

# Thesis Proposal (MA)

## Realization of IoT Smart Space Use Cases

### Outline

For many years we are developing the Distributed Smart Space Orchestration System (DS2OS, <http://ds2os.org/>). DS2OS helps implementing IoT Smart Space use cases.

In this thesis you will first identify suitable published use cases, and then re-implement them by using DS2OS. You will assess your implementation work by applying different metrics that you defined before.

The result will be numbers on how suitable DS2OS is for implementing relevant IoT Smart Space use cases. Further more, diverse use cases will be implemented in our laboratory as show cases.

### Possible Structure

- Analysis
  - o Analyze the problem domain.
  - o Identify relevant research questions that you will work on.
  - o Present relevant technology.
- Related work
  - o What do other projects do that answer your questions?
- Design
  - o Which components do you need?
  - o Which are options for the design? Why are your choices good?
- Implementation
  - o Relevant details such as frameworks used.
- Evaluation
  - o How well does it work?
    - Metrics!

### Requirements

Curiosity, Joy to work in a team, Knowledge in Java.

Ability to write good code (including unit tests and documentation).

### Contact

If you are interested, please send an email briefly explaining why you think to be the right person for this thesis to:

Marc-Oliver Pahl ([pahl@net.in.tum.de](mailto:pahl@net.in.tum.de))

<http://s2o.net.in.tum.de/>

Image sources:

Author: Marc-Oliver Pahl

CC-BY-SA 3

