

## MfS vs DMRB

**(Insert photos here)**

This provocative title attracted a capacity crowd from a variety of professions from all over England to IHIE's January evening discussion. Alan Young, WSP, one of the Manual's authors, and Steve Proctor, TMS, a leading safety auditor, entering into the spirit of the debate, lead off with some provocative observations. Richard Fitter, Director of Entran Ltd ably steered the discussion.

Audience straw polls elicited that:

- Only a third knew about LTN 1/08 which adds to the MfS guidance. Awareness of other allied documents and research was also low.
- Few used the SSD formula instead of following the table. Research in the south west confirmed that engineering judgement is not being applied to streets outside the comfort zone of <200 vph where MfS clearly applies or DMRB standard roads, as "Guidance" is too often interpreted as "rules to be followed".
- Similarly, practitioners were reluctant to accept MfS outside lightly trafficked streets.
- Placemaking based on the function of a street is still not a priority

Stopping Sight Distances tended to dominate the discussion. Alan Young tried to distinguish the applicability of TRL 661 and TRL 332 research which he felt lay behind many engineers' reluctance to extend the use of MfS guidance. Steve Proctor illustrating the difficulty of applying a formula, never mind an illustrative table, when human factors can vary widely.

There was general agreement that more research on driver perceptions and the spread of acceptable reaction times was called for. Steve Proctor urged engineers to research the detail of their local accident records to identify actual causes at particular sites. Research showed little relationship between poor visibility and crashes – the correlation was with driver loss of control. DfT indicated that interim guidance in how MfS can be more widely applied was likely to be published in advance of IHT's "manual for high streets".

## **The Big Bang Fair**

**(insert 'Big Bang' logo here)**

March 4 sees the launch of the UK's first Science and Engineering Fair.

This exciting venture is backed by the Engineering & Technology Board and all the engineering institutions.

IHIE is proud to be a sponsor.

Here are some of the activities taking place for children and parents:

- 200 project stands showcasing highly innovative science and engineering projects, including the National Science Competition and Young Engineers for Britain.
- Displays and demonstrations from leading UK-based organisations showcasing how science and engineering are part of our everyday live.
- Inspirational and engaging shows and presentations explaining what the future holds for science and engineering, and how we're going to get there.
- Workshops giving young people the chance to say what science and engineering mean to them and find answers to their many questions about career directions.

[www.thebigbangfair.co.uk](http://www.thebigbangfair.co.uk)

## Your guide to Professional Registration

**(Insert photo of MD here)**

IHIE is licensed by the Engineering Council UK (EC UK) to put suitably qualified members on EC's Register of Engineers.

Engineers can be registered at three levels – Engineering Technician (EngTech), Incorporated Engineer (IEng) and Chartered Engineer (CEng). Michelle DaCosta, IHIE Membership Manager, is the person to contact for the information and structure you need to get this highly respected recognition. “My main role at IHIE is to guide people through the processes of registering with EC UK, and coordinate those who can assist them,” she said.

Michelle has worked for the Institute for more than ten years. She is passionate about the work of engineers and is keen their contribution to society is rewarded. She said: “Even if you are an experienced engineer, professional registration can secure your future by providing a benchmark that is internationally recognised. No one can afford to be complacent. And in the current economic environment, qualifications demonstrate to the industry your commitment and expertise.”

Michelle also organises the Professional Reviews which potential registrants must take and the IHIE Professional Certificates assessments. Michelle said, “I am very grateful to those engineers who have given up their time to conduct assessments – and thus help other engineers achieve the recognition that will help them throughout their careers but we always need more engineers to act as reviewers.”

If you feel that IHIE can assist you in getting professional registration (as well as a few more letters after your name), then in the first instance visit [www.ihie.org.uk/membership](http://www.ihie.org.uk/membership).

