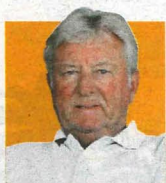


WestWHEELS CIRCUIT RACING

Free treat for WA's motorsport purists

University FSAE teams out to topple Monash racer



ADRIAN CHAMBERS

LOCAL motorsport aficionados have a rare opportunity next week to see the crack Monash University Formula SAE race car in action at Barbagallo Raceway.

The Edith Cowan University School of Engineering is sponsoring the State's first event for FSAE cars on Thursday, February 14. The competition sprang from collaboration between the International Society of Automotive Engineers (SAE) and the University of Houston, Texas, back in 1979 and has grown exponentially since.

The WA Sporting Car Club has made the Wanneroo circuit available for the competition for at least 10 cars from ECU, Monash, the University of WA, Curtin and Victoria's RMIT and Swinburne universities.

They will contest the four dynamic disciplines required at Australasian FSAE events —

Skidpad (to determine which car generates the highest cornering speed at relatively low speed), Autocross and Endurance (over an 800m course) and Acceleration.

Cars will run from 9am until 4pm with fans getting the chance — at no cost — to judge for themselves just how impressive these vehicles are.

Monash Motorsport is ranked a remarkable second of 510 graded universities globally, having won the past four annual Australasian FSAE titles.

Last year, Monash also finished third in the competition at the famed Silverstone race circuit, recognised as the home of British motor racing.

It was among the first FSAE teams to fully embrace a serious aerodynamic package with wings, and floor diffuser — a sculpted platform which manages the airflow to create a low-pressure area, enhancing downforce and improving braking and cornering performance.

The aero package was developed in their own wind tunnel, considered the best in the country and used by car manufacturers and racing teams.

Monash faculty adviser is Scott Wordley, described by rivals as brilliant, enthusiastic, and innovative.

"All student teams in the contest design and build an entire car



from scratch every year, and the best ones can accelerate, corner and brake harder than nearly any current production car," Dr Wordley said.

"FSAE-A West will give us a chance to try out our Drag Reduction System (DRS) on a fast track and hopefully allow our single-cylinder car to keep up with the four-cylinder cars from ECU, UWA and Curtin."

And when you're up there with the best, it doesn't hurt to be humble — the Monash team are generous in their assistance to others. At the competition in Melbourne they hosted ECU and Auckland in their workshop, and allowed the WA guys the chance to test their first aero car in the wind tunnel, helping run the equipment for the entire day.

At FSAE West, Monash will debut its new DRS, now used on all F1 cars.

"The DRS automatically stalls the car's main aerofoils at a given speed, to reduce aerodynamic drag and enhance straight-line speed," ECU motorsports co-ordinator John Hurney said.

"It seeks to overcome the main disadvantage of a big aero package

— that of reduced top speed due to aero drag — while still retaining full downforce to lift cornering and braking."

He believes a successful DRS system could transform Monash's already very quick car, as its biggest shortfall is the relatively low power from its single-cylinder modified KTM motor.

"While ECU's 2012 car doesn't have DRS, it does have a much more powerful four-cylinder Honda CBR engine," Mr Hurney said.

The worldwide competition challenges collegiate design teams to conceive, design, fabricate, develop and compete with small, formula-style vehicles.

It gives them the chance to demonstrate and prove both their creativity and their engineering skills, compared with other universities, and challenges them to develop a vehicle that can compete successfully in all the disciplines in the FSAE rules.

Teams are given flexibility and freedom to use their imagination on the overall vehicle design.

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Monash's No. 66 racer has dominated the annual Australasian FSAE competition. Pictures: Michael Kogan



The aerodynamic package, with wings and a floor diffuser, was developed in Monash's own wind tunnel.