



Moving Ahead



6th Annual
Injury Biomechanics
Research Symposium



SAE Driver Training
Event Held at TRC



TRACKS *newsletter*

TRC Inc. Launches New Facility Scheduler

Transportation Research Center Inc. (TRC Inc.) is proud to announce the launch of our new facility scheduling and reporting section on our website, which can be accessed by visiting our website at: <http://www.trcpg.com>.

The new features allow customers to view up-to-date scheduling information, facility conditions, and even allows customers to submit a request to schedule a facility for testing. Facility closures, weather updates, scheduled construction, and daily facility schedules are all accessible to our customers through the click of a mouse.

The facility scheduling portion of the website provides customers with a simple accessible tool to prepare, schedule, and track facility activity and upcoming testing.

Facility Conditions

Please be sure to check back or refresh this page often as facility conditions change. Please call (937) 666-2011 ext. 373 if you have any questions.

Facility	Status
Speed Restrictions	None
East Side Outside Black Top	Open
0 Lane Black Top Straights	Open
0 Lane Black Top Curves	Open
1st Lane Straights	Open
1st Lane Curves	Open
2nd Lane Straights	Open
2nd Lane Curves	Open
3rd Lane Straights	Open
3rd Lane Curves	Open



6th Annual Injury Biomechanics Symposium

The Ohio State University (Ohio State), in conjunction with TRC Inc., hosted the 6th Annual Injury Biomechanics Symposium May 16, 2010 through May 18, 2010. The symposium was intended to stimulate and reward strong injury biomechanics research among students and recent graduates.

The symposium kicked off on Sunday with a golf scramble, followed by a welcome reception held at The Varsity Club on Ohio State's campus. The symposium then moved to the Blackwell hotel conference center, for the research presentations and posters. Monday's events ended with a dinner banquet at the new student union's Woody's Tavern Restaurant. Additional presentations and posters were given on Tuesday morning and the event concluded with the annual Dr. Margaret A. Hines Awards.

The Dr. Margaret A. Hines award for best oral presentation was given to Claire Jones of the University of British Columbia, Vancouver, Canada for her co-authored paper, "Cerebrospinal Fluid Pressures During Dynamic Contusion-Type Spinal Cord Injury in a Pig Model." The Hines award for the best poster was presented to Aditya Belwadi of Wayne State University for his co-authored paper, "Conceptual Design Modification for Reducing Aortic Strain in a Left-Lateral Impact: A Design of Computer Experiments Study."

Symposium partners included TRC Inc., National Highway Traffic Safety Administration, Nissan, Ford, Nationwide Children's Hospital, Nationwide, Honda, and the Honda Partnership Program.

Abstracts for the 2011 symposium are due by January 31, 2011. For more information visit: <http://trcinc.com/2010>.



The staff at TRC attended the Moving Ahead 2010: Sustainable Transportation Solutions for the 21st Century Conference, from May 2 through May 4, at the new Ohio Union. The conference focused on

developing systems, technologies, policies, and practices that will serve our transportation needs into the distant future. Sustainable transportation for the 21st century

does not mean transportation that works for the next 5, 10, or even 50 years. Sustainable transportation systems must provide the services we seek and be resilient, adaptable, economically viable and environmentally acceptable, which is why the conference focused on the transportation industry in the year 2099.

In addition to being a Sponsor of the Moving Ahead conference, TRC Inc. had a presence in the Technology Expo, and hosted the Vehicle Fuel Efficiency: Making Every Drop Count session. TRC Inc. President Rick Gildow gave the welcome introduction and spoke during the Mon-

day lunch, while Jeff Sankey, Manager of Durability and Dynamics Operations, served on the Business Leaders of Today and Tomorrow panel. The panel allowed industry leaders and college students to discuss advancing transportation through the 21st century.

The event was sponsored by The Ohio State University (OSU) and Clean Fuels Ohio, with primary financial donations from Honda of America Manufacturing, Inc. and the Jon and Susan Diamond Family Foundation. For more information about the conference, you can visit: <http://www.movingahead2010.com/unite/>.

TRC Inc. Hosts SAE Dayton Section

Who can't benefit from a little driver training? TRC Inc. hosted 40 members of the Dayton, Ohio chapter of SAE on May 27, 2010, with several hours of driver training courses. The exciting event was built around some of the performance driver training classes that TRC Inc. has developed and used in our high-performance driving classes. These courses are designed for training our customers' engineering staff; however, the SAE Dayton members had the opportunity to feel the excitement and thrill of high-performance driving, in a safe and secure area.

Some of the vehicle control exercises and courses that the members experienced included: threshold braking; skid control; slalom course; kart driving; ride and drives; and TRC facility tours.

Events like this are available to complement product demonstrations or for a memorable team-building activity. For more information about our driver training visit: http://www.trcpg.com/dynamic_drivertrain.asp.

Feature Facility



Vehicle Dynamics Area

The Vehicle Dynamics Area (VDA) is a 50-acre asphalt pad, with acceleration loops on the North and South ends. The entire VDA has a 1% slope going from North to South.

