



A COMPLETE GEAR TRAINING PROGRAM ON MASTER LEVEL (English spoken)

EUROTRANS, the European platform for the Gears and Transmissions sector, has developed an extensive and all-encompassing modular Gear Training Program. This program is running since 2010 and is organized in three European countries: Belgium, Germany and the UK. Meanwhile 19 trainings have been organized with over 300 participants. Provided with top gear trainers, the training covers every possible aspect in their domain – from geometry and design, through production, to quality control and failure analysis.

In October of this year, it is time for another edition of **the module on Geometry and Design**. This module is organized in Munich in close collaboration with FVA GmbH and the University of Munich FZG, Germany.

GEOMETRY & DESIGN 21 OCTOBER – 25 OCTOBER 2019

Please find the detailed program for this week below. If you wish to subscribe, please use the registration form at the end of this folder.

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| Venue? | FVA GmbH, Business Campus Munich, Parkring 6, Garching bei Munchen, Germany |
| Accommodation? | Room reservations should be made directly with the hotel. Accommodation is not included in the price of the training. |
| Social program? | The training package includes evening diners and social activities such as a guided walk through the city centre of Munich and a visit of the laboratories of the Gear Research Centre (FZG) at the Technical University of Munich. The social program can be subject to changes. |

AGENDA

MONDAY 21/10 AM – travel and start of the training			
Monday 21/10	12:00 – 13:00 Welcome lunch		
	13:00 – 14:30	Dr. Wirth	GEAR GEOMETRY Geometry of involute gearing Spur and helical gears, basic definitions of single gear, gear pairs, mesh
	14:30 – 14:45 Break		
	14:45 – 17:00	Dr. Wirth	Spur and helical gears, basic definitions of single gear, gear pairs, mesh
	18:30 – Joint diner		
Tuesday 22/10	09:00 – 10:40	Dr. Wirth	Variant gear systems ‘Special gears’: bevel gears, conical gears, worm gears, general kinematics, basic definitions Planetary gears: kinematics, powerflow, efficiency
	10:40 – 11:00 Break		
	11:00 – 12:15	Dr. Wirth	‘Special gears’: bevel gears, conical gears, worm gears, general kinematics, basic definitions Planetary gears: kinematics, powerflow, efficiency
	12:15 – 13:15 Lunch		
	13:15 – 14:30	Dr. Michaelis	MATERIAL & HEAT TREATMENT Gear materials Selection of gear materials, heat treatment, SN-curve, damage line, strength values

	14:30 – 14:45 Break		
	14:45 – 17:00	Dr. Michaelis	Selection of gear materials, heat treatment, SN-curve, damage line, strength values
	18:00 – 19:00 Visit of the laboratories of the Gear Research Centre (FZG) at the Technical University of Munich		
	19:15 – Joint diner		
Wednesday 23/10	09:00 – 9:10	Dr. Michaelis	GEAR RATING Basic rating practice Introduction of gear rating, relevant stress parameters, rating of bending, pitting, scuffing, slow speed wear, micro pitting and flank breakage
	09:10 – 9:55		
	10:00 – 10:40		
	10:40 – 11:00 Break		
	11:00 – 11:35	Dr. Michaelis	Introduction of gear rating, relevant stress parameters, rating of bending, pitting, scuffing, slow speed wear, micro pitting and flank breakage
	11:40 – 12:15		
	12:15 – 13:15 Lunch		
	13:15 – 14:00	Dr. Michaelis	TEST METHODS Oil tests Influence of lubricants on gear load capacity, test methods and test results, introduction of test results in gear rating practice
	14:00 – 14:30		
	14:30 – 14:45 Break		

	14:45 – 15:30	Dr. Michaelis	Influence of lubricants on gear load capacity, test methods and test results, introduction of test results in gear rating practice
	15:30 – 16:00		
	16:00 – 16:15 Break		
	16:15 – 17:00		
	18:00 – 19:00 Guided tour Munich		
	19:00 – Joint diner		
Thursday 24/10	09:00 – 10:00	Dr. Wikidal	GEAR GEOMETRY Gear corrections Profile and lead corrections, load distribution, vibration excitation
	10:00 – 11:15		
	11:15 – 11:30 Break		
	11:30 – 12:15		
	12:15 – 13:15 Lunch		
	13:15 – 13:45	Dr. Wikidal	GEAR RATING Standard gear rating Standardized gear methods in ISO, bending, pitting, scuffing, micropitting - examples
	13:45 – 14:15		
	14:15 – 14:45		
	14:45 – 15:00 Break		

	15:00 – 15:45	Dr. Wikidal	Standardized gear methods in ISO, bending, pitting, scuffing, micropitting - examples
	15:45 – 16:30		
	16:30 – 16:45		
	18:30 – Joint diner		
Friday 25/10	09:00 – 10:40	Dr. Wikidal	GEAR RATING Program codes Application of standard gear rating methods - examples
	10:40 – 11:00 Break		
	11:00 – 12:15		
	12:15 – 13:30 Closure lunch		
FRIDAY 25/10 PM – end of the training and travel			

REGISTRATION FORM

>> Form to be returned at least 7 days before the start of the course (or 30 days for early bookings) to Agoria, by e-mail to: comm-training@agoria.be, BluePoint Brussels, bd A.Reyers ln 80, 1030 Brussels.

Surname, First Name

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Function

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Company

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Address

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E-mail

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Tel.

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VAT Nr

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PARTICIPATION FEE

- 2100 € (vat excl.) per person for early bookings at least **30 days before** the start of the training
- 2300 € (vat excl.) per person for late bookings at least **7 days before** the start of the training
- **2800 € (vat excl.) per person for organisations non-member of EUROTRANS associations disregarding date of registration**

From the 2nd and consequent inscription from the same company, a 100€ reduction will automatically be granted.

The invoice will be sent to you upon receipt of your registration from FVA GmbH, Lyonnerstrasse 18, 60528 Frankfurt, Germany

Contact FVA

Christine Raabe, tel 00 49 69 6603 1785, e-mail: christine.raabe@fva-service.de

Please mention if a purchase order number (PO number) is needed on your invoice.
The PO number has to be linked **to the supplier FVA and not to Agoria!**

Invoice address if different from the above:

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CANCELLATION CONDITIONS

- > No charge if cancelled at least 30 days before the start of the course
- > For cancellations at least 7 days before the start of the course, 50% of the inscription fee will be refunded
- > No refund will be made for cancellations received after 7 days before the start of the course, however replacement of a registered person is possible
- > **In case of insufficient inscriptions the course will be cancelled and refunded**

Date and Signature:

HOTEL INFORMATION

>> Please confirm your room reservation directly to the hotel preferably one month before the start of the course. Accommodation is NOT included in the price of the training!

We recommend the following hotel:

- **Hotel Hoyacker Hof**

Freisinger Landstrasse 9a
D – 85748 Garching bei München

Tel: +49 (0) 89 32 69 900
E-mail: info@hoyackerhof.de

Block booking code: Eurotrans

Price per room € 82 including breakfast

BOOKING OPTION OPEN UNTIL 2/9/2019