

SAE MILWAUKEE

An SAE International Section

Upcoming Events

- March 5th – 10th – Clean Snowmobile Challenge Milwaukee Section meeting – North sponsored by Oshkosh Corp. Rob Messina, CTO, presenting
- March 22nd – ACS

February 2018 SAE Newsletter

March 2018 Event



Design · Construction · Integration

Thursday, March 22nd

5:00pm

3119 Deming Way, Middleton, WI 53562

About ACS

ACS is a recognized leader in the delivery of test equipment, controls solutions, and facilities to the engine and vehicle market. Our approach to each project is founded on understanding and implementing our client's goals and objectives. Through a collaborative approach, we identify the business and technical drivers by asking, "What do you want your equipment and facility to do?"

With offices in Wisconsin and Michigan, and technical experts in engine and vehicle testing, equipment procurement and integration, and project management, we work locally, nationally, and internationally to serve an extensive list of clients including major automotive and engine manufacturers, tier suppliers, fuel companies, academic research, and third-party test organizations. We have designed and built or renovated hundreds of engine and vehicle test cells and facilities for R&D, certification, and production across the U.S. and around the world.

One of our first projects was Harley-Davidson Product Development Center – a state-of-the-art campus with offices, design space for product development, and test cells for emissions, NVH, and durability. We are proud to have been recognized by Cummins as a top U.S. supplier.

ACS demonstrates its strong commitment to Engine & Vehicle Test Industry by hosting an Engine & Vehicle Test Facility Forum which brings together industry peers in a non-commercial environment to share best practices and learn about new technologies related to the design, construction, operation, and maintenance of engine and vehicle test facilities.

About the Event

Tour of ACS Manufacturing Facility

ACS designs and builds custom equipment and engineered solutions for product development and testing. Systems range from a single, stand-alone unit to multiple integrated systems. You'll have the opportunity to see the following:

- A Demonstration of 3D Scanning for Facility Renovations
- Ground Simulation System for Off Road Machinery
- Implementation and Integration of Vision Systems for Process Quality Control

Our facility includes machining and metal fabrication capabilities, a comprehensive UL listed control panel shop, and space for project mock-ups and Factory Acceptance Testing (FAT) processes to insure quality is built into every test stand and engineered solution we design and build. We have designed and built equipment and controls for environmental, NVH, emissions, and alternative fuels testing and certification, as well as custom test stands, skidded equipment for fluid measurement and conditioning, containerized solutions, and equipment for engine handling, dynamometer/driveline solutions, and data acquisition.

Case Example Presentations

Presentations will describe case examples of ACS' work in the engine and vehicle market including automation of an end-of-line production test for consumer gensets, a new test facility that includes a full anechoic chamber and chassis dyno and a containerized solution for testing diesel fuel injectors.

Case Study: Designing and Building a Containerized Test Cell

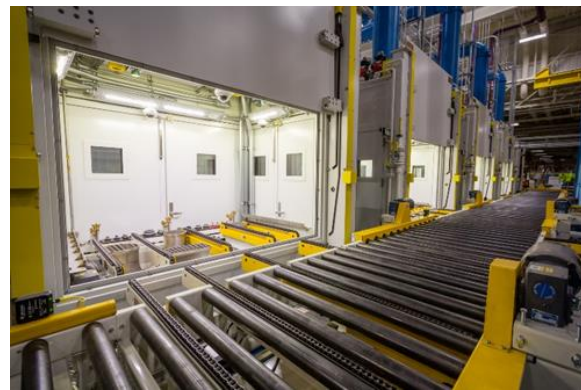
Diesel Forward, an aftermarket parts manufacturer and distributor, required increased levels of test documentation to support their new and existing products. ACS worked with Diesel Forward to design and deliver a containerized engine test cell, customized to their product range. The containerized solution was installed with minimal onsite

construction and can be taken another facility location. Contributing to their return on investment, they now generate enough electricity during durability testing to power their manufacturing facility.Presenter: Daryl Rothamer



