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**						
10:10	**Keynote: Name of the speaker to be announced shortly**						
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**
Understanding building skins through failures: Trends in failure mechanisms and their costs *Lee Dunham and David Bates, OAC Services, Inc., United States* **Stucco/wood skin investigation and repairs** *Brett Newkirk, Alta Engineering, United States* **Low-rise skin investigation and repairs - Case Study** *Rick Slider, Slider Engineering, United States* **Hospital building skin investigation and repairs** *Robert Bitterli, Ivy Group Consultants, United States* **Service life prediction models to predict building skin failures** *Christopher White, National Institute of Standards and Technology, United States* **Corrosion of structural elements such as lintels and shelf angles in masonry buildings** *Amir Amirzadeh, University of Illinois at Urbana-Champaign, United States*		**Biomimicry: A source for advanced building skin design** *Thomas Button, Passero Associates, Rochester, USA* **Environmental adaptation of buildings through morphological differentiation** *Lidia Badarnah, University of Cardiff, United Kingdom* **Passive kinetic system for a responsive envelope inspired by actuation systems in plants** *Natasha Chayaamor-Heil, ENSAPLV, Paris, France* *Nelson Montas Laracuente, Pontificia Universidad Católica, Dominican Republic* **Fibrous lightweight structures in nature and technology** *Moritz Dörstelmann, Fibr GmbH, Germany* **Social wasps' nests as source of bio-inspiration in design of building skins** *Anders Ohlsson, Umeå University, Sweden* **A taxonomy of biological envelopes to design adaptive building skins** *Estelle Cruz, MECADEV, MNHN, Paris, France*		**Funding of home-ownership for low-income demographics** *Jörg Rügemer, University of Utah, Salt Lake City, United States* **Public research and technological innovation in building envelopes** *Martino Milardi, Università degli Studi Mediterranea di Reggio Calabria, Italy* **Brief presentations** **Research, application and policy for organic insulation material for buildings in China** *Na Zhang, Chinese Academy of Sciences, Beijing, China*		**Nachhaltige Fassadensysteme für Nullenergiegebäude** *Christoph Deimel, Deimel Oelschläger Architekten, Berlin, Deutschland* **Optimierung passiver und aktiver Elemente der Gebäudehülle eines Bürogebäudes** *Stefan van Velsen, 3-Plan Haustechnik AG, Schweiz* **Intelligente Fassaden** *Stefan Rappold, Behnisch Architekten, Stuttgart* **Gewerkeübergreifende Fassadenvorfertigung im Holz-Systembau** *Michael Kamenik, Cree GmbH, Österreich* *Alexander Hilbe, Rhomberg Bau GmbH, Österreich* **BIM-Methode zur Fassadenoptimierung im Kontext des sommerlichen Wärmeschutzes** *Moritz Zwahlen, Gruner Roschi AG, Schweiz* **Abluftfassade für sommerlichen Wärmeschutz im vollverglasten Hochhaus** *Michael Wengert, Pfeil & Koch Ingenieurgesellschaft*
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
Parametric design of a sustainable office tower in Milan *Gregg Jones, Pelli Clarke Pelli Architects, United States* **Loop, feedback, iterate: collaboration and modeling in advanced façade design** *Kenn Clausen, 3XN architects GXN innovation, Copenhagen, Denmark* **Computational approaches to discrete continuities for supertall skyscrapers** *Daniel Inocente, Skidmore, Owings & Merrill, New York, United States* **Uncanny enclosures: Parametric façade designs** *Robert Perry, Gensler, San Francisco, United States* **Optioneering - Designing the building envelope** *Stefano Rossi, Maffeis Engineering, Zürich, Switzerland* **Scan and make: how digital technologies can accelerate and improve overcladding** *Todd Grice, Arup, London, United Kingdom* **Brief presentations** **Parametrics as a conduit for integrated façade design** *Yun Hsueh, Gensler, Shanghai, China* **Computational interpretation from initial form to curtain wall design** *Cong Ye, Skidmore, Owings & Merrill LLP, New York, United States* **A digital tool to support prefabricated façade design** *Jacopo Montali, University of Cambridge, United Kingdom* **Modeling complex fenestration systems for generative design systems** *Luis Santos, UC Berkeley, United