



UNIVERSITY OF
BRADFORD

Corporate Communications

Press Release

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FORMULA 1 CAR RACES INTO TOWN



Potential students will be racing to the [University of Bradford](#) this month when one of Formula One's hottest cars drives into town, on Saturday, February 9.

As part of the University's Visit Day, one of the world's most lucrative and successful motor sport companies, [Jaguar Racing](#), has loaned one of its multi-million pound cars to the University for the day in recognition of a research link with the University.

The car, which will be on display outside the Richmond Building, was designed and built in the Jaguar Racing factory in Milton Keynes and will allow visitors a rare opportunity to view the intricate workmanship close up.

The Visit Day will enable sixth-formers with offers from the University to attend outside college hours and will allow potential students, and their families, a chance to look around the University, and the Department in which they're interested, talk to staff and students, and take lunch in the Refectory.

Subject areas taking part in the visit include the [School of Engineering](#) where visitors can see a kit car built by past students in the Department of Automotive Engineering. Engineering puts science into practical use. It combines skills needed to conceive, design and produce the moving parts, components and machinery used in every aspect of manufacture. Engineers from the University are playing an important role in helping Jaguar Racing optimise the design on Formula One's racing cars after securing a prestigious contract with Jaguar Racing to improve its state-of-the-art machines.



Each part of the car is made from exotic composite materials for maximum performance and minimum weight. Even though the rules of FIA (Federation Internationale de l'Automobile) state that each car, including driver, must not weigh less than 600kg, reducing the weight of the car's components allows redistribution of the weight enabling the car to go through turns quicker.

The roll call of drivers who have raced Jaguars reads like a Who's Who of motorsport - it includes Stirling Moss, Jackie Stewart, Sir Jack Brabham, Graham Hill and John Watson. This 2002 season Jaguar drivers are Eddie Irvine and Pedro De La Rosa.

Working with Jaguar is [Altair Engineering](#), world leaders in the production and sale of software for design optimisation. Managing Director of the British Branch, Dr Royston Jones, was recently made a Visiting Professor at the University to build up collaboration for the future research and software development for the needs of Jaguar Racing and other companies, as well as contributing to teaching.

Over the past six months, the University has developed a technique for optimising the design on the front wing of the car by reducing the weight while satisfying the aerodynamic requirements and other constraints stipulated by FIA.

Professor of Computational Mechanics, [Professor Vassili Toropov](#), and Research Assistant, [Dr Luis Alvarez](#), have jobs of which many people can only dream. Not only do they play a part in designing one of the world's fastest cars, they also attend the tests to see the results of their work first hand.

Professor Toropov said: "We are really only starting to scratch the surface. The possibilities for the use of design optimization techniques in design of Formula One cars are phenomenal. These teams can manufacture almost anything as long it improves the performance. Also, the design cycle is incredibly short, components are designed within a few weeks, sometimes days. Some of the greatest designs have been developed incredibly quickly during the war, but these guys are at war all the time. A fraction of a second in the performance of their cars makes the difference in the race won or lost."

Engineers at Jaguar Racing have been very impressed with the results so far. Mike Stephens, Head of Structures and Finite Element Analysis, said: "Using the University's work so far this has shown up a totally new direction for the wing lay-up and we have put a variation of this onto the latest model and achieved excellent results."

Professor Toropov said: "We want to make sure that Bradford Engineering is clearly on the map for all potential students and their parents and we feel this is one of the best ways to do that. "It is difficult to put a value on any of these cars, but simply in man-hours and space-age materials used to make it, they can cost up to several million pounds - even before it hits the track."

Anyone wishing to find out more about Engineering and Design courses, or other courses, within the University, can attend the [Open Days](#) on Wednesday, April 17, Saturday, July 6 and Saturday October 5, 2002.

University Press contacts

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**The Jaguar Racing Formula One car
outside Richmond Building at the University of Bradford**



**Professor Vassili Toropov holding the front wing of the F1 car
outside Richmond Building at the University of Bradford**