

Programme

11 November
Day 1 10:30 - 18:00

morning Introduction to the course.
Introduction to the field of road-tyre interaction.
The physics of road-tyre interaction:

- the basics
- road-tyre interaction noise

Lunch

afternoon The physics of road-tyre interaction (continued):

- rolling resistance
- grip/safety

Parameters influencing road-tyre interaction.
Grip, fuel-economy and silence, is there a conflict?

12 November
Day 2 09:00 - 16:30

morning Modelling:

- road-tyre noise: theory & practical training
- rolling resistance
- grip

Lunch

afternoon Measurement:

- methods
- standards

Optimum design of roads and tyres.

Fee

The regular course fee is € 995,- (excl. 19% VAT) and includes lunch, coffee and refreshments on both days and all course materials. The early registration fee is € 895,- (excl. 19% VAT) and applies if you register before 31 August 2010. You can register online at: <http://www.mp.nl/RTIcourse2010>

Organisers

The course is organised by *M+P - consulting engineers*. M+P has been working in the field of road-tyre interaction for over 20 years and has contributed to several national and international R&D projects. The lectures will be given by experts from research institutes active in this area such as the Eindhoven University of Technology, KOAC-NPC and M+P.

More information

The course has it's own webspace at <http://www.mp.nl/RTIcourse2010>

For questions regarding the contents of this course please contact:
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M+P - consulting engineers
Müller-BBM group
noise, vibrations, air quality

Course on road-tyre interaction



11 - 12 November 2010
Amsterdam

Course on road-tyre interaction

Modelling and measuring the environmental aspects of road-tyre interaction and understanding the road surface effect



Course description

The tyre/road interaction process plays an essential role in the performance of our road transport system. Safety, sustainability and quality of the local environment are, to a large extent, defined by the processes at that small patch of rubber touching the road. Through the complex interaction between tyre rubber and road surface, the driving forces are transmitted so our cars move, but this comes with side effects. The hysteresis in the rubber deformation causes energy loss but at the same hand provides grip under wet conditions and

suppresses tyre belt vibrations. Tyre profiles, necessary for wet grip and traction, cause force excitation and thus noise.



The challenge in today's tyre and road design is to find a balance between safety, fuel economy and noise reduction. Road and tyre engineers need to understand the processes involved in road-tyre interaction in order to face this challenge and find an optimum solution for road and tyre performance.

The course will introduce you in the field of road-tyre interaction and help you understand the tyre performance (in terms of noise, grip and rolling resistance) under various road conditions. The course covers the physics involved in the interaction between road and tyre to help you understand all processes that play a role. You will get acquainted with the models that are available for further understanding and optimizing road-tyre interaction. Finally, you are introduced into the state-of-the-art measurement technology and methods that you can use to investigate tyre-road interaction in practical applications such as road and tyre design, product evaluation, environmental impact studies etc.

Target audience

Understanding the influence of the road on the tyre performance is important for people working in either a road- or a tyre-oriented business. The course is aimed at professionals from universities, engineering consultants, road and tyre manufacturers and authorities that work in the field of roads and tyres in the broadest sense.

Venue and date

The course will be held in Amsterdam on 11-12 November 2010 in the *NH Carlton Hotel* in the very centre of Amsterdam. Course participants can book a room in this hotel at a reduced price.

