

ROTEC Training Week 2018

Date:	November 12 th – 16 th 2018	
Location:	Vispiron Rotec GmbH Joseph-Dollinger-Bogen 28 80807 Munich	
Language:	English	
Program:	2 days ROTEC RAS Basic Training	Monday and Tuesday
	2 days Spectral & Filter Training	Wednesday and Thursday
	0,5 day Practical Training	Friday
Registration fee:	1.895€ / person	
Registration fee incl.:	4,5 days training program Training documents, beverages, snacks, lunch, dinner	
Registration deadline:	August 31 st 2018	
Hotel recommendation:	1. B&B Hotel München City Nord (Frankfurter Ring 243) (2 min. walking distance) 2. The Rilano Hotel (Domagkstraße 26) (15min. walking distance)	
Contact person:	Kevin Rohwedder (Kevin.rohwedder@vispiron.de)	

1. ROTEC RAS Basic Training

Rotec system: Application areas

Torsional vibrations

Measuring torsional vibrations

RAS equipment: Hardware

RAS measurement principle

Measuring torsional vibrations – Sources of error

RAS software overview:

File manager

Measurement data

- Restricting the time range of a measurement
- Cursor function & determining the number of teeth
- Correction of measurement

Measurement settings

- RASdelta “Choose Frontend” and “Configure Frontend”
- Hardware wizard
- General settings
- Online graphics
- Speed, Analog, CANbus, etc.

Evaluation

- Syntheses, Analyses, Extras, Diagrams, Pages
- Evaluation examples
- Edit layout

Default settings

Placeholder and Sequences

Integration of measurement data from previous ROTEC system generations

Question & Answer session

2. Spectral & Filter Training

Part 1: Spectrum

Basics of the spectral transformation

Continuous, Discrete and Fast Fourier transformation

Spectrum as a harmonic analysis

How FFT works (Animation)

Integral and derivative

Specifics of the discrete Fourier transformation

Leakage, Aliasing, Sampling transformation

Specifics of speed signals

Amplitude damping in speed measurement

Reference of order spectra

Spectrum in ROTEC evaluation

e.g. Remove ramp (before FFT), Speed ramp filter, FFT window functions

In-depth studies and additions

Leakage and window functions

Undersampling and aliasing

Summation

Summation in time domain and spectral domain

Summation and FFT window functions

Part 2: Filtering

Basic types of filters

Filter characteristics

Transfer behavior of typical filters

Example for filtering a signal

Filter without phase shift

Filter operations with the ROTEC software

Speed signals and filtering Summary on the spectrum

3. ROTECH Practical Training

Rotec Laser Sensors (Laser Tachometer 2)

Rotec Speed Sensors

Strain gauge application

Temperature board application

Grounding