



13th Conference on Advanced Building Skins

1-2 October 2018, Bern, Switzerland

10:00 Opening: Andreas Hempel, International Academy of Architects; former President of the Association of German Architects							
A1 10:45	Forensic Engineering and Architecture: Investigations of Building Skin Failures	B1 10:45	Biomimetics for Energy Efficient Building Envelopes	C1 10:45	Public Policies and Funding	D1 10:45	Optimierung der Gebäudehülle mit nachhaltigen Fassaden
<p>Understanding building skins through failures: Trends in failure mechanisms and their costs <i>Lee Dunham and David Bates, OAC Services, Inc., United States</i></p> <p>Hospital building skin investigation and repairs <i>Robert Bitterli, Ivy Group Consultants, United States</i></p> <p>Stucco/wood skin investigation and repairs <i>Brett Newkirk, Alta Engineering, United States</i></p> <p>Low-rise skin investigation and repairs - Case Study <i>Rick Slider, Slider Engineering, United States</i></p> <p>Service life prediction models to predict building skin failures <i>Christopher White, National Institute of Standards and Technology, United States</i></p>		<p>Biomimicry: A source for advanced building skin design <i>Thomas Button, Passero Associates, Rochester, USA</i></p> <p>Environmental adaptation of buildings through morphological differentiation <i>Lidia Badarnah, University of Cardiff, United Kingdom</i></p> <p>Passive kinetic solar shading device for a responsive building envelope <i>Natasha Chayaamor-Heil, MAP-Maacc, CNRS-MCC UMR 3495, ENSAPLV, Paris, France</i></p> <p>Social wasp nests as source of bioinspired design of building skins <i>Anders Ohlsson, Umeå University, Sweden</i></p> <p>A taxonomy of biological envelopes to design adaptive building skins <i>Estelle Cruz, MECADEV, MNHN, Paris, France</i></p>		<p>Funding of home-ownership for low-income demographics – the Field of Dreams EcoCommunity in Utah <i>Jörg Rügemeier, University of Utah, Salt Lake City, United States</i></p> <p>The Swiss model of innovation support and funding <i>Andreas Eckmanns, Swiss Federal Office of Energy, Bern, Switzerland</i></p> <p>Advanced business models for deep energy retrofit <i>Ruediger Lohse, EnEFF KEA, Linkenheim, Germany</i></p> <p>Public research and technological innovation in building envelopes <i>Martino Milardi, Università degli Studi Mediterranea di Reggio Calabria, Italy</i></p>		<p>Nachhaltige Fassadensysteme für Nullenergiegebäude <i>Christoph Deimel, Deimel Oelschläger Architekten, Deutschland</i></p> <p>Optimierung passiver und aktiver Elemente der Gebäudehülle eines Bürogebäudes <i>Stefan van Velsen, 3-Plan Haustechnik AG, Schweiz</i></p> <p>BIM-Methode zur Fassadenoptimierung im Kontext des sommerlichen Wärmeschutzes <i>Johann Loux, Gruner Roschi AG, Köniz, Switzerland</i></p> <p>Abluftfassade für sommerlichen Wärmeschutz im vollverglasten Hochhaus <i>Michael Wengert, Pfeil & Koch Ingenieurgesellschaft</i></p> <p>Hanfsteine: monolithische Bauweise für Langlebigkeit <i>Werner Schönthaler, Schönthaler OHG, Eyrns, Italy</i></p> <p>Nichtmetallische wärmebrückenfreie Befestigung für Fassaden <i>Werner Venter, Schöck Bauteile GmbH, Baden-baden, Germany</i></p> <p>Brief presentation: Gewerkeübergreifende Fassadenfertigstellung im Holz-Systembau <i>Michael Kamenik, Cree GmbH, Dornbirn, Austria</i> <i>Alexander Hilbe, Rhomberg Bau GmbH, Bregenz, Austria</i></p>	
12:30 Lunch							

