

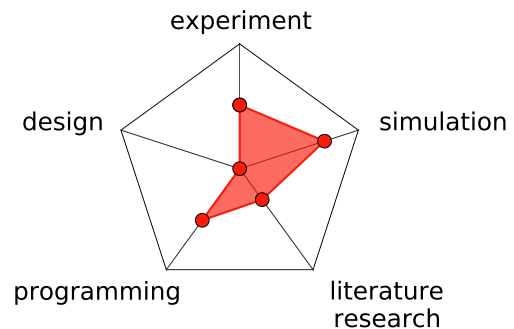
Master-/Bachelorthesis:

What does broken mean? - Investigating the effects of inefficient operation and faults in smart buildings

Artificial intelligence and machine learning are talked about a lot - yet these techniques are only applied in several smaller systems. To reach the goals of the energy transformation and save the climate the energy efficiency in office buildings needs to be increase drastically. Aside from advanced control algorithms and new energy systems, the detection and diagnosis of faults in buildings is unavoidable. However, to train advanced algorithms for the detection of faults we first need to create appropriate training data.

Your task:

- ▷ Determine the most important fault sources
- ▷ Develop a concept to recreate them at the testing facility
- ▷ Execute experiments
- ▷ Evaluate the results of your experiments



Your profile:

- ▷ You study Mechanical Engineering, Energy technology or something similar
- ▷ You are interested in artificial intelligence and smart buildings
- ▷ You enjoy experimental work
- ▷ You present your own solution to problems

Our profile:

The E.ON Energy Research Center at RWTH Aachen University deals with sustainable energy supply concepts that take account of technical feasibility as well as social and economic aspects. The reduction of primary energy consumption in buildings and an increase of indoor comfort are among the research tasks of the institute.

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