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Attendance

Members:

Scott Hibbard (Chairman)
VP Technology & Product Management
Bosch-Rexroth – Electric Drives & Controls
Hoffman Estates, Ill.

Drew Borders
Global Industrial Partnerships Coord.
Blaser Swisslube Inc.
Goshen, N.Y.

Randy Gilmore
Vice President & Chief Technical Officer
National Center for Defense Manufacturing & Machining (NCDMM)
Blairsville, Pa.

Russell Reinhart
U.S. National Sales Manager
Dormer Pramet
Elgin, Ill.

Douglas Watts
Chief Technical Officer
MAG Automotive, LP
Sterling Heights, Mich.

AMT STAFF:

Tim Shinbara (Staff Liaison)
VP-Manufacturing Technology
AMT
McLean, Va.

Ben Moses
Technical Director
AMT
McLean, Va.

GUESTS:

Rahul Kapoor
Global Data Analytics
Bosch Rexroth Corporation - CA
Pleasanton, Calif.

Benjamin Menz
Global Data Analytics
Bosch Rexroth Corporation - CA
Pleasanton, Calif.
Welcome
Each member introduced themselves. The agenda was reviewed.

Antitrust Statement
Trade associations have long been recognized as serving a valuable, pro-competitive and entirely lawful role in promoting the economic development and consumer welfare of our country. However, serious antitrust problems can arise if a trade association’s activities are not properly conducted. Accordingly, AMT assigns the highest priority to full compliance with both the letter and the spirit of the antitrust laws. It is thus vital that all meetings and activities of the association be conducted in a manner consistent with that policy.

TIC Mission
The Technology Issues Committee acts as the voice of the membership by providing input to the association on member needs in support of AMT’s products and services. The committee works with staff to develop, promote and implement programs and services relating to technology issues facing AMT members. The committee also assists AMT in meeting the objectives of the Board of Directors’ Strategic Plan.

Minutes Approval
The February 9, 2017, minutes were reviewed. Correction: Randy Gilmore attended but was not listed as an attendee. Mr. Watts motioned approval with correction. Mr. Reinhart seconded the motion. The minutes were approved with correction.

Manufacturing USA Update
The manufacturing USA institutes were discussed. A summary of all the institutes is located here: https://www.manufacturingusa.com/institutes. Institutes of interest to the committee are: America Makes, DMDII, and ARM.

MTConnect Update
Mr. Hibbard provided an update on the MTConnect standard. Version 1.3 is available. Version 1.4 is on the horizon.
Data Analytics
Mr. Kapoor provided presented projects and benefits of using machine learning for manufacturing problems. The key take-aways are:

- The output is only as good as the data.
- Tools only highlight correlations. The operator will have to interpret results to real world application and verify.
- The duration of the data analysis various from weeks to months.
- Data experts need support team members for problem-solving. Experts in data are versed in general problem solving and data manipulation.

Tech Watch List
Areas of interest were discussed. Topics include: data monitoring, predictive maintenance, energy consumption, MQL, additive, electronic power vehicles, and cyber/physical security.

Tech Trends Update
Tech Trends was discussed.

Tech Trends can be accessed through mtinsight.org (AMT’s business intelligence platform).

Tech Trends is research accelerator. The goal of this tool is to efficiently connect you to relevant information.

An overview of the app can be found here:
https://sway.com/p6weBOrVo5hYtgiO?ref=Link

MT360 Presentation
MT360 was discussed. The committee discussed similar conferences current and past. MFG 4 and Smart Manufacturing Experience were discussed. There are also individual company innovation days that compete in the area.

Roundtable
See Tech Watch List
Actions

- Develop list of massive open online courses (MOOC) on machine learning. (Mr. Moses)
  - Overview
    - https://www.edx.org/course/machine-learning-data-science-analytics-columbiax-ds102x-1#
    - https://www.coursera.org/learn/data-science-course
  - Practical
    - https://www.coursera.org/learn/practical-machine-learning
    - https://www.edx.org/course/data-analytics-learning-utarlingtonx-link5-10x
    - https://www.coursera.org/learn/ml-foundations
  - The sites shown below are programming/coding centric classes.
    - https://www.udacity.com/
    - https://www.datacamp.com/

- Summarize Manufacturing USA current activities. (Mr. Moses)

Conclude and Adjourn

Mr. Hibbard concluded the meeting and adjourned at 2:20 p.m.

Respectfully submitted,

Timothy J. Shinbara, Jr.
Staff Liaison