A2 14:00	Parametric Design and Digital Fabrication	B2 14:00	Eco-materials for the Building Skin	C2 14:00	Models, Policies and Products for Building Retrofit	D2 14:00	Natural Ventilation and Thermal Behavior of the Building Envelope
<p>Parametric design of a sustainable office tower in Milan <i>Rob Narricci, Pelli Clarke Pelli Architects, New Haven, United States</i></p> <p>Loop, feedback, iterate: collaboration and modeling in advanced façade design <i>Kenn Clausen, 3XN architects GXN innovation, Copenhagen, Denmark</i></p> <p>Computational approaches to discrete continuities for supertall skyscrapers <i>Daniel Inocente, Skidmore, Owings & Merrill, New York, United States</i></p> <p>Uncanny enclosures: Parametric façade designs <i>Robert Perry, Gensler, San Francisco, United States</i></p> <p>Optioneering - Designing the building envelope <i>Stefano Rossi, Maffei Engineering, Zürich, Switzerland</i></p> <p>Scan and make: how digital technologies can accelerate and improve overcladding <i>James Griffith, Arup, San Francisco, United States</i></p> <p>Brief presentations</p> <p>Parametrics as a conduit for integrated façade design <i>Yun Hsueh, Gensler, Shanghai, China</i></p> <p>Computational interpretation from initial form to curtain wall design <i>Cong Ye, Skidmore, Owings & Merrill LLP, New York, United States</i></p> <p>A digital tool to support prefabricated façade design <i>Jacopo Montali, University of Cambridge, United Kingdom</i></p>	<p>Traditional and modern surfaces for wooden facades <i>Hansueli Schmid, Lignum, Zürich, Switzerland</i></p> <p>Producing solar control devices from waste materials <i>Oriol Pons, UPC, Barcelona, Spain</i></p> <p>Building envelope with low environmental impact <i>Mike Lawrence, University of Bath, United Kingdom</i></p> <p>Wood as eco-material for the building skin <i>Xaver Egger, Bochum University of Applied Sciences, Germany</i></p> <p>Brief presentations</p> <p>Recycled industrial waste for sustainable façade panels <i>Raúl Briones Llorente, Universidad de Burgos, Spain</i></p> <p>Properties of straw bale blocks for wall construction <i>Katrin Schollbach, Eindhoven University of Technology, Netherlands</i></p> <p>Bio-based recyclable, reshapable, repairable fiber-reinforced composites for window profiles <i>Arsenio Navarro, AIMPLAS, Paterna, Spain</i></p>	<p>Stakeholders' perceptions for participation in deep energy renovation <i>Georgios Pardalis, Linnaeus University, Växjö, Sweden</i></p> <p>Roof-top extensions: Business models and tools for decision-making <i>Stéphane Herbin, CTICM, Saint Aubin, France</i> <i>Olivier Dupont, CTMNC, Paris, France</i></p> <p>Economic opportunities and challenges for building renovation with pre-fabricated elements <i>Roman Bolliger, econcept, Zürich, Switzerland</i></p> <p>Evaluating market models for deep-energy renovation using SWOT and PEST Analysis <i>Brijesh Mainali, Linnaeus University, Växjö, Sweden</i></p> <p>Modular façade system with integrated equipment technology for energetic retrofiting <i>Verena Dannapfel, RWTH Aachen University, Germany</i></p> <p>Brief presentation</p> <p>Prefabricated wooden modular elements for nZEB renovation <i>Peep Pihelo, Tallinn University of Technology, Estonia</i></p>	<p>Historically sustainable: natural ventilation in connecticut houses of the 1800s <i>Theodore Sawruk, University of Hartford, United States</i></p> <p>Reconstruction of the use of space of historical buildings from the thermal analysis of the building façade <i>Wolfgang Stumpf, Danube University Krems, Austria</i></p> <p>Air flow and the evolution of a subtropical passive house strategy <i>Corey Saft, University of Louisiana at Lafayette, United States</i></p> <p>Control strategies for natural ventilation through louvered windows <i>Leonie Scheuring, Technische Universität Dresden, Germany</i></p> <p>Historically proven - Sustainably updated <i>Jason Hegenauer, University of Hartford, United States</i></p> <p>Brief presentation</p> <p>Wind-Catcher simulation analysis for natural ventilation in sustainable building design <i>Arash Zarmehr, University of Central Florida, Orlando, United States</i></p>				
<p>15:30 Coffee Break</p>							



**Kanton Bern
Canton de Berne**



**ADVANCED
BUILDING SKINS**



energieschweiz
Unser Engagement: unsere Zukunft.

