



Drawing on our interdisciplinary know-how and understanding of the correlations on the total vehicle level, we will provide you valuable input to improve steering feel – for new developments as well as in current production vehicles.

The seminar has been designed for specialists and executives in the following areas:

Vehicle Development, Component Development, Development of Vehicle Dynamics Functions, Steering Development, Basic Functional Design, Virtual Vehicle, Service Providers.

The objectives of our seminar

Steering feel evaluation, steering analysis and optimization

- Optimization of the agility, comfort and safety of vehicles

Optimization of steering feel on the steering system test bench

- Model-based steering feel optimization
- Parameterization of steering models

In-vehicle evaluation of steering systems

- In-vehicle evaluation of steering feel
 - Subjective evaluation of the market environment of actual cars
 - Analysis of optimization potential

Seminar contents

- In collaboration with experienced vehicle dynamics experts, you will be familiarized with the customer-relevant evaluation criteria of steering feel and experience how these characteristics feel
- In addition to standardized ISO maneuvers on a test track, you will be experiencing and evaluating steering characteristics and vehicle dynamics on highways and secondary roads
- Feel / sense, evaluate and improve authenticity, feedback and predictability of steering characteristics

At a glance

Seminar language

English

Registration

Please sign up for our practical seminar STERR & FEEL on our homepage www.mdynamix.de. Terms and conditions for participation and the flyer can also be download here.

Attendance fee € 2,450.00 plus VAT (limited number of participants)

- For bookings until **March 15, 2019** you will receive a special condition **10 %**
- When booking 2 participants at the same time, both receive a discount of **5 %**
- With simultaneous booking of three participants and more, all receive each on the booked seminar fee **10 %**

Organizer

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Information about the event / your points of contact

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Mdynamix AG

STEER & FEEL

From our Seminar Series
Vehicle Dynamics Practical Seminar



Feeling, evaluating and developing steering

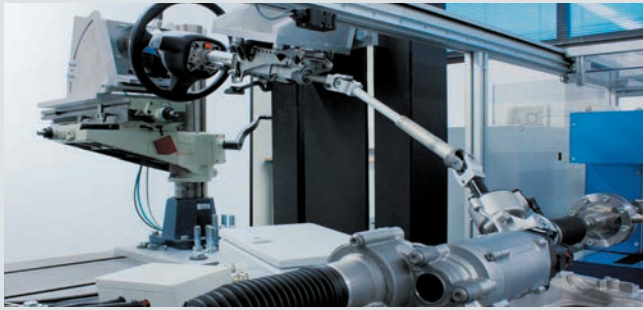
Learn about leading-edge methods and tools for the development of steering characteristics and high customer satisfaction.

Seminar date

May 22 to 23, 2019

Munich University
of Applied Sciences /
Test-Center Allgäu
Fakt Motion GmbH,
near the Memmingen Airport

Until
March 15, 2019
please note
the early and
multiple booking
conditions!



Steering system development on the test bench

Our experts will develop steering performance together with you on the hardware-in-the-loop (HIL) steering system test bench

Experience how the application enhances steering feel with minimal time invested.

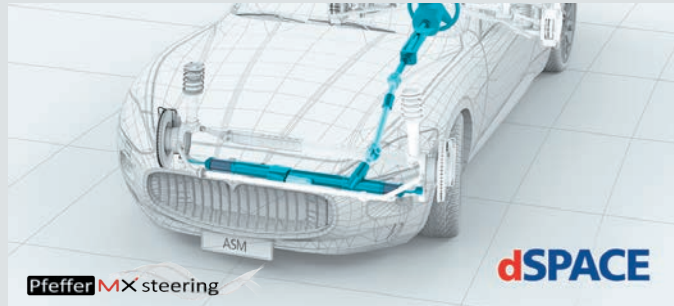
The objective is to enhance the ability to experience the vehicle dynamics of vehicles in diverse vehicle segments in terms of authenticity and feedback provided to the driver.

Achievement of “the right steering feel for everyone” as a development objective so that the customer can steer with stability and without stress in all speed ranges on the highway, travel on a pass road with precision and agility, or maneuver in a parking lot with ease requires extensive tests.

A huge number of steering system parameters and functions have to be validated and coordinated. In a purely subjective process, this is a very time-consuming effort.

Modern development tools (MXsteeringdesigner, MXevaluation), current simulation software and proven processes enable model-based optimization of steering feel on the steering system test bench.

This preliminary optimization makes it possible to effectively fine-tune steering feel in the vehicle. As a result, consistent steering feel across various vehicle segments and generations can be achieved.



With a combination of virtual and real-world evaluation methods!

Program Day 1

- 08:00 Transfer hotel – Munich University of Applied Sciences
- 08:30 Welcome and introduction
- 09:00 Tour of vehicle engineering laboratory of Munich University of Applied Sciences
- 09:30 Driver, vehicle, environment – humans-in-the-loop, Ing. (grad.) Dieter Scharpe
- 10:00 Development of steering characteristics for positive steering feel, Prof. Peter Pfeffer
- 10:45 Coffee break
- 11:00
- 11:45 Subjective evaluation of steering behavior and vehicle dynamics – definition of the criteria, description of the evaluation process and possibilities to influence behavior and dynamics
- 12:30 Lunch break
- 13:30 Introduction of the steering system test bench and description of the hardware-in-the-loop test procedures
- 14:00 Steering feel evaluation on the steering system test bench, performance of characterization tests, model-based application of steering systems
- 17:30 Analysis and evaluation of results, assessment of the evaluation results – what are the reasons for differences in the evaluation?
- 18:00 End of day 1, bus shuttle to evening event



Program Day 2

- 08:00 Transfer hotel – Munich University of Applied Sciences
- 08:30 Practical part: driving of test vehicles, feeling and evaluating the various steering characteristics on highways and country roads, evaluation of diverse vehicles
- 10:30 Arrival at the test track and coffee break
- 11:00 Practical part: driving of test vehicles, feeling and evaluating the various steering characteristics, performance of driving maneuvers on the test track
- 13:30 Lunch break
- 14:45 Practical part: driving of test vehicles, feeling and evaluating the various steering characteristics on autobahns and backroads
- 16:45 Arrival at Munich University of Applied Sciences and coffee break
- 17:00 Discussion of the validation results
- 17:30 End of event