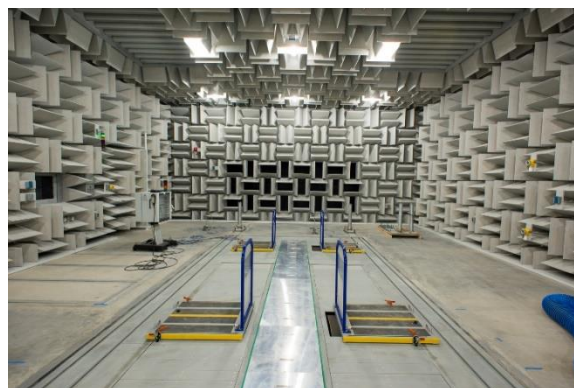
Case Study: Automated Gen-Set Test Cells & Delivery System

Case example of an end-of-line, automated production test system for generator-sets using propane, natural gas, diesel, and gasoline. No human interaction during test increased safety and eliminated testing variability. This system includes a total of seven independent test enclosures with integrated controls and data acquisition systems, an automated delivery conveyor system, and a centralized prep area.....Presenters: Matt Jorgensen & Tom Reiter



Case Study: Quality Test Data Through Facility & Test Equipment Integration at a New Technical Center

Journey through the process of bringing a technical center to life, from design through commissioning. We'll travel through the process of integration and placement of facility and test equipment to produce the highest quality data, as we designed and built a new technical center for a tier one automotive supplier. You'll learn about incorporating a chassis dynamometer into a NVH test cell and the challenges of fulfilling the needs and requirements of both the test space and equipment requirements.....Presenters: Randy Rozema & Bob Roth



About the Presenters

Scott Hoselton -- Principal; President

Scott Hoselton leads the ACS team to identify and prioritize client needs. Scott leads and directs company resources to develop and foster business opportunities that result in organizational growth. Internally, Scott is responsible for fulfilling the mission and values of ACS in an ethically sound manner leading to long term sustained results. He provides vision and strategic leadership with both internal and external stakeholders. Scott holds a B.S. in Civil Engineering and Construction Management from Marquette University.

Tom Reiter -- Senior Instrumentation and Controls Engineer

Tom's role is to manage the design, procurement, manufacture, integration, and commissioning of automated control systems and equipment. Tom has been at ACS over 14 years, with project experience in R&D diesel engine testing and facilities, production testing, test stands and equipment, and safety instrumented systems. Prior to ACS Tom worked as a controls engineer for a machine and test stand builder and an automated door OEM. Tom has a B.S. in Electrical Engineering Technology from the Milwaukee School of Engineering.

Matt Jorgensen -- Principal; Director, Facility Engineering and Site Management

With over 17 years' experience at ACS, Matt has extensive experience in the engine and vehicle industry and knowledge of R&D and production testing gained from working with OEMs, tier suppliers, and third-party research facilities around the world. Matt received his B.S. in Mechanical Engineering from the University of Wisconsin- Madison.

Randy Rozema -- Principal; Director, Technology Implementation

Randy is as a mechanical engineer with a specialty in acoustics and vibrations. At ACS, Randy supports projects within a range of roles including: planning, project management, project engineering, subject matter technical expert, test equipment integrator, commissioning lead, site-supervision, and project closeout. Randy holds a B.S. and M.S. in Mechanical Engineering from Western Michigan University and a Master of Engineering, Acoustics from Penn State.

Bob Roth -- Principal; Director of Project Delivery

Bob leads ACS' project delivery team serving ACS' R&D, Science & Technology, and Industrial customers. Mr. Roth has experience in coordinating all aspects of project delivery, including design management, pre-construction and construction, and ending with project close-out and commissioning. Bob received his B.S. in Construction Management from the University of Wisconsin - Platteville.

Daryl Rothamer -- Principal; Director, Systems and Equipment

Daryl Rothamer is the Director of the Systems & Equipment team at ACS. Daryl and his team of engineers, designers, and manufacturing technicians design and build machine automation and equipment for industrial, chemical, and automotive markets. Daryl has been at ACS over 9 years, starting as a mechanical engineer in the Machine Design Group. Prior to ACS, Daryl worked as an engineer and engineering supervisor at Chrysler (now FCA) for over 15 years. Daryl has a B.S. in Mechanical Engineering from Michigan Technological University and an M.S. in Manufacturing Systems Engineering from the University of Michigan-Dearborn.