A3 16:00	Additive Manufacturing and 3D Print of the Building Skin	B3 16:00	Green Walls and Roofs	C3 16:00	Retrofitting the Building Envelope	D3 16:00	Active Façades for Ventilation, Heating and Cooling
	<p>Re-fabrication of knitted textiles and its architectural potential <i>Annie Shaw, Manchester School of Art, United Kingdom</i></p> <p>Desert tectonics <i>Giulia Grassi, Politecnico di Milano, Italy</i></p> <p>Parametric modeling, rapid prototyping and 3D printing of an interactive façade <i>Abudaya Amal, Ministère de la Culture, Grenoble, France</i></p> <p>3D-printed active urban surfaces <i>Andrea Redi, AIR, Architecture Initiates Regeneration, Graz, Austria</i></p> <p>Water-driven breathing skin <i>Angelos Chronis, Institute of Advanced Architecture of Catalonia, Barcelona, Spain</i></p> <p>Brief presentation</p> <p>Performance of building envelopes with 3D/4D printed bio-reactive materials <i>Francesca Contrada, ESTP Paris, Italy</i> <i>Olga Beatrice Carcassi, 120g, Pisa, Italy</i></p>	<p>Benefits of Green Walls <i>Gary Grant, Green Infrastructure Consultancy, London, United Kingdom</i></p> <p>Green roofs for cooling in different climates <i>Pablo La Roche, Callison RTKL/Cal Poly Pomona, Los Angeles, United States</i></p> <p>Vertical greenings as intelligent building envelopes <i>Bernhard Scharf, University of Natural Resources and Life Sciences, Vienna, Austria</i></p> <p>Green façade and air quality - Measurements and kinetic study <i>H.J.H. Brouwers, Eindhoven University of Technology, Netherlands</i></p> <p>Influence of green facades on building surface temperature in South Italy <i>Evelia Schettini, University of Bari, Italy</i></p> <p>Rainwater collection and evaporation/transpiration of living wall systems <i>P.M.F. van de Wouw, Eindhoven University of Technology, Netherlands</i></p> <p>Infill green wall as a heat sink for indoor thermal comfort <i>Yun-Shang Chiou, Taiwan University of Science and Technology, Taiwan</i></p> <p>Brief presentation</p> <p>Low-tech building with green walls - Warehouse Gradishegg, Austria <i>Gilbert Sommer, University of Innsbruck, Austria</i></p>	<p>Retrofitting the building envelope of SME industrial buildings: Risk analysis <i>Barbara Joseph, KU Leuven, Ghent, Belgium</i></p> <p>Transformative modernization: Lessons learned from a renovation of a 1929 university building <i>David Cook, Grimshaw, New York, United States</i></p> <p>Energy-saving potential using adaptive building envelopes for building refurbishment <i>Tobias Henzler, University of Stuttgart, Germany</i></p> <p>Retrofitting the building envelope for enhanced seismic resistance and energy efficiency <i>Dionysios Bournas, Joint Research Centre, European Commission, Ispra, Italy</i></p> <p>Retrofitting of corrugated asbestos roofing panels with metal roofing systems <i>Michael Clark, RCI, Inc., Macon, United States</i></p> <p>Integrated smart envelope module for high-rise residential building retrofit <i>Brian Koh, Sun & Light Corp., Inc., Seoul, South Korea</i></p> <p>Brief presentation</p> <p>Retrofitting skylights: A study of thermal transference through large rooftop penetrations <i>Wahid Manawi, Amtech Solutions, Dallas, United States</i></p>	<p>Heating with a PV Façade in a Passive House <i>Georgios Dermentzis, University of Innsbruck, Austria</i></p> <p>Active roofs and façades technologies <i>Jakob Klint, Kuben Management, Copenhagen, Denmark</i></p> <p>Advanced daylighting systems and combined lighting and thermal simulation <i>David Geisler-Moroder, Bartenbach GmbH, Austria</i></p> <p>Solar thermal façade systems – An interdisciplinary approach <i>Paul Denz, Priedemann Façade-Lab, Berlin, Germany</i> <i>Christoph Maurer, Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany</i></p> <p>Heating with façade-integrated heat pumps <i>Fabian Ochs, University of Innsbruck, Austria</i></p>			
17:30		End of Conference Day 1					



