Tuesday, 08/Mar/2016

9:00am – 10:30am  Opening Keynotes

Welcoming
Dr. Walter Pelka
President HafenCity University

Welcoming
Federal Minister Dr. Barbara Hendricks
Federal Environment Minister, Ministry for Environment, Nature Conservation, Building and Nuclear Safety

Welcoming
Deputy Mayor and Senator Katharina Fegebank
Deputy Mayor and Senator of the Department of Science, Research and Equalisation of the Free and Hanseatic City of Hamburg

Overview on SBE Conference Series
Nils Larsson
iiSBE International Initiative for a Sustainable Built Environment

Introduction to SBE16 Hamburg
Prof. Dr.-Ing. habil. Thomas Lützkendorf
Karlsruhe Institute of Technology (KIT) and head of scientific chair of SBE16 Hamburg

Keynote
Prof. Dr. Mojib Latif
GEOMAR Helmholtz-Institute Kiel

Keynote
Hans-Dieter Hegner
Head of the Department for construction engineering, building science and sustainable building of the Ministry for Environment, Nature Conservation, Building and Nuclear Safety

11:00am - 12:30pm  Ses 1.1: International experience

SUSTAINABILITY PROFILE OF URBAN PLANNING IN ALGIERS
Mohamed SRIR, Ewa BEREZOWSKA AZZAG
Ecole Polytechnique d’Architecture et d’Urbanisme, Algeria

Learning from Ethiopia – A discussion on sustainable building
Nicole Baron, Dirk Donath
Bauhaus University Weimar, Germany

Resilient Community Centres for Nepal Earthquake Victims
James Roger Markham\textsuperscript{1}, Mark Daniel Russell\textsuperscript{1}, Mark Charles Stone\textsuperscript{1}, Deepak Bhattarai\textsuperscript{2}, Alok K Bohara\textsuperscript{3,4}
\textsuperscript{1}Civil Engineering Department, University of New Mexico, United States of America; \textsuperscript{2}Nepal Engineering College, Changu Narayan VDC, Bhaktapur, Nepal; \textsuperscript{3}Department of Economics, University of New Mexico, United States of America; \textsuperscript{4}Nepal Study Centre, University of New Mexico, United States of America

Green Buildings: A Concept aligning the interests of Stakeholders (Developers / Clients and End-users) in Estate Development Projects in Abuja - F.C.T (Federal
### Poster

**Solar collectors in a prefabricated housing estate: lessons learnt after four years of operation**  
*Agata Czarnigowska, Anna*  
Lublin University of Technology, Poland

**BuildNow!**  
*Heiner Lippe, Steffen Slama, Stefan Gruthoff*  
University of Applied Sciences Lübeck, Germany

### 11:00am - 12:30pm Ses 1.2: Energy supply for urban areas

**Buildings as active components in smart grids**  
*Nicole Riediger¹, Friedrich Sick¹, Jan Keiser²*  
¹HTW Berlin - University of Applied Sciences, Germany; ²Technical University Berlin, Germany

**Renewable Energy and Thermal Comfort in Buildings as Smart Grid Components**  
*Martin Bauer*  
Augsburg University of Applied Sciences, Germany

**Effects of energy efficiency measures in district-heated buildings on energy systems**  
*Truong Nguyen Le, Leif Gustavsson*  
Department of Built Environment and Energy Technology, Linnaeus University, Sweden

**The aspect of space in future energy systems**  
*Jürgen Knies*  
Jade University of Applied Sciences Oldenburg, Germany

**Development of a simple approach for applying LCA analysis to compare decentralized energy supply options for urban areas**  
*Claudia Weißmann, Fabian Staab, Cari-Alexander Graubner*  
Technical University Darmstadt, Germany

### 11:00am - 12:30pm Ses 1.3: Valuation and selection of construction products

**Environmental product declaration (EPD) for sustainable construction - new challenges**  
*Eva Dr. Schmincke*  
Thinkstep AG, Germany

**Sustainability assessment tool for building materials**  
*Sílvia de Lima Vasconcelos¹, Carlos Alho², Olaf Zeidler¹, Birgit Müller¹*  
¹HTW Berlin - University of Applied Sciences, Germany; ²Faculdade de Arquitectura, Universidade de Lisboa

**LCA, EPD and Labels - How to Select Green Building Products?**  
*Thomas Schmitz*  
natureplus e.V., Germany

**Ecolabelling of Building materials in Russian Federation: condition and prospects**  
*Petr Zhuk*  
Moscow Institute of Architecture (state academy), Russian Federation

**European LCA data network - the open public data format and online database ÖKOBAUDAT as a starting point?**  
*Tanja Brockmann*
**2:00pm - 3:30pm  Ses 2.1: Net zero and plus energy buildings**

