

SAE MILWAUKEE

An SAE International Section

Upcoming Events

Milsco

- February 19

Clean Snow Challenge

- March 2-7

Case New Holland

- March 11

January 2015 Newsletter

Next Event:

Milsco



Milwaukee, WI

Thursday, February 19

About Milsco

Milsco designs and produces seats for the motorcycle, marine, construction equipment, turf care, power sports, industrial lift, and mobility markets. Milsco products can be found on many of the world's most recognized brands, including Harley-Davidson, Ariens, Toyota, Caterpillar, Polaris, and many more.



The company was founded in 1924 by Carl Swenson as the Milwaukee Saddlery Company and originally manufactured leather harnesses, collars and accessories for farm horses. Harley-Davidson approached the company in 1934 to create an upholstered two person seat, launching the company's longest-standing partnership. The company was renamed Milsco Manufacturing Company in 1948 when it made the decision to focus on products that serve the modern "automotive" era. Milsco is proud of its rich history and looks to build upon it each day by delivering innovative, high-quality seating solutions to world-class OEM customers.



Since 1924 Milsco has been expanding its range of capabilities from agricultural products to include recreational, construction, mobility and industrial vehicles. Today Milsco designs high-quality seating solutions developed solely for its OEM customers and manufactures over three million seats each year for a variety of commercial and residential vehicles.

Milsco's purchase by Milwaukee-based collaborative manufacturing expert Jason Inc. has strengthened its focus on perfecting the art of design and manufacturing, while helping build relationships that expand its support to customers around the world.

Event Agenda

***** Please note that the date has changed to February 19th *****

Event Agenda

Registration..... 5:00–5:30pm

Tours Start 5:15–5:45pm

Dinner..... 7:30–8:00pm

Presentation..... 8:00pm

Registration Fees

SAE Members \$20.00

Retirees..... \$20.00

Guests/Non-members \$30.00

Students..... \$10.00

Registration

Registration Deadline: February 13th

Maximum Attendance: 70 attendees

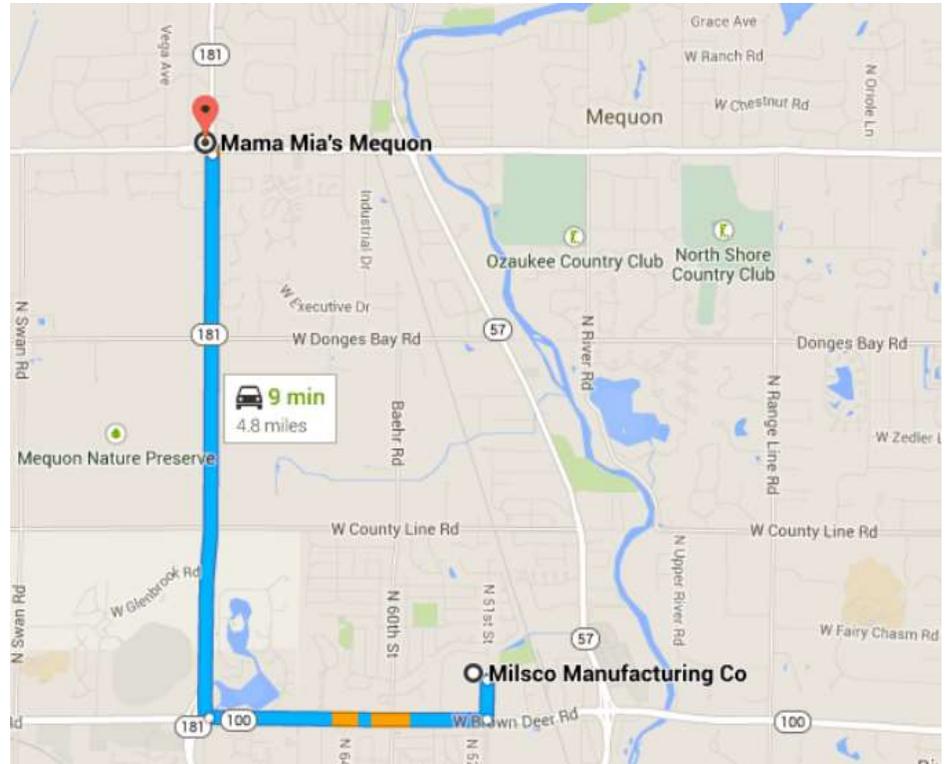
Ways to Register:

- Online with a charge card via www.milwaukeesae.com
- By phone at 414-807-9663 (Dale Wiza)
- By email at dale@engineeringplacements.com (Dale Wiza)

Registration required – no walk-ins allowed

Location

We will meet at Milsco (9009 N. 51st Street, Milwaukee) for registration and tours. After the tours, we will head over to Mama Mia's (7602 W. Mequon Road, Mequon) for dinner. The dinner menu includes beef lasagna, chicken marinara in a white sauce, pizza slices, Italian salad, and buttered garlic bread.