Conference Day 2 – 2nd October 2018

A4 8:30	The Impact of Climate Change on Building Envelope Design	B4 8:30	Kinetic Architecture	C4 8:30	Integrating Solar Technologies into the Building Envelope	D4 8:30	Performance of the Building Envelope
<p>Urban climate - Impact on energy consumption and thermal comfort of buildings <i>Urs Grossenbacher, INES Energieplanung GmbH, Bern, Switzerland</i></p> <p>Building for the future: Climate change scenarios and their impact on building concepts <i>Petra Liedl, UT Austin, United States</i></p> <p>Climate change and its influence on glazed curtain wall design <i>Daniel Arztmann, Schüco International KG, Bielefeld, Germany</i></p> <p>A 500,000m2 form-found, lightweight, long-span roof system <i>Zak Kostura, Kateri Knapp, Arup, New York, United States</i></p> <p>Energy efficient geometries and their inherent complexities <i>Matthew Fineout, Smart Architecture, Pittsburgh, United States</i></p> <p>Brief presentation</p> <p>Early-stage environmental modeling: Tools and strategies for climate-based design <i>Barbara Gherri, Università di Parma, Italy</i></p>	<p>Cladding wind loads on a novel kinetic sunshade structure <i>Joseph Symes, RWDI, Milton Keynes, United Kingdom</i></p> <p>Dynamic architectural system to improve air quality and reduce energy consumption <i>Ahu Aydogan, Frank Melendez, City College of New York, United States</i></p> <p>An affective kinematic building façade system: Mood Swing <i>Joseph Kider, University of Central Florida, United States</i></p> <p>Impact of kinetic shading elements on noise levels in street canyons <i>Monika Rychtarikova, KU Leuven, Gent, Belgium</i></p> <p>Daylight performance of an adaptive shading system <i>Maria Matheou, University of Cyprus, Nicosia, Cyprus</i></p> <p>Brief presentations on Solar Shading Systems for Enhanced Daylight Control</p> <p>Combining solar control technologies for optimal performance <i>Wim Stevels, Eastman Chemical, Gent, Belgium</i></p> <p>Harvesting electrical energy from building façades using elastic instability <i>Jin Young Song, University of Buffalo, United States</i></p>	<p>Innovative construction technologies for the EXPO 2017 in Astana, Kazakhstan <i>Thomas Winterstetter, Werner Sobek, Stuttgart, Germany</i></p> <p>Best practices for the architectural design of BIPV <i>Dominique Deramaix, Bureau d'Architectes Format D2, Belgium</i></p> <p>Cost-effective, industrially produced PV façade system for