

Control Systems (CS)Track Managers: **Michael Forbes**, *Honeywell International***Monday, April 16th**

1:30 pm - 3:00 pm

CS1 - Keynote & Asset OptimizationSession Chair: **Michael Forbes**, *Honeywell International*

- | | | |
|-------|--|--|
| CS1.1 | Keynote | Eric E. Harper , <i>ABB Corporate Research</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

CS2 - Measurement Technologies ISession Chair: **Risto Ritala**, *TUT*

- | | | |
|-------|---|--|
| CS2.1 | Enhanced-performance Online Infrared Measurement | Keith Lantz , <i>Honeywell International</i> |
| CS2.2 | Application of Near Infrared Sensors for Online Measurement of Paper Properties | Sebastien Tixier , <i>Honeywell International</i> |
| CS2.3 | Why Sensors are the Cornerstone of Your Big Data Strategy | Markku Mustonen , <i>Conmark Systems Inc.</i> |

Tuesday, April 17th

8:00 am - 10:00 am

CS3 - Measurement Technologies IISession Chair: **Steven Keller**, *Miami University*

- | | | |
|-------|---|--|
| 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 | Advances in Imaging-Based Measurement of Tissue Crepe Structure | Markku Kellomäki , <i>Honeywell International</i> |
| CS3.4 | New In-line Freeness Sensor for control of Refiners for better Drainage Management on the Paper Machine | Markku Mustonen , <i>Conmark Systems Inc.</i> |

1:30 pm - 3:00 pm

CS4 - Imaging and Machine Vision ApplicationsSession Chair: **Brian Mock**, *ECS*

- | | | |
|-------|--|---|
| CS4.1 | Evaluating the Contrast of Planar Periodic Patterns on Paper | Jukka-Pekka Raunio , <i>Tampere University of Technology</i> |
| CS4.2 | Understanding the Challenges of Transitioning from Service to Application Support for Defect Detection | Wesley Sweeny , <i>Procemex</i> |
| CS4.3 | Integration of Machine Vision with Paper Machine Controls | Slawek Frackowiak , <i>Industrial Video Solutions</i> |

3:30 pm - 5:00 pm

CS5 - Pulp Measurements and ControlsSession Chair: **Bruce Allison**, *FPInnovations*

- | | | |
|-------|--|---|
| 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 | Abijit Badwe , <i>ABB</i> |
| CS5.3 | New Trends in Advanced Process Control and Applicability to Pulp Mill Operations | Bill Poe , <i>Schneider Electric</i> |

Wednesday, April 18th

8:00 am - 10:00 am

CS6 - Industry 4.0 for Process ControlSession Chair: **Shih-Chin Chen**, *ABB*

- | | | |
|-------|--|---|
| CS6.1 | Innovative Infrastructure for Pulp and Paper Applications in Digital Age | Shih-Chin Chen , <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>OS/soft</i> |
| CS6.4 | Collaborative Monitoring of Critical Equipment Availability in Next Generation Bioproduct Mill | Juha Alamaki , <i>Metsa</i> |

10:30 am - 12:00 pm

CS7 - Process Data AnalyticsSession Chair: **Ian Journeaux**, *Georgia-Pacific*

- | | | |
|-------|--|--|
| CS7.1 | Turning Big Data into Value Increasing Asset and Organizational Performance | Tomas Jutbo , <i>Voith Paper</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 | Quality Focused Big Data Analytics in Pulp and Paper Industry | Emil Ackerman , <i>Quva Oy</i> |

1:30 pm - 3:00 pm

CS8 - MD ControlsSession Chair: **Kerry Figiel**, *International Paper*

- | | | |
|-------|--|---|
| CS8.1 | Fuzzy Control On A Fluff Pulp Machine to Reduce Moisture Variability | Amanda Lucas , <i>Global Process Automation, LLC</i> |
| CS8.2 | Projective Grade Change | 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

CS9 - CD ControlsSession Chair: **Ake Hansson**, *Handix*

- | | | |
|-------|---|----------------------------------|
| 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, *International Paper*

CS9.3 A New CD Actuator Mapping Representation and its Benefits to CD Controls

Shih-Chin Chen, *ABB*