

July 2010

# **Racing News**



Official publication of the NMMU Racing Formula Student Team

**Components from HiTech Automotive** 

Volume 2, Issue 4

# 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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www.nmmu.ac.za/ nmmuracing



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NMMU Racing to Compete 2 in Knysna Hillclimb



The Perana Z-one styled by Zagato of Italy, built by HiTech Automotive in Port Elizabeth.

NMMU racing has arguably enjoyed the support of one of the most significant sports car manufacturing facilities in the world. HiTech Automotive has assisted our team with the manufacture of our aluminium fuel tank, modification of the vehicle's radiators, and CNC machining of the differential carrier brackets among other things. One of our team members, Heinrich Kritzinger, was fortunate enough to secure a position at HiTech Automotive for the practical aspect of his engineering diploma, and has continued to support the team in this capacity.

We are very proud to be associated with this outstanding Port Elizabeth-based company, which is responsible for the manufacture of such legendary sports cars as the Shelby Cobra, GT40 and Perana Z-one, and has also secured the contract for the development and manufacture of South Africa's first electric vehicle, the Joule.

NMMU Racing looks forward to developing this relationship and benefitting from HiTech's many years of experience in the automotive industry.

# Vehicle Manufacture Moves on Campus

The NMMU workshop has been re-organised and upgraded in time for the arrival of the NMMU Racing Formula Student car. Due to the support of VW Motorsport we were able to utilise their workshops and equipment for the initial fabrication and assembly of the frame and suspension components. We were very fortunate to have all our frame material sponsored by VW Motorsport.

With the start of the final assembly stage we decided to continue building the vehicle campus in the Mechanical Engineering workshops. To complete this stage of assembly we recruited a team of students who need to complete the practical six months of their engineering diploma. We now have a dedicated team of five who will be working tirelessly to complete the car in the next three months.

We recently recruited sculpture students from the Arts Faculty who will assist us with the body styling. After drawing up a few styling concepts, the art students will be making a scale model of the bodywork from clay. A full-size mould will then be made to use for the fabrication of the composite body.

# Team Leader Selected for German Exchange Programme

Carl van Rooyen will be jetting off to Wolfsburg, Germany in August to spend five months with the Osfalia University Formula Student team "WOB Racing". NMMU's School of Engineering has built strong ties with many overseas universities, thereby facilitating research co-operation and student exchange opportunities.

The first stop for Carl will be at the Formula Student Germany event in Hockenheim, where he will see all the best teams competing for honours in this prestigious competition. This experience will be invaluable to the team as it prepares to compete in Germany in 2011.

Carl's responsibilities will be to integrate himself with the WOB Racing team and assist them with the design and build of their 2011 vehicle.



Luke Irlam, Carl van Rooyen and Alison Richter pose with the Formula Student car at Open Day

This will be Carl's first visit to Germany and he is looking forward experiencing the Hockenheim competition, as well as seeing the Formula Student cars up close. We wish Carl a successful stay in Germany!



#### CONTACTS

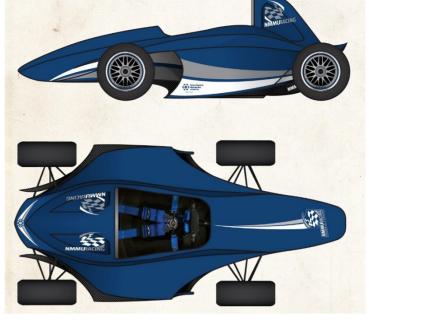
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# Latest images of our Formula Student Car



VOLKSWAGEN *Racing* 

ACHS

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OR KARTING

# NMMU Racing Sponsors and Supporters

- NMMU: financial support
- VW Racing: technical support, materials and racing vehicle components
- Continental Tyres: racing tyres , driver training
- Nelson Mandela Bay Municipality: financial support
- ZF Sachs: shock absorbers
- Profile Tooling: component machining
- HiTech Automotive: component fabrication
- Esteq Engineering: CAE / CFD
- FI Outdoor Karting: race track use and driver training
- Terry Moss Racing: technical and racing support from Terry Moss and Michael Stephen
- Autograph Racing: Diktator engine ECU
- Honda Wing Port Elizabeth: Technical support
- SKF Bearings: vehicle bearings
- DAAD: German student exchange funding
- AIDC: financial support
- NRF: research funding

## NMMU Racing to compete in Knysna Hillclimb

Another interesting development for our team is our entry into the Knysna Hillclimb race held in October this year.

The event organisers are very excited to have us participate and have arranged a special entry for the team. We look forward to this fantastic opportunity to show off our car to the public., and will also be using it to help prepare ourselves for the international event next year. The team has a huge challenge ahead for the next three months to complete the assembly of the car and make it race-ready, but I'm confident that we will achieve our objectives and compete in this exciting event with a very competitive racing car!

**Nelson Mandela** 

nelson mandela bay

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For more information on the Knysna Hillclimb go to their web site:

http://www.speedfestival.co.za



Knysna Hillclimb 22-24 October 2010