retrofitting residential high-rise buildings <i>Andrea Schneider, Fraunhofer IEE, Kassel, Germany</i></p> <p>Comparison between PV integration on roofs and façades <i>Siu-Kit Lau, National University of Singapore</i></p> <p>Degrees of freedom in solar façade design <i>Jochen Weick, Avancis, Germany</i> <i>Peter Kuczia, Architect, Germany</i></p> <p>Brief presentations</p> <p>Functional, aesthetical and affordable BIPV <i>Matthias Schoft, Sunman, Waldkirch, Germany</i></p> <p>Development of BIPV courseware for students and professionals <i>Maria Hadjipanayi, University of Cyprus, Nicosia, Cyprus</i></p> <p>Customized, aesthetically appealing PV modules at reasonable price for the BIPV mass market <i>Nils Neugebohrn, DLR Institute of Networked Energy Systems, Germany</i></p> <p>Simulation and evaluation of design options for BIPV <i>Huixuan Sun, Solar Energy Research Institute of Singapore</i></p> <p>Where can one billion PV modules be installed in Germany? <i>Claudio Ferrara, Fraunhofer Institute for Solar Energy Systems, Germany</i></p>	<p>Re-positioning for Passivhaus: High-rise office applications in urban areas <i>Michael Pulaski, Thornton Tomasetti, Portland, United States</i></p> <p>Interdisciplinary energy studies conducted on multilayer façade systems <i>Aulikki Sonntag, Drees & Sommer Schweiz AG, Basel, Switzerland</i></p> <p>Coupling whole building air leakage rate and thermal insulation to optimize energy performance <i>Joyce Mak, JRS Engineering, Seattle, United States</i></p> <p>Modeling of high-performance façades <i>Edmund Meyer, Stellenbosch University, South Africa</i></p> <p>Do energy-efficient buildings save energy from a net cumulative energy perspective? <i>Rahman Azari, Illinois Institute of Technology, Chicago, United States</i></p> <p>Brief presentations on Thermal and Acoustic Performance of Windows</p> <p>Room-side low emissive sputtered coatings to reduce thermal discomfort of windows <i>Anna Castaldo, ENEA, Portici, Italy</i></p> <p>Improving the thermal performance for window and curtain wall framing <i>Todd Frederick, FreMarq Innovations, Merrill, United States</i></p> <p>Gluing glass into windows frames for improved performance <i>Flavien Sauser, Bern University of Applied Sciences, Biel, Switzerland</i></p> <p>Environmental conditions in the zone adjoining the windows inside office buildings <i>Maria Kikira, University College London, United Kingdom</i></p>				
10:00	Coffee Break						

