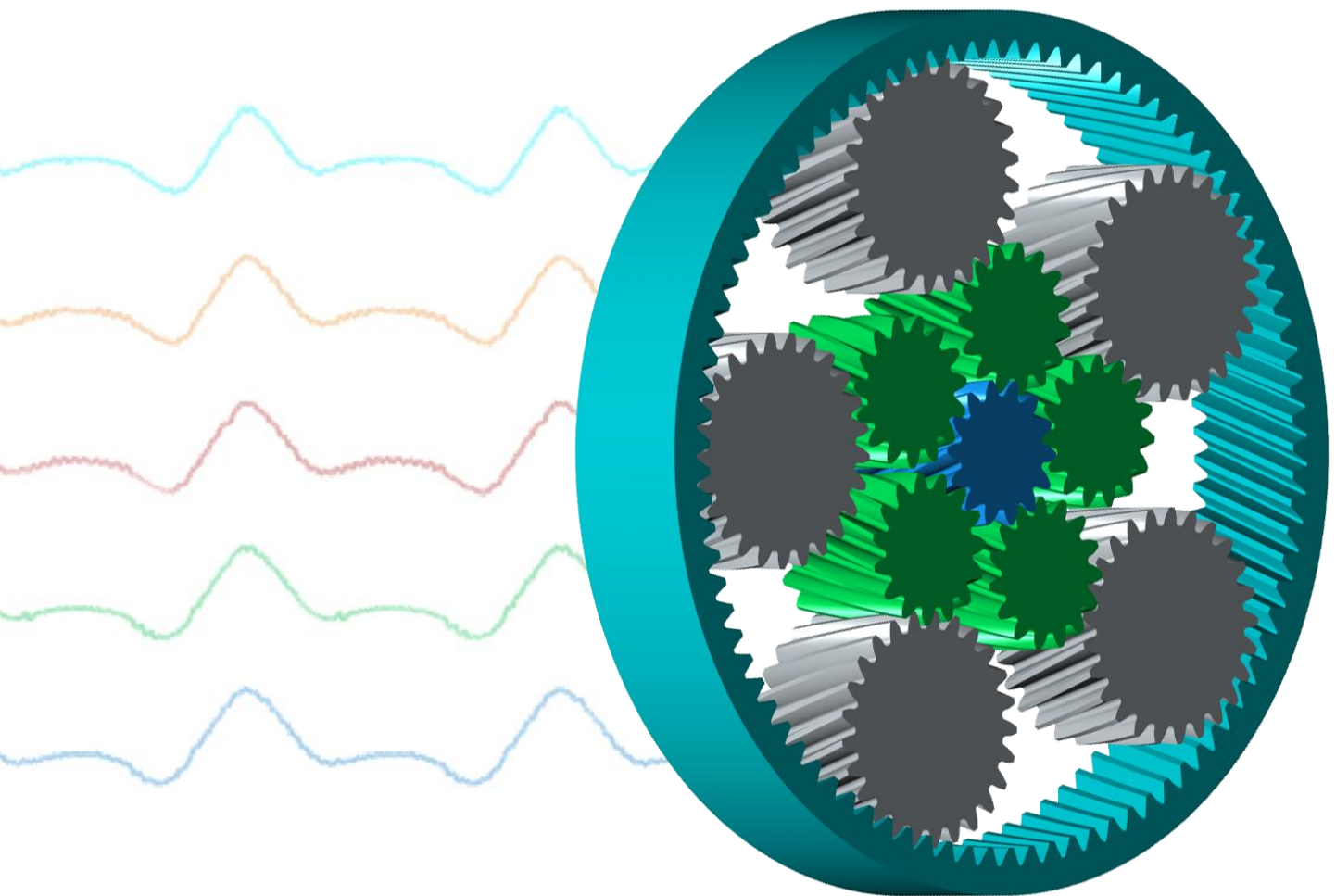# Advanced Training

Cylindrical Gears – Part 4: Design Optimization

2 Live Stream Sessions

Sharing Knowledge

Session 1: Gear Design Optimization, Part I

- Special sizing functions (Profile shift coefficient, Deep tooth form, Torque and Power, etc.)
- Rough sizing of macro geometry to define the raw dimension of gears
- Fine sizing of macro geometry to define macro design parameters of gears
- Rough sizing of micro geometry to define initial guess of modification of gears
- Fine sizing of micro geometry to find optimal modification of gears
- Incorporating loaded tooth contact analysis results in sizing functions

Session 2: Gear Design Optimization, Part II

- Finding an optimal solution well-balanced for various criteria
- Strategies for optimizing tooth flank modifications for strength and noise
- Sizing of modifications considering load spectrum
- Sizing of modifications considering manufacturing errors