

Racing NEWS

What is Formula Student?

- International student design competition
- Design, build and race single seater Formula 1 style car
- 600cc motor cycle engine with intake restrictor
- Competition judging criteria includes design quality, costing, static and dynamic tests culminating with an endurance race
- Students from a variety of disciplines involved including engineering, marketing, business, IT, finance etc.
- Funding mainly through industry sponsorships
- NMMU plans to compete in an international Formula Student competition.



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WOB Racing at FSG 2010



Our Sister team WOB Racing from Wolfsburg Germany shown above, achieved 21st place at the Formula Student Germany competition in August.

The Formula Student Germany competition was held in Hockenheim from 4 to 8 August 2010, and our sister team WOB Racing from the Osfalia University of Technology in Wolfsburg performed exceptionally well this year, achieving 21st position overall.

Their WR06 car, shown above followed a more angular design philosophy for the body work than previous years, while incorporating a high level of technology such as a Bosch engine ECU with lambda control and traction control for improved vehicle dynamics.

The WOB team faced a number of obstacles in the competition,

such as passing scrutineering, but after resolving all their vehicle issues, managed to achieve 19th place in the business plan presentation, and 21st place in the 22km endurance event.

Well done to the WOB Racing team for building a stunning car!



Vehicle Build Picking Up Speed!

The vehicle build progress has accelerated in recent weeks in the run-up to the Knysna Hill-climb event at the end of October, which has proved to be an excellent motivation factor for the students.

Some of the more significant achievements so far have been the completion of the pedal controls, installation of the differential into the frame and completion of the suspension control arms, with attaching components. The floor close-out and seat have also been completed, while the electrical team is installing the wiring harness to connect the electrical systems. The mid-semester recess will be the ideal time to ensure that all the installed compo-

nents are functional before conducting a brief test program to tune-in the engine and suspension settings.

This exciting work being done by our students is promoting a manufacturing culture that is so crucial for the future of our country.

Prof Derrick Swartz

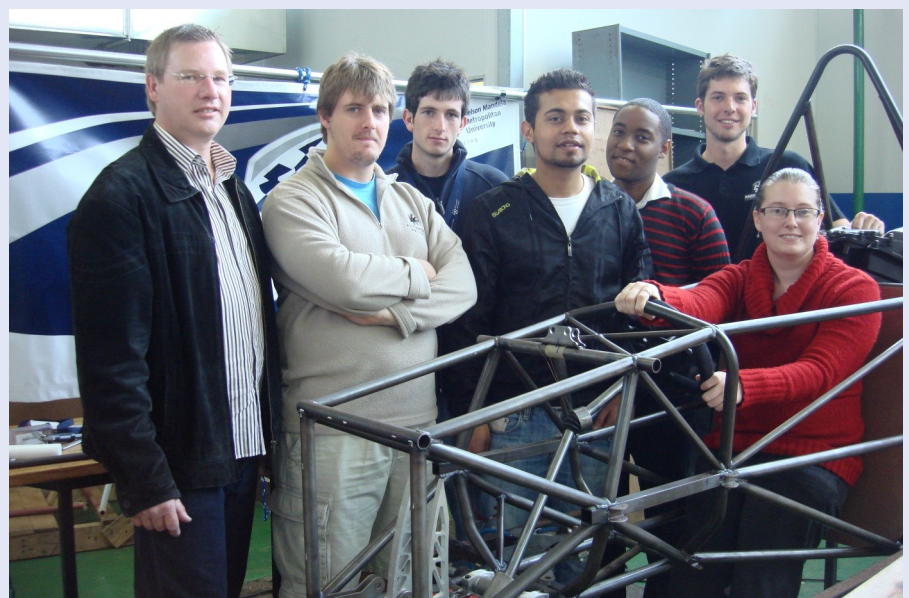
Our sponsors and supporters have been fantastic in assisting with our last-minute requests for sourcing or manufacturing components to finish the car.

Terry Moss Racing also recently donated three racing helmets to the team, for which we are most grateful.

We look forward to testing our car on the race track!



The Team



The NMMU Racing team was recently interviewed by The Herald newspaper and posed for this photograph in our workshop. For a transcript of the interview along with a short video clip, go to www.theherald.co.za. From left to right: Trevor Stroud, Geoff Jones, Niel Strydom, Saleem Noorshib, Simon Adams, Andre Labuschagne, Alison Richter.

Visit from Ostfalia University Academics



Professor Udo Bekker (Left) examines the NMMU Racing engine installation along with (Left to right) Martin Stahlberg, Karl du Preez, Prof Theo van Niekerk and Trevor Stroud.

NMMU was honoured by a visit from two distinguished academics from the Ostfalia University of Technology, Wolfsburg Germany in August. Prof Udo Bekker lectures in the field of vehicle engine development and vehicle acoustics, while Martin Stahlberg specialises in the automotive electronics field.

In addition to running numerous short courses in South Africa through the VW Chair in Automotive Engineering, Prof Bekker also served as faculty advisor to the WOB Racing team for a number of years.

Prof Bekker visited NMMU in 2008 when our racing team was formed and provided much insight and encouragement to our fledgeling team. On his recent visit, he was taken on a tour of our design office and workshop facilities and was very impressed by the progress made by our team, in terms of both building the car, and establishing the support infrastructure on campus.

Prof Theo van Niekerk, head of the VW Chair in Automotive Engineering at NMMU, has raised funding through the NRF for research projects relating to the Formula Student and other automotive engineering projects.

Prof Bekker pledged his support by promising to wear an NMMU Racing shirt and shout for our team when we race in Germany next August!

Carl's Column

We've decided to include an update from Carl van Rooyen, our NMMU Racing exchange student, currently in Wolfsburg Germany, in our re-vamped newsletter so that our supporters can share in his interesting experiences on the WOB-Racing team.

After leaving Port Elizabeth at the beginning of August, he travelled from Wolfsburg to Hockenheim with the WOB Racing team of Ostfalia University.

He was fully involved in their preparations for the static and dynamic events in the competition and learned a great deal about the competition through this experience.

He has been allocated to the vehicle build team for the 2011 WOB entry and is currently on an intensive German language course.

More from Carl in the next issue.



Sponsors and Supporters

This project would not have been possible without the generous financial, technical and material support of the companies and organisations listed below.

- **NMMU:** financial support
- **VW Racing:** technical support, materials and racing vehicle components
- **Nelson Mandela Bay Municipality:** financial support
- **AIDC:** financial support
- **Continental Tyres:** racing tyres , driver training

VOLKSWAGEN *Racing*



Automotive Industry Development Centre



- **NRF:** research funding
- **DAAD:** German student exchange funding
- **ZF Sachs:** shock absorbers
- **Profile Tooling:** component machining
- **HiTech Automotive:** component fabrication
- **Disen Engineering:** Machined components
- **SKF Bearings:** vehicle bearings



Disen Engineering



- **Terry Moss Racing:** technical and racing support from Terry Moss and Michael Stephen, supply of racing helmets
- **Autograph Racing:** Diktator engine ECU
- **Honda Wing Port Elizabeth:** Technical support
- **Coker Race Products:** discounted racing components
- **Esteq Engineering:** CAE / CFD
- **F1 Outdoor Karting:** race track use and driver training



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