A5 10:45	Double Skin and Cavity Façades to Reduce Building Energy Consumption	B5 10:45	Responsive and Adaptive Building Skins	C5 10:45	New Technologies and Products in BIPV	D5 10:45	Models, Tools and Simulations for Sustainable Buildings
	<p>Façade design in foreign markets - First double skin façade in Vietnam <i>Urs Wedekind, gmp Architekten, Hamburg, Germany</i></p> <p>Heat recovery using an active double skin façade <i>Bharat Patel, Harley Ellis Devereaux, Los Angeles, United States</i></p> <p>The closed cavity façade - a new trend? <i>Valentin Balog, Drees & Sommer Schweiz AG, Basel, Switzerland</i></p> <p>Closed cavity façades in the context of the entire building <i>Jürgen Schade, PORR Suisse, Zürich, Switzerland</i> <i>Andreas Schennach, PORR Suisse, Zürich, Switzerland</i></p> <p>Desiccant dehumidification or Air bleed dehumidification? Evaluation of two closed cavity façade systems <i>Haico Schepers, Arup, Sydney, Australia</i></p>	<p>Adaptive façade to improve a building's energy efficiency and economics: Aro Tower, New York <i>John Cetra, CetraRuddy Architecture, New York, United States</i> <i>Manan Raval, BuroHappold Engineering, New York, United States</i></p> <p>Relevance of adaptable façade systems: Evaluation through scenario planning <i>Charlotte Cambier, Vrije Universiteit Brussel, Belgium</i></p> <p>Machine learning for a gel-based evaporative-cooling membrane system prototype <i>Aletheia Ida, University of Arizona, Tucson, United States</i></p> <p>Façades of hospital buildings: Identifying functional requirements and design specifications <i>Viktoria Krastel, Technical University Munich, Germany</i></p> <p>Shading control of an adaptable ventilation mode double skin façade <i>Adrienn Gelesz, ABUD Ltd., Budapest, Hungary</i></p>	<p>Innovative design solutions for BIPV <i>Hannah Bürckstümmer, Merck KGaA, Darmstadt, Germany</i></p> <p>Lightweight transparent composite technology for BIPV architectural solutions <i>Jose Mari Vega de Seoane, Tecnalia R&I, San Sebastian, Spain</i></p> <p>Efficient colored BIPV modules with anti-glare coating <i>Johannes Eisenlohr, Fraunhofer Institute for Solar Energy Systems, Germany</i></p> <p>New color game – digital ceramic print for architectural photovoltaics <i>Stephen Wittkopf, ÜserHuus, Hergiswil, Switzerland</i></p> <p>Beautiful Solar is not rocket science <i>Guust Verpaalen, Kameleon Solar, Roosendaal, Netherlands</i></p> <p>Beyond BIPV: Multi-functional energy converters utilizing optical properties of nano-absorber PV <i>Kai Gehrke, DLR Institute of Networked Energy Systems, Germany</i></p> <p>Brief presentations</p> <p>Transforming glass bricks into a BIPV product <i>Hasan Baig, University of Exeter, United Kingdom</i></p> <p>Solar active building envelope: Industrialization meets Architecture <i>Sjef De Bruijn, Ernst Schweizer AG, Switzerland</i></p> <p>Façade-integrated PVT with radiant cooling panels for increased energy and space efficiency <i>Mohannad Bayoumi, KAU, Jeddah, Saudi Arabia</i></p> <p>Energy generating façade with variable heat transition <i>Julia Seeger, Technische Universität Dresden, Germany</i></p>	<p>Designing a solar shading system for a Curtain Wall façade <i>Sergey Akhpatelov, NWL Architects PC, Salt Lake City, United States</i></p> <p>Artificial intelligence for computationally driven building envelopes <i>Mark Cichy, DIALOG, Toronto, Canada</i></p> <p>Indications of glazing design to reduce downdraft in office buildings <i>Shan Shan Hou, Cardiff University, United Kingdom</i></p> <p>How to optimize heating and cooling loads, CO2 savings and comfort gain <i>Marc Bosmans, Eurima, Brussels, Belgium</i></p> <p>Building guidelines to provide as-designed solutions for energy-efficient envelopes <i>Benedetta Marradi, University of Pisa, Italy</i></p> <p>Thermal tuning of envelopes and its use as a parametric design tool <i>Jose Manuel Montes Donaire, AKT II Envelopes, London, United Kingdom</i></p> <p>Brief presentations</p> <p>Experimental validation of a transient 3D thermal model <i>Jelle Langmans, Physibel, Ghent, Belgium</i></p> <p>DIAL+ : A simulation tool dedicated to the new European daylighting standard <i>Bernard Paule, Estia SA, Lausanne, Switzerland</i></p> <p>Design and dimensioning of textile climate covers <i>Robert Roithmayr, Formfinder Software GmbH, Wien, Austria</i></p> <p>Numerical model for solar buildings with PCM-enhanced envelopes <i>António Samagaio, University of Aveiro, Portugal</i></p>			
12:30		Lunch					