**Design for minimum life cycle energy and emissions: application to a minLCee building in Brazil**  
*Vanessa Gomes da Silva¹, Marcella Saade¹, Bruno Lima¹, Maristela Silva², Natalia Nakumura¹, Doris Kowaltowski²*  
¹University of Campinas, Campinas – SP, Brazil; ²Solsticio Energia, Campinas – SP, Brazil; ²Technology Center, Federal University of Espirito Santo, Vitoria – ES, Brazil

**Potential and risk for (nearly)-Zero-Energy-Buildings under defined urban densities: The case of Singapore**  
*Hsiao-Hui Chen, Udo Dietrich*  
HafenCity University Hamburg, Germany

**Design phase greenhouse gas emissions for a zero-emission residential pilot building**  
*Torhildur Fjola Kristjansdottir¹, Inger Andresen¹, Harald Amundsen², Clara Stina Good³*  
¹Norwegian University of Science and Technology, Norway; ²Brødrene Dahl Norway

**Graphical User Interface for Plus Energy Multi-family houses**  
*Annekatrin Koch*  
Technical University Darmstadt, Germany

**Life cycle approach as a method for optimizing building services systems in extremely low energy buildings**  
*Jens Tønnesen, Torhildur Kristjansdottir*  
Norwegian University of Science and Technology (NTNU), Norway

**2:00pm - 3:30pm  Ses 2.2: Education 1**

**Environmental and social concerns in architectural education: experience of school of architecture, Tianjin university**  
*Wei Yang, Lu Sun, Yi-fan Zhang, Shi-da Liu, Yu Yang-guang Mu*  
Tianjin University, School of Architecture, China, People's Republic of

**Where do design ideas come from? the challenge of teaching bioclimatic and sustainability concepts**  
*Doris Kowaltowski, Vanessa Gomes da Silva, Marcella Deliberador*  
University of Campinas, Brazil

**Teaching Sustainability and Strategies of Reuse: Identifying Sustainable Parameters and Learning from 1:1 Material Studies**  
*Terri Peters*  
Aarhus Architecture School, Denmark

**Creating Awareness for Sustainable Construction through Practice Oriented Teaching in Architectural Education in Eastern Africa**  
*Susanne Gampfer*  
Augsburg University of Applied Science, Germany

**Integrating climate responsive principles into the design process: Educating the architect of tomorrow**  
*Maria-Ioanna Giannousopoulou, Andrea Henriquez, Udo Dietrich*  
HafenCity University Hamburg, Germany

**4:00pm - 5:30pm  Ses 3.1: Building integrated solutions and new technologies**
benefit E – strategies to eliminate technical, economic, planning-related and legal barriers
Christoph Drebes, Steffen Wurzbacher
Technical University Darmstadt, Germany

Green Roof Integrated Photovoltaics: Technologies and Application on an Urban Development Project in Hamburg, Germany
Bettina Steuri1,2, Gionatan Vignola1,2
1BenG architects, Germany; 2HafenCity University Hamburg, Germany

On your roofs -- get set -- green!
Bart Jan Davidsen1, Michael Richter2, Hanna Bornholdt1, Wolfgang Dickhaut2
1Free and Hanseatic City Hamburg, Germany; 2HafenCity University Hamburg, Germany

Assessment of sensing performance of wireless illuminance sensors in built environment
Yee Loon Sum, Szu-Cheng Chien, Yiu Wing Edwin Chan, Boon Hee Soong, King Jet Tseng
Nanyang Technological University, Singapore

Poster
Effects of a building-integrated photovoltaic system on a high-rise estate in Hamburg, Germany
Bettina Steuri, Gionatan Vignola
BenG architects, Germany; HafenCity University Hamburg, Germany

Poster
Functional building surfaces, focus on smart windows
Katrin Linne, Bert Liebold, Jürgen Ruth
Bauhaus-University Weimar, Germany

4:00pm - 5:30pm Ses 3.2: Education 2

Integrating eco-design in French engineering curriculum: the example of Ecole des Ponts ParisTech
Anne Cecile de Bortoli, Adelaide Feraille, Natalia Kotelnikova-Weller, Fabien Leurent
Ecole des Ponts ParisTech - Laboratoire Ville Mobilité Transport, France

Sustainable Housing Design. Integrating technical and housing quality aspects of sustainable architecture in civil engineering education.
Michael Lauring
Aalborg University, Denmark

Learning by Doing
Iris Marie Reuther
Graz University of Technology, Austria

Conceptual Design and Development of a Study Program in the Field of Climate Protection Management
Sven Kluczka1, Dominik Stollenwerk1, Bertram Beckmann1, Isabel Kuperjans1, Anette Anthrakidis2
1Institut NOWUM-Energy, FH Aachen University of Applied Sciences, Germany; 2Solar Institute Jülich, FH Aachen University of Applied Sciences, Germany