States*		**Earthen building materials re-appropriated for use in hot wet climates** *Robert Holton, Louisiana State University, United States* **Breathing façades for CO2 capturers for building retrofits** *Paco Mejias Villatoro, Xi'an Jiaotong-Liverpool University, Suzhou, China* **Producing solar control devices from waste materials** *Oriol Pons, UPC, Barcelona, Spain* **Building envelope with low environmental impact** *Mike Lawrence, University of Bath, United Kingdom* **Wood as eco-material for the building skin** *Xaver Egger, Bochum University of Applied Sciences, Germany* **Brief presentations** **Recycled industrial waste for sustainable façade panels** *Raúl Briones Llorente, Universidad de Burgos, Spain* **Properties of straw bale blocks for wall construction** *Katrin Schollbach, Eindhoven University of Technology, Netherlands* **Bio-based recyclable, reshapable, repairable fiber-reinforced composites for window profiles** *Arsenio Navarro, AIMPLAS, Paterna, Spain* **Fire safety of prefabricated timber-framed façade systems on high-rise buildings** *Clemens Le Levé, University of Innsbruck, Austria*		**Stakeholders' perceptions for participation in deep energy renovation** *Georgios Pardalis, Linnaeus University, Växjö, Sweden* **Advanced business models for deep energy retrofit** *Ruediger Lohse, EnEFF KEA, Linkenheim , Germany* **Roof-top extensions: Business models and tools for decision-making** *Stéphane Herbin, CTICM, Saint Aubin, France* *Olivier Dupont, CTMNC, Paris, France* **Economic opportunities and challenges for building renovation with pre-fabricated elements** *Roman Bolliger, econcept, Zürich, Switzerland* **Evaluating market models for deep-energy renovation using SWOT and PEST Analysis** *Brijesh Mainali, Linnaeus University, Växjö, Sweden* **Modular façade system with integrated equipment technology for energetic retrofitting** *Verena Dannapfel, RWTH Aachen University, Germany* **Brief presentations** **Prefabricated wooden modular elements for nZEB renovation** *Targo Kalamees, Tallinn University of Technology, Estonia*		**Historically sustainable: natural ventilation in connecticut houses of the 1800s** *Theodore Sawruk, University of Hartford, United States* **Natural ventilation versus air conditioning considered philosophically** *Jill Bambury, Univeristy of Louisiana at Lafayette, United States* **Air flow and the evolution of a subtropical passive house strategy** *Corey Saft, University of Louisiana at Lafayette, United States* **Historically proven - Sustainably updated** *Jason Hegenauer, University of Hartford, United States* **Effectiveness of stack ventilation in a two-story house in hot and humid climate** *Thanit Chindavanig, Chulalongkorn University, Bangkok, Thailand* **A model for renewable energy and building ventilation** *Rebeccah Tuscano-Moss, Westminster School, Simsbury, United States* **Building simulation to investigate the effect of natural ventilation in sustainable buildings** *Timothy O. Adekunle, University of Hartford, West Hartford, United States* **Brief presentations** **Control strategies for natural ventilation through louvered windows** *Leonie Scheuring, Technische Universität Dresden, Germany* **Wind-Catcher simulation analysis for natural ventilation in sustainable building design** *Arash Zarmehr, University of Central Florida, Orlando, United States* **Reconstruction of the use of space of historical buildings from the thermal analysis of the building façade** *Wolfgang Stumpf, Danube University Krems, Austria* **Performance evaluation of façade systems through building simulation** *Begüm Diker, İstanbul Technical University, Turkey*
15:30	Coffee Break						

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
