

## Racing competition has the formula for success

**H**ow many students get the chance to compete in a motor race at Silverstone, driving cars that can easily manage 0 to 60mph in less than three seconds and use the experience as part of their degree studies? A group of students from Cardiff achieved just that when they entered their Formula Student car in the 2008 competition in July.

Not only was this project a brilliant opportunity for students to get hands-on experience of one of the most challenging fields of engineering, there are many other perks; not least in July at Silverstone when the car performed in a range of driving events including acceleration, skidpan, sprint and endurance. Other events included design presentation and marketing of the car.

This is the sixth year that Cardiff Racing has entered the Formula Student event. Any Cardiff University student can join in to help design, make and test the car. The team is open to all engineering students; from newcomers to engineering and motorsport to seasoned racers.

The students get a chance to put engineering theory and know-how into practice by building a Formula 1 style car from scratch. Formula Student gives everyone from any background the chance to gain hands-on engineering experience. The students can test their driving skills at regular go-karting socials where the team are always on the lookout for the next drivers for Cardiff.

A CAD model of the 2008 car and a chassis finite

**Ifan Evans**  
Cardiff Racing team leader 2008

element model demonstrated what this year's car looked like and performed under impact. The aim for this year was to make the car lighter than previous years; this was achieved by using an Aprilia SXV 550 V-twin motorbike engine, 27kg compared to the previous four-cylinder engine, which was 67kg. Other weight-saving techniques consisted of smaller wheels, using a spool instead of a differential and building the chassis from aluminium sandwich panel.

The event at Silverstone is also a great chance to meet representatives from companies involved in car manufacturing and motorsport at all levels, including F1. Silverstone is not the only event for Formula Student entrants to compete against other universities; there are eight other events in the USA, Italy, Australia, Germany and Brazil. Cardiff entered came 11th in a field of entries from across the World. The Cardiff Racing team consists of students from first-year undergraduates up to PhD students across all disciplines, including mechanical, civil, electrical and medical students.

Above: Cardiff Racing in action in 2007  
Below: CAD model of Cardiff's new car for 2008



