

MINUTES OF THE MEETING UNIVERSITY-INDUSTRY RELATIONS ROUNDTABLE 29 JUNE 2021 NASHVILLE, TENN., USA

Attendees:

Jennifer Alexander, Gerdau Laura Bartlett. Missouri S&T Amy Beard, Quaker Chemical Joe Bittorf, Charter Steel Kevin Bort, TMEIC Marc Brooks, Nucor Nick Bucciu Nucor Kelly Dallas, Cleveland-Cliffs (Chair) Jim Dudek, United States Steel Jennifer Durbin, Commercial Metals Company Joe Dzierzawski, BEUMER Amy Fisher, Nucor Chuck Greene, AM/NS Steve Henderson, CMC Steel Arizona Awolusi Ibukun, University of Texas San Antonio Roger Kalinowsky, The Sidock Group Love Kalra, Cleveland-Cliffs Indiana Harbor Kolin Keller, Commercial Metals Company Nilesh Kumar, University of Alabama Claudia Leal, EAFab Corp. Paul Lynch, Pennsylvania State University Erie Ted Lyon, Hatch Mike Madar, Cleveland-Cliffs Cleveland Jennifer McCloud, Cleveland-Cliffs Mark Olson, Pacific Steel Ron O'Malley, Missouri S&T Glenn Pushis, Steel Dynamics Tom Russo, Commercial Metals Company Mohamed Saied, EDZK Paul Sanders, Michigan Tech Barry Schneider, Steel Dynamics Pricilla Silva, Commercial Metals Company John Speer, Colorado School of Mines Katy Stepansky, Cleveland-Cliffs Kyle Toth, Purdue University Northwest Kendra Trahan, Commercial Metals Company Gary Urso, Tamini USA Chenn Zhou, Purdue University Northwest

Staff: Ron Ashburn Mark Didiano Courtney Shaffer Stacy Varmecky Lori Wharrey Ms. Dallas, committee chair from Cleveland-Cliffs, welcomed those attending and introductions were made around the room.

2.0 ANTI-TRUST GUIDELINE REVIEW

Ms. Dallas asked all in attendance to review the anti-trust guidelines provided on the back of the agenda.

3.0 COMMITTEE PURPOSE AND OBJECTIVE

Ms. Dallas stated the AIST Foundation University–Industry Relations Roundtable exists to foster communication between our university network and the steel industry. The committee objectives are to increase the number of professors teaching a steel-related curriculum, and to increase the number of students interested in a career in the steel industry.

She noted the importance of bringing young talent into the industry, and that the industry has much to offer.

4.0 REAL STEEL VIDEO CONTEST UPDATE

Ms. Shaffer, AIST staff, provided an update on the video contest. She reviewed the goals of this contest is to challenge high school and university students to research the steel industry and produce a three-minute video that educates viewers on a steel-related theme.

The theme, selected by the Video Contest Committee, for the 2021 contest was "How Steel is Used for Environmental Solutions." The semi-finalists are determined by public voting followed by committee review to select the grand prize winner. For 2021, 16 videos were submitted (60% increase over the previous year), and 31,625 public votes submitted (700% increase). Six prizes were awarded totaling \$8,000. The 2021 Grand Prize Winner was "Steel's Green Revolution" by a team of students from Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil, led by Bernardo Bastos. The video was played.

The theme for the 2022 video contest will be "The Future of Steelmaking – Digitalizatino and Industry 4.0.

5.0 VIRTUAL UNIVERSITY VISITS

Ms. Shaffer also reported AIST has been conducting Virtual University Visits since May 2020. This program began to keep students active and aware of AIST during the pandemic, which now has become a very successful opportunity to engage students across North America, Canada, and Mexico. During the visits AIST's scholarships and student programs were promoted including scholarships, membership, funding through the AIST Foundation Steel to Students program and opportunities at AISTech.

The visits were facilitated by AIST staff with the help of industry Young Professionals sharing their experience in the industry and how membership in AIST has helped. Past scholarship recipients also participated by sharing their internship experience.

Over 600 university students, from 31 unique universities were reached during these visits. These visits resulted in record-breaking student involvement at Technology Training Conferences, increased AIST awareness at universities without Material Advantage chapter, and a unique opportunity to visit with international students and faculty virtually.

We hope to continue to offer virtual visits into the fall 2021 semester.

6.0 INTERNSHIP & CO-OP "BEST PRACTICES" GUIDE

Ms. Wharrey, AIST staff, debuted the <u>AIST Foundation's Best Practices Guide to Conducting Quality</u> <u>Internship Programs</u>. A project that was started two years ago to provide guidance to steel and steel-related

companies on how to provide a great internship. Internships are key to bringing young talent into the industry.

Surveys were sent to students, steel companies, university career services, and steel company human resource personnel, all to learn what the students are looking for and what the companies in regard to internships. The field was narrowed, based on survey results, to five companies with quality internship programs including ArcelorMittal, Nucor, SSAB, Steel Dynamics, and Vallourec.

Pulling from all the information from the student surveys, and the university perspective from the career services department at Colorado School of Mines, shared their programs and how they address all components.

Also covered in the booklet are topics on how you find quality students, do you provide compensation, do you provide housing, how do you monitor the intern's experience, how you evaluate your program, how would you make your program even better.

The most important aspect to providing a successful internship is to have the right people involved. Remember, news about a good internship spreads quickly through a university; news about a bad internship experience spreads even faster.

The guide will be posted to the AIST website and included in *Iron & Steel Technology* magazine. We hope to distribute it to all companies and would be happy so send out copies.

