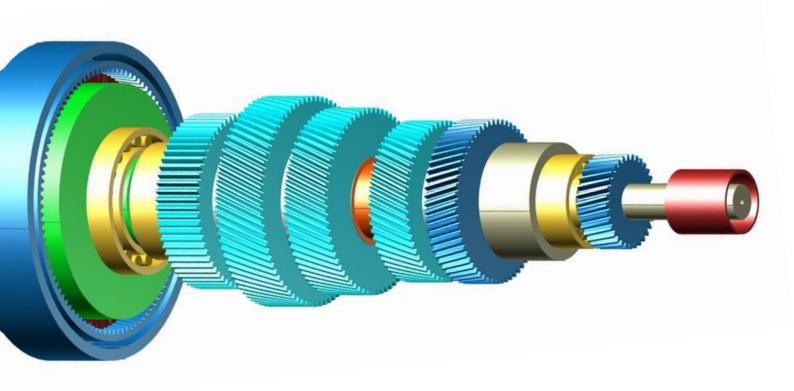


# KISSsoft Live Stream Training

Advanced: Coaxial Bearing Shaft Systems considering inner bearing geometry

October 13-14, 2022



# The below schedule is shown in time zone CET 02:00 pm – 06:00 pm (Brussels)

Session 1: October 13, 2022

02:00 – 02:15 Introduction

02:15 – 03:40 Bearing properties

03:40 - 04:00 Break

04:00 – 06:00 Coaxial shafts modeling

Exercises approximate one hour time for exercises

Session 2: October 14, 2022

02:00 - 02:10 Exercise follow up

02:10 – 03:40 Bearing stresses and life

03:40 - 04:00 Break

04:00 – 06:00 Coaxial shafts analysis

Exercises approximate one hour time for exercises

#### **Bearing Calculations**

- Life rating along ISO 281, ISO/TS 16281
- Static strength, contact stresses
- Bearing, assembly and operating clearance
- Failure probability, bearing subsystem reliability
- Pre-tension, offset, stiffness
- Contact stresses and subsurface stresses in raceways
- Influence of roller modifications
- Design of own bearing inner geometry
- Friction and power losses
- Calculations through SKF Cloud Server
- ...

## **Shaft Systems**

- Pilot bearings, statically overdetermined systems
- Linear vs. non-linear calculation
- Timoshenko beam vs. Euler beam
- Shaft-, bearing-, environment temperature
- Natural frequencies, critical speeds, forced response
- Calculation with load spectra
- Influence of clearance, stiffness, temperature on deformation
- ...

## Tips and Tricks

- Working with 3D graphics
- Standard and special reports
- Bearing data base, bearing data
- Defining rolling element modifications
- Module specific settings
- Content of the reports
- Import drawings in shaft editor
- ...