A6 14:00	Advanced Building Skin Design	B6 14:00	Aerogel Insulation Materials for the Building Envelope	C6 14:00	Optimizing BIPV Design: Models, Tests and Simulation	D6 14:00	Dynamic Glazing for Sustainable Building Skins
	<p>Demystifying high-performing building enclosures <i>Mark Lee and Anne Schwab, GBBN Architects, Cincinnati, United States</i></p> <p>Advanced façade engineering for high-rise buildings and free-form cold-bent façades <i>Benjamin Beer, Meinhardt Façade Technology, Dubai, United Arab Emirates</i></p> <p>Optimized design and control of cost-effective climate façades for high-rise buildings <i>Leo Bakker, TNO, Delft, Netherlands</i></p> <p>Merging aesthetics and energy performance <i>David Frey, Woods Bagot Architects, San Francisco, United States</i></p> <p>An integrated design approach of high-performance façades <i>Giovanni Betti, Henn Architekten GmbH, Berlin, Germany</i></p> <p>Skin design for absorbing and reusing rainwater <i>Anders Nereim, School of the Arts Institute of Chicago, United States</i></p> <p>Brief presentation</p> <p>Curtain wall stick system for installation from the inside without caulking <i>Eric Claeys, Lesos Engineering, Zandhoven, Belgium</i></p>		<p>Past, present & future of aerogels and advanced porous materials <i>Michael O'Connor, AdvaPor, Strasbourg, France</i></p> <p>Miscellaneous aerogel systems for application in building envelopes <i>Bjorn Petter Jelle, SINTEF & NTNU, Norway</i></p> <p>Aerobrick: an aerogel-filled insulating brick <i>Jannis Wernery, Empa, Switzerland</i></p> <p>Experimental and numerical study on the performance of various filled hollow bricks <i>Marina Stipetic, University of Stuttgart, Germany</i></p> <p>Thermal performances of an innovative superinsulating material based on silica aerogel <i>Kévin Nocentini, Mines Paristech, Sophia Antipolis, France</i></p> <p>Interior aerogel-based coating for energy retrofit <i>Stefano Fantucci, Politecnico di Torino, Italy</i></p> <p>Aerogel manufacturing scalability for the construction sector <i>Jorge Corker, Instituto Pedro Nunes, Portugal</i></p> <p>Brief presentation on New Materials for the Building Skin</p> <p>Interior sun protection for thermal energy production <i>Thomas Friedrich, Innogration GmbH, Germany</i></p>		<p>BIPV curtain wall model for building energy simulations <i>Juliana Gonçalves, KU Leuven/Energyville, Belgium</i></p> <p>Shading device with extensible louvres for BIPV and daylight control <i>Emanuele Piccoli, Politecnico di Milano, Italy</i></p> <p>Decorated BIPV modules: Cost and power loss analysis <i>Christoph Kutter, Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany</i></p> <p>BIM-based approach for solar building envelope design <i>Pierluigi Bonomo, SUPSI, Switzerland</i></p> <p>BIM-based design and simulation of BIPV systems <i>Philippe Alamy, CADCAMation, Switzerland</i></p> <p>Brief presentations</p> <p>Performance of roll screen and venetian blind with PV modules by dynamic control <i>Jiyoung Seo, Sejong University, Seoul, South Korea</i></p> <p>Impact of partial shading on the energy yield of façade-integrated PV <i>Konstantinos Spiliotis, KU Leuven/EnergyVille, Belgium</i></p> <p>Design strategies of PCM integration in BIPV façades <i>Jakub Curpek, Slovak University of Technology in Bratislava, Slovakia</i></p> <p>Integrated approach for BIPV optimization in early design phase <i>Jennifer Adami, EURAC Research, Bolzano, Italy</i></p>		<p>Fluid flow glazing façades – Potential for the building envelope <i>Daniel Pfanner, Frankfurt University of Applied Sciences</i></p> <p>Improving building performance through the use of dynamic façade technology <i>Eloise Sok, Saint-Gobain, Courbevoie, France</i></p> <p>Dynamic glass with liquid crystal windows <i>Martin Zitto, Merck KGaA, Darmstadt, Germany</i></p> <p>Performance of a whole-building electrochromic window retrofit in a commercial office building <i>Christopher Meek, University of Washington, Seattle, USA</i></p> <p>Glass façade elements with inner circulating fluids <i>Jochen Stopper, Technische Universität München, Germany</i></p> <p>Brief presentations on Glass for Advanced Building Skins</p> <p>Modeling 6-pane transparent façade system to optimize daylight and thermal performance <i>Boštjan Černe, Trimo, Slovenia</i></p> <p>Current status of vacuum insulating glazing technology <i>Cenk Kocer, University of Sydney, Australia</i></p> <p>Fully glazed façade conception for a villa with special and large-sized glass panels <i>Raul Corrales, Biff SA, Lausanne, Switzerland</i></p> <p>Thermal shock in glasses: Building physics analyses <i>Luciano Laffranchini, Ai Engineering, Turin, Italy</i></p>
<p>15:30 Coffee Break</p>							



