

To all Sponsors and Alumni;

The summer season for the SAE Race Team has approached its conclusion. During this summer we have had a plethora of great updates that we wish to share with everyone. Even with the University's policies/politics setting us back on our CNC goals; we have been able to build top-notch Baja and Formula race cars that gave us impressive race results this past season. We hope you will enjoy the updates in this newsletter and look forward to the sponsor meet & greets that are currently being planned.



The USF Baja had a very eventful and exciting season. The independent rear suspension was completed in time for testing. The rear

suspension not only performed well but better than any of us expected. It gave handling close to that of a swing arm and provided superior drivability characteristics over obstacles. The new anti-roll bar was implemented utilizing pneumatic cylinders that cross link to one another in an effort to control the rolling of the car. We call it the "Pneumatic Anti-Roll System" (PARS). With this system the team was able to increase or decrease the amount of roll by adjusting the air pressure in the cylinders. We used a button operated electronic shift control setup on the steering wheel initially for the first race but went back to a mechanical shift system due to problematic shift time in the mud and water obstacles.

The results for this season's USF SAE Baja Race Team are as follows:

- Auburn, Alabama
(April 16th-19th): Due to problems with the electronic shift control as previously mentioned and a lap late pit stop causing the car to starve of fuel; we finished 18th overall, 7th in suspension and traction, 2nd in land

maneuverability, 12th in design, & 6th in cost out of a total 88 teams.

- Portland, Oregon (May 7th-10th): Finished 33rd overall due to being disqualified on the day of dynamic events as a result of drive train personnel writing down the incorrect transmission ratio. We still earned 5th in cost out of a total of 65 teams.



- Burlington, Wisconsin (June 11th-14th): Here our team had the best race of the entire season with no problems and brought a great conclusion to the end of the Baja Race season. We finished 3rd overall, 3rd in endurance, 6th in suspension and traction, 12th in mud bog, 1st in land maneuverability,

11th in design & 9th in cost with a total of 100 teams competing.

The 2009 USF Formula SAE car was completed with a Suzuki LTR 450cc – single cylinder motor using a first for USF SAE: A Garret GT12 turbocharger pushing roughly 30 wheel horse power more than stock even with the restrictor; 72 horsepower and 50 lbs of torque to the wheels. The suspension was similar to last season with minor changes to adhere to the FSAE template rule.



The Formula Race team was only able to attend one race this season at Brooklyn, Michigan (May 13th-16th). This was the best showing of USF FSAE in a 3 year period, finishing 54th overall, tied 30th in design (tied with elite teams such as UF, Cornell &

Lehigh), 34th in sales presentation & 9th in cost. This was the first top ten finish in USF SAE Formula history! The team continued the next day by running at least once in all of the dynamic events earning 64th in acceleration, 66th in skid pad & 53rd in autocross. Unfortunately we were disqualified on the endurance event due to a small oil leak in a vent tube. There were a total of 91 teams competing.



This year we have newly appointed president and vice-president of our USF Race Team. President, Madison Eiss has been part of the shop since the spring of 2007. He is a certified airplane mechanic, and is currently studying business. He has brought a lot of real world experience to the club. He was also the shop foreman in previous years, maintaining everything from the bus to the

machines, and is usually available to answer any general question about the cars. His goals are to attend more social events for the club and continue the dominance of the USF SAE team. Simon Restrepo will be the vice president and treasurer, in charge of the finances, recruitment, and sponsorships. He has been part of the USF SAE team since the fall of 2007. The first year in USF SAE he spent learning to fabricate and machine parts for the Formula cars. As a Mechanical Engineering student he has designed the cooling system in the past two Formula cars and performed the purchasing officer duties for last year.

This year we are going to be putting a lot of focus in to our new Baja. Although we are staying very close to last year's frame, we are making some alterations to it. The front suspension is staying close to the same as well, but there rear is going back to a swing arm design as compared to last year's independent. The big change is that we will be using a Gaged Engineering CVT transmission instead of a classic manual.

**Go
Bulls!!**