



## Inside this Issue:

- 2 Illinois River Basin Project
- 3 June Autocross
- 3 September Autocross
- 5 New Website Address
- 5 Program Forecast

## 2009-2010 Section Year in Review

Reflecting on our section goals for the past 2009-2010 year, it reaffirmed to me just how talented and committed our governing board and their teams are to this section. We had four focus areas for the section this year: student involvement, communication and membership, A World in Motion (AWIM), and Finance.

In an effort to increase student involvement this year, the program team held the turbo chargers program in February at Bradley University. The Bradley section shared their Baja/Formula car design with the attendees and Borg Warner presented on some of their recent technology. There were more than 70 people in attendance that night, including several students from the car team and the Bradley section. We will continue to have one program on campus each year to build upon the positive student section relationship created this year.

We also made a significant effort to improve section communications this year. The quarterly Centroid kicked was published this year to keep our membership at large informed of activities happening locally in our section. The attendance at the monthly programs was outstanding, averaging 100 participants across the 8 programs. Through timely communications and more diverse program topics, program attendance improved 100% over last year.

This year we raised money for the section's A World in Motion (AWIM) Program. With the December silent auction and raffle, the section raised an additional \$1,000 for our sections AWIM. Thanks again to all the corporate sponsors who donated to this event. In this coming section year, we will continue to gather volunteers to support our local school districts during this program. If you are interested, please contact Jess Crompton.

Our financial goal was to run the section at a break-even status. The section had a surplus of \$1,300, of which a portion will be donated to AWIM.

On a personal note, I want to thank each of the governing board committee chairs: Jennifer Grote -Programs, Aaron Heintz - Treasurer, Justin Kendig – Sponsorship and Communications, Andrea Bazzale - Baja, Jessica Crompton – AWIM, Bill Jankosky – Retiree, and Matt Leustek – Vice Chair. Without each of you and your dedicated team members, we would not have had such a successful year. Thank you!

It was a pleasure serving as the section chair this year. We have another strong governing board this year with Jennifer Grote as the section chair. As always, please contact me or anyone on the governing board if you have suggestions for how our section can be more valuable to you, our members.

By Jennifer Leustek

## Illinois River Basin Project

The Central Illinois Section of SAE held a discussion on the Illinois River Basin Restoration Project by the US Army Corps of Engineers on April 29th, 2010 in the Caterpillar Inc. LC Building.

Troy Hythecker, Project Engineer for the US Army Corps of Engineers spoke to a group of roughly 50 people about the Illinois River Basin Restoration Project. He started off by explaining that the project's objective is to restore the deep water fisheries habitat that has been lost in Lower Peoria Lake due to sedimentation. The main benefit from dredging is the deep water, but the island is also a beneficial place to put the material because it creates additional habitat and improves sustainability of the dredged areas according to Troy. He explained Stages I and II of the Upper Mid-Sized Island project, which is currently being built near the McCluggage Bridge.

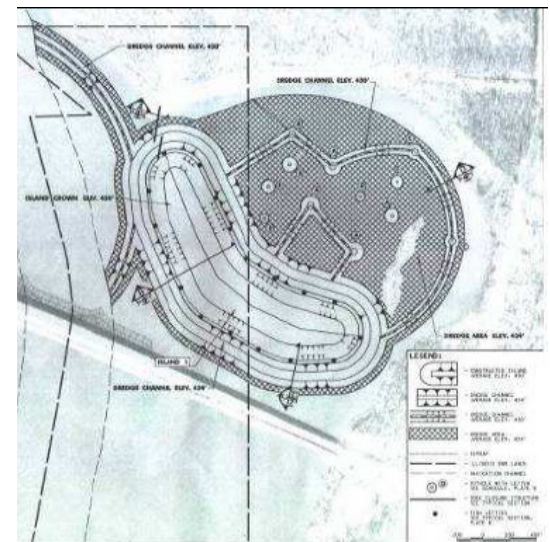


Stage I constructs a confined placement area for future dredging into the island. A total of 5700' of channel were dredged to 5.5' deep and filled with 3 rows of geotextile containers to a 6' height to form the island perimeter that is 4800' long. Stage II (to begin this summer or fall) will construct rock jetties and closure structures and dredge backwater areas to 6' deep and 2 channels to 6-10' deep. This will result in dredging a total of 44 acres and 397,000 CY. 1 row of geotextile containers will be placed on top of existing containers to form the island. (View real time construction progress anytime from Peoria Journal-Star camera on bridge: <http://12.179.27.30/>). Once the project is complete,

the US Army Corps of Engineers hopes to improve depth diversity, enhance aquatic habitat for fish and migratory waterfowl, and provide ancillary recreation benefits.

Troy is a civil engineer with the U.S. Army Corps of Engineers, and works primarily on environmental restoration projects. He is a professional engineer in the State of Iowa, and a graduate of the Missouri Institute of Science and Technology. He resides in Davenport, Iowa, and has a wife and 2 young kids. Thanks to Troy for his engaging presentation and to everyone who attended and helped with the event.

