

## ROOM 1 (FORD SAAL)

09.00—09.15

Welcome

09.15—10.00

**KEYNOTE**

Ingemar Vollenweider, Prof. Dipl. Arch. ETH / BSA / SIA

*Cofounder, jessenvollenweider & Lehrstuhl Städtebau, Technische Universität Dortmund***ENVELOPE SESSIONS**

10.00—10.15

Visions for a paradigm shift- based on the experience of Additive Manufacturing for façade applications

*Dr. Holger Strauss; Innobuild GmbH*

10.15—10.30

The Facade retrofit with an integrated, decentral closed adsorption cooling system for lightweight buildings - A design and energy opportunity for the renovation of Highrise buildings

*Andreas Greiner, Olaf Böckmann, Simon Weber; University of Stuttgart*

10.30—10.45

Renovating modern heritage - The upgraded facade of Commerzbank Düsseldorf

*Rouven S. Grom, Andreas W. Putz, Technical University of Munich*

10.45—10.55

Session Q&amp;A

10.55—11.10

Discussion round

11.10—11.20

Coffee break

11.20—11.35

Active, passive and cyber-physical adaptive façade strategies: a comparative analysis through case studies

*Jens Böke, Paul-Rouven Denz, Natchai Suwannapruk, Puttakhun Vongsingha; Priedemann Facade-Lab*

11.35—11.50

Scrolling Screen - A responsive building envelope for energetic renovations

*Angie Müller-Puch, Randa Omar and Erik Hegre; Behnisch Architekten*

11.50—12.05

Earthen construction high-performance cavity wall envelopes

*Claudio Marini, Alessandro D'Ambrosio, Erolcan Erdogan; Büro Happold, UK*

12.05—12.15

Session Q&amp;A

12.15—12.30

Discussion round

12.30—13.30

LUNCH BREAK

13.30—13.45

6dTEX - Lightweight building components made of 3D textiles in combination with 3D printing

*Claudia Lüling, Gözdem Dittel, Sascha Biehl, Marina Chernyshova, Roxana Tennert; Frankfurt University of Applied Sciences*

13.45—14.00

Interactive Façade Impact Tool for Evolutionary Trade-off Analysis

*Jason Vollen, Xiaofei Shen, Maria Aiolova, Nick Novelli, Aman Singhvi; AECOM iLAB*

14.00—14.15

Generative Design as a technique for creating Energy-Efficient Building Envelopes

*Venus Kashyap, Bhavya Jain; Indira Gandhi Delhi Technical University for Women*

14.15—14.25

Session Q&amp;A

14.25—14.40

Discussion round

14.40—14.55

Coffee break

14.55—15.10

Adaptive Building Skins Inspired from Lizard in Hot Desert Climate of Egypt

*Mina Ishac; German University in Cairo*

15.10—15.25

Renovation potential based on semantic surface models derived from point clouds

*Edina Selimovic, Florian Noichl, Kasimir Forth, André Borrmann; Technical University of Munich*

15.25—15.40

Automated façade: review of key parameters required for personalised control strategies

*Pedro de la Barra, Alessandra Luna-Navarro, Ulrick Knaack, Claudio Vásquez, Alejandro Prieto; TU Delft*

15.40—15.45

Session Q&amp;A

15.45—16.00

Discussion round

16.00—16.10

Coffee break

**POP-UP CAMPUS SESSIONS**

16.10—16.25

Compliant Mechanisms, *Mona Mühlich, University of Stuttgart*

16.25—16.40

Bauen mit Papier, *Alexander Wolf, TU Darmstadt*

16.40—16.55

SenseLab, *TUM & RWTH Aachen*

16.55—17.05

Session Q&amp;A

17.05—17.20

Discussion round

17.20—17.30

Coffee break

17.30—17.40

Closing

17.40—18.45

**KEYNOTE**

Caro van den Veen

&amp;

Jaap Wiedenhoff

*BARCODE Architects**ABT*

18.45—

Drinks

## ROOM 2 (GENERALI SAAL)

09.00–09.15

Welcome\*

09.15–10.00

**KEYNOTE**

Ingemar Vollenweider, Prof. Dipl. Arch. ETH / BSA / SIA

*Cofounder, jessenvollenweider & Lehrstuhl Städtebau, Technische Universität Dortmund***ENERGY SESSIONS**