Event Agenda

Registration	5:00-5:30pm
Tours	5:00-6:00pm
Dinner	6:00-6:45pm
Presentations.....	6:45-8:00pm

Registration Fees

SAE Members	\$25
Retirees.....	\$20
Guests/Non-members	\$35
Students.....	\$5

Registration

Registration Deadline: Noon, Monday, March 19th

Maximum Attendance: 60

Ways to Register:

- Online via the [SAE Milwaukee website](#)
- By phone: Garrett Herning – 856-313-0581
- By email: Garrett Herning – sae@c2cintegration.com

Location

3119 Deming Way Middleton, WI 53562

ACS is on the corner of Deming Way and Nursery Drive. Enter ACS parking lot on Nursery Drive. We have 60 spots available; please park only in designated spots. Parking is also available on both sides of Nursery Drive and Deming Way.



Clean Snowmobile Challenge – March 5-10

If you haven't experienced a Clean Snowmobile Challenge yet, please consider this year.
By request of engine manufacturers - 8 diesel sleds this year!

Many SAE members and guests attend this Collegiate Design Series event for just a couple of days or longer. You'll enjoy: student creative ideas and versatile engineering, competition, presentations, successes and challenges, mingle and mentor with them, take in some snowmobile riding, and/ or to serve as a judge (riding, reviewing of papers, etc.). See the schedule of events and more at <http://www.mtu.edu/snowmobile/>.

To judge papers, please fill out the judging form at <http://saecleansnowmobile.com/CreateAccount.aspx>.

If you can contribute to reviewing papers, respond with how many papers 4, 8, 12, 16, or 20.

"Thanks again for your contribution to competition-based engineering education."

Jay S. Meldrum, Sr.

Director – O: 906-487-3178 C: 906-281-1069

***The Keweenaw peninsula has 245” of snow to date!**

If you'd like to learn more, please contact Dale Wiza, 414-807-9663,
or dale@engineeringplacements.com. Watch a video at <http://www.superiorideas.org/projects/clean-snowmobile>

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 Section!

Do you like the service and support that your SAE Milwaukee Section 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, find the position that suits your talents and/or interests, or to serve in a committee with others.

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

Inspiring Today's Students to Become Tomorrow's Engineers and Scientists

OUR K-8 STEM EDUCATION SOLUTION, A World in Motion (AWIM), is a teacher-administered, industry volunteer-assisted program that brings science, technology, engineering and math (STEM) education to life in the classroom for students in Kindergarten through Grade 8. Benchmarked to the national standards, the AWIM program incorporates integrated STEM learning experiences through hands-on activities that reinforce classroom STEM learning.

Program Highlights & Benefits

- It's interdisciplinary in nature, which helps students learn to make meaningful connections among disciplines
- All activities correlate with the Next Generation Science standards and the Common Core standards
- It builds bridges between corporations and classrooms by giving teachers, volunteers, and students the opportunity to work together and learn from each other
- More than 72,000 curriculum/challenge kits have been provided; over 4.5 million students participate; more than 30,000 volunteers.



Industry Support & Volunteers

- Industry support is essential to this program. Corporations and their employees can influence the ways in which youth are prepared to meet the future by sponsoring schools in their communities. By doing so, schools can qualify to receive free or low cost AWIM program Challenge kits.
- Industry volunteers provide students with first-hand impressions and information about careers in their chosen profession and serve as an in-classroom resource for teachers.

Accordingly, Johnson Controls has been supporting certain Milwaukee county schools by providing the kits and volunteering hours over the past 8 years. This year, the “Jet Toy” challenge will be held for three Elementary schools – Atwater, Lake Bluff, and Kluge – proudly in collaboration with SAE - Milwaukee Section and broader SAE members as of the volunteers to enrich the students’ hands-on experience.

The program will be started in early February.

For more information on volunteering, please contact Negin Salami:

negin.salami@jci.com

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