Sustainable real estate education: Competencies and didactics for a transdisciplinary master’s program
Annette Kaempf-Dern, Katja Roether
HafenCity University Hamburg, Germany

4:00pm - 5:30pm Ses 3.3: Infrastructures and constructed assets

Evaluation of Sustainable Infrastructure - Using the Southern Quay of the Island of Heligoland as a Case Study
Thomas Schadow1, Esther Borkowski1, Ulrich Jäppelt1, Georg Bosch2
1WTM Engineers GmbH, Germany; 2HafenCity University Hamburg, Germany
Life cycle assessment of road bridges: Implications from using biobased building materials

Diego Penaloza¹, Anna Pantze², Martin Erlandsson³, Anna Pousette⁴
¹KTH (Royal Institute of Technology)/ SP Technical Research Institute of Sweden, Sweden; ²Tyréns AB, Sweden; ³IVL Swedish Environmental Research Institute, Sweden; ⁴SP Technical Research Institute of Sweden, Sweden

Assessing the Sustainability Performance of Sports Facilities – Methodology and Case Studies

Simone Magdolen, Natalie Essig
Munich University of Applied Sciences (MUAS), Germany

LIFE CYCLE ASSESSMENT OF THE ENVIRONMENTAL PERFORMANCE OF URBAN TRANSPORTATION MODES: INTEGRATED METHODOLOGY WITH APPLICATION TO BUS RAPID TRANSIT

Anne Cecile de Bortoli, Adelaide Feraille, Fabien Leurent
Ecole des Ponts ParisTech - Laboratoire Ville Mobilité Transport, France

Special Sessions Tuesday, 08/Mar/2016

2:00pm - 5:30pm

Special Session: PLEEC - Planning for Energy Efficient Cities - The PLEEC Final Conference

Welcoming words
Eric Lecomte, Directorate General for Energy, European Commission

Cities driving the transition to a sustainable energy regime
Carsten Rothballer, Coordinator Sustainable Resources, Climate and Resilience, ICLEI - Local Governments for Sustainability, European Secretariat (ICLEI Europe)

Planning for energy efficient cities – the PLEEC project
Julia Haselberger, Hamburg University of Applied Sciences

Becoming an Energy Smart City – an integrated and place-based approach
Round-table discussion
Participants:
Prof. Rudolf Giffinger, Technische Universität Wien, Austria
Prof. Erik Dahlquist, Mälardalen University, Sweden
Annika Kunnasvirta, Turku University of Applied Sciences, Finland
Matt Oxby, City of Stoke-on-Trent
Moderation: Mikael Kullman

Coffee Break

Energy Efficiency Action Plans – experiences and crucial steps
Presentation and roundtable discussion with representatives of PLEEC cities
Participants:
Kristina Birath, City of Eskilstuna, Sweden
Kaspar Alev, City of Tartu, Estonia
Risto Veivo, City of Turku, Finland
Laura Ahonen, City of Jyväskylä, Finland
Fernando Suarez Lorenzo, City of Santiago de Compostela, Spain
Moderation: Dr. Gudrun Haindimaier, Technische Universität Wien, Austria

Official release:
The model for energy efficiency and sustainable city planning
Lotta Ek, Eskilstuna municipality, Sweden

“Green Thoughts, Green Futures” – success stories of smart energy efficient cities
Annika Kunnasvirta, Turku University of Applied Sciences, Finland

Integrated Urban Planning for a Smart City Transformation – the INSMART Project Approach
Christos Nychtis, Centre for Renewable Energy Sources and Saving, Greece
Future steps – the legacy of PLEEC
Mikael Kullman, PLEEC project coordinator
Javier Campillo, Mälardalen University, Sweden

2:00pm - 5:30pm

Special Session: An open International Data Network? – Harmonization of LCA data bases for sustainable building

Introduction: An open International Data Network – WG InData and the principal approach"
Tanja Brockmann

Standardization – the need for harmonization activities on LCA data for sustainable building
Dieter De Lathauwer

Towards a European Data Network for Construction Product EPDs
Oliver Kusche

Implementing European harmonized EPD
Eva Schmincke

Discussions of central statements of presentations

Summary

Coffee Break

Introduction Results of Session Part I

The Experience – Infrastructure and online implementation of LCA data in BNB (ÖKOBAUDAT, eLCA)
Tanja Brockmann, Stephan Rössig

The Experience of data import and export as EPD program operator
Burkhart Lehmann

The Experience – Rules and verification processes
Hildegund Mötzl

Linking of Databases (OpenDap)
Jose A. Tenorio

EPD and use of external data for building calculation in Denmark
Mathias S., Heeg Kemner

