Europa-Center Suhr BIM Award

Call for Applications Study Award 2020-2021

This year the award will be given to excellent BACHELOR AND MASTER THESIS addressing the following topic:

RESOURCE EFFICIENCY AND SUSTAINABILITY WITH BUILDING INFORMATION MODELING (BIM), WITH PARTICULAR FOCUS ON EXISTING BUILDINGS

Building Information Modeling enables consistent information management over the entire life cycle of a building, based on digital building models. In the light of the sustainability and environmental protection challenges we face today there is an urgent need to better integrate these aspects in the planning, construction and operation of buildings. While the BIM methodology has been increasingly applied on the development of new buildings, the aspects of sustainability for existing projects have still not been sufficiently addressed and certainly not enough in the context of digital, model-based processes. This applies for the interactions between existing buildings and new construction initiatives at the neighborhood level and for the environmental effects, which result out of these interactions.

Against this background, this year’s EUROPA-CENTER Suhr BIM Award aims specifically at outstanding student research projects that use the BIM method to address sustainability issues for the preservation, restoration, conversion or operation of existing buildings.

Applicants can address the following aspects:

• Inventory and transfer of inventory data to digital building information models,
• Sustainability aspects, such as CO₂ neutrality, resource efficiency, waste prevention, etc.
• Integration of material properties in the technical models and sub-models,
• LCA-oriented modeling / integration of LCA values (Life-Cycle Assessment),
• Integration of real-time data into the model (sensor application),
• Protection and preservation of built heritage,
• Fire protection planning in existing buildings,
• Integration into a CAFM system (BIM2FM),

ABOUT THE CHAIR

The Endowed Professorship for Digital Integrated Process Management focuses on the scientific examination of digital planning tools at the interface to professional practice: PLANNING — CONSTRUCTION — OPERATION — GENERAL COORDINATION — DATA MANAGEMENT. The examination and exploration of processes and workflows in an interdisciplinary context plays an important role here, as does the change in job profiles that comes with digitalization.

The practice-oriented mediation of the cooperative working methods of Building Information Modeling (BIM) in research and teaching is of central importance here.

In this context, BIM is understood according to the definition in the Roadmap for Digital Design and Construction of the Federal Ministry of Transport and Digital Infrastructure from December 2015:

“BUILDING INFORMATION MODELLING MEANS A COLLABORATIVE WORK METHOD THAT CREATES AND USES DIGITAL MODELS OF AN ASSET AS A BASIS FOR THE CONSISTENT GENERATION AND MANAGEMENT OF INFORMATION AND DATA RELEVANT TO THE ASSET’S LIFE CYCLE AS WELL AS FOR THE SHARING OR PASSING ON OF SUCH INFORMATION AND DATA BETWEEN THE PARTICIPANTS FOR FURTHER PROCESSING.”
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**Conditions of Participation**

Theses written in **German** or **English** and not older than one year (at the latest winter semester 2019/2020 with submission or defense date not earlier than 01.01.2020) will be considered.

Eligible are **Bachelor’s** and **Master’s** students from European universities who study **architecture**, **civil engineering**, **urban planning**, **urban design**, **geodesy**, and other related disciplines with a focus on the planning and design of the built environment.

**Documents to Be Submitted**

- Exposé (max. 3 DIN A4 pages, printed one-sided), in which the qualification of the thesis according to the award criteria is presented (DE/EN)
- The complete thesis (DE/EN), including grade sheet (if available)
- Contact details

All documents should be submitted in electronic form.

**Prizes**

Three prizes will be awarded in each of the two prize categories: „Master Theses“ and „Bachelor Theses“.

The prize amounts are distributed as follows:

<table>
<thead>
<tr>
<th>MASTER</th>
<th>BACHELOR</th>
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<tbody>
<tr>
<td>1. Prize EUR 3.000</td>
<td>1. Prize EUR 2.000</td>
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<tr>
<td>2. Prize EUR 2.000</td>
<td>2. Prize EUR 1.250</td>
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<tr>
<td>3. Prize EUR 1.000</td>
<td>3. Prize EUR 750</td>
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**Possible Evaluation Criteria**

- Innovative character of the work
- Scientific competence and potential for further research
- Consideration of the collaborative aspects of the work with **BIM**
- Consideration of the integration of work processes on the basis of digital building models
- Methodological approach and depth of elaboration
- Practical relevance

**Dates**

**Call for Applications**
25. November 2020

**Submission Applications**
15. March 2021

**New Submission Deadline**
30 September 2021

**Jury Meeting**
End of March 2021

**Decision**
End of March 2021

**Award Ceremony**
Mid-April 2021

**Contact**

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https://www.hcu-hamburg.de/research/bimlab/aktuelles/