Clean Snowmobile Challenge 2015

March 2-7, 2015

Join Dale and others from the SAE Milwaukee Section in Keweenaw, where they have over 150" of snow!

The SAE International Clean Snowmobile Challenge (CSC) is an engineering design competition for college and university student members that challenge engineering students to reengineer an existing snowmobile to reduce emissions and noise. Their modified snowmobiles will compete in a variety of events including emissions, noise, fuel economy/endurance, acceleration, handling, static display, cold start and design.

The CSC Rules Committee makes changes to the competition each year to keep the competition fresh and to present new engineering challenges. CSC is primarily an "engine" competition however the underlying theme has remained consistent to engineer a clean and quiet trail sled. Current trail sleds are engineered to these standards, but it is possible to achieve more. Noise levels can be reduced and cleaner fuels can lead to lower emissions.

Competition Objective for IC Engines

The intent of the competition is to develop a snowmobile that is acceptable for use in environmentally sensitive areas such as our National Parks or other pristine areas. The modified snowmobiles are expected to be quiet, and emit significantly less unburned hydrocarbons and carbon monoxide than current production snowmobiles, without significantly increasing oxides of nitrogen emissions. The modified snowmobiles are also expected to be cost-effective and comfortable for the operator to drive. The intent of the competition is to design a touring snowmobile that will primarily be ridden on groomed snowmobile trails. The use of unreliable, expensive solutions is strongly discouraged! Modern snowmobiles are engineered to meet the current standards for noise and emissions. Teams are expected to add innovative solutions for improving on the performance of the base sled that they start with. Design judges (written and oral) will be looking for innovations and incorporating that into their scores.

The minimum performance expectations for a trail IC snowmobile are set by these rules as a sled that by design will go 100 miles without refueling and can attain a trail speed of 45 miles per hour on a smooth trail. Additionally they should be able to traverse 500 feet in 12 seconds or less. Designs that do not have a reasonable expectation of achieving these requirements will be allowed to compete only on an "Exhibition" basis.

Competition Objective for Zero Emissions Category

The Greenland Ice Cap acts like a sponge, absorbing atmospheric chemicals produced naturally, or via anthropogenic activities. Many of these chemicals are also photoactive in the lower troposphere and even in the upper layers of the snow. Research underway at Summit Station seeks to understand the processes involved, and how it might play into the global cycling of these agents. Some of the chemical constituents under study are measured in parts per billion. Emissions resulting from the burning of fossil fuels on site can hopelessly skew the research results. Due to the sensitive nature of much of the research being conducted at Summit Station, NSF seeks to find a "zero-emissions" vehicle for transporting researchers and support staff to and from research sites.

Electric snowmobiles or other forms of zero-emissions transportation have long been sought. Range and performance have always been extremely limiting factors that have precluded the successful development of commercially available models. Recent advancements in battery and motor technology have finally made it possible to realize vehicles with ranges adequate for some purposes. Zero-emissions personal transportation would allow the operation of more distant satellite camp facilities, and allow access to areas previously accessible only by foot. In short, this is a tool that the research community needs now.

Snowmobiles in this category must be zero-emissions by default. Therefore, no test or points will be given for emissions. Instead, range and draw bar performance will be measured. Innovation will also be judged in this category.

How to Get Involved

The Milwaukee Section of SAE is responsible for helping run the event, including judging reports written by the collegiate teams entering the competition. Your SAE Milwaukee Section needs you to help judge reports. To volunteer to judge papers, please contact Jay Meldrum (jmeldrum@mtu.edu). Judges typically read a minimum of four reports in the category they are most comfortable with (IC engines or electric). There are also volunteer opportunities during the competition. More information on volunteer opportunities at competition will be provided in upcoming newsletters. A schedule of events is included in this newsletter for those who are interested in helping at competition.

To learn more about the event or how you can get involved, please contact Dale Wiza (dale@engineeringplacements.com, 414-807-9663).

Corporate sponsorship opportunities are also available in various levels. If you or your company are interested in more information, please contact Brian Hannon (bghannon@mtu.edu, 906-487-3572).