Discussion: Success, problems and open questions from experience

Can Internet of Things (IOT) change everything? Future for LCA
Haakon Hauan

Materials environmental performance data for building level assessments – u UK perspective
Owen Abbe

Need for joint activities (results and approach of WG InData)
Jose A. Tenorio

Discussion of central statements of presentations and others

Summary
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<td>9:00am - 10:30am</td>
<td>Ses 4.1</td>
<td>Urban design and mobility</td>
<td>Dalia Abdel Moneim Osman&lt;br&gt;Helwan University, Faculty of Fine Arts, Egypt</td>
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<td>Promoting Sustainable transport; Reviewing the case of pioneer cities</td>
<td>Johannes Lauer, Wolfgang Dickhaut&lt;br&gt;HafenCity University Hamburg, Germany</td>
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<td>Commercial areas achieving the zero emission goal using the potentials of electric mobility: The eCar-Park Sindelfingen</td>
<td>Manfred Schmid, Wolfgang Rid&lt;br&gt;1 University of Stuttgart, Germany; 2 Erfurt University of Applied Sciences, Germany</td>
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<td>Assessment of Walking Experience in Kitakyushu, Japan</td>
<td>Fritz Akhad Nuzir, Yuki Nakashima, Hirofumi Nishida, Bart Dewancker&lt;br&gt;The University of Kitakyushu, Japan</td>
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<td>9:00am - 10:30am</td>
<td>Ses 4.2</td>
<td>Timber structures and biobased products</td>
<td>Yrsa Elisabet Cronhjort, Florence Bannier, Sonja Geier, Frank Lattke&lt;br&gt;1 Aalto University School of Arts, Design and Architecture, Finland; 2 Institut Technologique FCBA, France; 3 Lucerne University of Applied Sciences and Arts, Switzerland; 4 lattkearchitekten, Germany</td>
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<td>Timber Building Details for a Lean Design Process</td>
<td>Holger Koenig&lt;br&gt;Ascona Gesellschaft für ökologische Projekte, Germany</td>
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<td>Carbon storage and CO2 substitution in new and renovated buildings</td>
<td>Annette Hafner, Sabrina Schäfer, Karina Krause&lt;br&gt;Ruhr University Bochum, Germany</td>
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<td>The linkage of environmental requirements with the selling of building plots – an example</td>
<td>Hanaa Dahy&lt;br&gt;University of Stuttgart, Institute of Building Structures and Structural Design (ITKE), Germany</td>
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<td>Biocomposites for architectural applications based on the second generation of natural annual renewable resources</td>
<td>Lone Hedegaard Mortensen, Harpa Birgisdottir&lt;br&gt;Danish Building Research Institute, Aalborg University Copenhagen, Denmark</td>
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<td>9:00am - 10:30am</td>
<td>Ses 4.3</td>
<td>Standardisation, regulation, innovation</td>
<td>Thomas M Lawrence, Constantinos A Balaras, Janice K Means&lt;br&gt;1 University of Georgia, United States of America; 2 Institute for Environmental Research &amp; Sustainable Development, National Observatory of Athens, Greece; 3 Lawrence Technological University, United States of America</td>
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<td>Sustainability elements in the Danish Building Regulations</td>
<td>Dirk Donath, Piet Dissel, Asgedom Haile&lt;br&gt;1 Bauhaus University Weimar, Germany; 2 African European Engineer, Addis Ababa; 3 EiABC at Addis Ababa University</td>
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RESEARCH ON INNOVATION DEVELOPMENT FOR RESIDENTIAL REAL ESTATE INVESTMENT PROJECTS
Rasa Apanaviciene, Rimantė Verseckienė, Ala Daugėlienė
Kaunas University of Technology, Lithuania

10:45am – 12:15pm Special Session COP21 Paris and the consequences

Keynote: Report and findings from the COP 21 Paris 2015
Nils Larsson
iiSBE International Initiative for a Sustainable Built Environment

Keynote: What does the Paris outcome mean for future cities?
Stefan Schurig
The World Future Council

Keynote: Recent CIB Initiatives as related to Sustainable Construction
Wim Bakens
International Council for Building

Keynote: COP21 and the consequences for sustainable building
Dr. Harry Lehmann
Federal Environment Agency

2:00pm - 3:30pm Ses 6.1: Development of urban districts I

Decision Support Environment - assisting the transformation of built environment towards sustainability
Daiva Jakutyte-Walangitang1, Ivo Wenzler2, Joost Brinkman2, Jan Peters-Anders1
1Austrian Institute of Technology, Vienna, Austria; 2Accenture, Amsterdam, Netherlands

Sustainable neighbourhood in Saint-Petersburg
Mariya Bychkova
SPBUACE, Russian Federation

