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MSU's EcoCar Team is Speeding along to Success

The Mississippi State University (MSU) EcoCar team has spent the past three years participating in EcoCAR: The NeXt Challenge. Sponsored by General Motors (GM) and the U.S. Department of Energy, this three year competition began in 2009 and concluded this past June with a two week event in Detroit, Michigan.

A student-led competition focused on advanced vehicular design, EcoCAR: The NeXt Challenge invited competitors to design and engineer an ecocar – a car with lower fuel consumption and emissions – while still maintaining utility, safety and performance. After submitting a proposal for consideration to enter the competition, 16 teams from across the United States and Canada were selected to compete in the three year challenge.

In year one of the competition, the MSU EcoCar team received \$10,000 to begin developing their vehicle designs through the use of GM's Global Vehicle Development Process. Engineering design and simulation kept the team busy and earned them a third place finish that year.

Then able to advance forward, the team earned a key to a new 2009 Saturn Vue and a place in the second phase of the competition. Once they had the car, the team spent year two of the competition converting it into a prototype. At the end of both the second and third year of the competition, the re-engineered vehicle prototypes competed in a week-long competition that included tests similar to those conducted by GM to determine a prototype's readiness for production. By the end of year two, the MSU EcoCar team received a first place finish and the opportunity to advance to the next year of competition: the third and final year, where the team presented the refined and show-room ready ecocar.

Despite all the preparations and talent behind the engineering of MSU's ecocar, unexpected and unavoidable events still occurred. Just as the team loaded their car and three years' worth of effort and accolades for shipment to the finale of the competition, members identified the cause of a persistent overheating problem – a blown gasket.

"When you're pushing the vehicles to their limits as we do during these competitions, and when you're on the cutting-edge, trying new things, sometimes things break," said team leader Matthew Doude. "The credit goes to the engineering students who were able to use what they had to make a couple of minor modifications to the vehicle and finish the marathon of events that take place at competition."

The MSU EcoCar team finished in sixth-place overall, while finishing in first place in a number of categories, including student presentations. Their faculty advisor, Professor Marshall Molen, was honored with the Outstanding Faculty Adviser Award, with judging based primarily on student recommendations.

The competition, however, became about much more than just the awards. Lee Pratt, the outreach coordinator for the team and a graduate student in business at MSU, appreciated the relationships made throughout the competition. "A big part of what makes this experience so valuable is having the opportunity to work with some of the brightest and highly motivated students at Mississippi State," she said. "I have found it extremely beneficial to be able to learn and build from other students with similar interests and different strengths."

For Doude, the awards came from outside the competition. "While we still didn't finish where we would have liked to this year, we beat a lot of extremely competitive teams, and we accomplished our real goal: several of the students have graduated and have accepted job offers in extremely competitive positions in the automotive field," he said. "We are slowly, but surely, populating the auto industry with graduates of MSU's EcoCar program."

As the MSU EcoCar team has already accepted an invitation to compete in EcoCar2, which begins next year, we are sure to continue to see incredible talent infiltrating the auto industry from Mississippi State University.

To learn more about the MSU EcoCar team, visit www.facebook.com/msuecocar or follow them on Twitter via [@MSStateEcoCAR](https://twitter.com/MSStateEcoCAR).

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