



The Future Envelope 12: Conference on Building Envelopes

New design tool and approaches, and innovative construction methods are enabling architects and engineers to conceive and develop increasingly complex and daring building envelopes. This process is rapidly reshaping our built environment, and transforming the concept of building envelope itself, which is no longer a passive and static element that only separates the indoor environment from the outdoor world. In this fast changing context, one of the major issues is the evaluation of the performances of such complex façade systems. The different functions of a complex building envelope have their respective requirements, and hence designers have to analyze and ensure the performances of overall façade system.

The aim of “Facade performances” is therefore to provide insights into the performances of these innovative building envelopes considering four thematic areas, namely architecture, energy, comfort, and economics and management. Hence, the focus will be on the shape of the new envelopes, on their implications on the overall building energy consumption, on the comfort experienced by the occupants of these buildings, and on the financial performances and the new business models that are linked to these innovative solutions. For each topic, three leading experts will be invited from research and academia, design firms, and construction companies respectively to share a wide range of experiences, ideas, and visions.

The conference organization is led by Eurac Research and IDM, supported by Free University of Bolzano, University of Innsbruck, and Politecnico of Milano as scientific partners, and in cooperation with the European Façade Network (EFN). This event is funded by the ITAT1039 ITA-AUT Interreg project FACEcamp and it will be the project final conference. This event will be in English.

When
20-21 May 2018

Where
NOI Techpark, via Volta 13/A, Bolzano (IT)

Conferenze organizers
Eurac Research
IDM Südtirol

Scientific partners
Free University of Bolzano
University of Innsbruck
Politecnico di Milano

Funded by
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Conference fee
This event is free of charge, but places are limited.

For further information and registration
www.facecamp.it/eventi/the-future-envelope-12/

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innsbruck

 **FACECAMP**

 **EFN**
european facade network

Conference Chairs



Francesco Babich, Eurac Research, Bolzano (IT)

Francesco works as a Senior Researcher within the Renewable Energy Institute, and focuses on indoor environmental quality and facade engineering, including modelling such as CFD, experimental research, and management activities. He deals with both research and consultancy projects. He has a PhD from Loughborough University (UK), and several international collaborations.



Carlo Battisti, IDM Südtirol, Bolzano (IT)

Sustainable Innovation Consultant and Project Manager. Since 2009 he is working with IDM South Tyrol as a project manager in the Ecosystem Construction, where he is coordinating a “Façades Working Group”, including the top players in South Tyrol in the field of complex facades for buildings.

About EFN

The European Façade Network (EFN) seeks to advance and promote façade design and engineering at a European level and beyond. This is achieved through inclusive collaborative working between its members and alumni, resulting in skills and knowledge transfer/sharing in: undergraduate and/or postgraduate education in façade design and engineering; conferences and workshops rotated between EFN member institutions, publications through the Journal of Façade Design and Engineering (JFDE) and related peer-reviewed international journals; industry informed research at Masters, Doctoral and EU level; industry driven experimental façade testing; technology transfer among EFN members and companies. On 26 November 2018, EFN members signed in Lucerne (CH) the Memorandum of Understanding on establishing the European Façade Network.



EFN member - Conference organization support



Enrico Sergio Mazzucchelli, Politecnico di Milano (IT)

Building Engineer, he works as research fellow at the ABC Department and he is professor of 'Building Services Design and Integration', AUIC School - Politecnico di Milano. His research is focused on Zero Energy Buildings, façade innovative systems and building services integration.

About FACEcamp

FACEcamp project aims at strengthening a long-term transnational cooperation among companies and research&innovation entities in the field of advanced façade systems for healthy, comfortable and energy efficient buildings. FACEcamp goal is to support stakeholders to cope effectively with the facade performances.

Thus, the specific objectives are:

- to establish a transnational competence centre on advanced façade system, enhancing and sharing knowledge among research organization and enterprises
- to improve existing metrics, modelling and measuring procedures to show the benefits of the advanced façade systems to a wide range of stakeholders.