Planning of ecologically and economic optimized district refurbishments
Rafael Horn1, Michael Jäger1, Roberta Graf2
1Fraunhofer Institute of Building Physics, Germany; 2University of Stuttgart, Chair of Building Physics, Germany

A holistic Methodology for District Retrofitting projects management through an Integrated Decision Support Tool
Paul Mittermeier1, Ahmed Khoja1, Natalie Essig1, Ander Romero Amorrortu2
1Munich University of Applied Sciences (MUAS), Germany; 2Tecnalia

Supporting urban district development by sustainability assessment
Thomas Luetzkendorf, Maria Balouktsi, Juergen Kopfmueller, Marius Albiez
Karlsruhe Institute of Technology (KIT), Germany

2:00pm - 3:30pm Ses 6.2: Sustainable assessment systems – further development and application

The development of a life cycle assessment tool for the Danish building sector
Freja Nygaard Rasmussen, Harpa Birgisdóttir
Aalborg University, Denmark

Development of a cost-effective sustainability assessment method for small residential buildings in Germany: Results of pilot case studies.
Sara Lindner, Natalie Essig
University of Applied Sciences Munich, Germany

Certification of Sustainability: Results from Practice
Merten Welsch
Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), Germany
### User-friendliness of current building environmental impact assessment tools: a Flemish architect’s perspective

Elke Meex, Elke Knapen, Griet Verbeeck  
Hasselt University, Belgium

### Towards Unified Sustainable Buildings Rating System Categories through Assessing Buildings’ Life Cycle Sustainable Requirements

Ahmed Mohsen Abd El Fattah  
King Fahd University of Petroleum and Minerals, Saudi Arabia

### 2:00pm - 3:30pm  Ses 6.3: Portfoliomanagement & improvement of building stock

**Implementation of Sustainability Success Factors in Processes of Portfolio Management**  
**Thomas Friedrich**  
DEKA Immobilien GmbH / Doktorant am Karlsruher Institut für Technologie (KIT), Germany

**Improving energy performance: many small interventions or selective deep renovations?**  
**Nico Nieboer**  
Delft University of Technology, Netherlands

**Guiding the building stock to post-carbon future**  
Jens Schuberth, Monika Ollig  
Federal Environment Agency (Umweltbundesamt), Germany

**Single family home stocks in transition - implications for urban resource efficiency**  
Milena Martinsen, Andreas Blum, Norbert Krauß  
Leibniz Institute of Ecological Urban and Regional Development, Germany

**Mapping, Modelling and Monitoring of Energy-Saving Processes in Residential Building Stocks**  
Britta Stein, Nikolaus Diefenbach, Tobias Loga  
Institut Wohnen und Umwelt GmbH, Germany

### 2:00pm - 3:30pm  Ses 6.4: Stakeholder perspectives and actions I

**Documenting sustainable business practices of housing companies: Sector-specific supplement to the German Sustainability Code (Deutscher Nachhaltigkeitskodex, DNK)**  
Michael Neitzel, Wiebke Gottschalk  
InWIS Forschung & Entwicklung GmbH, Germany

**How future-proof is your campus? Sustainability in the real estate management of research organisations**  
Lisa Andes, Thomas Lützkendorf, Matthias Unholzer  
Karlsruhe Institute of Technology (KIT), Germany

**Capturing sustainable housing characteristics through Electronic Building Files: The Australian Experience**  
Wendy Miller¹, Thomas Luetzkendorf²  
¹Queensland University of Technology, Australia; ²Karlsruhe Institute of Technology (KIT), Germany

**Embodied impacts in stakeholder decision-making in the construction sector**  
Maria Balouktsi¹, Thomas Lützkendorf², Greg Foliente²  
¹Karlsruhe Institute of Technology (KIT), Germany; ²CSIRO Land and Water and the University of Melbourne

**Emerging Envelopes. Design Education for adaptive and sustainable Facades.**
### Ses 7.1: Development of urban districts II

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| 4:00pm - 5:30pm | Enabling energy sufficiency as a sustainable development concept in shrinking urban districts: the case of Wuppertal-Vohwinkel | Marie-Christine Groene  
Wuppertal Institute for Climate, Environment and Energy, Germany |
|            | Local initiatives for motivating Danish house-owners for energy improvements | Jesper Ole Jensen, Kirsten Gram-Hanssen, Freja Friis  
Danish Building Research Institute, Aalborg University Copenhagen, Denmark |