Along with the large open testing area, the VDA is one of the most comprehensive of its kind. Several other facilities are located within its area, including various road courses; basalt and ceramic tile courses; noise testing courses, and radii circles.

This multipurpose facility can accommodate a variety of test needs including:

- Durability Testing
- Dynamic Testing
- Brake Testing
- Performance Testing
- Driver Training
- Product Demonstrations

For more information about the VDA, please visit <http://www.trcpg.com/facility-dynamics.asp>.



PACE Awards

17th Annual PACE Awards Applications Now Being Accepted



TRC Inc. is proud to continue our sponsorship for the 17th Annual Automotive News PACE™ (Premier Automotive Suppliers' Contributions to Excellence) Awards. The PACE Awards are open to suppliers that contribute products, processes, materials or services directly to vehicle makers. The awards are presented jointly by Transportation Research Center Inc., Ernst & Young and Automotive News.

The 2011 Automotive News PACE Awards are presented in five categories:

• Product. For innovations in new products or services.

- Product-Europe. As above but for innovations developed or first commercialized in Europe.
- Information Technology and Services. For innovations in the design and implementation of information systems. Applicants can be parts suppliers, service suppliers or IT companies.
- Manufacturing Process and Capital Equipment. For innovations involving manufacturing or business processes or capital equipment.
- Open. For innovations in areas that cannot be classified in one of the above categories or are reclassified at the judges' discretion. Past entries have included human resources and sales and marketing innovations.

After an extensive review of all finalists, including site visits, the 2011 Automotive News PACE Award winners will be announced at a gala ceremony in Detroit on April 11, 2011.

For complete information about the Automotive News PACE Awards and an application, visit our website at www.trcpg.com/aboutpaceawards.asp.

INDUSTRY EVENTS 2010

SAE On-Board Diagnostics Symposium
August 24-26
Indianapolis, Indiana

16th Annual Directions in Engine-Efficiency & Emissions Research (DEER) Conference
September 27-30
Detroit, Michigan

SAE Commercial Vehicle Engineering Congress & Exhibition
October 5-6
Rosemont, Illinois

SAE World Congress

TRC Inc. was honored to be the only automotive proving grounds among the 110 exhibitors selected for the "Innovators Only" exposition at the 2010 SAE World Congress held in Detroit, Michigan, April 12-15, 2010. This event was unlike others in past years, yet still lived up to its expectations as one of the most exciting and significant automotive engineering forums.

The event was condensed to three days this year, with more than 1,000 technical papers presented on new technologies and problem-solving techniques, and it hosted the new "Chat With the Experts" networking sessions where engineers had the opportunity to talk with industry experts about various engineering topics. With over 10,000 representatives from 46 nations in attendance, nearly all of the major worldwide Original Equipment Manufacturers were represented.

Electric Vehicles & Safety Performance

In 1839 when Robert Anderson of Aberdeen, Scotland built the first electric vehicle, government regulations were most likely the last thing on his mind. However, in the early 1980's when TRC Inc. performed our first crash test of an electric vehicle, electrolyte spillage and electrical shock were a prime safety concern. For the past 36 years we have seen many electric vehicles at the Center; initially during the fuel crisis in the 70's to the first mass produced EV1 in the mid 90's along with a few limited number of vehicles produced by other manufacturers in the late 90's. In 1999, Honda's entry with the Insight and a year later with Toyota's Prius, proved that consumers were willing to accept, at a price premium, a hybrid vehicle. In the 21st Century, many auto manufacturers, and a plethora of smaller niche market suppliers,



have thrown their hats in the ring for the current electric vehicle craze.

With so many manufacturers announcing electric vehicles slated for production, there is no better time to review the Federal Motor Vehicle Safety Standard (FMVSS) 305, Electric Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection.

The standard is applicable to passenger cars, multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating (GVWR) of 4536 kg or less, that use more than 48 nominal volts of electricity as propulsion power and whose speed, attainable in 1.6 km on a paved level surface, is more than 40 km/h. Vehicles are tested to the requirements of FMVSS 305 in conjunction with testing to FMVSS 208, 214 (dynamic side impact requirements), and/or FMVSS 301 (frontal or rear impact requirements), which can be performed at our impact laboratory (www.trcpg.com/services/impact.asp).

Additionally, SAE is currently working on a draft SAE J1766, Recommended Practice for Electric and Hybrid Electric Vehicle Battery Systems Crash Integrity Testing. This proposed SAE Recommended Practice is applicable to all Electric Vehicle and Hybrid Electric Vehicle battery designs that are comprised of at least one voltage bus with a nominal voltage greater than or equal to 60 Volts DC or 30 VAC. This Recommended Practice also addresses electrical isolation integrity, electrolyte spillage, and retention of the battery system. It will define test methods and performance criteria to help evaluate high voltage system spillage, battery retention, and electrical system isolation during specified crash tests. The addition of the voltage criteria in this document provides an alternative means of shock protection by discharging high voltage to non-harmful voltage levels.

The NHTSA standard and the SAE draft procedure can be found on their respective web sites or by clicking on the industry links on our website at: www.trcpg.com/industrylinks.asp.

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