Manufacturers Panel
2020 May 27

Panelists:
Charlie Romberger – ArcelorMittal
Chris Damsgard – General Mills
Greg Colvin – Honeywell
Larry Megan – Linde
Sudarsan Rachuri – DOE

Moderator:
Haresh Malkani – CESMII
CESMII Anti-Trust Statement

As participants in this meeting, we need to be mindful of the constraints of antitrust laws. There shall be no discussions of, agreements or concerted actions that may restrain competition. This prohibition includes the exchange of information concerning individual prices, or any other competitive aspect of an individual company’s operation. Each participant is obligated to speak up immediately for the purpose of preventing any discussion falling outside these bounds.
Manufacturers Panel: Innovation through Roadmap Projects

Innovation  
Accomplishments  
Value
Agenda

- Introduction & Project Briefs
- Moderated Q&A
- Audience Q&A
Four Projects Represented from RFP-1 Program Portfolio

10 Projects

1. Data Modeling for Machine Learning and Data-Centric Analytics for Smart Aerospace Additive Manufacturing
2. Smart Manufacturing Workforce Development Model
3. Smart Connected Workers in Advanced Manufacturing
4. Inferential Modeling for Driving Out Energy Waste
5. Energy Management Systems for Subtractive and Additive Precision Manufacturing
6. Factory 4.0 Educational Toolkit
7. Production of zero-defect (ZD) slabs through the implementation of Smart Manufacturing technologies in steel continuous casting
8. Smart Manufacturing of Cement
10. Smart Manufacturing for Chemical Processing: Energy Efficient Operation of Air Separation Unit

Project Type/Focus Area

- Analytics
- Insights
- Modeling
- Intelligence
- Contextualization
- Process
- Sensing
- Data
- Information
- Workforce Development

~40 Member Organizations Represented
~$16M Total 40% Cost Share

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Manufacturers Panel: Innovation through Roadmap Projects

Dr. Greg Colvin
Technical Fellow
Honeywell Aerospace

Chris Damsgard
Principal Engineer
General Mills

Dr. Larry Megan
Senior Director
Linde-Digital

Charlie Romberger
Senior Principal Scientist
ArcelorMittal Global R&D

Dr. Sudarsan Rachuri
Program Manager
US Dept of Energy

Haresh Malkani, Ph.D.
Chief Technology Officer
CESMII
(Moderator)
Introductions and Project Overviews
Project Summary: Honeywell

Data Modeling for Machine Learning and Data-Centric Analytics for Smart Aerospace Additive Manufacturing

PROJECT GOAL
Develop technologies on data modeling, machine learning and data-centric analytics for smart Aerospace additive manufacturing and to implement these innovations using data from working Aerospace manufacturing facilities.
Project Summary: *ThinkIQ*

**Inferential Modeling for Driving Out Energy Waste**

**PROJECT GOAL**
Drive out wasted energy in manufacturing facilities through improved information technology. Provide operations with technology to sniff out unknown or unexpected energy consumption across the facility.
Project Summary: Texas A&M

Smart Manufacturing for Chemical Processing: Energy Efficient Operation of Air Separation Unit

PROJECT GOAL
Drive out wasted energy in manufacturing facilities through improved information technology. Provide operations with technology to sniff out unknown or unexpected energy consumption across the facility.
Production of Zero-defect (ZD) Slabs in Steel Continuous Casting

**PROJECT GOAL**

Improve steel slab quality and continuous caster productivity using Smart Manufacturing (SM) methodologies and technologies, thereby reducing overall energy intensity of the existing steelmaking and casting operations.
Moderated Q&A
Annual Meeting
2020