



Churchill College
Storeys Way
Cambridge
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Ripping up the Rule Book in Formula One

Feasible or a Pipe Dream?

Professor Tony Purnell

Royal Academy of Engineering Visiting Professor
in Integrated System Design, Fellow of Trinity Hall

7.30pm, Monday 2nd February 2015

Wolfson Hall Lecture Theatre, Churchill College, Storey's Way, Cambridge

The Lecture:

Professor Purnell writes:

The Formula One rule book is a pretty thick and complex affair largely to stop clever interpretations and new technology that if allowed would make the cars too quick. These have evolved over the years making the design of the car from a systems point of view pretty much fixed by the rules. Is this time for some fresh thinking resulting in a safety only set of restrictions? The lecture argues the case for the latter, pointing out the attractions while alerting us to the practical and political implications.

About the Speaker:

The following piece by Tony about Pi Research, founded by him, adds useful insights, and fleshes out the 'Brief Background notes' that follow this piece.

Pi Research won the Business Awards twice.

Pi competed in a market dominated by non-commercial suppliers such as Bosch who just wanted their name to be associated with the race cars.

The success was to constantly out innovate the big companies (including McLaren who set up a competitor to Pi).

This had to be done year after year as racing has no loyalty programmes!

Only by being better in the sense that we made the cars faster did we keep our sales high.

The spin off company Pi Technology was in many ways more successful as it attacked (in comparison) a consumer market. Two outstanding successes here

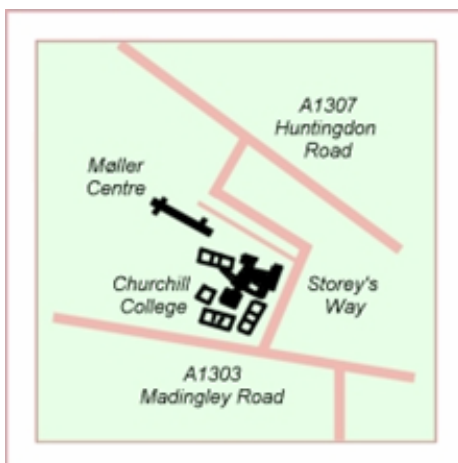
were the DDEC IV engine controller which ended up taking about 25% of the heavy duty truck market in the North American continent, and being selected as 'Ford Preferred' supplier for safety critical software. The latter led to the sale of both Companies to Ford in 1999.

The new F1 engine configuration and regulations were proposed by myself (and Peter Wright ex-Lotus) and I did all the initial work on these when at the FIA. We also made a big push on trying to get Financial Rules adopted in F1, but the sudden exit of Max Mosley (President at the time) torpedoed this. Now a Fellow at Trinity Hall, I teach in the Engineering Department one day a week, then all other time is spent on Cycling for the Olympics and to a much lesser extent rowing and other sitting sports.

Brief Background notes

Read Mechanical Engineering at Manchester University
Then Kennedy Scholarship to study Mechanical Engineering at MIT, followed by a Benefactor's Scholarship to study at St John's College, Cambridge.
Founded Pi Research, developed race car analysis tools and control systems, which dominated the race car electronics market.
Then founded a spin out, Pi Technology, specialising in diesel engine controls. Within 5 years one in four heavy duty lorries in North America used Pi software and hardware designs.
Both Companies were bought by Ford in 1999.
In 2003 Ford promoted Tony to lead their motor sport activities.
Principal of Jaguar, then Red Bull Motorsport teams
2006 Technical Consultant to the President Federation Internationale d'Autosport
Currently: Royal ACADEMY of Engineering Visiting Professor, Department of Engineering, University of Cambridge
May 2013: Appointed head of technical Development for British Cycling – the secret squirrel club

Practical Matters



Those attending the CSAR lecture may park in the Senior Car Park on Churchill Road, which is off Storey's Way. More parking is available further along Churchill Road, and in the Möller Centre at the far end.

CSAR lectures are open to all; CSAR members are admitted free. Pupils and students may register for free membership at the lecture reception desk.

Non-members are asked to make a nominal contribution of £3.00.

Coffee and biscuits are available in the Wolfson Foyer from around 7pm. For further directions, see: www.chu.cam.ac.uk/about/visitors/directions.php



