Programme

Monday 3 September
- Course registration
- Welcome and introduction
- Friction and friction materials
- Brake design analysis
- CV brakes
- Car Braking Distribution & Adhesion Utilisation

Tuesday 4 September
- Brake sizing
- Passenger car layout
- CV layout & distribution
- Friction pairs

Wednesday 5 September
- ABS & TCS
- Electro Hydraulic Brakes (EHB)
- Passenger car ESC systems
- Thermal effects in brakes
- Case studies
- Brake Fluid

Thursday 6 September
- Legislation and Type Approval
- Regenerative braking
- Materials design for disc brakes
- Brake noise, vibration and judder
- Case studies
- Course dinner

Friday 7 September
- Brake testing
- Brake control as a means to enhance vehicle stability
- Course close

Contacts
For enquiries about the course and course bookings, please contact:

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www.thebrakingcourse.co.uk
www.brad.ac.uk/ei/engineering/braking-of-road-vehicles

The long-running Braking of Road Vehicles short course aims to meet the needs of the road vehicle braking industry for a comprehensive introduction to the technology and basic principles of vehicle braking. The Faculty of Engineering and Informatics at the University of Bradford also offers other short courses, including Failure Mode Avoidance (FMA), Advanced Statistics for Engineers, and Integrated Problem Solving Using Six Sigma. These can also be available as distance learning programmes and specialist in-house training formats, which can be developed as required. Industry focused Continuing Education and Continuing Professional Development opportunities are also available through part-time and full-time research Masters (MSc) and PhD programmes. Our Engineering Quality Improvement programme offers CPD opportunities for your staff with a focus on Quality Engineering and Improvement projects. For more information on these opportunities please contact me, but in the meantime I look forward to welcoming you on the 2018 Braking of Road Vehicles Course.

Dr David Bryant
COURSE CHAIR

Registration will start at 8:30am on Monday 3 September 2018, thereafter at 9:00am each day, and the course will finish at approximately 1:00pm on Friday 7 September 2018.

We can arrange for this material to be transcribed into an accessible format such as Braille, large print, E-text (compatible with screen-reading software) or digital audio such as CD. Please contact the School of Engineering on 01274 234567

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A Short Course on
Braking of Road Vehicles
3-7 September 2018

About the Course
This well-established course on the Braking of Road Vehicles is updated annually to meet the needs of the braking industry. It is a comprehensive course starting from the fundamentals of brakes and braking systems for car and commercial vehicle applications. Many recent developments in the field of braking will be considered and the subject matter will be treated from both theoretical and practical standpoints. The course is designed to facilitate discussion and the interchange of experience between course members and lecturers.

Course Content
- Friction and friction materials
- Brakes & braking system design & analysis
- The dynamics of braking & car braking distribution
- Commercial vehicle brake design
- Brake sizing
- Passenger car brake system layout
- Commercial vehicle layout & braking distribution
- Friction pairs
- ABS & TCS
- Brake fluid
- Electro-Hydraulic Brakes (EHB)
- Passenger car ESC systems
- Thermal effects in brakes
- Legislation and Type Approval
- Regenerative braking & brake blending
- Materials design for disc brakes
- Brake noise, vibration and judder
- Brake testing
- Electronic braking – an aid to vehicle stability
- Case studies

Full course notes will be provided together with a copy of the recommended Braking of Road Vehicles text book, plus case study material on vehicle brake design which will augment the lecture notes.

Who should attend?
The course is intended for engineering, technical and professional staff in the industry who would benefit from a period of concentrated study in this important branch of automotive engineering. The course is broad enough in content to benefit vehicle engineers generally, as well as those with specialist braking interests. A Degree, technical Diploma, HND or HNC, or some professional qualification and practical experience is desirable, though not essential. Continuing Education Certificates of Attendance will be issued to participants for counting towards individual CPD records.

Delegates may also register for MSc academic credit (if they wish), by undertaking a course assessment which, if successful, will result in an academic credit which may subsequently be used to count towards a higher degree.

Participating Staff
The course is led by the Course Team:
- Dr David Bryant (Course Chair)
- Professor Andrew Day
- Dr Colin Ross

who will be accompanied by several speakers from industry and academia who are recognised authorities in their fields.

Venue
The course will take place at the University of Bradford. Full joining instructions will be sent to registered participants.

Accommodation
There are several local hotels within walking distance of where the course lectures are held. Please see the website for more details: www.thebrakingcourse.co.uk

Fee and booking
The course fee is £1,620, inclusive of lunch, dinner, a special course dinner, morning coffee, afternoon tea and course materials. To reserve your place on this course, please return the application form by 3 August 2018 to:

uob-brv@bradford.ac.uk

or

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Or you can book online at: www.bradford.ac.uk/ei/engineering/courses/braking-of-road-vehicles/