3D print of the building skin with fiber reinforced concrete, cast, plaster, brick dust *Javier Alonso Madrid, Atanga, Spain* **Re-fabrication of knitted textiles and its architectural potential** *Annie Shaw, Manchester School of Art, United Kingdom* **Desert tectonics** *Giulia Grassi, Politecnico di Milano, Italy* **Parametric modeling, rapid prototyping and 3D printing of an interactive façade** *Abudaya Amal, Ministere de la Culture , Grenoble, France* **Water-driven breathing skin** *Angelos Chronis, Institute of Advanced Architecture of Catalonia, Barcelona, Spain* **Brief presentations** **Performance of building envelopes with 3D/4D printed bio-reactive materials** *Olga Beatrice Carcassi, 120g, Pisa, Italy*		**Infill green wall as a heat sink for indoor thermal comfort** *Yun-Shang Chiou, Taiwan University of Science and Technology, Taiwan* **Green façade and air quality - Measurements and kinetic study** *H.J.H. Brouwers, Eindhoven University of Technology, Netherlands* **Environmental benefits of building integrated aquaponic double-skinned systems** *Andrew Jenkins, Queen's University Belfast, United Kingdom* **Green roofs for cooling in different climates** *Pablo La Roche, Callison RTKL, Los Angeles, United States* **Rainwater collection and evaporation/transpiration of living wall systems** *P.M.F. van de Wouw, Eindhoven University of Technology, Netherlands* **Brief presentations** **Low-tech building with green walls - Warehouse Gradischegg, Austria** *Gilbert Sommer, University of Innsbruck, Austria*	**Retrofitting the building envelope of SME industrial buildings: Risk analysis** *Barbara Joseph, KU Leuven, Ghent, Belgium* **Thermal rehabilitation scenarios for Terrassenhaussiedlung, Graz, Austria** *Alexander Eberl, Graz University of Technology, Austria* **Energy-saving potential using adaptive building envelopes for building refurbishment** *Daniel Schwermann, University of Stuttgart, Germany* **Transformative modernization: Lessons learned from a renovation of a 1929 university building** *David Cook, Grimshaw, New York, United States* **Retrofitting the building envelope for enhanced seismic resistance and energy efficiency** *Dionysios Bournas, Joint Research Centre, European Commission, Ispra, Italy* **Integrated smart envelope module for high-rise residential building retrofit** *Brian Koh, Sun & Light Corp., Inc., Seoul, South Korea* **Brief presentations** **Retrofitting skylights: A study of thermal transference through large rooftop penetrations** *Wahid Manawi, Amtech Solutions, Dallas, United States* **Retrofitting a multi-family residential building in subarctic climate** *Shimantika Bhattacharjee, Luleå University of Technology, Sweden*		**Heating with a PV Façade in a Passive House** *Georgios Dermentzis, University of Innsbruck, Austria* **Active roofs and façades technologies** *Jakob Klint, Kuben Management, Copenhagen, Denmark* **Advanced daylighting systems and combined lighting and thermal simulation** *David Geisler-Moroder, Bartenbach GmbH, Austria* **Solar thermal façade systems – An interdisciplinary approach** *Paul Denz, Priedemann Façade-Lab, Berlin, Germany* *Christoph Maurer, Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany* **Heating with façade-integrated heat pumps** *Fabian Ochs, University of Innsbruck, Austria*
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
	Climate change and its influence on glazed curtain wall design *Daniel Arztmann, Schüco International KG, Bielefeld, Germany* **Urban climate - Impact on energy consumption and thermal comfort of buildings** *Urs Grossenbacher, INES Energieplanung GmbH, Bern, Switzerland* **Building for the future: Climate change scenarios and their impact on building concepts** *Petra Liedl, UT Austin, United States* **Energy efficient geometries and their inherent complexities** *Matthew Fineout, Smart Architecture, Pittsburgh, United States* **A 500,000m2 form-found, lightweight, long-span roof system** *Zak Kostura, Kateri Knapp, Arup, New York, United States* **Brief presentations** **Early-stage environmental modeling: Tools and strategies for climate-based design** *Barbara Gherri, Università di Parma, Italy*		**Cladding wind loads on a novel kinetic sunshade structure** *Joseph Symes, RWDI, Milton Keynes, United Kingdom* **Dynamic architectural system to improve air quality and reduce energy consumption** *Ahu Aydogan, Frank Melendez, City College of New York, United States* **An affective kinematic building façade system: Mood Swing** *Joseph Kider, University of Central Florida, United States* **Impact of kinetic shading elements on noise levels in street canyons** *Monika Rychtarikova, KU Leuven, Gent, Belgium* **Brief presentations on Solar Shading Systems for Enhanced Daylight Control** **Daylight