

Application and Assessment of a Software Tool for Gearbox Design and Calculation

Semesterarbeit

Background:

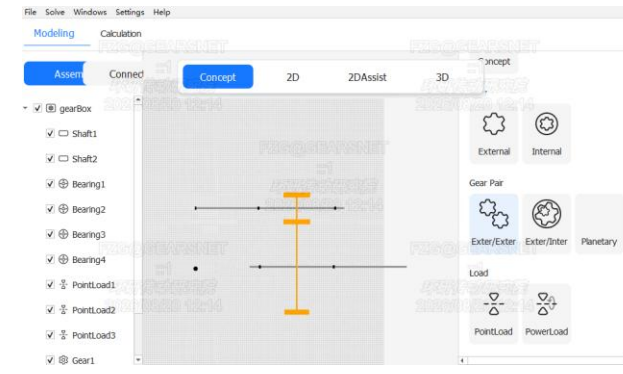
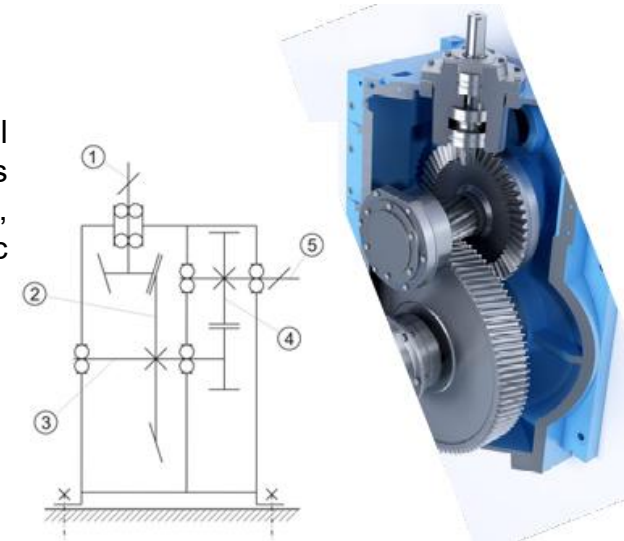
A software tool has been developed for gearbox design and static analysis. Its graphical user interface allows users to model complete gearbox systems. The software supports gearboxes with any number of stages and calculates quantities such as shaft deflections, bearing reactions, gear load distributions, tooth root stress distributions, and static transmission errors. However, the usability of this software requires further assessment.

Objectives:

In this semester thesis, you will use the software to design a gearbox, perform the relevant calculations, and analyse the results. Based on this practical application, you will then evaluate the software's usability, strengths, and limitations.

Requirements:

- Initiative and the ability to work independently
- Interest in gearbox design and simulation
- Previous experience with MASTA is advantageous but not required
- Good written and spoken English
- Start date: September 2026



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