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Attention: Business Editors; Education and Training Editors; Labour Editors

“Limitless” youth speed through world car competition

For immediate release,

While all eyes were set on the Olympic in London, the Cape Speed Team quietly jetted out of the country to compete in the 2012 International Formula Student motorsport competition in Silverstone, London.

The competition saw 134 teams from 34 countries battling it out for top honours to design and build a new car. The SA team was unfazed by being the debutantes in the competition, and went on to show the international community that South Africa has what it takes to compete at the highest level. The “limitless youth” finished the contest ranked 27th in the endurance race and 65th overall, showing their mettle in the competition that attracted 3000 students from around the globe.

Four universities of technology from Africa participated in this year’s competition, a far cry when you count the number of universities that we have on the continent. Three of these are from Egypt and South Africa’s representation was the Cape Peninsula University of Technology (CPUT).

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The Cape Speed team became the first African team to make it to the finals when they passed the brake test, setting the tone for fellow African team, Egypt. Interestingly enough, it was Egypt's third time competing in this event. However, none of their cars made it to the finals.

The Formula Student Initiative at the Adaptronics Advanced Manufacturing Technology (AMTL) started in 2009, when the Cape Speed Team was approached by the South African Kart Racing Academy to work together to develop Formula 1 racing in South Africa. The team started to design and manufacture the car in February 2011 and completed it in April 2012.

In such a gigantic project challenges are insurmountable, and the Cape Speed had to endure such. During the design phase, the team acquired a drawing of the Honda CBR 600RR engine that they were to use for the car. All the team's designs were based around the size of this engine. However, when they received the actual engine, it was much bigger than expected.

"The team had to work around the new size and incorporate it into various designs. We also faced funding problems as we were not able to secure much sponsorship. From the student's perspective, we had to balance our class work activities and the project. This was not easy as the project demanded a lot of our time," pointed out the merSETA bursary holder Rushdia Benjamin.

Asked about lessons learned from competing in Silverstone, Rushdia commented that the reason other teams stood out was because they were trained at their universities. "The Formula Student project formed part of their studies and is an integral part of them learning to manage the business and technical side of engineering."

The project was funded by the Adaptronics AMTL Unit and the CPUT, with associate sponsors in ArcRite and Mecad.

The format of the competition is threefold: Teams need to go through technical and safety scrutineering to ensure the car is safe and can be allowed on the Silverstone track as well as ensuring the team's car complies with the rules set out by Formula Student.

Thereafter, there are a number of static events which comprised design, cost and presentation judging, the tilt test and lastly, brake and noise test. This is followed by dynamic (motion) tests; namely, skid pan, sprint, acceleration, endurance and fuel economy.



In order to participate in the dynamic tests, teams need to have passed the technical and safety scrutineering, the tilt test and brake and noise test. The Cape Speed team competed in all categories of the competition and were the first ever African team at formula student to go to the finals of the competition. The team was in a state of delirium on having represented South Africa at an international student event and hopes to share the experience to inspire the youth to consider a career in engineering. It also hopes to create awareness about the need for engineering in the country and stimulate interest in Science and Technology amongst the youth.

The team is hopeful that big-business will join in and assist the team in making resources available and backing them financially to compete in future events.

“In South Africa, we need technology that is aimed at developing light materials. You also look at the teams that are ranked in the top ten; they had more than 40 members, complemented by a number of big sponsors whereas our team had 12 members with limited sponsorship.”

What was more gratifying about the Cape Speed team is the composition of the team. The team had two females - when South Africa had just celebrated women’s month. The ladies showed their grit and matched their counterpart’s pound on pound:

“There was no difference between males and females in terms of application as we were given just as big tasks on the car as the guys. We all spoke the Science and Technology language, hence we felt that there was no difference. We all designed and manufactured our own parts and worked as a team,” notes Rushdia.

Asked about the future outlook of the project, CPUT’s AMTL programme director Professor Oscar Philander said that they aim to send a team every alternate year to participate in Formula Student.

“In 2014, we aim to be within the top 10 in the competition. It is important for young engineers in the country to participate in such competitions as it allows students to experience the role of a modern engineer utilising the latest technology.”



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