

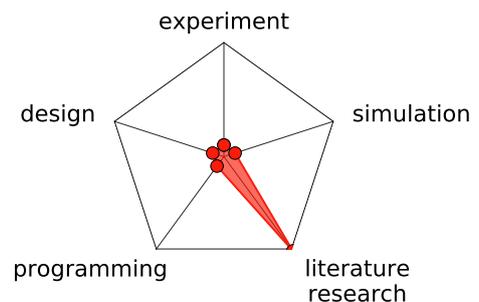
## Project/Bachelor Thesis:

### Literature research on the advantages of IoT and cloud applications in building automation and control systems

The building automation and control system (BACS) is the central connecting component for achieving the desired efficiency of devices within the building sector. This aside, current most-discussed topics related to a progressive system automation are the Internet of Things (IoT) and cloud applications. At the same time, often, many advantages of such systems are proclaimed without any practical validation or being demonstrated within just a small-scale proof-of-concept (POC). In this regard, scaling-effects could merely be evaluated meaningfully, considering larger systems. Additionally, it is not always stated clearly, which of the advantages applies to only IoT without any cloud infrastructure or specifically in the application of BACS. Therefore, in this thesis, you research the advantages in using IoT and cloud applications in general and specifically for BACS and investigate in which way they are proposed, for instance, if it is either a concept, POC or analysis of a large use-case application.

#### Scope of Work:

In this thesis, you research on the basis of different sources the advantages of using IoT in general as well as in connection with cloud applications, and for the specific case of building automation and control systems. For this purpose, you will use classical methods of a literature research such as a keyword or index search. More specifically, one focus should be placed on the validation of the advantages mentioned. Accordingly, primarily scientific sources should be considered. If you contact companies that advertise with corresponding benefits, particular attention should be paid to the presentation of added value. This can be based on provider and/or customer side. The thesis can preferably be written in the form of a review paper.



#### Our Profile:

E.ON Energy Research Center at Aachen University is concerned with concepts of sustainable energy supply that account for technical feasibility as well as social and economic aspects. Reduction of primary energy consumption in conjunction with increased indoor air quality is a major focus of research.

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