Schedule of Events



Date/Time	Schedule	Meeting Place
Monday, March 2		
8:00 am to 7:00 pm	Teams Arrive, Registration opens Turn in Snowmobile Description Form IC and ZE Final Technical Inspections	KRC/T3 KRC/T3
5:30pm to 6:00 pm	Fire Safety Presentation	KRC/T3
6:00 pm to 8:00 pm	“Early Volunteers” Reception	<i>Joey’s Seafood, Houghton</i>
Shop open until Midnight	<i>Pizza for students in the shop</i>	
Tuesday, March 3		
7:30 am	Judges Meeting	KRC/T3
10:00 am	Gage Products IC Fueling *Grand Opening Event* NSF Electric Sled Range Test Endurance Run to Copper Harbor	KRC/T3 KRC/T3 KRC/T3
3:00 pm – 5:00 pm	<i>Late Lunch and discussion about Future CSC competitions</i>	<i>Shelden Grill</i>
Return to KRC – Shop open 5pm until Midnight		
Wednesday, March 4		
7:30 am	Presentation Judges Meeting	KRC Bldg 69
8:00 am to 5:00 pm	IC Design Presentations	KRC Bldg 69
8:00 am to 5:00 pm	AVL Lab Emissions Event Sensors Inc. In-Service Emissions	T5 T5
10:00 am to 11:00 am	Technical Presentation/Chalk Talk TBD	KRC/T3
8:00 am to 5:00 pm	Make-Up Endurance Miles	KRC/T3
Noon	<i>Cincinnati Chili Courtesy of The PCB Group</i>	KRC/T3
Student Registration ends at Noon		
1:00 pm to 3:00 pm	CH2M Hill Polar Services Electric Sled Draw Bar Pull	KRC/T3
4:00 pm to 6:00pm	Networking with Industry	Copper Country Mall
6:00 pm to 8pm	*Snowmobile Public Display* <i>Light refreshments will be served Courtesy of the Michigan Tech Graduate School</i>	Copper Country Mall
Shop open until Midnight		KRC/T3



Thursday, March 5

8:00 am to Noon	PCB and HEAD acoustics Noise Event	KRC T3
8:30 am to 5:00 pm	Polaris Subjective Handling Event	KRC/T3
8:30 am to 5:00 pm	Emissions Events (continued)	KRC/T5
10:00 am to 11:00am	Technical Presentation/Chalk Talk	
	EMITEC– “Catalyst Technology”	KRC/T3
Noon	<i>Pasty Lunch</i>	KRC/T3
1:00 to 4:00pm	ZE Design Presentations	ATDC
5:00 pm to 7:30 pm	SAE Milwaukee Section Meeting	
	Presentation by Barry MacLean, President and CEO of MacLean-Fogg	
Announcements for Special Awards Finalists Mandatory Attendance		DOW 641
	<i>Dinner provided for registered students and Volunteers</i>	

Shop open until Midnight

Friday, March 6

7:30 am	Judges Meeting	KRC/T3
9:00 am to 5:00 pm	Emissions Events (continued)	KRC/T5
10:00 am to 11:00am	Technical Presentation	
	Sound Quality	
	HEAD acoustics, Inc.	KRC/T3
Noon	<i>Beef Bar-B-Que</i>	KRC/T3
	<i>courtesy of the Iowa Snowmobile Association</i>	
1:00 pm to 6:00 pm	Open time to enjoy the Keweenaw Mt. Ripley Ski Hill, Dollar Bay Motorsports Dan’s Polaris, Houghton Powersports, M&M Powersports	
5:00pm to 6:00pm	VIP Tours of MEEM Building MEEM	
6:00pm to 8:00pm	VIP/Volunteer Reception	<i>Habeneros, Hancock</i>
Shop open until Midnight	Sleds Outside by Midnight	<i>Students dinner on your own</i>

Saturday, March 7

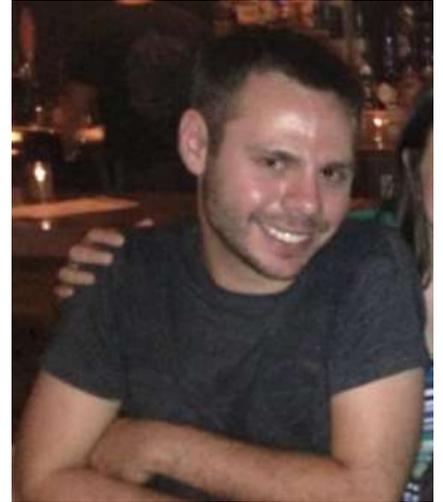
8:00 am to 8:30 am	NGK/NTK Cold Start Event	Outside KRC/T3
8:30 am to 10:00 am	Emission Testing (if necessary)	KRC/T5
10:00 am	*Polaris Acceleration event*	KRC Test Course
11:00 am	*Polaris Objective Handling event*	KRC Test Course
	ZE Acceleration + Load Test	KRC Test Course
Noon	Judges Meeting to Review Scoring and Penalties	KRC T1
6:30 pm	*Awards Banquet*	<i>MUB Ballroom</i>
	<i>Banquet Meals for the students courtesy of the PCB Group</i>	

