**
Bahador Bakhtiari, *Serge Bédard*, Natural Resources Canada, CanmetENERGY; *Enrique Mateos-Espejel*, FPInnovations, Pointe-Claire
- 5 Important Lessons Learned During the Commercialization of the LignoBoost™ Technology and the Refining of Lignin for End Product Uses**
Anders Littorin, *H. Wallmo*, *Hanna Karlsson*, *Kristin Lindholm*, Valmet AB Gothenburg, Sweden; *G Christiansen*, Valmet Inc, Charlotte NC, USA
- 6 Control and Protection Systems for Condensing Turbo-Generators**
Jim Strausz, Canadian Industrial Optimization Services Ltd.

Session 4B ~ KRAFT PULPING

- 1 Model to Optimize the Design of Fiberglass Reinforced Plastic in Chlorine Dioxide Service**
Geoff Clarkson, UTComp Inc
- 2 Paper Mill Boiler Chemical Cleaning - Why, When and How**
David Kittel, Dewey Johnson, Valmet
- 3 Chemistry of Scale Control in the Pulp Mill**
Michael Wang, Harold Petke, Solenis
- 4 Advanced Applications for HDPE Pipes with new PE-RT Materials (presentation only)**
Wes Long, Performance Pipe; Carl F. Baker, Dow Chemical
- 5 Disposing of Secondary Sludge (Biosludge) in the Recovery Boiler**
Raymond Burelle, Kai Lüder, Kristin Lindholm, Mats Nordgren, Anders Wernqvist, Valmet.
- 6 Towards a Safer Recovery Boiler Operation**
Riley Hughes, Valmet