Conference Program ADVANCED BUILDING SKINS 2016

10 October 2016, Conference Day 1

SESSION BLOCK A		SESSION BLOCK B		SESSION BLOCK C		SESSION BLOCK D		SESSION BLOCK E		SESSION BLOCK F	
					Opening						
MORNING											
A1	PV Façades: Design, Technologies, Visions	B1	Building Retrofits: Analysis, Strategies and Policies	C1	3D Printing of the Building Envelope	D1	Façade Integrated HVAC components	E1	Innovative Products and Technologies for the Building Skin	F1	Entwurf der Gebäudehülle unter Nachhaltigkeits-aspekten
AFTERNOON											
A2	Designing PV-Façades for Optimized Performance	B2	Products and Technologies for Building Refurbishment 1	C2	Advanced Building Skin Design 1	D2	Bio-inspired Materials and Technologies for the Building Skin	E2	Architectural Membranes for High-performance Building Skins	F2	Textilbeton – Neue Möglichkeiten für schlanke Fassaden aus hochwertigem Architekturbeton
A3	Evaluating the Performance of PV Façades	B3	Products and Technologies for Building Refurbishment 2	C3	Advanced Building Skin Design 2	D3	Development, Design and Impact of Living Building Envelopes	E3	Structural and Themal Performance of Building Envelopes with Wood and Wood Composites	F3	Thermal and Structural Properties of PCM-Concrete

11 October 2016, Conference Day 2

SESSION BLOCK A		SESSION BLOCK B		SESSION BLOCK C		SESSION BLOCK D		SESSION BLOCK E		SESSION BLOCK F	
MORNING											
A4	New Design Possibilities for Solar Façades: Colored and Customized, yet Cost Effective	B4	Holistic Approach to Sustainable Architecture	C4	Parametric Design for Sustainable Architecture	D4	Window Design for Sustainable Buildings	E4	Solar Shading Systems for Enhanced Daylight Control	F4	PCM Composite Materials for the Building Skin
A5	Customization and Flexibility – Key Issues for the BIPV Market	B5	Design Methods for Sustainable, High-performance Façades	C5	Building Information Modeling (BIM) for Sustainable Building Design	D5	Intelligent Glazed Façades for Dynamic Daylight Control	E5	Integrating Solar Thermal Systems into the Building Skin	F5	Building Envelopes as Thermal Storage
AFTERNOON											
A6	Active Interfaces: Large-scale PV Integration into Urban Renewal Processes	B6	Building Design Optimization	C6	Adaptive Building Skins	D6	Glass in Advanced Building Envelopes	E6	Prefabrication of Façade Elements	F6	Smart Windows for Energy Production and Saving
A7	Photovoltaics on Architectural Membranes	B7	Building Energy Performance Simulation	C7	Kinetic Building Skins	D7	Effects of Glare off Glass and PV on Building Façades	E7	Maintenance of Building Facades	F7	New Materials for the Building Skin

14:00 Active Interfaces: Large-scale PV Integration into Urban Renewal Processes

Chair: Stephen Wittkopf, University of Lucerne, Switzerland

Novel transformative design for PV modules: the infinite possibilities for powering building and cities

- Trends in the PV module manufacturing, mainstream and building integration
- New product developments
- The challenges of market penetration for new solutions

Christophe Ballif, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Advanced architectural integration of BIPV in renovation projects

- Solar electricity potential of BIPV in urban areas
- Architectural design issues: case studies in the City of Neuchâtel
- Three refurbishment scenarios: conservation, renovation, transformation

Emmanuel Rey, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Real estate owners' preferences for BIPV

- Inquiry into German and Swiss residential real estate owners' preferences for BIPV
- Findings for architects, installers and the building industry as a whole
- The role of aesthetics, social status, attitudinal, behavioral and demographic factors

Hans Christoph Curtius, University of St. Gallen, Switzerland

Technology Transfer Projects

- Technology readiness levels: what is there, what is needed
- The role of design versus efficiency
- National and international case studies

Christian Roeske, University of Lucerne, Switzerland

Coloured Photovoltaics

- What do architects want?
- Which PV modules are available?
- Which projects have been built?

Stephen Wittkopf, Üserhhus, Switzerland