Public Viewing Opportunities

SAE Milwaukee Section Board Member Spotlight

Drew Caron - Secretary

Drew's passion for SAE has developed over the past decade. He grew up in the outdoors and worked on cars with his family. His power sports interest progressed to eventually becoming the president of UWM Baja SAE organization during the 2014 race season.



Drew attended the University of Wisconsin – Madison for two years participating in Formula SAE as a machinist for various system components. In 2014, he received his Bachelor of Science Degree in Mechanical Engineering from the University of Wisconsin – Milwaukee where he participated in SAE-Baja and the SAE Milwaukee Section board. As president and recruitment chair, he was responsible for university affairs, travel arrangements, vehicle design, manufacturing, financials and coordinating sponsorship with companies. During his senior year, he led a team of 8 students to compete in Baja SAE-El Paso where the team placed the highest in program history in multiple events. Drew became involved with the board his sophomore year as a student representative. He attended board meetings facilitating communication between the board and his student chapter. After graduation, Drew has moved on to the secretary role on the board. In addition to his involvement with SAE, Drew enjoys hunting, fishing, off-roading, and restoring vehicles.

Milwaukee Section 2014-2015 Governing Board

CHAIRMAN:

Garrett Herning—Power Test Dynamometers
garretth@pwrst.com

VICE CHAIRMAN: OPEN**SECRETARY:**

Drew Caron—Rexnord
andrew.caron@rexnord.com

TREASURER:

Mitch Crawford—Modine Manufacturing Co.
m.s.crawford@na.modine.com

PAST CHAIRMAN:

James Ryan—Caterpillar
jim.ryan@cat.com

HISTORIAN:

Wayne Richter
richterway@sbcglobal.net

AWIM/EDUCATION:

Sid Jain - Modine Manufacturing Co.
S.Jain@na.modine.com

WEBMASTER:

Cara Kazda—Cummins Filtration
cara.kazda@cummins.com

MEMBERSHIP VICE CHAIR:

Dale Wiza—Professional Engineering Placements
dale@engineeringplacements.com

COMPANY AMBASSADORS:

Tony Grant - New Berlin Plastics
tony.grant@earthlink.net

COLLEGIATE RELATIONS:

Mike Krauski—UW-Milwaukee
krauski@uwm.edu

STUDENT ACTIVITIES:

Randy Hoffman—WCTC
rhoffman2@wctc.edu

CAREER DEVELOPMENT:

Dale Wiza—Professional Engineering Placements
dale@engineeringplacements.com

SENIOR ADVISOR:

Kurt Person—HB Performance Systems

SOCIAL MEDIA MANAGER:

Drew Boyer—Modine Manufacturing Co.
a.m.boyer@na.modine.com

NEWSLETTER EDITOR:

Mike Fricke—HUSCO Automotive
michael.fricke@huscoauto.com

STUDENT PROFESSIONAL TRANSITION MANAGER:

Nerissa Hanson—Mercury Marine
nerissa.hanson@mercrmarine.com

MINI BAJA CHAIRMAN:

Matt Anderson—Briggs & Stratton
anderson.matthew@basco.com

STUDENT REPRESENTATIVES:

Marquette: Jace Birschbach—jace.birschbach@marquette.edu

MSOE: Karl Hundt—hundtk@msoc.edu

UW-Milwaukee: Nate Sievers—nsievers@uwm.edu

Michigan Tech: TBD

UW-Madison: TBD

Northern Michigan University: TBD

A Letter from the Chairman

Greetings and Happy New Year Milwaukee SAE section members and friends,

I hope everyone had a safe and enjoyable holiday season. We begin 2015 with a full schedule of events planned through June, so please keep an eye out every month for the newsletter. We have some fantastic events planned starting off with Milsco in February. Milsco has a long history of manufacturing in Milwaukee and have an excellent event planned for us.

