

Publication Title

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Abstract

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Keywords: Dynamic Photovoltaics, Multi Functional Envelope, BIPV, Adaptive Shading

1. Introduction

See Readme for paper outline

2. Methodology

The methodology runs the ASF Simulation. It will be briefly reviewed here for Simplicity

2.1. Solar Radiation Evaluation

2.2. Building Simulation Model

2.3. Sensitivities

Within this framework, three sensitivities will be analysed:

Building Envelope: The building envelope is characterised in the RC model as H_w

Infiltration: The infiltration rate is modified in the H_{ve} component of the RC model...

Thermal Capacitance: The thermal capacitance of the mass is denoted as C_m in the RC model.
It...

2.4. Analysis of Archetypes

- Building Archetypes are taken from CEA tool and evaluated within the ASF Framework
- Table of Input Parameters for the different buildings

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3. Results

3.1. Influence of Envelope Resistance

3.2. Influence of Infiltration

3.3. Influence of Thermal Mass

3.4. Archetype Evaluation of the ASF

4. Discussion and Conclusion

5. Acknowledgments

The authors would like to acknowledge the HiLo and HoNR project members for the design and construction of the ASF: Supermanoeuvre (Sydney Australia) and the Professorship of Architecture and Structures (BRG, ETH Zurich) for their work in designing the HiLo building; and the Institute of Structural Engineering (IBK, ETH Zurich) for their work in designing the HoNR building. The authors would also like to thank other key contributors to the ASF Project: Bratislav Svetozarevic, Moritz Begle, Stefan Caranovic.

This research was partly funded by the Climate-KIC, Building Technologies Accelerator program.

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