E.ON Energy Research Center | RWTH AACHEN UNIVERSITY

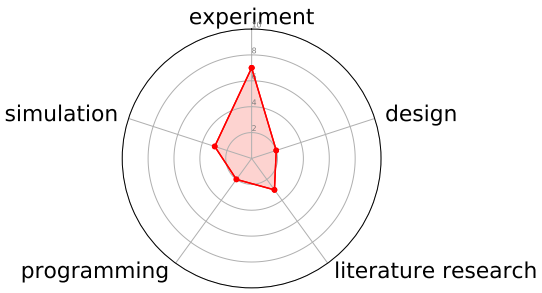
Project, Bachelor or Master thesis:

Experimental investigation of new technologies for passive air humidification in living space ventilation

In modern residential buildings with passive house standards, energy-efficient ventilation is becoming increasingly important. In order to guarantee thermal comfort in the room, it is usually necessary to humidify the outside air in winter, which is costly and energy-intensive. The use of moisture recovery systems can reduce the energy requirements of home ventilation units. For this purpose, a membrane-based system is to be tested in terms of its operating characteristics and control.

Your Task:

- ▷ Familiarisation with the operating mode and control of moisture recovery systems
- ▷ Extension of the test bench by a control system
- ▷ Investigation of a membrane-based enthalpy transmitter with regard to operating characteristics and control
- ▷ Derivation of design criteria for the energy-optimal operation of domestic ventilation units with moisture recovery
- ▷ Simulative control examination (only master thesis)



Your Profile:

- ▷ Field of study: Mechanical Engineering/Business Engineering, Energy Technology or similar
- ▷ You take pleasure in experimental work
- ▷ You are able to work independently and goal-oriented

Our Profile:

The E.ON Energy Research Center at RWTH Aachen University is concerned with sustainable energy supply concepts that take into account technical feasibility as well as social and economic aspects. The reduction of the primary energy consumption of buildings and an increase of the interior quality belong to the research tasks of the insitute.

Contact:

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