and shading performance of an architectural screen** *Asimina Chatzimanoli, arKEYtecture office, Thessaloniki, Greece* **Parametric shading device for office buildings in hot-humid climatic regions** *Basak Kundakci Koyunbaba, Yasar University, Izmir, Turkey* **Combining solar control technologies for optimal performance** *Wim Stevels, Eastman Chemical, Gent, Belgium* **Harvesting electrical energy from building façades using elastic instability** Jin Young Song, University of Buffalo, United States **Daylight performance of an adaptive shading system** *Maria Matheou, University of Cyprus, Nicosia, Cyprus*		**Innovative construction technologies for the EXPO 2017 in Astana, Kazakhstan** *Thomas Winterstetter, Werner Sobek, Stuttgart, Germany* **Best practices for the architectural design of BIPV** *Dominique Deramaix, Bureau d'Architectes Format D2, Belgium* **Cost-effective, industrially produced PV façade system for retrofitting residential high-rise buildings** *Andrea Schneider, Fraunhofer IEE, Kassel, Germany* **Comparison between PV integration on roofs and façades** *Siu-Kit Lau, National University of Singapore* **Degrees of freedom in solar façade design** *Jochen Weick, Avancis, Germany* *Peter Kuczia, Architect, Germany* **Brief presentations** **Development of BIPV courseware for students and professionals** *Wilfried van Sark, Utrecht University, Netherlands* **Customized, aesthetically appealing PV modules at reasonable price for the BIPV mass market** *Nils Neugebohrn, DLR Institute of Networked Energy Systems, Germany* **Simulation and evaluation of design options for BIPV** *Huixuan Sun, Solar Energy Research Institute of Singapore* **Where can one billion PV modules be installed in Germany?** *Claudio Ferrara, Fraunhofer Institute for Solar Energy Systems, Germany*		**Re-positioning for Passivhaus: High-rise office applications in urban areas** *Michael Pulaski, Thornton Tomasetti, Portland, United States* **Interdisciplinary energy studies conducted on multilayer façade systems** *Aulikki Sonntag, Drees & Sommer Schweiz AG, Basel, Switzerland* **Coupling whole building air leakage rate and thermal insulation to optimize energy performance** *Joyce Mak, JRS Engineering, Seattle, United States* **Wind-induced noise on high-rise buildings** *Daniel Urban, STU Bratislava, Slovakia* **Do energy-efficient buildings save energy from a net cumulative energy perspective?** *Rahman Azari, Illinois Institute of Technology, Chicago, United States* **Brief presentations on Thermal and Acoustic Performance of Windows** **Air permeability and sound insulation of windows in historical buildings** *Christoph Geyer, BFH, Biel, Switzerland* **Acoustic metamaterial for window systems to reduce environmental noise** *Fanyu Meng, Eindhoven University of Technology, Netherlands* **Room-side low emissive sputtered coatings to reduce thermal discomfort of windows** *Anna Castaldo, ENEA, Portici, Italy* **Improving the thermal performance for window and curtain wall framing** *Todd Frederick, FreMarq Innovations, Merrill, United States* **Gluing glass into windows frames for improved performance** *Flavien Sauser, Bern University of Applied Sciences, Biel, Switzerland* **Environmental conditions in the zone adjoining the windows inside office buildings** *Maria Kikira, University College London, United Kingdom*
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
The closed cavity façade - a new trend? *Valentin Balog, Drees & Sommer Schweiz AG, Basel, Switzerland* **Reducing building energy consumption: Combating thermal bridging by heating cavity walls** *Tom Mitchell, Ernest Maier, Washington D.C., United States* **Thermal performance of double skin façade systems of high-rise buildings** *Deniz Soyipek, İstanbul Technical University, Turkey* **Lightweight intelligent trombe wall façade using phase change material** *Brian Griffith, Integral Group, Seattle, United States* **Façade design in foreign markets - First double skin façade in Vietnam** *Urs Wedekind, gmp Architekten, Hamburg, Germany* **Heat recovery using an active double skin façade** *Bharat Patel, Harley Ellis Devereaux, Los Angeles, United States* **Development of a flexible unitised façade** *Willi Richard