

## WEB-BASED COMPUTATIONAL DESIGN SUPPORT TOOLS

*Use of Lighting and Energy Performance Simulation and Web-Based Visualization to support Energy Integrated Architectural Design*

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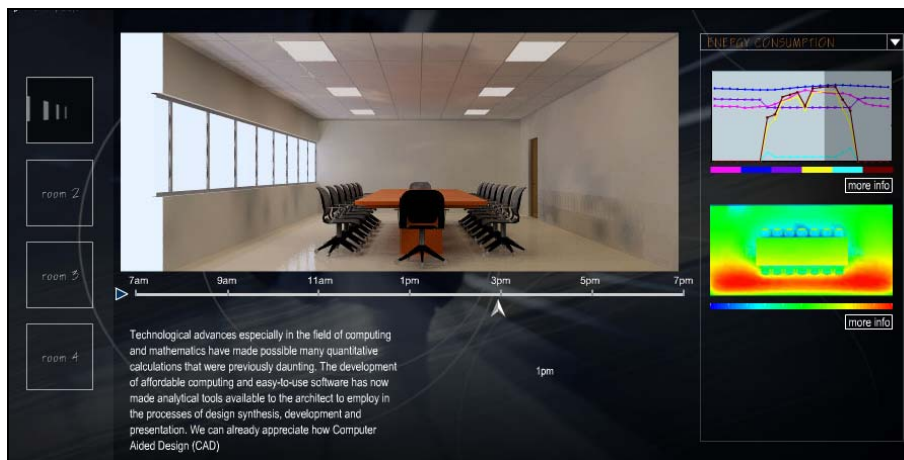
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**Abstract.** The paper proposes a new methodology how computational lighting and energy performance simulations and web based visualization tools can be employed to support energy integrated architectural design. By studying the current limitations of integrating simulation tools in the design process, the hypotheses of a *web-based design guide* attempts to establish computational simulation and visualization tools as a value adding part of the design process as well as contribute to the architect's understanding and concerns of energy relationships in buildings. The developed design guide attempts to address the identified limitations by making the actual simulations transparent to the designer physically and figuratively, the latter involving the studying of how to present data as useful information to the designer in post-processing techniques with special focus web-based visualizations.



*Start page of the design guide with overview of the four design options*



*One design option with further information according to the adjusted time*