A7 16:00	Design Methods for Sustainable, High-performance Building Façades	B7 16:00	New Forms of Concrete for Advanced Building Envelopes	C7 16:00	Façade Integrated Day- and LED-Lighting Based on Micro-Optical Components	D7 16:00	Architectural Membranes for High-performance Building Skins
	<p>Façade design of the first triple-certified green building in China <i>Stephen Katz, Gensler, Chicago, United States</i></p> <p>Thermal skin design for extreme cold climate <i>Joe Ferraro, Ferraro Choi & Associates, United States</i></p> <p>Development of a flexible unitised façade <i>Willi Richard Brombacher, Wrbi, Nuremberg, Germany</i></p> <p>Digital workflows for specialty Curtain Wall Systems <i>Kais Al-Rawi, Walter P Moore, Los Angeles, USA</i></p> <p>Stainless steel structural lattice enclosure: Sustainable building skins for coastal environments <i>Robert Holton, Louisiana State University, United States</i></p>		<p>Carbon-reinforcements for slender architectural facades <i>Christian Kulas, solidian GmbH, Albstadt, Germany</i></p> <p>Façades made of concrete – new technologies and concepts <i>Florian Mühl, osd, Frankfurt, Germany</i></p> <p>High-performance low-mass concrete masonry walls <i>Francisco Gomes, The University of Texas at Austin, United States</i></p> <p>Building with infra-lightweight concrete: Betofoase, Berlin <i>Bernhard Popp, Gruber+Popp Architekten, Berlin, Germany</i></p> <p>Brief presentation</p> <p>Lichen growth on concrete elements for sustainable facade design <i>Jean D'Ursel, Technical University of Denmark</i></p>		<p>Architectural integration concepts <i>Matthias Kraemer, SSP AG, Germany</i></p> <p>Optical microstructures for daylight redirection and efficient LED-based planar light guides <i>Michael Jakobowsky, RIF e.V., Dortmund, Germany</i></p> <p>Production technology of façade integrated optical films and panels <i>Mike Bülters, Temicon GmbH, Germany</i></p> <p>Controlled light distribution by large-scale micro-structured plastic sheets <i>M Hof, Jungbecker GmbH, Germany</i></p> <p>A construction kit for façade integration and integrated use with electric lighting <i>Helmut Müller, Green Building R&D GmbH, Germany</i></p> <p>Lab measurements and field testing of integrated systems <i>Jan de Boer, Fraunhofer Institute for Building Physics, Germany</i></p> <p>Brief presentation</p> <p>Color temperature controlled LED system for enhanced daylighting - Effects on productivity and energy conservation in office buildings <i>Masayuki Ichinose, Tokyo Metropolitan University, Japan</i></p>		<p>Coating of ETFE – Solar shading for architectural applications <i>Carl Maywald, Vector Foiltec GmbH, Bremen, Germany</i></p> <p>Double-skin façade with ETFE membrane for energy saving and acoustic protection <i>Petr Franta, Petr Franta Architects, Prague, Czech Republic</i></p> <p>EPS composites for ultra lightweight long-span structures <i>Shinya Okuda, National University of Singapore</i></p> <p>New ETFE film technologies for architectural applications <i>Andreas Freutsmiedl, Nowofol GmbH & Co KG, Germany</i></p> <p>Reflection membrane as full climate building envelope <i>Rainer Blum, Formfinder Software GmbH, Wien, Austria</i></p> <p>Fluoropolymer films for building applications <i>Sebastian Zehentmaier, Dyneon GmbH, Germany</i></p> <p>Brief presentation</p> <p>Dynamic regenerative integrated polymeric skins design <i>Aletheia Ida, University of Arizona, Tucson, United States</i></p>
17:30	End of the Conference						

The conference will be held in English. Session D1 will be held in German.

Registration

The registration fee is €680 and includes lunches and the conference documentation including full manuscripts of the presentations.

“Early Birds” who register by 31 July, will receive a 15% discount (€580). Registration at: <https://abs.green/registration>

Conference venue

Conference Center Kursaal
Kornhausstr. 3
CH-3000 Bern
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Organizer

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