Course Registration

Send to CAMPUS AUTOMOBILE A.S.B.L.; christophe.godfirnon@forem.be
Fax *+32 (0) 4 / 253 39 84*

Fee: €1500 for one three-day course
€2700 for two three-day courses (10% rebate/course)
€3825 for three three-day courses (15% rebate/course)
€4800 for four three-day courses (20% rebate/course)

Payment: Payment after registration and receipt of invoice.
IBAN: …BE50 0013 4821 4518 **BIC:**…… GEBABEBB
Bank: …… FORTIS **Account No.:** … 001-3482145-18
Account Holder:…… CAMPUS AUTOMOBILE A.S.B.L.
Reason for Transfer:……<Course Code(s) and Participant Name>

Course Code(s):
Please tick the box(es) next to the course(s) you wish to register for.

☐ **LODY0511** Longitudinal Dynamics	☐ **VLDY0511** Vertical & Lateral Dynamics
☐ **APSS0601** Active & Passive Safety Systems	☐ **VEAC0601** Vehicle Acoustics

Name:

First Name:

Company / Institute:

Department:

PO Box / Address:

Country: ZIP Code: Town:

Telephone:

Telephone (mobile):

Fax:

e-mail

Please notify me about future events at Campus Automobile. (cross out if necessary)

Date:

Signature:

campus automobile
SPA-FRANCORCHAMPS

Competence Centre Presentation

The year 2005, 84 years after the first motor race on the Spa-Francorchamps circuit, will mark the beginning of a new era of automobile education and training. A brand new automobile competence centre at the racing track will welcome you during your courses. A first series of courses will start in November 2005.

Target Audience

The courses announced herewith primarily address engineers and well experienced technicians from the automotive sector, ranging from car manufacturers to suppliers, especially from engineering and testing departments.

Participants of these four courses will receive excellent-quality lectures and can discover new details of automobile technology, leading to in-depth knowledge in automotive engineering.

Training Team

Courses are offered by Univ.-Prof. Dr.-Ing. Henning Wallentowitz and Prof. Dr.-Ing. habil. Jan-Welm Biermann from the renowned Institut für Kraftfahrwesen Aachen of RWTH Aachen University.


Univ.-Prof. Dr.-Ing. H. Wallentowitz


Prof. Dr.-Ing. habil. J.-W. Biermann

Course Organisation

Course hours:	Courses are from 9:00h to 16:00h.
Language:	English
Participant Limit:	A maximum of 20 participants per course will be admitted.
Fee:	The participation fee is €1500 per course (VAT included). A rebate is granted upon registration to more than one course.
Services:	The fee includes course materials, lunches and beverages.
Accommodation:	Advice and support upon request.

Location

The courses will take place at Campus Automobile Spa-Francorchamps Racing Circuit: Route du Circuit, B-4970 Francorchamps

Access: Motorway E42 (Verviers – Trier), exit no. 11, direction Stavelot. Parking “Blanchimont”.

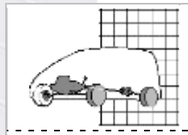
Contact

Christophe Godfirnon
christophe.godfirnon@forem.be
Tel: +32 (0)4 229 67 62

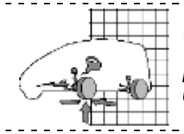
http://www.centresdecompetence.be
http://www.ika.rwth-aachen.de

campus automobile
SPA-FRANCORCHAMPS

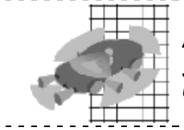
Automotive Engineering
Course Announcement 2005/06



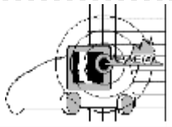
Longitudinal Dynamics
Univ.-Prof. Dr.-Ing. H. Wallentowitz



Vertical and Lateral Dynamics
Univ.-Prof. Dr.-Ing. H. Wallentowitz



Active and Passive Safety Systems
Univ.-Prof. Dr.-Ing. H. Wallentowitz



Vehicle Acoustics
Prof. Dr.-Ing. habil. J.-W. Biermann
NEW DATES !

15th – 17th November 2005

Longitudinal Dynamics

Univ.-Prof. Dr.-Ing. Henning Wallentowitz
and qualified engineers from ika

This course begins with outlining the significance of modern motor vehicles for passenger and freight traffic compared to other transport. Main focus for the course will then be the longitudinal dynamic of motor vehicles. It covers the relevant components and parameters, which influence "driving" and "braking" of motor vehicles.
The first two days will be the presentation of the topic's theory. The third day of the course will be exercises and discussions of examples.

