

Digital Transformation Forum for the Steel Industry

25–28 March 2019 | Omni William Penn Hotel, Pittsburgh, Pa., USA



About the Program:

Digital Transformation is a critical component for steel companies' future success. It is a broad concept with the potential to influence all aspects of the steelmaking process. This workshop will provide an overview of and insight into the buzzwords (Industry 4.0, the Internet of Things) and technologies of Digital Transformation, such as smart sensor applications, artificial intelligence, robots and drones, augmented and virtual reality, cybersecurity, and additive manufacturing. Some sessions will focus on the integration and practical application of these technologies and procedures.

Organized By

AIST's Electrical Applications/Sensors Subcommittee and Computer Applications Technology Committees.

Schedule of Events

Monday, 25 March 2019

4–6 p.m.
Registration

5–6 p.m.
Welcome Reception

Tuesday, 26 March 2019

7 a.m.
Registration and Breakfast

8 a.m.
Opening Remarks
Ron Ashburn, Association for Iron & Steel Technology, and Michael Dudzic, ArcelorMittal Dofasco G.P.

8:10 a.m.
Keynote Presentation: Digitalization and the Steel Industry
Pinakin Chaubal, ArcelorMittal Global R&D

9 a.m.
Overview of the Digital Transformation of Industry
Gary Fedder, Carnegie Mellon University

9:40 a.m.
Break

9:55 a.m.
Creating and Leveraging Digital Ecosystems to Deliver Real ROI
Steve Carlson, Thermo Fisher Scientific

10:35 a.m.
Digital Transformation: The Edge Analytics Approach to Industry 4.0
David Kober, iba America LLC, and Andreas Quick, iba AG

11:15 a.m.
Synchronized Real-Time Analysis of Video Data and Measurement Data for Holistic View of Steel Production
Andreas Quick, iba AG

11:55 a.m.
Lunch

1 p.m.
Autonomous Material Handling Systems in the Steel Industry
Edgardo LaBruna, Janus Automation LLC

1:40 p.m.
Steel Drones
Jeffery Yeager, AM/NS Calvert LLC

2:20 p.m.
Virtual Reality (VR) and Augmented Reality (AR) Visualization for Digital Transformation
Chenn Zhou, Purdue University Northwest

3 p.m.
Break

3:15 p.m.
The Role of Real-Time Operational Data in the Digital Transformation of Steel Companies
Alexandre Cote, ArcelorMittal, and Osvaldo Bascur, Ossoft LLC

3:55 p.m.
Using AI Modeling for Predictive Quality and Routing
Heiko Wolf, PSI Metals GmbH

4:35 p.m.
Cybersecurity Systems and Its Implementation/Practical Application of Cybersecurity Systems
Johannes Bauer, UL International Germany GmbH

5:15 p.m.
Reception

Schedule of Events



Wednesday, 27 March 2019

7 a.m.
Breakfast

8 a.m.
Keynote Presentation: Digital Transformation: Beginning With the End in Mind
R. Joseph Stratman, Nucor Corp.

8:50 a.m.
Steel Industry and Plant Engineering – The Way From Digitization Toward a Digital Ecosystem
Katja Windt and Markus Reifferscheid, SMS group GmbH

9:30 a.m.
Introduction to Big Data: The Fuel to Digital Transformation
Kevin Modreski, IBM North America

10:10 a.m.
Break

10:30 a.m.
Cloud Computing in the Metals Industry
Patrick Gallagher, Management Science Associates Inc.

11:10 a.m.
What Is AI and How to Get Started With It in Steel Operations
Mukesh Ranjan, Noodle.ai

11:50 a.m.
Lunch

1 p.m.
Applications of AI in Steel Manufacturing: Selected Client Cases
Jose R. Favilla, IBM Worldwide Industry Solutions

1:40 p.m.
How AI Can Fast-Track Your Industrial Automation
Mahyar Khosravi, Canvass Analytics Inc.

2:20 p.m.
From Buying Scrap to Delivering Coils – How AI Can Enable a Better Steel Mill
Ying Tat Leung and Hyungil Ahn, Noodle.ai

3 p.m.
Break

3:15 p.m.
Case Study for a Data Lake Implementation in a Sheet Mill
Robert Oldroyd, Nucor Steel–Decatur LLC

3:55 p.m.
Manufacturing 4.0 for Metals
Manish Lunge, TATA Consultancy Services

4:25 p.m.
Data Analytics Based on Projected Quality Data Enabling Product Optimization and Development of New Steel Grades
Wolfgang Oberaigner, Primetals Technologies Austria GmbH

Thursday, 28 March 2019

7 a.m.
Breakfast

8 a.m.
Keynote Presentation: Artificial Intelligence: Enabling a Leap to Radical Efficiency
Stephen Pratt, Noodle.ai

8:50 a.m.
Driving Operational and Economic Impact With Real Machine Learning Applications
AJ Alexander, ITG Technologies

9:30 a.m.
Plant-Wide DT Actual Implementation Example: Smart Factory
Chris Sousa, ANDRITZ

10:10 a.m.
Break

10:30 a.m.
Digital Transformation Journey in the Steel Industry: Big Data IoT Impact – Your Digitalization Journey
Leonard Kosatka, Rockwell Automation

11:10 a.m.
Digital Transformation: The Power and Importance of a Digital Strategy and Implementation Road Map
Craig Thornton, Hatch Ltd.

11:50 a.m.
Lunch

1 p.m.
Digital Transformation Roundtable Discussion: North American Steel Producers
Panelists from Nucor Steel–Decatur LLC, ArcelorMittal Dofasco G.P., Big River Steel, AK Steel Corp., SSAB, Steel Dynamics Inc., U. S. Steel, Commercial Metals Company (pending)

2 p.m.
Digital Transformation Roundtable Discussion: Vendors
Panelists from IBM, SMS, Primetals Technologies, Hatch, PSI, Rockwell Automation

3 p.m.
Adjourn Conference