10.00–10.15

Retrofit window films for energy-efficient building renovations

*Stijn Kragt, Henk Sentjens, Albert Schenning, Tillmann Klein; TU Delft*

10.15–10.30

Determining the infiltration and exfiltration in Supertall and Mega Tall Buildings

*Peter Simmonds, Duncan Phillips; ASHRAE*

10.30–10.45

FACA-DE-LIT: Facade optimisation for visual comfort by controlled daylight distribution in high-rise office buildings

*Ir. Akash Changlani, Dr. Michela Turrin, Dr. Alejandro Prieto Hoces; TU Delft*

10.45–10.55

Session Q&amp;A

10.55–11.10

Discussion round\*

11.10–11.20

Coffee break

11.20–11.35

Photovoltaics Potential for Façade Renovations

*Eleonora Nicoletti; University of the West of England*

11.35–11.50

Suntex: weaving solar energy into building skin

*Pauline van Dongen, Ellen Britton, Anna Wetzel, Rogier Houtman, Ahmed Mohamed Ahmed, Stephanie Ramos; Pauline van Dongen Innovations BV*

11.50–12.05

The "invisible-solar-panel" - colored photovoltaic panels with high efficiency

*Christof Erban, Heribert Ley; SUNOVATION Produktion GmbH*

12.05–12.15

Session Q&amp;A

12.15–12.30

Discussion round\*

12.30–13.30

Lunch break

**ENVIRONMENT SESSIONS**

13.30–13.45

digital imperfection- from Digital Imperfection to Circular Perfection

*Christian Schmitt, Federico Garrido, Rodrigo Brum; German University Cairo*

13.45–14.00

Establishing benchmarks for low-carbon, circular façade design on refurbishment projects

*Melissa Tanuharja, Christina Koukelli, Laura Craft; Arup Deutschland GmbH*

14.00–14.15

Additively Fabricated Urban Multispecies Facades for Building Renovation

*Iulia Larikova, Julia Fleckenstein, Ata Chokhachian, Thomas Auer, Wolfgang Weisser, Kathrin Dörfler; Technical University of Munich*

14.15–14.25

Session Q&amp;A

14.25–14.40

Discussion round\*

14.40–14.55

Coffee break

14.55–15.10

New methodological approach for the development of a sustainable façade product with a focus on embodied energy, resilience, and climate adaptability

*Miren Juaristi, Ilaria Sebastiani, Stefano Avesani; Institute for Renewable Energy, EURAC Research*

15.10–15.25

Mapping and Evaluating External Wall Material Stocks in terms of Circularity: A Case Study of İstanbul

*Sühan Artuğ; Istanbul Technical University*

15.25–15.40

Retrospective façade LCA assessment: Lessons learned from a case study building nearing practical completion

*Montemayor Javier, Li Florence, McGilveray Hugh; Eckersley O'Callaghan*

15.40–15.45

Session Q&amp;A

15.45–16.00

Discussion round\*

16.00–16.10

Coffee break

**POP-UP CAMPUS SESSIONS**

16.10–16.25

Recode Wicker, Javier Fuentes, KIT

16.25–16.40

re-narrated, Christina Sonnborn, University of Wuppertal

16.40–16.55

Minimal Mineral, Saqib Aziz, UDK

16.55–17.05

Session Q&amp;A

17.05–17.20

Discussion round\*

17.20–17.30

Coffee break

17.30–17.40

Closing

17.40–18.45

**KEYNOTE**

Caro van den Veen

&amp;

Jaap Wiedenhoff

*BARCODE Architects**ABT*

18.45–

Drinks

*Events marked with \* will take place in Room 1 but will be broadcasted simultaneously in Room 2.*

# POWERSKIN 2022

Build in stock – renovation strategies:  
inorganic, circular materials vs. organic, compostable materials

December 8, 2022 09.00

RWTH Aachen Super C (Building 1040) 6. Floor  
Templergraben 57, 52062 Aachen

