

Master thesis:

Development and Evaluation of Demand-based Ventilation Strategies for Hospitals

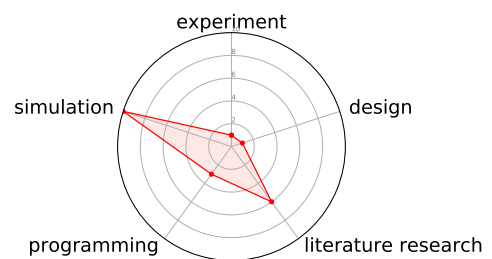
The building stock in the EU is one of the most energy-intensive sectors and has the greatest potential for energy savings. Up to 75% of buildings are estimated to be energy inefficient. Hospitals have particularly high energy demands. There is a significant need for energy-saving measures in this building sector. The aim of this research project is to develop practicable methods and control strategies for demand-based ventilation in the hospital environment and to evaluate the energy-saving potential of these concepts.

Your mission:

- ▷ develop creative demand-based ventilation strategies for hospitals
- ▷ implement your strategies in an existing building model in the modeling language Modelica
- ▷ evaluate your strategies and compare them with the regular ventilation
- ▷ your use cases will be the Uniklinik Aachen and the Helsinki University Hospital
- ▷ have contact to corporate partners and partners from Finland
- ▷ experience with Modelica is advantageous but not mandatory

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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