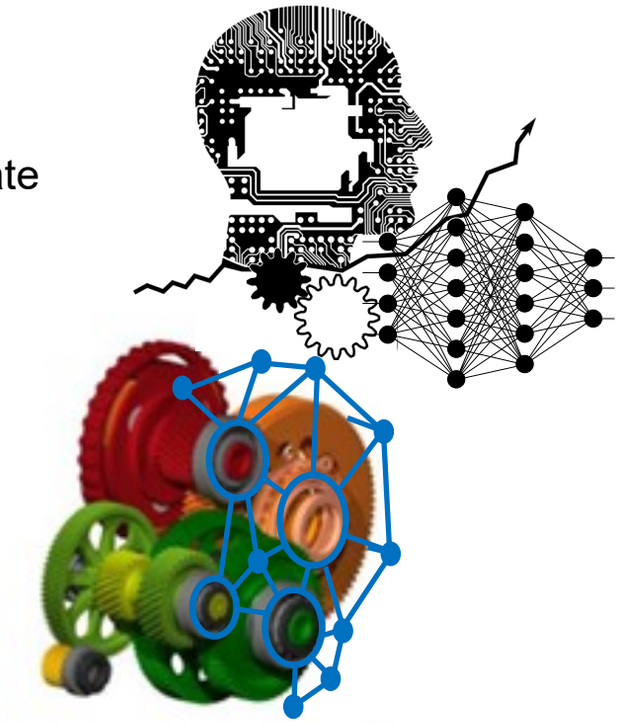
Generative deep learning approaches for automated gearbox housing design of battery electric vehicles

Bachelor's Thesis / Semester Thesis / Research Internship / Master's Thesis

Motivation:

At the Institute of Machine Elements we do research on drive systems and components. Therefore, we are interested in technologies in drive system development and are about to integrate latest artificial intelligence methods in the process of development and design.



Your task:

The goal of this project is to develop, implement and evaluate generative deep learning approaches that help automating the design of gearbox housings of battery electric vehicles. As part of your work you need to consider diverse requirements like loads, bearings support, manufacturability or oil-tightness. Subsequently, you will implement chosen strategies and evaluate them in the context of automated design.

Your profile:

- Highly interested in AI-methods generative design
- Advanced coding skills
- Strong math skills and knowledge of graph theory
- Highly motivated and responsible
- Fluent in English or German

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