By Jennifer Grote



## June Autocross

That sweet dew glistening on the ground...the morning's fresh air wafting through your nose...the sun gallantly cresting the horizon...the singing of tires struggling for grip!

Few can argue with the sensory joys of an Autocross event on a Saturday Morning. That is just the experience that 85 motorsports enthusiasts relished on June 19<sup>th</sup> in Mossville.

CIS SAE teamed up with the Heart of Illinois region of Sports Car Club of America and setup an exciting event for novice and experience drivers alike. The event gathered racers and spectators from all over the Midwest, with skill levels ranging from past autocross national champions to weak in the knees novices. We were delighted, as were the spectators, by the variety of cars at the event. We had the joy of hearing the loud scream from a swift racecar's engine, the screeching of the early 70's Porsche ripping off the line, and the ear-to-ear smiles from the daily driven Honda Accord. Everyone was encouraged to bring out their automobiles and have a fun and safe experience, and we are glad to say it was a great success.

With the pre-registration selling out in less than 24 hours, we were very pleased to be able to fit in those on the wait list. With the combination of pre-registered and wait list registrants this was our biggest autocross event to date! It was only with the help of all the volunteers that we were able to make this autocross event run smoothly. The help and sacrifice of those in SAE and SCCA allow us to do these events. We thank all those that contributed, especially Caterpillar for graciously allowing us to use the facilities.

By David Nolan



## September Autocross

Blustery October winds were not enough to deter auto enthusiasts from participating in the CIS/SCCA autocross held in Mossville, IL. Some 70 participants showed up Saturday to push themselves and their vehicles to the limit.

The Central Illinois Section of SAE is continually pleased with the popularity of the autocross programs. The ability to bring like minded automotive enthusiasts together speaks to the heart of SAE. The autocrosses exemplify the principles of optimization, competition, and compromise. The diversity present within the 24 different classes offers participants and spectators the opportunity to get up close and personal to many different automotive schools of thought. To discuss the significance of AMG to Mercedes, the popularity and performance of the Mazda Miata, and how in the

world did you get that 1968 Camaro to handle that well. With engineering methodologies spanning 40 years and from across the globe, it's the perfect opportunity to see and judge for yourself. Bradley University took the opportunity to bring out their Formula SAE car and took advantage of the track time.



In an effort to show appreciation to organizations that support SAE, a Test and Tune was held the following Sunday. Since many volunteers forgo their own entry in order to open up spots to novice drivers, the Sunday T&T was held for them as a relaxed and less competitive event. It also gave drivers the opportunity to make setup changes and evaluate the results. Sunday's turnout was small, which gave all participants that many more runs. I personally took the opportunity to get a few runs with my 24 Hours of LeMons entry. The T&T was a success and will hopefully be a regular addition to the schedule.

Special thanks to the many volunteers, Dell Perot Systems Engineering Solutions, and Caterpillar for their continuing support. Spread the word and keep checking [sae-cis.org](http://sae-cis.org) for the Spring autocross date. The money raised is used to host better programs and to keep the program costs down. SAE is here for you, so let's see you at more of the programs and event.

By Andrew Berberich



## New Website Address

The SAE Central Illinois Section website needed to change its address. For information about future and archived events, general section questions, or membership benefits please go to:

[www.sae-cis.org](http://www.sae-cis.org)

## Program Forecast

The events listed below are currently being planned by the Program Committee of CIS-SAE. The event details are subject to change, for further information regarding future events please visit the website at [www.sae-cis.org](http://www.sae-cis.org). Also, if you would like to offer your assistance to help organize future events please contact Don Whitmore at [Whitmore\\_Don@cat.com](mailto:Whitmore_Don@cat.com).

### November: ICC Design Competition

On November 18<sup>th</sup>, SAE-CIS will sponsor the Illinois Central College (ICC) Design Competition located at ICC's East Peoria Campus, Lorene Ramsey Gymnasium. Design teams will compete to see whose trebuchet catapult can throw a tennis ball the farthest. In addition, a team of independent judges will evaluate each trebuchet for engineering design quality. These two factors will be combined to determine the winning entry. Cash prizes will be awarded, courtesy of SAE.

**Spectators are welcome!**

### December: ASME/SAE-CIS Joint Social

This networking event will provide an opportunity for local engineers to get together and meet other central Illinois area engineers. Last years event raised over \$1,000 for the SAE "A World In Motion program" program. Stay tuned to the SAE-CIS website for additional information and registration.

### January: Goodyear Race Tire

Racing professionals say that tires are the most important thing to get right on a race car. Most of us don't even realize tires are the most complicated part of a car. SAE-CIS has invited experts from Goodyear Tire & Rubber Company's racing division to come and discuss racing tire design and application.

### February: Boeing 787 @ Peoria Airport

The new Boeing 787 has a completely new design. Boeing engineers needed a better way to manufacture the redesigned 787 in a more efficient, cost effective way. This exciting February program will be at the General Wayne A. Downing Airport (PIA) new airport terminal.

### March: Dual Fuel Technology

Fuel cost and availability are forcing manufacturers to design fuel flexibility into their vehicles. Fuel management systems using cutting edge technology are here. What is it and how does it work? Come and find out!!