If you would like to get involved in the SAE Milwaukee Section, we have two great opportunities for you. The first is our Shadow Program. Interested in what being a board member entails? Volunteer to be a Shadow and we will pair you up with a board member. You can see what this board member does and help them with some of their tasks. This is a great way to get involved and see what helping out with the Milwaukee SAE Section is all about. Please contact Randy Hoffman for more information.

The second opportunity is our AWIM/STEM initiative. Please consider volunteering to help bring engineering into the classroom for middle and high school students. Did someone spark your interest as a child that led you to a path in engineering? Maybe you can do the same for a young person. This is a great way to have an impact and promote the engineering discipline. Please contact Sid Jain for more information.

Thank you and I look forward to seeing you at our events in 2015!

Garrett Herning
SAE Milwaukee Section – Chairman



The racing season is still a few months away but Road America intends to turn up the heat this winter with special motor coach day trips for the 2015 Chicago Auto Show, February 14-22 at the McCormick Place complex and IMS Motorcycle Show February 13-15.

Road America will do all the driving again by operating a Chicago Auto Show Express deluxe motor coach tour bus on Monday, February 16; Wednesday, February 18 and Friday, February 20. For just \$50, Chicago Auto Show riders get admission to the Chicago Auto Show and convenient round-trip service from locations located along Interstate 43 including: Manitowoc, Sheboygan, Cedarburg, Milwaukee and Racine.

For two-wheel enthusiasts, Road America will also be hosting a deluxe motor coach tour bus to the IMS Motorcycle Show in Rosemont on February 14. Billed as the largest motorcycle show tour in the world, IMS is the best place to experience the latest in gear, aftermarket parts and accessories, see the all-new models from major manufacturers, enjoy rider seminars at the main stage and much more!

Motor Coach service will depart from the designated pick up points for the trips between 6 and 11 a.m. Return trips to Wisconsin will depart at 4 p.m. sharp with anticipated return arrivals between 6:30 p.m. to 9 p.m. So this year, leave the driving to Road America, spend less time sitting in traffic, and more time enjoying the Chicago Auto Show and IMS Motorcycle Show.

Morning pick-up locations:

- 6:15 am Departure from Holiday Inn Manitowoc Parking Lot (BACK WEST LOT, near I-43) (Exit 149)
- 6:50 am Departure from Sheboygan Park & Ride, adjacent to Home Depot, West of I-43 (Exit 123)
- 7:35 am Departure from Cedarburg Park & Ride (Exit 89), East side of the interstate
- 8:20 am Departure College Avenue Park & Ride, Milwaukee (Exit 319), SW Lot, West of Interstate
- 8:45 am Departure Racine Park & Ride at Hwy 11 (Exit 335)

Cost:

IMS Motorcycle Show with round-trip transportation - \$45

Chicago Auto Show with round-trip transportation - \$50

NEW!!



SAE Board Member Shadow Program

Members, your board of directors has created a new way for you to get involved in the activities of the SAE Milwaukee Chapter!

Do you like the service and support that your SAE Milwaukee Chapter provides to you? Do you have some fresh ideas to make your section better? Or.....would you like to just get involved?

If you would like to participate but do not know how to get started, we have the program for you. This new program allows you to shadow a board member to learn the details of what they do for this section. With this opportunity you can investigate/help a position that interests you without jumping in with both feet. This will allow you to participate to the level you are comfortable with or find the position that suits your talents and/or interests.

We would like to invite you to Shadow a Board Member.

If you are interested in this opportunity please contact Randy Hoffman at (920) 397-6644.



SAE Milwaukee STEM/AWIM program

Your Milwaukee Chapter needs your help with expanding the AWIM program within the local schools. AWIM (A World In Motion) is a teacher-administered, volunteer-assisted program that brings Science, Technology, Engineering and Math (STEM) education to life for K-12 grade students. Program focuses on various age-appropriate challenges that are taught through the use of “kits” – students build different models using these kits while learning about basic principles of physics, motion and flight.

We have paired up with Messmer Prep and St. Rose/St. Leo schools in Milwaukee and will be introducing the AWIM program there



- Both schools are part of the Messmer Catholic Schools and serve the inner city students through a Voucher/Choice program
- This is **first time** a program of this kind is being introduced at Messmer – the program was **specifically requested by teachers** there to inspire girl students and encourage them to pursue STEM subjects later in their educational career
- AWIM program to be introduced for 4th and 5th grade students at both schools, with a focus on all 3 elementary and one middle school challenge
- **We want YOUR help** in assisting students in Fall and Spring sessions in after-school program setting (~ 3:30 – 5:00 pm)
- **For more information on volunteering, please contact Sid Jain, S.Jain@na.modine.com**

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