Brombacher, WRBI, Nuremberg, Germany* **Brief presentations** **Evaluation of two closed cavity façade systems** *Haico Schepers, Arup, Sydney, Australia* **Temperature distribution of the glass surface in office buildings with blind in-built retrofit window systems** *Kyungjoo Cho, Korea Institute of Civil Engineering and Building Technology, South Korea* **Geometric solutions for double-skin façade in tropical weather** *Thiago Goes, UnB, Brasilia, Brazil* **Curtain wall stick system for installation from the inside without caulking** *Eric Claeys, Lesos Engineering, Zandhoven, Belgium*		**Adaptive façade to improve a building's energy efficiency and economics: Aro Tower, New York** *John Cetra, CetraRuddy Architecture, New York, United States* *Manan Raval, BuroHappold Engineering, New York, United States* **Relevance of adaptable façade systems: Evaluation through scenario planning** *Charlotte Cambier, Vrije Universiteit Brussel, Belgium* **Machine learning for a gel-based evaporative-cooling membrane system prototype** *Aletheia Ida, University of Arizona, Tucson, United States* **Façades of hospital buildings: Identifying functional requirements and design specifications** *Klaus Sedlbauer, Technical University Munich, Germany* **Auxetic materials in advanced adaptive daylight control systems** *Yun Yi, University of Illinois, Urbana-Champaign, United States* **Shading control of an adaptable ventilation mode double skin façade** *Adrienn Gelesz, ABUD Ltd., Budapest, Hungary* **Self-adaptive building skin enabled via pressure-regulated metamaterials** *Hongyu Zhou, University of Alabama, Huntsville, United States* **Brief presentations** **Adaptive Decision Support System for dynamic façade design based on environmental performance** *Erhan Karakoç, Kültür University, İstanbul, Turkey*		**Innovative design solutions for BIPV** *Hannah Bürckstümmer, Merck KGaA, Darmstadt, Germany* **Façade with integrated heating, ventilation and energy production** *Olav Langenkamp, VIA University College, Aarhus, Denmark* **Efficient colored BIPV modules with anti-glare coating** *Tilmann Kuhn, Fraunhofer Institute for Solar Energy Systems, Germany* **Lightweight transparent composite technology for BIPV architectural solutions** *Jose Mari Vega de Seoane, Tecnalia R&I, San Sebastian, Spain* **Beyond BIPV: Multi-functional energy converters utilizing optical properties of nano-absorber PV** *Kai Gehrke, DLR Institute of Networked Energy Systems, Germany* **Brief presentations** **Transparent PV panels based on luminescent solar concentrators for more efficient buildings** *Daniele Testa, Eni SpA, Novara, Italy* **Solar active building envelope: Industrialization meets Architecture** *Sjef De Bruijn, Ernst Schweizer AG, Switzerland* **Façade-integrated PVT with radiant cooling panels for increased energy and space efficiency** *Mohannad Bayoumi, KAU, Jeddah, Saudi Arabia* **Energy generating façade with variable heat transition** *Julia Seeger, Technische Universität Dresden, Germany*		**How to optimize heating and cooling loads, CO2 savings and comfort gain** *Marc Bosmans, Eurima, Brussels, Belgium* **Designing a solar shading system for a Curtain Wall façade** *Sergey Akhpatelov, NWL Architects PC, Salt Lake City, United States* **Artificial intelligence for computationally driven building envelopes** *Mark Cichy, DIALOG, Toronto, Canada* **Modeling of high-performance façades** *Edmund Meyer, Stellenbosch University, South Africa* **Indications of glazing design to reduce downdraft in office buildings** *Phil Jones, Cardiff University, United Kingdom* **Building guidelines to provide as-designed solutions for energy-efficient envelopes** *Benedetta Marradi, University of Pisa, Italy* **Thermal tuning of envelopes and its use as a parametric design tool** *Jose Manuel Montes Donaire, AKT II Envelopes, London, United Kingdom* **Brief presentations** **DIAL+ : A simulation tool dedicated to the new European daylighting standard** *Bernard Paule, Estia SA, Lausanne, Switzerland* **Numerical model for solar buildings with PCM-enhanced envelopes** *António Samagaio, University of Aveiro, Portugal* **Sol-air temperature and the thermal behavior of BIPV envelopes** *Peter Matiasovsky, Slovak Academy of Sciences, Bratislava, Slovakia* **Configuration of glazed façades during early design stages** *Waldo Bustamante, Pontificia Universidad Catolica de Chile, Santiago, Chile* **Generic energy model for agricultural greenhouses** *Sepehr Foroushani, Simon Fraser University, Surrey, Canada*