Thank you to all those who participated in this project.

7.0 DIGITAL STEEL WHEEL 2.0

Ms. Wharrey introduced a video on the new and improved AIST Steel Wheel. The first Steel Wheel was created in 2015 in collaboration with Purdue University Northwest (CIVS), Colorado School of Mines (ASPPRC). It is an interactive experience of the steel manufacturing process. It is a great educational tool.

We are working again with Purdue to update the steel wheel with videos replacing any static images and hope to have the new version ready soon. Once finalized, the updated wheel will be posted to the AIST website.

8.0 TECHNICAL PAPERS AND PEER REVIEW

R. O'Malley

AIST President, Ron O'Malley from Missouri S&T, presented the strategic plan for <u>Technical Papers and Peer Review</u>. The goals of this project is to:

- Build a strong and relevant technical organization with active membership groups, quality publications and superior events, all with global access and appeal.
- Create stability with a conservative and diversified revenue plan while avoiding duplication of services.
- Achieve sustainable growth with continuous improvement through strategic planning, global outreach and dominant market position.

He reported that, during a previous UIRR meeting, it was agreed we need programs to better serve academic members. An Academic Review Core Team of AIST members was formed to review current programs related to academic peer review. The team included Dr. O'Malley, Dr. Chenn Zhou from Purdue University Northwest (CIVS), Dr. Bryan Webler and Dr. Chris Pistorius from Carnegie Mellon University. The mission was to identify ways to fully engage academic into AIST publications, programs and services.

The first priority was to increase the number of technical papers submitted to *Iron & Steel Technology* "Transactions." Second was to improve administration of the academic peer review process, and third was to increase visibility of technical papers. All three have now been implemented. Plans to implement an abstract management system for "Transactions" will be next, along with "open access" to papers.

It was asked if there are plans to retroactively add DOI numbers for AISTech proceedings papers.

9.0 FOUNDATION FACULTY GRANTS OVERVIEW

Ms. Wharrey introduced Dr. Paul Sanders from Michigan Technological University. Dr. Sanders was the first recipient of the Kent D. Peaslee Junior Faculty Award in 2013, and an AIST Foundation Steel Professor since 2017. He set the bar for future recipients and continues to lead the group of past, present, and future recipients. He was selected by Dr. O'Malley for an 2021 AIST Presidential Citation.

Dr. Sanders <u>reviewed</u> his programs and experience as a recipient of the KDP JFA and AIST Foundation Steel Professor. He recommends reaching out to chemistry engineering students to encourage interest in the industry. He also reviewed his plans to bring more interest to the materials science and engineering department by reaching the students and their parents through college admissions tours. The plans include stations through the building with information about steel and the steel industry.

10.0 ROUNDTABLE OPEN DISCUSSION

Following the presentations, Ms. Dallas gave instructions for roundtable discussions. Suggested topics provided were:

- What have we learned about our student internship program during COVID-19?
- What changes have we made to our internship programs?
- What are company plans for hiring interns during the summer of 2022?
- How can the steel industry work together to improve the perception of the steel industry to students and those who influence them most?

Some ideas:

- Children ages 4-10 are ideal to begin socially recognizing materials science benefits.
- Confirm pre-commitment from companies on the number of interns they plan to hire.
- Consider increasing the amount of the scholarships.
- Trend male/female applications and award statistics.
- Consider having professors select internship recipients.
- Look at other industries are doing at the university level.
- Documentaries or series on latest steelmaking process on social media.
- Short, one-hour technological training seminar.
- AIST app with short video links, training videos, white papers.
- Tour guides building relationship with students and parents on tour.
- Follow-up with students after tour is complete.
- Express internship/Co-Op opportunities for students with companies while in school.
- Express job placement (full-time) after internship/co-op.
- Steel Company HR Reps in direct contact with the professors that are in contact with students every day.
- AIST/Material Advantage Chapter meetings on campus give regular industry job announcements to students.
- Focus internships on supplier companies.
- Difficult for member chapters to get traction at big universities. Look at top students at smaller schools with 3.0 GPA.
- Virtual internships were not as good, but kept process going.
- Consider students at technical schools for internships.
- Get interns involved in Chamber of Commerce during internship.
- Get management involved in mentorship of interns.
- Students like food and beer, us it!

- No changes to internship programs due to pandemic. Internships remain strong at every division.
- SDI plans to hire as many, or more interns in 2022.
- Collectively think of a way to approach high school students about the steel industry through social media, make short (30-60 minutes) videos showing steel operations. Keep them short and to the point.
- Reach out to chemical engineering students.
- Create a tool for high school counselors to promote the steel industry. A list of majors, what they would do in a job situation, what industries they work in, and what jobs are available and the expected pay.
- All steel companies should work together to create a marketing campaign to change the old perception of the steel industry to the technologically advanced industry it is today. Push the environmental awareness including recycling.

11.0 NEXT MEETING

Ms. Dallas reported the next UIRR meeting will be on Monday, 18 October 2021, 10:30 a.m. -1 p.m. (Eastern) at MS&T'21, Columbus, OH USA

12.0 ADJOURNMENT

Ms. Dallas thanked everyone for attending and adjourned the meeting.

Minutes respectfully submitted, Lori A. Wharrey, AIST – Sr. Board Services Administrator

The minutes have been electronically sent to the members of the UIRR attendees for review, corrections, additions, and approval. Information contained in these minutes is pertinent to the University-Industry Relations Roundtable of the Association for Iron & Steel Technology, Warrendale, Pennsylvania and is to be treated as confidential.