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Michigan Tech Student Compete at Railway Interchange 2017

Dr. Pasi Lautala, Director of Michigan Tech's Rail Transportation Program (RTP) and eleven students attended the Railway Interchange from September 17-20, in Indianapolis. With over 8,500 participants, Railway Interchange is the largest railway conference in the US.

As part of the student activities, Team 1 of the Railroad Engineering and Activities Club (REAC), consisting of Aaron Dean (ME), Alyssa Leach (CE), Alex Christmas (CE), Derek Owen (CE) and Mario Marachini (CE) placed 3rd in the student quiz bowl. Team 2 (Kyle Dick, Andrew Erickson, Erick Flaten, Clive Pinto, Pratik Tuplondhetook) placed 7th. Additionally, five Tech students were recognized for winning scholarships from the AREMA Educational Foundation

Senior Aaron Dean was also successful in the undergraduate student poster competition, taking the 1st place with his poster on "Using In-Vehicle Head Orientation Sensing Data to Rapidly Evaluate Driver Visual Scanning Behavior at Rail Grade Crossings". Dean also presented a poster "The Evaluation of Driver Compliance Behavior at Grade Crossings based on Naturalistic Driving Study Data" by Modeste Muhire in his absence as part of the graduate poster competition, placing 2nd.

To conclude a successful conference, Dr. Pasi Lautala presented "Evaluation of Driver Behavior at Highway Rail Grade Crossings" in the closing general session of the conference.

Student Project Spotlight—Improving & Expanding Manistique's Railroad Infrastructure

Senior Design Students from the Civil and Environmental Engineering Department worked with UP Paper, CN Railway and the City of Manistique to evaluate potential modifications and upgrades to Manistique's Railroad Infrastructure. The team evaluated the city's aging rail system, and proposed improvements, to increase capacity at UP Paper offer new rail access points for the city. The resulting plan would provide improved traffic flow for road and rail transportation modes, with the potential to industrial growth in the city of 3,000 residents.



Students study logistics facilities at UP Paper

2018 Youth STEM Festival and Science Fair

On April 12th, REAC and RTP supported the annual Michigan Tech STEM Festival and Science Fair. REAC members displayed our track-in-a-box model railroad, and a new railroad signal demonstration constructed by Alex Christmas and Kyle Dick. The big hit with kids and their parents alike was our Griswold Model 52 Mechanical Crossing Bell, which showed how railroads use electro-mechanical engineering to operate safely and efficiently.



REAC Members Alex Christmas and Kyle Dick show off demonstrations and displays at the MTU STEM Festival

UPCOMING EVENTS

[Rail and Intermodal Transportation Summer Youth Program](#)

– Jul 8-14, 2018

The 9th annual program will be again hosted by Michigan Tech and University of Wisconsin – Superior. Time to sign up!

[Michigan Rail Conference 2018](#)

– Aug 7-9, 2018

The 2018 Michigan Rail Conference "End to End Journeys: Integrating Partners" will be held in Saginaw this year.

[Railroad Night 2018](#)

– Sep 13, 2018

Annual marquee event encompassing industry and students on the Michigan Tech campus. This year, it is being organization in association with Transportation Day on campus.

[AREMA Conference 2018](#)

– Sep 16-18, 2018

AREMA's 2018 Annual Conference will be held in Chicago, IL this coming fall.

RTP Presents at the SHRP2 Safety Symposium and TRB 97th Annual Meeting

Pasi Lautala, director of Michigan Tech's Rail Transportation Program (RTP) and Aaron Dean, a senior in the ME Department and an undergraduate research assistant for the RTP, participated in the Tenth SHRP 2 "Safety Data Symposium: From Analysis to Results" on Oct 6 in Washington, DC. The Symposium included nineteen selected presentations by researchers who use the SHRP 2 Naturalistic Driving Study database. Michigan Tech was the only institution invited to make two presentations in the conference and Dean was the only undergraduate presenter.

Lautala, together with David Nelson also presented a paper "The Assessment of Driver Compliance at Highway-Railroad Grade Crossings Based on Naturalistic Driving Study Data" at the 97th Transportation Research Board (TRB) Annual Meeting. Sangpil Ko had a poster presentation on his paper "Advanced Wood Biomass logistics for Co-firing in existing Coal Power Plant: Case Study of the Great Lakes States" which was also selected to be published in the Transportation Research Record. Lautala also chaired the AR O40 Standing Committee on Freight Rail transportation.

Scholarships Awarded to REAC Members

Congratulations to our scholarship winners! Sponsored by CN, the Michigan Tech Rail Transportation Scholarships were awarded to Aaron Dean (ME), Alex Christmas (CE) and Claire Hill (ME).

Additionally, the American Railway Engineering and Maintenance-of-Way Association (AREMA) awarded scholarships to four students from Michigan Tech. Alex Christmas won the CN Railway Company Scholarship, while Smruti Dash, Alyssa Leach and Derek Owen each won Michigan Tech Alumni Scholarships. Congratulations to all of our scholarship winners!

Railroad Night & Rail Expo 2017

These two marquee events of the RTP and REAC were held on Oct 3 and 4, 2017, on the Michigan Tech Campus. Railroad Night featured activities designed to give students a close connection with the railroad industry, as many company representatives and recruiters were on hand for the event. Students loved the chance to connect while industry reps got to check out the Rail Transportation Program's next group of students looking to join the industry. The next day, Rail Expo was held outdoors and featured exhibits from railroad oriented companies, giving campus students and faculty a chance to check out the state of the railroad industry and inquire about opportunities within the business. Thanks to Mr. Kevin Riddett, CEO of RailWorks, for providing this year's keynote address!



Kevin Riddett, CEO of Railworks, delivers his keynote at Railroad Night 2017

REAC Fall Field Trip

Members of the Railroad Engineering and Activities Club travelled to Escanaba to tour the hometown railroad, the Escanaba & Lake Superior. Mike Logan showed off the railroad's extensive contract railcar repair facility, one of the largest in the Midwest. The shop is capable of modifying and repairing railcars of all types. The group also toured the CN Gladstone Yard, which included a look at one of the railroad's locomotives from the inside.



REAC Members pose for a photo inside of ELS' cavernous Railcar Repair Shop in Escanaba on the Fall Field Trip

ON THE ROAD

- 16-19 Sep—REAC: AREMA Annual Conference and Railway Interchange in Indianapolis, IN
- 6 Oct—Pasi and Aaron Dean at SHRP2 Symposium in Washington DC
- 11 Nov—REAC: Fall Trip to Escanaba, including tours at the ELS and CN
- 6-11 Jan—Pasi, Dave, and Sang Pil at TRB 97th Annual Meeting
- 26-28 Jan—Dave Nelson at the AREMA Committee 24 meeting in FL
- 5-8 Apr—REAC: Spring Trip to Detroit including tours at the Anderson's in Toledo, the Ford Rouge Complex, and the M1 Rail Headquarters.

RTP GUEST SPEAKERS

- 10 Oct—Rob Pokorski, recently retired from Trinity Rail, *Rolling Stock Management and Maintenance*
- 07 Nov—Derek Harter from CP, *Capital Investment Projects*
- 05 Dec—Sean Pengelly of the Lake State Railway, *LSRC's Latest Engineering and Expansion Projects*
- 23 Jan—Christian Riedel from Pettibone, *Speed Swing Program*
- 20 Mar—Phil Pasterak of WSP, *Engineering the Twin Cities Light Rail Network*
- 17 Apr—Niiko Rautiola of Progress Rail, *Career in the Rail Industry and Future Locomotive Technologies at Progress Rail*



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