## Industry News

- Read the Government Response to the Transport Committee's Report – “Ending the scandal of complacency: Road safety beyond 2010” at <http://www.publications.parliament.uk/pa/cm200809/cmselect/cmtran/136/13602.htm>
- Roads can produce electricity  
A new type of road being developed in Israel uses crystals embedded in the asphalt to turn vibration caused by cars into electricity. Engineers at the Technion-Israel Institute of Technology claim the piezoelectric crystals can produce up to 400 kilowatts from a 1-kilometre stretch of dual carriageway. The system is to be tested on a 100-metre stretch of road in northern Israel in January.  
The pioneering system works in a similar way to a power-generating dance floor that is already in use in a London nightclub. As vehicles pass over a road, they squeeze tiny piezoelectric crystals that produce a small amount of energy. The current created can be either transferred back to the national grid used for lighting or heating. [www.dailymail.co.uk/sciencetech/article-1096753/Streets-ahead-The-road-generates-electricity-moving-cars.html](http://www.dailymail.co.uk/sciencetech/article-1096753/Streets-ahead-The-road-generates-electricity-moving-cars.html)
- As part of its **whynotchemeng** campaign, the Institution of Chemical Engineers has put together its **top ten flash bang demos**; a resource for teachers to inspire students in the classroom but good fun for all. Voted for by KS4 students at Rugby High School, they show that demonstrations can be fun, safe, relevant and easily incorporated into current schemes of work [www.icheme.org](http://www.icheme.org)
- Design of the Built Environment for the Ageing Population  
A free event from 2.00pm on Tuesday 3 February 2009 at ICE, London SW1.  
Over the last ten years, the Engineering and Physical Sciences Research Council has funded a substantial portfolio of research into engineering solutions for extending the quality of life of older people and creating urban infrastructure and environments that are inclusive and accessible to all. This event will examine these changing needs and what the engineer and associated professions can do to ensure that these needs are met within the built environment.

## Engineering 2008

Every year ETB compiles an annual report on the state of engineers and engineering. This year's findings cover key topics such as skills shortages, supply, education, perceptions of engineering and employability and salaries, drawing on the ICE survey. The 16% decline in the UK's annual school-leaver cohort over the next decade is particularly worrying. Competition will be fierce and employees will need to look towards career changers for their staff as even non-engineering graduates will be in short supply.

In terms of Higher Education and supply, there is more encouraging news, although there is still much work to be done.

In particular, this year's report finds that:

- The number of students graduating with Engineering and Technology degrees has increased by 2.3% over the past 5 years.
- Applications for Engineering and Technology degrees have also risen by 7% .
- Nine-out-of-ten first degree Engineering graduates who get a full time job, take up Engineering-related occupations with just 3% going on to work in financial services, even before recent events.

So, there are some positive trends within the sector to build upon in order to ensure that the future engineering challenges are able to be addressed. Particular issues highlighted are:

- There is perception among many employers that young people are not always ready to settle down to work on leaving school.
- That the more developed a country is, the less relevant engineering seems as a career and therefore, the less inspiring.

This report gives us a snapshot of the state of engineering in the UK and, to quote Sir Anthony Cleaver, etb Chairman, "We must work now together to find ways to connect with young people and to inspire them... we can do this through collaborative projects and campaigns such as *Engineering Make It Happen*, and the Big Bang Fair, the UK Young Scientists and Engineers Fair."

## **Training and Development**

### **Traffic Signal Control: implementing the design**

6-9 April 2009, Nottingham

IHIE's annual course for signal engineers on implementation and maintenance.

£850 fully residential if booked by 31<sup>st</sup> January 2009. £895 thereafter

### **Preparing for your Review**

31 March, London, WC1

19 May, Taunton

In depth advice and support in going for CEng, IEng and EngTech

### **Introduction to Development Control**

28 April, Bristol

Start here for newcomers to DC: An overview of planning law and policy and the role of highway development control staff.

### **Improve your skills in Traffic Signs**

7 May, London

*The* course to maintain your expertise in direction and warning signing

***Supported by DfT***

### **Durable Surfaces**

A third course delivered by Jeff Farrington. Date to be arranged. Email if interested [deputy@ihie.org.uk](mailto:deputy@ihie.org.uk)

### **Annual Highway Maintenance Conference & Exhibition**

14 May 2009, Northampton

The IHIE/Highways annual conference.