Hornet Racing Team shines in Formula SAE competition

Sacramento State’s Hornet Racing Team made one of its strongest showings during the Formula SAE (Society of Automotive Engineers) international competition June 18-21 in Lincoln, Neb. The squad, composed mostly of engineering students, placed in the top 20 overall and in an impressive sixth place in fuel efficiency.

The Hornets’ strong showing is all the more impressive in the context of a very competitive field that included 80 racing teams from top-flight public and private universities in the United States and abroad.

This year’s Hornet team designed and built a race car to Formula SAE’s exacting specifications. The dozen or so students who stay the extracurricular course spend upward of 50 hours a week on the project.

“We had one of our best finishes since 2007,” says team member Jeffrey Jackson, an Air Force veteran and junior transfer student who was participating in his first Formula SAE competition. He’s particularly proud to have placed so high in fuel efficiency, which “made ours one of the ‘greenest’ cars there. In fact, we had the most fuel-efficient four-cylinder car at the competition.”

The competition, Jackson says, “offered the Hornet Racing Team a chance to showcase its skills for engineers working in industry, recruiters from major companies such as Honda and Ford Motor Company.

“There is no better way, at the collegiate level, to develop real-world engineering skills and also to show other top engineering programs around the country that Hornet Racing and Sacramento State are forces to be reckoned with.”

The teams conceive, design and fabricate a Formula-style race car to SAE standards. Each team tests a prototype based on a series of rules to ensure on-track safety and to promote clever problem-solving. The point is to put classroom training into action by challenging students to design, build and test the performance of a real vehicle in a competitive environment.

At the competition’s outset, the vehicles are checked for rule compliance. Braking ability, rollover stability and noise levels are checked before vehicles are allowed to compete in the dynamic events: Skidpad, Autocross, Acceleration and Endurance.

For the past two decades, dedicated groups of Sac State engineering students have applied their diverse skills toward creating a Formula SAE race car to compete in
collegiate events. Created to enhance the learning experience beyond the classroom, Hornet Racing is gaining momentum.

The team is yet another example of Sacramento State preparing students for the workforce. Akihiko Kumagai, professor of mechanical engineering, is the team adviser. He and other faculty members periodically lend a hand with specific problems, but these students definitely know what they are doing.

“They are truly students in a class of their own,” Kumagai says, “presenting their work in front of professionals in the automobile industry. What they experience through this project is closest to what they will experience in the real engineering world.”

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