### Ses 7.2: LCA-application and further development

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| 4:00pm - 5:30pm | Building life cycle assessment: investigation of influent parameters in a helpful decision tool | Marie-Lise Pannier, Bruno Peuportier, Patrick Schalbart  
MINES ParisTech, PSL Research University, CES - Centre d'efficacité énergétique des systèmes, 60 Bd Saint Michel 75006 Paris, France |
|            | Effects of different reference study periods of timber and mineral buildings on material input and global warming potential referring to building construction and technical equipment | Annette Hafner, Sabrina Schäfer, Karina Krause  
Ruhr University Bochum, Germany |
|            | Innovative building technologies and technical equipment towards sustainable construction – a comparative LCA and LCC assessment | Alexander Passer¹, Petra Sölkner², Gernot Fischer¹, Sebastian Spaun³  
¹Graz University of Technology, Austria; ²Austrian cooperative Research (ACR), Austria; ³Forschungsinstitut der Vereinigung der Österreichischen Zementindustrie (VÖZfi), Austria |
|            | Application of a parametric real-time LCA tool in students’ design projects | Alexander Hollberg¹, Marcel Ebert¹, Stephan Schütz¹, Burhan Cicek², Rainer Gumpf¹, Jürgen Ruth³  
¹Bauhaus University Weimar, Germany; ²University Mersin, Turkey |

### Ses 7.3: Public sector - activities and experiences

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| 4:00pm - 5:30pm | Faithfulness in small things? | Iris Marie Reuther  
Graz University of Technology, Austria |
|            | Sustainable Public Procurement of construction works – a literature review and future requirements | Johannes Wall, Christian Hofstadler  
Graz University of Technology, Austria |
|            | Exemplary Results of the Implementation of Assessment System BNB in the Public Sector |
Andreas Rietz  
Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), Germany

Monitoring of the State Ministry for Urban Development and the Environment in Hamburg  
Kristian Duus, Gerhard Schmitz  
Hamburg University of Technology, Germany

Developing Abu Dhabi’s Sustainability Energy Index  
Huda Alsalmi  
Abu Dhabi Municipality, United Arab Emirates

4:00pm - 5:30pm  
Ses 7.4: Stakeholder perspectives and actions II

STAKEHOLDERS' AWARENESS OF GREEN BUILDING AND SUSTAINABLE DEVELOPMENT ISSUES IN ABUJA, NIGERIA  
Paul Abayomi Bajere  
Federal University of Technology, Minna, Nigeria, Nigeria

Sustainability survey amongst architects in the German state of Baden Wurttemberg on the adaptation level of sustainability aspects in the real estate sector  
Jonas Karl Loeser  
University of Stuttgart, Germany

Risk Management in construction green building in Kuwait  
Shaikha AlSanad  
Kuwait Institute for Scientific Research, Kuwait

Evaluation of risks associated with bonds and guarantees in construction projects  
Ayodeji Emmanuel Oke¹, Deji Rufus Ogunsemi¹, Stephen O Ogunlana², Olaniyi Isaac Aje¹  
¹Federal University of Technology Akure, Nigeria, ²Heriot-Watt University, Edinburgh, Scotland

Determining Characteristics in Developing Economies that Influence Sustainable Construction  
Joshua Wayland Snarski, Antonia Kati Papadopoulos, Bilge Gokhan Celik  
Roger Williams University, United States of America

Special Sessions Wednesday, 09/Mar/2016

2:00pm - 5:30pm  
Special Session: “Energy efficient facades – technologies and measurement”  
German-Polish Energy Efficiency Project (GPEE) Final Conference

SESSION A – Introduction – Keynote – Measurement of energy efficiency in buildings  
Welcome & introduction of the GPEE project  
Prof. Dr. Walter Leal, HAW Hamburg, Coordinator of the German Polish Energy Efficiency Project (GPEE)

Keynote: Towards Sustainable and Solar Buildings – an integrated approach,  
Astrid Schneider, AIT Austrian Institute of Technology, Vienna, Austria

Best Practice: Open Source Energy Monitoring for Scientific Applications  
Nils Heinrich, Envidatec GmbH, Hamburg, Germany

Question and answer session with the speakers of session A

Coffee break
### SESSION B – Aspects of energy efficient façade technology

**Temperature distribution in the mineral wool insulation component enhanced by PCM external covering**  
Anna Wieprzkwicz, Lodz University of Technology, Poland

**Energy efficiency of experimental BIPV facade in high temperatures**  
Dominika Knera, Lodz University of Technology, Poland

**Assessment of daylight conditions in the office room equipped with reflective louver system**  
Artur Borowczyński, Lodz University of Technology, Poland

