



**MEETING MINUTES – FINAL  
UNIVERSITY-INDUSTRY RELATIONS ROUNDTABLE  
MONDAY, 16 MAY 2016  
PITTSBURGH, PA., USA**

Attendees:

Kelly Dallas (Chair)	Ron Ashburn	Steve Asseff
Laura Bartlett	Chuck Cinkowski	Amy Clarke
Kester Clarke	Neslihan Dogan	Derrick Dyas
Joe Dzierzawski	Bill Emling	Terry Fedor
Isaac Garcia	Jesse Gelbaugh	Fred Harnack
Eric Hauge	Love Kalra	Lauren Keating
Kolin Keller	George Koenig	Scott Laurenti
Clovis Linkous	Ted Lyon	Bernie Marrese
Sam Matson	Chris McKelvey	Bimalendu Mukhopadhyay
Jerry Nelesen	Ron O'Malley	Ben Polly
Terry Rasmussen	Ronaldo Sampaio	John Speer
Jeff Rogers	Tom Russo	Otavio Sanabio
Rich Smith	Ron Smolen	Pramay Thirkateh
Grant Thomas	Anna Voss	Bryan Webler
Lori Wharrey	Chenn Zhou	

**1.0 CALL TO ORDER AND INTRODUCTIONS**

Ms. Dallas called the meeting to order and introductions were made.

**2.0 ANTI-TRUST GUIDELINE REVIEW**

Ms. Dallas stated the meeting would be held in compliance with the Anti-trust Guidelines provided with the agenda.

**3.0 COMMITTEE PURPOSE AND OBJECTIVE**

Ms. Dallas reviewed the purpose of the AIST Foundation University–Industry Relations Roundtable is to foster communication between our university network (professors and career services representatives) and the steel industry (human resources personnel and operations representatives). The committee objective is 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.

#### 4.0 AIST MEMBER CHAPTER UPDATES

Ms. Dallas and Mr. Smolen reported the Midwest Member Chapter continues to hold fundraisers to fund scholarships. The annual high school seminar, limited to 200 students in previous years, is now open to an increased number partially due to the Foundation's Steel to Student Program - **K-12 Outreach**. The Steel to Students program provides reimbursement grants of up to US\$5,000 annually to AIST Member Chapters that conduct outreach programs for students in grades K-12.

Mr. Asseff stated the Pittsburgh Member Chapter also raises funds for scholarships. They hold an annual Dinner/Golf Outing, and have had very successful Young Engineers Night with student and young professional presentations. Ms. Voss reported the Birmingham Member Chapter also holds fundraisers for annual scholarships and are pushing student involvement in training seminars. Mr. Sampaio reported the Brazil Member Chapter is very active and sponsors student participation in the Student Speaking Contest. Mr. Thomas stated the Ohio Valley Member Chapter is in transition and building momentum.

#### 5.0 REAL STEEL VIDEO CONTEST UPDATE

Ms. Dallas reported the UIRR has completed its fifth "Real Steel" Marketing Video Challenge," open to high school and university students, to help change the current image of the steel industry as perceived by young people and educators. These perceptions greatly impact the progress of the AIST Foundation programs.

The 2016 theme was "Going Green" to educate viewers on how the steel industry has changed over the last 70 years in terms of environmental consciousness and responsibility. During the 'public phase' of the AIST Foundation student video contest, 2,394 votes were cast. The entries were viewed 2,578 times, which equals 129 hours of educational viewing about how the steel industry has become more environmentally conscious. All of the 2016 entries can be viewed on the AIST Contests Web page, and the Grand Prize winner will be shown at the President's Award Breakfast during AISTech.

The winners, chosen by the Video Contest Committee, are:

Grand Prize Winner (US\$3,000):

- Indian Institute of Technology–Roorkee, Roorkee, Uttarakhand, India, Harkirat Singh, student captain, "Steel is Green"

US\$1,000 Winners:

- McMaster University, Hamilton, Ont., Canada, Chris Thomsen, student captain, "Ubiquitous and Innovative: The Steel Industry"
- Virginia Polytechnic Institute and State University, Blacksburg, Va., USA, Emily Bautista, student captain, "Real Steel"
- Saint Thomas Aquinas High School, Overland Park, Kan., USA, Jada Rezac, student captain, "Steel: The Real Deal"
- Indian Institute of Technology–Roorkee, Roorkee, Uttarakhand, India, Ramanjeet Singh, student captain, "Green Steel"

US\$500 Winners:

- Virginia Polytechnic Institute and State University, Blacksburg, Va., USA, Erik Quiroga, student captain, “A Stainless Future: It’s a Steel”
- Colorado School of Mines, Golden, Colo., USA, Joshua Pelz, student captain, “Molten Movement”

Some ideas for next year’s theme to be considered by the committee were; careers, environmental consciousness, latest Innovation, advanced technology, electrical engineering, final products made from steel – a world without steel, people in steel – what a difference people make.

## 6.0 FOUNDATION GRANT REPORTS

- Laura Bartlett from Texas State University is in year two of the Kent D. Peaslee Junior Faculty Award. She reported significant progress has been made over the last academic year toward increasing awareness and interest in the steel industry amongst Texas State Students. Some of these achievements include increased collaboration with the steel industry, support of research projects, development of internship programs, tours of steel industries in Texas, and outreach activities involving local schools. In Nov 2015 the 2<sup>nd</sup> annual Steel Day was held with support from CMC, Gerdau Midlothian, Nucor Steel Jewett and Steel Dynamics. New steel processing capabilities were added to the foundry and heat treatment lab through support from CMC and the AIST Foundation. Student participation in the steel industry has increased through internships and a two-day tour to two steel mills; Nucor Jewett and Gerdau Midlothian. Twelve students attended this event and most of them had never toured a steel mill prior to this event.

