

Bachelor's Thesis

Modelling and Analyzing the influence of passengers on aircraft cabin channel models

In future, data will be transmitted over light, especially in case of aircraft cabins. However, cabin channel models are scarce and outdated for radio frequencies. Therefore, we developed a 3D structure in blender to simulate light propagation in aircrafts. However, the model is lacking passengers.

The goal of this thesis is to extend the model by adding passengers, with the help of pre-existing models and automated by a script. After extending the simulator, different scenarios should be simulated and analysed. The overall goal is to show the influence of adding passengers.

Tasks:

- Review of related literature
- Extend the model with people
- Compare the new channel effect
- Evaluate of the simulation results

Related Work:

Blender

<https://www.blender.org/>

Prerequisites

- Some experience in python
- Interest in 3D modeling
- Interest in new communication technologies

Advisors

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