**Question and answer session with the speakers of session B**

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<td>Ahmed Khaled Elewa</td>
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<td>Helwan University, Faculty of Fine Arts, Architecture Department, Egypt</td>
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<td><strong>A case study of stormwater management system for Guzelyurt, Northern Cyprus</strong></td>
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<tr>
<td>Elham Jahani1, Bertug Akintug1, Wolfgang Dickhaut2</td>
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<td>1Middle East Technical University Northern Cyprus Campus, Turkey; 2HafenCity University Hamburg (HCU), Germany</td>
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<td><strong>Evaluation of green roof hydrologic performance for rainwater runoff management in Hamburg</strong></td>
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<td>Michael Richter, Wolfgang Dickhaut</td>
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<td>HafenCity University Hamburg, Germany</td>
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<td><strong>Asphalt Solar Collectors Contribution to the Urban Heat Island Effect under Hot Arid Climate Conditions</strong></td>
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<td>1Munich University of Applied Sciences, Germany; 2University of Liechtenstein, Liechtenstein</td>
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<td><strong>Poster</strong></td>
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<tr>
<td><strong>Evaluating urban expansion and land use/cover changes in Tehran, Iran, by using GIS and remote sensing</strong></td>
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<td>Safiye Tayebi1, hossien mohammadi1, ali alavi2, bahram karimian1</td>
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<td>1University of Tehran; 2University of Tabriz</td>
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<td><strong>9:00am - 10:30am</strong></td>
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<td><strong>Ses 8.2: Construction products and processes</strong></td>
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<td><strong>Hempcrete from cradle to grave: the role of carbonatation in the material sustainability</strong></td>
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<td>Alessandro Arrigoni, Renato Pelosato, Giovanni Dotelli</td>
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<td>Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Italy</td>
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<td><strong>Thermal mass behaviour of concrete panels incorporating phase change materials</strong></td>
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<td>Dervilla Niall1, Roger West1, Sarah McCormack1, Oliver Kinnane2</td>
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<td>1Trinity College Dublin, Civil, Structural and Environmental Engineering, Ireland; 2Queens University Belfast, Architecture at SPACE, Northern Ireland</td>
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<td><strong>The influence of water dosage on the properties of wet-spray cellulose fibre insulation</strong></td>
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Poster

Increase in Efficiency and Quality of Construction Processes through Off-Site Fabrication
Pablo Lopez Hurtado, Antoine Rouilly, Virginie Vandenbossche
University of Toulouse / INP-ENCIACET, France

Characterization of Fly Ash/Metakaolin-based Geopolymer Lightweight Concrete Reinforced Wood Particles
Siti Noorbaini Sarmin
University of Hamburg, Germany

9:00am - 10:30am Ses 8.3: Design stages - importance and contribution

Strategies Analysis on Simulation Application of Sustainable Strategies Development in the Conceptual Design
Xiaojian Bi, Conghong Liu
Tianjin University, China, People’s Republic of

Optimizing Low Carbon Retrofit Strategies in Residential Buildings from the point of Carbon Emission and Cost-effective
Li Liu, Hongwei Yang, Conghong Liu
Tianjin University, School of Architecture, China, People’s Republic of

Impact of the Project Initialization Phase on the Achievement of Sustainable Quality in Building Projects in China
Aude Bougain, Rafael Gramm, Dirk Schwede, Christoph Mitterer, Thomas Kirmayr
1Fraunhofer Institute for Building Physics IBP, Germany; 2University of Stuttgart, Institute for Lightweight Structures and Conceptual Design ILEK, Germany

The Challenge to Tender and Plan with Ecological Construction Material
Stefan Haas
Federal Institute for Research on Building, Urban Affairs and Spatial Development within Federal Office for Building and Regional Planning, Germany

Naturalism In Architecture.
Hussameldeen Bahgat Elrefeie
Elshorouk Academy, Egypt

Poster

Pre-Design Steps for Regeneration of Urban Texture
Sahar Khoshnood
Technical University Darmstadt, Germany

Integration of building performance simulation tools in an interdisciplinary architectural practice
Dermot Farrelly, Sarah Dahman Meyersson
White Arkitekter AB, Sweden

9:00am - 10:30am Ses 8.4: Cooling, ventilation and air conditioning

Façade design for night cooling by natural ventilation in different climate zones
Frank Wellershoff, Matthias Friedrich, Luciana Fernandes
¹HafenCity University Hamburg, Germany; ²University of Campinas, Brazil

Energy-plus primary school Hohen Neudorf: Measurement based evaluation of a hybrid ventilation system
Sebastian Dietz
Hochschule für Technik und Wirtschaft Berlin, Germany

Ventilative Cooling Potentials
Occasional discomfort due to background passive ventilation

Oliver Kinnane¹, Derek Sinnott², William J.N. Turner³
¹Architecture at SPACE, Queens University Belfast, Northern Ireland; ²Department of the Built Environment, Waterford Institute of Technology, Ireland; ³Energy Research Group, University College Dublin, Ireland

The geocooling, bioclimatic solution to conventional air conditioning for existing residential building

Ratiba Zermout, Said Makhlouf
Mouloud Mammeri university Tizi Ouzou, Algeria

A Design for Improved Natural Ventilation in Housing Development in Thailand

Pimonmart Wankanapon, Wannaporn Siangprasert
Thammasat University, Faculty of Architecture and Planning, Thailand

Optimization of energy planning strategies in municipalities: Are community energy profiles the key to a higher implementation rate of renewable energies?