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
Demystifying high-performing building enclosures *Mark Lee and Anne Schwab, GBBN Architects, Cincinnati, United States* **Advanced façade engineering for high-rise buildings and free-form cold-bent façades** *Benjamin Beer, Meinhardt Façade Technology, Dubai, United Arab Emirates* **Optimized design and control of cost-effective climate façades for high-rise buildings** *Leo Bakker, TNO, Delft, Netherlands* **Merging aesthetics and energy performance** *David Frey, Woods Bagot Architects, San Francisco, United States* **An integrated design approach of high-performance façades** *Giovanni Betti, Henn Architekten GmbH, Berlin, Germany* **Skin design for absorbing and reusing rainwater** *Anders Nereim, School of the Arts Institute of Chicago, United States*		**Miscellaneous aerogel systems for application in building envelopes** *Bjorn Petter Jelle, SINTEF & NTNU, Norway* **Interior aerogel-based coating for energy retrofit** *Stefano Fantucci, Politecnico di Torino, Italy* **Past, present & future of aerogels and advanced porous materials** *Michael O'Connor, AdvaPor, Strasbourg, France* **Aerobrick: an aerogel-filled insulating brick** *Jannis Wernery, Empa, Switzerland* **Experimental and numerical study on the performance of various filled hollow bricks** *Marina Stipetic, University of Stuttgart, Germany* **Aerogel manufacturing scalability for the construction sector** *Jorge Corker, Instituto Pedro Nunes, Portugal* **Thermal performances of an innovative superinsulating material based on silica aerogel** *Kévin Nocentini, Mines Paristech, Sophia Antipolis, France* **Brief presentations on New Materials for the Building Skin** **Composite anchors to reduce thermal bridges in façades** *Werner Venter, Schöck Bauteile GmbH, Germany* **Fabric materiality FRP for articulated and varied façades** *Arielle Blonder, Technion Institute of Technology, Haifa, Israel* **Interior sun protection for thermal energy production** *Thomas Friedrich, Innogration GmbH, Germany* **Advanced composites panels for innovative roofing solutions** *Susana Patrícia Bastos de Sousa, INEGI, Porto, Portugal*		**BIPV curtain wall model for building energy simulations** *Juliana Gonçalves, KU Leuven/Energyville, Belgium* **Shading device with extensible louvres for BIPV and daylight control** *Emanuele Piccoli, Politecnico di Milano, Italy* **Decorated BIPV modules: Cost and power loss analysis** *Christoph Kutter, Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany* **BIM-based approach for solar building envelope design** *Pierluigi Bonomo, SUPSI, Switzerland* **BIM-based design and simulation of BIPV systems** *Philippe Alamy, CADCAMation, Switzerland* **Brief presentations** **BIPV as a multifunctional building component and the interoperability of BIM** *Luisa Capannolo, University of L'Aquila, Italy* **Impact of partial shading on the energy yield of façade-integrated PV** *Konstantinos Spiliotis, KU Leuven/EnergyVille, Belgium* **Energy performance of a multi-functional façade system** *Paola Gallo, University of Florence, Italy* **Design strategies of PCM integration in BIPV façade systems** *Jakub Curpek, Slovak University of Technology in Bratislava, Slovakia* **Integrated approach for BIPV optimization in early design phase** *Jennifer Adami, EURAC Research, Bolzano, Italy*		**Fluid flow glazing façades – Potential for the building envelope** *Daniel Pfanner, Frankfurt University of Applied Sciences, Germany* **Performance appraisal of liquid crystal glazing** *David Barker, Elementa Consulting, London, United Kingdom* **Dynamic glass with liquid crystal windows** *Martin Zitto, Merck KGaA, Darmstadt, Germany* **Improving building performance through the use of dynamic façade technology** *Ben Abel, Hilson Moran, London, United Kingdom* *Eloïse Sok, Saint-Gobain, Courbevoie, France* **Performance of a whole-building electrochromic window retrofit in a commercial office building** *Christopher Meek, University