The definition and the establishment of the centre will be performed with a bottom-up approach thanks to the involvement of both Italian and Austrian actors, already representing an excellence within the territory and beyond. Workshops, trainings and conferences will disseminate results at local and international level, exploiting the centre as knowledge platform for private and public actors.

Expected results are:

- the establishment of a cross-border and internationally recognised competence centre
- the reduction of the knowledge gap among stakeholders
- the increase of the competitiveness of local actors offering excellence in the sector.

The local expertise in the field will be strengthened and highlighted, thus creating the basis for an increased attractiveness of the territory in terms of new businesses and related workplaces.

FACEcamp coordinator



Stefano Avesani, Eurac Research, Bolzano (IT)

Stefano Avesani, PhD in Building Engineering from University of Innsbruck, MSc in Environmental Engineering at the University of Trento and, is a senior researcher at the Institute for Renewable Energy. He started his work focusing on solar cooling, and is now working on the development of tools and technological concept of multifunctional envelopes for comfortable and sustainable buildings.

Programme

Day 1 - Monday, May 20th 2019

Research seminar

9:00-13:00 FACEcamp seminar introduction

9:30-11:30 FACEcamp results

11:30-12:00 Coffee break

12:00-12:30 FACE3 best projects' presentation

12:30-13:00 Facade fire safety engineering

13:00-14:00 Networking lunch

Conference - Part 1

14:00-14:30 Conference registration

14:30-15:00 Welcome

15:00-16:30 Session 1 - Architecture

16:30-17:00 Coffee break

17:00-18:30 Session 2 - Comfort

19:00-20:00 EFN meeting

20:00-22:00 EFN and speakers dinner

Day 2 - Tuesday, May 21st 2019

Conference - Part 2

9:00-9:15 Introduction

9:15-9:30 FACEcamp overview

9:30-11:00 Session 3 - Energy

11:00-11:30 Coffee break

11:30-13:00 Session 4 - Economic and management aspects

13:00-14:00 Networking lunch

Sessions and Speakers

Session 1 - Architecture



Jan Cremers, Hochschule für Technik Stuttgart (DE)

Jan is the Dean of the Department of Architecture and Design at HFT Stuttgart, and the R&D Director at Hightex GmbH in Rimsting. From 2011 to 2017 he was the Head of Bachelor course KlimaEngineering. He was also visiting Critic/ Professor at Rhode Island School of Design (USA), Kyoto Institute of Technology (Japan), and Cracow University of Technology (Poland).



Chiara Pozzuoli, RWDI, London (UK)

Chiara Pozzuoli is Senior Project Manager at RWDI and will run RWDI new office in Milan from 2019 as the Regional Manager of Europe. She is an experienced structural engineer and PhD in wind engineering, specializing on tall buildings, with the University of Florence Italy and TU Braunschweig, Germany.



Harald Spitaler, Stahlbau Pichler, Bolzano (IT)

Harald works as design manager on prestigious high-end projects focusing on curtain wall as a part of the core in Stahlbau Pichler's technical team. He joined Stahlbau Pichler in 1997 as a steel structure drawer, then moved to the project management department, and in 2008 he graduated as a façade engineer at the University of Applied Sciences Augsburg.

Chair of the session



Angelo Lucchini, Politecnico di Milano (IT)

MSc in Civil Engineering. Doctorate in Building Engineering. Full Professor at ABC Department (Architecture, Built Environment & Construction Engineering). Expert in the envelope design of new buildings and for the refurbishment and retrofitting of existing buildings.

Session 2 - Comfort



Sabine Hoffmann, Technische Universität Kaiserslautern (DE)

Prof. Dr.-Ing. Sabine Hoffmann from the University of Kaiserslautern is a specialist for dynamic facades, thermal comfort, phase change materials (PCM) and building simulation. She established the „Living Lab smart office space“ together with Prof. Dengel at the German Research Center for Artificial Intelligence.