Jens-Phillip Petersen
Technical University of Denmark (DTU), Denmark

Strategic Urban Energy Planning - Vienna 2050

Renate Hammer¹, Peter Holzer¹,²
¹Institute of Building Research and Innovation, Austria; ²IPJ INgenieurbüro P. Jung, Austria


Andreas Blum
Leibniz Institute of Ecological Urban and Regional Development, Germany

Designing and retrofitting the urban structure with daylight

Aicha Katarzyna Diakite, Martine Knoop
Technical University Berlin, Germany

MODELLING APPROACH FOR THE THERMAL RESPONSE OF A RESIDENTIAL BUILDING EQUIPPED WITH A CHP UNIT IN AN URBAN AREA

Mustafa Flayyih
Gas- und Wärme-Institut Essen e.V., Germany

Global Sequential Sensitivity Analysis for Building Energy Simulation of Residential Quarters

Manuel Lindauer
TUM - Technical University Munich, Germany

Climatic zones in Poland and the demand for heating in a typical residential building

Magdalena Maria Grudzinska
Lublin University of Technology, Faculty of Civil Engineering and Architecture, Poland

Investment vs. subsequent costs – the significance of occupancy costs in real estate life-cycle

Benjamin Lasshof, Lisa Seiler, Christian Stoy
University of Stuttgart, Institute for Construction Economics, Germany

Marginal costs and benefits in buildings energy retrofit transactions

Laura Gabrielli¹, Sergio Copiello²
¹The University of Ferrara, Italy; ²University IUAV of Venice, Italy
**Buildings energy retrofit: dealing with uncertainty**
*Sergio Copiello*¹, Laura Gabrielli²
¹University IUAV of Venice, Italy; ²The University of Ferrara, Italy

**Risk and scenario-based approach assessing sustainability**
*Sarah Ok Kyu Strunk*, Christian Stoy
University of Stuttgart, Germany

**Drivers for change: strengthening the role of valuation professionals in market transition – Insights from the RenoValue research project**
*David Lorenz*¹, Thomas Lützkendorf², *Ursula Hartenberger*³
¹Karlsruhe Institute of Technology (KIT), Germany; ²RICS - Royal Institution of Chartered Surveyors, United Kingdom

### 11:00am - 12:30pm  Ses 9.3: Collaboration and user involvement

**Diversification of Construction projects by implementing collaboration and Information Sharing tools**
*Matau Andronica Ramapuputla*
Tshwane University of Technology, South Africa

**Cooperative housing models in Zurich - or: How to connect sustainable, affordable and socially mixed housing?**
*Heidi Sinning*
Erfurt University of Applied Sciences, Germany, Institut für Stadtforschung, Planung und Kommunikation (ISP)

**30 years after case study of Ökologische Gemeinschaftswohnanlage Nofels**
*Walter Unterrainer*
Aarhus School of Architecture, Denmark

**Rehabilitation of public and semi-public space of housing estates: the case of Lubartow**
*Anna Ostanska*, Agata Czarnigowska
Politechnika Lubelska (Lublin University of Technology), Poland

### Poster

**Improving energy retrofit strategies with definitions of human interaction parameters in residential building**
*Zahra Mehdipour*
University of Kassel, Germany

### 11:00am - 12:30pm  Ses 9.4: Resource efficiency and recycling

**Resource saving potentials through increased recycling in building construction – sensitivity studies on current and future construction activity**
*Karin Gruhler*, Clemens Deilmann
IOER Leibniz Institute of Urban Ecological and Regional Development, Germany

**Recycling – Friendly Construction**
*Sabine Flamme*, Rohde Catharina
Münster University of Applied Sciences, Germany

**Sustainable Urbanism: Research-based collaboration of intercultural and transdisciplinary student teams towards resource-efficient solutions for challenges of current urban planning on exemplary neighbourhoods in Hamburg**
*Philipp Preuner*, Udo Dietrich, Sonja Schlipf
HafenCity University Hamburg, Germany

**SUSTAINABLE RE-USE OF A BUILDING IN THE CASE OF CULTURAL INDUSTRIES: ‘SALT GALATA’ INSTITUTE ON VOYVODA STREET IN ISTANBUL**
*Serengul Secmen*
Işık University, Turkey
Poster

**Developing the Brighton Waste House: from zero waste on site to re-use of waste**
Duncan Warwick Baker-Brown
University of Brighton, United Kingdom

Poster

**Development of an Integrated Raw Material Model for Urban Systems**
Matthias Heinrich
Technical University Munich TUM, Germany

13:00pm - 14:00pm  Closing Ceremony