Course Schedule:

Tue., 15.11.2005	Wed., 16.11.2005	Thu., 17.11.2005
Lectures on Power and Power train: • Introduction • Power and Energy Demand • Power train: Engines • Speed Converters • Torque Converters • Differential • Brakes • Vibrations	Lectures on Vehicle Dynamics: • Driving Performance • Fuel Consumption • Drive train Layouts • Driving Limits	Exercises: • Power and Power train • Vehicle Dynamics

Course Code: **LODY0511**

23rd – 25th November 2005

Vertical and Lateral Dynamics

Univ.-Prof. Dr.-Ing. Henning Wallentowitz
and qualified engineers from ika

In this course, the participants become acquainted with the basic knowledge and analysis of suspension systems as well as tyres and steering systems. The main focus during the first part of the lecture is "vertical dynamics". It includes the different requirements regarding the suspension itself and various other components of the "vibrating" vehicle. The second part of the course focuses onto the subject of "lateral dynamics". The basic structure of tyres, the suspension and steering system are explained.
The first two days will be the presentation of the topic's theory. The third day of the course will be exercises and discussions of examples.

Course Schedule:

Wed., 23.11.2005	Thu., 24.11.2005	Fri., 25.11.2005
Lectures on Vertical Dynamics: • Demands on Suspension • Tyres • Body Springs • Vibration Dampers • Seats • Single Wheel Suspension Model • Single Track Suspension Model • Two-Track Suspension Model	Lectures on Lateral Dynamics: • Demands on Vehicle Behaviour • Tyres • Single Track Vehicle Model • Four-Wheel Vehicle Model • Steering • Wheel Suspensions	Exercises: • Vertical Dynamics • Lateral Dynamics

Course Code: **VLDY0511**

9th – 11th January 2006

Active and Passive Safety Systems

Univ.-Prof. Dr.-Ing. Henning Wallentowitz
and qualified engineers from ika

This course focuses on safety-related vehicle systems, ranging from active to passive safety. The emphasis is hereby given on driver assistance systems. The part "on-board systems" of the course deals with such systems. The field of "passive safety" includes accident analysis, the determination of the limits of bio-mechanic strains on the human body and the specific design of the driver's seat and position, restraint systems and appropriate car interior design.
The first two days will be the presentation of the topic's theory. The third day of the course will be exercises and discussions of examples.

Course Schedule:

Mon., 9.1.2006	Tue., 10.1.2006	Wed., 11.1.2006
Lectures on Safety Systems: • Introduction • Vehicle Safety • Lighting Systems • View and Control Systems • Glass and Air Conditioning • Biomechanics, Pedestrian Safety • Restraint Systems	Lectures on Driver Assistance Systems: • Driver Assistance Systems • Sensors and Actuators • Longitudinal and Transverse Dynamics Control • Pre-Crash, Post-Crash	Exercises: • Lighting Systems • Driver Assistance • Longitudinal and Transverse Dynamics Control • Pre-Crash, Post-Crash • Biomechanics, Pedestrian Safety • Restraint Systems

Course Code: APSS0601

16th – 18th January 2006

NEW DATES !

Vehicle Acoustics

Prof. Dr.-Ing. habil. Jan-Welm Biermann
and qualified engineers from ika

This course covers the entire field of vehicle acoustics, ranging from exterior driving noise to the passenger's noise and vibration perception. It includes all acoustical mechanisms in today's vehicles, from low-frequency vibrations to high-frequency noise. Starting with acoustic basics and an overview of current measurement devices (e.g. Laser Vibrometer), the specific vehicle noise sources (e.g. power train, brakes and tyres) are discussed in terms of noise generation and technical potentials of noise reduction. The course concludes with an introduction to the field of psychoacoustics.
The first two days will be the presentation of the topic's theory. The third day of the course will be exercises and discussions of examples.

Course Schedule:

Mon., 16.1.2006	Tue., 17.1.2006	Wed., 18.1.2006
• Introduction • Acoustic Basics • Audiology • Sensors and Measuring Devices • Test Chambers • Signal Analysis • Legislation • Measuring Regulations • Partial Sound Source Analysis	• Combustion Engine • Transmission • Joints • Vibration System "Drivetrain" • Body • Tyres • Brake Systems • Steering Systems • Sound Transfer Analysis • Psycho-acoustics	Exercises: • Basics • Sensors and Measuring Devices • Measuring Methods • Laser Vibrometer • Components • Methods for Interior Noise Reduction

Course Code: **VEAC0601**