of Washington, Seattle, United States* **Glass façade elements with inner circulating fluids** *Jochen Stopper, Technische Universität München, Germany* **Brief presentations on Glass for Advanced Building Envelopes** **Modeling 6-pane transparent façade system to optimize daylight and thermal performance** *Boštjan Černe, Trimo, Slovenia* **Design principles of suspended glass façades** *Vincenzo Di Naso, University of Florence, Italy* **Current status of vacuum insulating glazing technology** *Cenk Kocer, University of Sydney, Australia* **Fully glazed façade conception for a villa with special and large-sized glass panels** *Raul Corrales, Biff SA, Lausanne, Switzerland* **Thermal shock in glasses: The role of building physics analyses** *Luciano Laffranchini, Ai Engineering, Turin, Italy* **Impact of viewing angle on roller wave image distortion** *Will Stevens, Interface Façade Engineering, London, United Kingdom*
15:30	Coffee Break						

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
	Façade design of the first triple-certified green building in China *Stephen Katz, Gensler, Chicago, United States* **Structural design concept for sustainable building envelopes** *Vincenzo Di Naso, University of Florence, Italy* **Thermal skin design for extreme cold climate** *Joe Ferraro, Ferraro Choi & Associates, United States* **The façade: Facial diversity** *Till Schneider, schneider+schumacher, Germany* **Digital workflows for specialty Curtain Wall Systems** *Kais Al-Rawi, Walter P Moore, Los Angeles, USA* **Stainless steel structural lattice enclosure: Sustainable building skins for coastal environments** *Robert Holton, Louisiana State University, United States* **Brief presentations** **Recommendations for wind loads on roof structures in the Chinese professional standard** *Qingshan Yang, Chongqing University, China*		**Ultra-high performance fiber-reinforced concrete for the façade of the Qatar National Museum** *Philippe Menétrey, Ingphi SA, Lausanne, Switzerland* **Façades made of concrete – new technologies and concepts** *Florian Mähl, osd, Frankfurt, Germany* **High-performance low-mass concrete masonry walls** *Francisco Gomes, The University of Texas at Austin, United States* **Sustainable building design using eco-friendly Bio-cement** *Chung Min Lee, Ewha Woman's University, Seoul, South Korea* **Building with infra-lightweight concrete: Betonoase, Berlin** *Bernhard Popp, Gruber+Popp Architekten, Berlin, Germany*		**Architectural integration concepts** *Matthias Kraemer, SSP AG, Germany* **Optical microstructures for daylight redirection and efficient LED-based planar light guides** *Michael Jakubowsky, RIF e.V., Dortmund, Germany* **Production technology of façade integrated optical films and panels** *Mike Bülters, Temicon GmbH, Germany* **Controlled light distribution by large-scale micro-structured plastic sheets** *M Hof, Jungbecker GmbH, Germany* **LED engines for large area light sources and their integration into façade systems** *Leonard Buchty, Durlum & Neander, Germany* **A construction kit for façade integration and integrated use with electric lighting** *Helmut Müller, Green Building R&D GmbH, Germany* **Lab measurements and field testing of integrated systems** *Jan de Boer, Fraunhofer Institute for Building Physics, Germany*		**Coating of ETFE – Solar shading for architectural applications** *Carl Maywald, Vector Foiltec GmbH, Bremen, Germany* **Double-skin façade with ETFE membrane for energy saving and acoustic protection** *Petr Franta, Petr Franta Architects, Prague, Czech Republic* **Fluoropolymer films for building applications** *Sebastian Zehentmaier, Dyneon GmbH, Germany* **EPS composites for ultra lightweight long-span structures** *Shinya Okuda, National University of Singapore* **New ETFE film technologies for architectural applications** *Andreas Freutsmiedl, Nowofol GmbH & Co KG, Germany* **Brief presentations** **Dynamic regenerative integrated polymeric skins design** *Aletheia Ida, University of Arizona, Tucson, United States*
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 30 June, will receive a 20% discount (€540). Registration at: https://abs.green/registration.

Conference venue
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