Darren Woolf, Hoare Lea, London (UK)

Darren is the Head of Building Physics at Hoare Lea, Visiting Professor at Loughborough University and Chair of CIBSE Building Simulation Group. He has worked for over 20 year on UK and international projects and has a keen interest in the performance of natural and mechanical systems working with the building envelope to provide high quality, low energy environments.



Wilfried Pohl, Bartenbach GmbH, Aldrans (AT)

Studied mathematics and physics, started 1985 at Bartenbach, since 1998 Member of Managing Board and Director Research, dealing with R&D for day- and artificial lighting, including visual perception and light and health. Leader of various international planning and R&D-projects in these fields.

Chair of the session



Andrea Gasparella, Free University of Bolzano (IT)

Andrea is full professor at the Faculty of Science and Technology and a Director-at Large of IBPSA. His research deals with the performance of buildings by means of combined simulation and on site measurements. In particular, his research activity focuses on dynamic behavior of the building envelope, assessment and modeling of the indoor environmental quality.

Session 3 - Energy



Christina Hopfe, Loughborough University (UK)

Christina Hopfe is a Reader (Assoc.-Prof, CEng FCIBSE FHEA, CEPH) in Low Energy Design at Loughborough University (LU). She is the Director of the Royal Academy of Engineering (RAEng) Centre of Excellence (CoE) at LU, and a Director-at Large of the International Building Performance Simulation Association (IBPSA) since 2014.



Michael Grobbauer, Fachhochschule Salzburg (AT)

Michael graduated and worked in architecture, earned his doctorate degree and was researcher and lecturer at the University of Technology Graz, was head of research at the Austrian façade company SFL technologies and is now Head of Smart Building Envelopes at the University of Applied Sciences Salzburg.



Daniel Arzmann, Schüco International KG, Bielefeld (DE)

Daniel works for Schüco where he gained experience in façade consultancy for high rise projects and in façade system design. Today, he is head of the int. building physics department. He has a diploma in architecture and a master of façade engineering and is a professor at Detmold School of Architecture and Interior Architecture.

Chair of the session



Rainer Pfluger, University of Innsbruck (AT)

He has been researching and teaching at Energy-Efficient Construction work department with focus on the topics of sustainable building renovation and the simplification and cost-cutting of comfort ventilation. Project leader in several national and international research projects.

Session 4 - Economic and management aspects



Paolo Rosato, University of Trieste (IT)

Paolo Rosato is Professor of Economics and Appraisal at the University of Trieste. For over twenty years, it has been dealing with the evaluation of real estate investments with particular reference to the social and environmental impacts. He authored articles concerning property valuation, the evaluation of environmental assets and damage compensation.



Paolo Rigone, UNICMI, Milano (IT)

Associated Professor of Technical Architecture at the Polytechnic of Milan, chairing the courses of Design of the Building Envelope and Advanced Building Envelope Components Engineering. Technical manager of UNICMI, Chairman of CEN TC33/WG6 Curtain walling and ISO TC162/WG5 Curtain walling.



Michael Reifer, Frener & Reifer, Brixen (IT)

Michael studied Civil Engineering at Leopold-Franzens University in Innsbruck (Austria) and executive MBA at Steinbeis Center of Management and Technology (SCMT) in Stuttgart. He is Head of Innovation and Total Quality-Management. His current innovation projects are flexible and sustainable building envelopes and freeform building envelopes.

Chair of the session



Roberto Lollini, Eurac Research, Bolzano (IT)

Roberto leads the Energy Efficient Building (EEB) group at Institute for Renewable Energy. His research areas include smart and flexible buildings and neighborhoods, façade systems conceptualization and analysis, indoor air quality and ventilation analysis, and cost-effective solutions for new and existing buildings energy retrofit.