In Jan 2016 the Material Advantage Chapter hosted 40 middle and high school students, parents and teachers for an all-day “Technology of Steel” workshop. At AISTech, a student from Texas State participated in AIST’s Student Presentation Contest and in a technical session. Two students were awarded a 2016-2017 scholarship through the AIST Foundation.

- Bryan Webler from Carnegie Mellon University has completed his 2014-2015 Steel Research & Applications Grant. He reported this project was in collaboration with CMU and Vallourec Star in Youngstown, Ohio. The objective of the project was to study inclusions after calcium treatment and to optimize the amount of added calcium. There were numerous participants from CMU, including undergraduates (four seniors in Capstone project, a junior researcher (financially supported by the award), and a second junior researcher), a postdoctoral researcher, and faculty. The students had opportunities to interact with engineers, managers, and operations personnel at Vallourec. The CMU students performed analyses of non-metallic inclusions in the scanning electron microscope and also did some simulation work with the software package Comsol. Results were presented at AISTech 2016. The project lives on beyond the grant, with continuing plans for optimization trials in the future.
- Bryan Webler from Carnegie Mellon University is in year one of his Kent D. Peaslee Junior Faculty Award. He reported this was his first year receiving the Peaslee Award. The award funds are primarily supporting students – a graduate student studying advanced ferrous alloy development and two undergraduate students during summer 2016 working on different aspects of steels. In March 2016 he coordinated a table at the Carnegie Science Center’s Sci-Tech Days festival. Volunteers from the AIST Pittsburgh Chapter and from AIST Headquarters

participated. We talked to approximately 200 high school students and demonstrated the wide variety of properties that steel can possess. We are planning to expand participation in future events to include Middle School students as well. In April 2016 I took a group of twenty four graduate and undergraduate students on a plant tour of the U.S. Steel-Mon Valley Works. We saw steelmaking and casting operations at Edgar Thomson as well as hot rolling and finishing operations at Irvin. The students were, of course, impressed with what they saw and were very engaged with the tour guides, asking many questions of them.

- Isaac Garcia from the University of Pittsburgh has completed his 2015-2016 Steel Research & Applications Grant. He thanks the AIST Foundation Board of Trustees for their generosity. The design and construction of the laboratory Continuous Annealing Line Simulator (CAL-VS1) system has been completed. The completion of the system was a truly multi-disciplinary effort where graduate and undergraduate students from different disciplines in the Swanson School of Engineering and the Ferrous Physical Metallurgy group at the University of Pittsburgh worked together to make the completion of this project feasible and ahead of schedule. The system has been used by several steel companies interested in new developments of Advanced High Strength Steels. The system is fully computer controlled, has infrared technology, cooling rates in excess of 100 degC/s are possible. The system is capable to process sheet samples of various lengths and thicknesses up to 5 mm.

## 7.0 NEW FOUNDATION PROGRAMS

- Electrical Engineering Grant – Mr. Keller reported this grant was approved by the AIST Foundation in 2015 as a one-year pilot program. This new grant is open to all engineering disciplines with an emphasis on electrical engineering, (industrial control systems, power and energy systems, electrical machines and motor drives) for grant funding in the theme area of an electrical challenge within the steel manufacturing industry. The maximum grant per award will be \$10,000 for a one-year project.

Proposals for the inaugural grant are due 30 Jun 2016. The Electrical and Computer Engineering Department Heads Association (ECEDHA) has been instrumental in informing universities about this new grant and is a great source for the steel industry.

Human Resource Complimentary Memberships – Ms. Wharrey reviewed this new program, approved by the Board in 2015. The Foundation sponsors complimentary AIST membership to steel company human resource contacts who actively participate in the AIST Foundation University-Industry Relations Roundtable (one per year).

- The Foundation often requires the assistance and input of these professionals for internship placement, distributing specialty training program information, assistance in organizing plant tours, and providing connections to regional universities, etc. Those interested are encouraged to participate.
- 2016-2017 Steel Intern Scholar Placement – Ms. Wharrey noted these scholars have all been placed for a summer internship. A list was provided.

## 8.0 ROUNDTABLE DISCUSSIONS AND LUNCH

Discussions were held at individual tables. Below were some suggested topics.

- Employment Needs
- Recruiting
- Increasing Student Participation in Career Services Events
- Identifying Research Needs of the Industry and Connecting with University Research
- Industry Salary Standards
- Curriculum
- Engineering Disciplines – What would I do in the Steel Industry?

Some discussions resulted in the following ideas:

- Golf allowances for students to come to golf outings.
- Take the AIST Roadshow to universities.
- Take AIST technical conferences to universities.
- How to attract the talented people for a career.
- Shop floor experience
- Operations – good hiring practices.
- Trades people – very competitive.
- Look for learning agility; communicate the sustainability.
- Behavioral assessments.
- Tuition reimbursement – must keep the people challenged.

## **9.0 OTHER BUSINESS**

Ms. Dogan from McMaster University stated she would like to see scholarships available to international students. Mr. Ashburn agreed it is time to discuss this. He noted Member Chapters are encouraged to establish regional scholarships where funds can be raised and awarded locally, using the AIST Mexico Member Chapter as an example.

## **9.0 NEXT MEETING**

Ms. Dallas reported the next meeting will be held on Monday, 24 Oct 2016, 10 a.m. - Noon (eastern) at MS&T16 in Salt Lake City, Utah.

## **10.0 ADJOURNMENT**

There being no further business, Ms. Dallas adjourned the meeting.