

Control Systems (CS)

Track Manager: **Michael Forbes**, *Honeywell International*

Monday, April 16th

1:30 pm - 3:00 pm

Room 207A

CS1 - Keynote & Asset Optimization †

Session Chair: **Michael Forbes**, *Honeywell International*

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| CS1.1 Keynote: A Framework for IIoT Analytics | Eric E. Harper , <i>ABB</i> |
| CS1.2 Reducing Cost of Ownership and Improving Long Term Performance of QCS Controls | Johan Backstrom , <i>Honeywell International</i> |
| CS1.3 On Optimization of Paper Machines using Economic Model Predictive Control | Olle Trollberg , <i>KTH Royal Institute of Technology</i> |

3:30 pm - 5:00 pm

Room 207A

CS2 - Imaging and Machine Vision Applications †

Session Chair: **Brian Mock**, *ECS*

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| CS2.1 Evaluating the Contrast of Planar Periodic Patterns on Paper | Jukka-Pekka Raunio , <i>Tampere University of Technology</i> |
| CS2.2 Understanding the Challenges of Transitioning from Service to Application Support for Defect Detection | Wesley Sweeny , <i>Procemex</i> |
| CS2.3 Integration of Machine Vision with Paper Machine Controls | Slawek Frackowiak , <i>Industrial Video Solutions</i> |

Tuesday, April 17th

8:00 am - 10:00 am

Room 207A

CS3 - Measurement Technologies †

Session Chair: **Steven Keller**, *Miami University*

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| CS3.1 Towards Total Production Monitoring of Basis Weight and Moisture | Catherine Östlund , <i>RISE Bioeconomy</i> |
| CS3.2 Reliable On-line Paper Formation Measurement | Slawek Frackowiak , <i>Industrial Video Solutions</i> |
| CS3.3 Enhanced-performance Online Infrared Measurement | Keith Lantz , <i>Honeywell International</i> |
| CS3.4 Application of Near Infrared Sensors for Online Measurement of Paper Properties | Sebastien Tixier , <i>Honeywell International</i> |

1:30 pm - 3:00 pm

Room 203B

CS4/PM4 - Innovative Modeling and Advanced Process Control †

Session Chair: **Dale Midyette**, *Jacobs Engineering*

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| PM4.1 Multivariate Modelling to Optimize Paper Quality and Production Cost Based on Fiber Morphology Data | Jarmo Kahala , <i>Glozell Oy</i> |
| PM4.3 Is Running a Paper Machine Harder than Landing a Man on the Moon? | Todd Jordan , <i>BTG Americas Inc</i> |

3:30 pm - 5:00 pm

Room 207A

CS5 - Pulp Measurements and Controls †

Session Chair: **Bruce Allison**, *FPInnovations*

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| CS5.1 Model-based Control and Diagnostics Strategies for a Continuous Pulp Digester | Moksadur Rahman , <i>Mälardalen University</i> |
| CS5.2 Optimization of Brown Stock Washing Using Advanced Process Control | Abhijit Badwe , <i>ABB</i> |
| CS5.3 New Trends in Advanced Process Control and Applicability to Pulp Mill Operations | Bill Poe , <i>AVEVA</i> |

Wednesday, April 18th

8:00 am - 10:00 am

Room 207A

CS6 - Industry 4.0 for Process Control †

Session Chairs: **Shih-Chin Chen**, *ABB* & **Mariana Sandin**, *OSIsoft*

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| CS6.1 Agile Infrastructure for Pulp and Paper Applications in the Digital Age | John Schroder , <i>ABB</i> |
| CS6.2 The Cloud Historian – An IIOT Cornerstone for the Process Industries | Johan Backstrom , <i>Honeywell International</i> |
| CS6.3 Digital Transformation and Change Agents | Mariana Sandin , <i>OSIsoft</i> |
| CS6.4 Collaborative Monitoring of Critical Equipment Availability in Finland's Newest Pulp Mill | Juha Alamäki , <i>ABB</i> |

10:30 am - 12:00 pm

Room 207A

CS7 - Control Systems: From PID into the Future †

Session Chair: **Ian Journeaux**, *Georgia-Pacific*

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| CS7.1 | Coming to Terms with PID | Patrick Dixon , <i>Global Process Automation</i> |
| CS7.2 | Cooperative Process Optimization Between Paper Machine and Stock Preparation Utilizing Plant Big Data Analysis | Takashi Sasaki , <i>Yokogawa Electric Corporation</i> |
| CS7.3 | A Brief Summary of the Control Systems Conference History | Åke Hansson , <i>HanDiX</i> |

1:30 pm - 3:00 pm

Room 207A

CS8 - MD Controls †

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

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| CS8.1 | Fuzzy Control on a Fluff Pulp Machine To Reduce Consistency and Moisture Variability | Amanda Lucas , <i>Global Process Automation, LLC</i> |
| CS8.2 | Improving Ash Controls and Ash Grade Changes | Patrick Lawless , <i>ABB</i> |
| CS8.3 | Have You Closed the Loop Around "Automatic" Grade Change Yet? | Seyhan Nuyan , <i>Valmet</i> |

3:30 pm - 5:00 pm

Room 207A

CS9 - CD Controls †

Session Chair: **Åke Hansson**, *HanDiX*

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| CS9.1 | Coordinating CD Actuators by Applying Actuator Deviation Penalty in Multivariable CD Control Optimization | Calvin Fu , <i>Valmet</i> |
| CS9.2 | Cross Direction (CD) Mapping Performance Indices | Kerry Figiel , <i>International Paper</i> |
| CS9.3 | A New CD Actuator Mapping Representation and its Benefits to CD Controls | Shih-Chin Chen , <i>ABB</i> |