

# Adaptive Skins and Structures

Monday, 25. Nov. 2024, 14:00-20:30

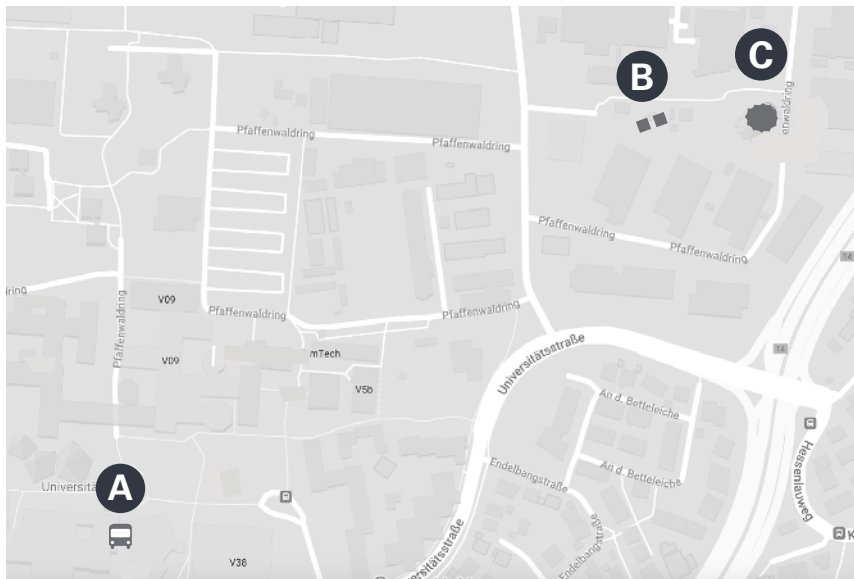
Tuesday, 26. Nov. 2024, 09:30-18:00

## ILEK

Institute for Lightweight Structures and Conceptual Design

Pfaffenwaldring 14, 70569 Stuttgart, Germany

### Area Map - Event Location (ILEK)



**A**

S-Bahn Station, "Universität"

**B**

Demonstrator-Highrise, D1244

**C**

**ILEK**

Institute for Lightweight Structures and Conceptual Design  
Pfaffenwaldring 14, 70569 Stuttgart, Germany

# CRC 1244 SYMPOSIUM - ADAPTIVE SKINS AND STRUCTURES

25.11.2024 14:00 - 20:30

## Opening (ILEK)

14:00 Arrival  
14:30 - **CRC 1244 Presentation**  
15:00 Prof. Oliver Sawodny  
Prof. Lucio Blandini

## 15:15 Visit of D1244

16:45 Coffee Break (ILEK)

## Opening Keynotes (ILEK)

17:30 **James Carpenter**  
18:00 **Gustav Düsing**  
18:30 **Discussion**

19:00 Get Together (ILEK)

26.11.2024 09:30 - 18:00

## 09:30 Registration (ILEK)

### STRUCTURES

09:50 Adaptive Structures Prof. Manfred Bischoff  
10:10 Design Synthesis of High-performance Structure-actuator Systems Dr. Gennaro Senatore  
Dr. Arka Reksowardojo  
10:30 Computational Design and Analysis Methods for Adaptive Structures Mathias Maierhofer and  
Lisa-Marie Krauß  
10:50 Integrated Fluidic Actuators Markus Nitzlader and  
Matthias Bosch  
11:10 The Adaptive Ribbed Slab S1244 Dr. Gennaro Senatore  
Prof. Matthias Kreimeyer

#### Invited Speaker

11:30 Recent Developments in the Design of Long Span Bridges for Railway Crossing Prof. Fabio Casciati  
University of Pavia

12:00 Lunch (ILEK)

### SPACES and SKINS

13:00 Adaptive Architecture Prof. Mona Mahall  
Bauhaus University, Weimar  
Prof. Martin Ostermann  
13:20 HydroSKIN: Facade-integrated Rainwater Harvesting and Evaporative Cooling Dr. Walter Haase and  
Dr. Christina Eisenbarth  
13:40 InterSPACE: Transboundaries in Architecture Hisham El-Hitami  
13:55 KineticSKIN: Dual-Wing Facade for Solar Harnessing and User Controlled Daylighting Jun.-Prof. Maria Matheou and  
Moon Young Jeong  
14:15 CoolSKIN: Development of a Novel Facade-Integrated Solar Cooling System Dr. Micha Schäfer

#### Invited Speakers

14:30 Challenges and Solutions for Facades of the Future Prof. Ulrich Knaack  
Dr. Alessandra Navarro  
Prof. Michael Kraus  
(TU Delft, TU Darmstadt)

15:00 Coffee Break (ILEK)

## CONTROL + OPERATION

#### Invited Speaker

15:30 Optimal Control of Concrete Hardening Process with Reduced Order Models Prof. Thomas Meurer, KIT  
16:00 Control of Adaptive Structures Dr. Spasena Dakova  
16:15 Fault Diagnosis of Adaptive Structures Jonas Stiefelmaier  
16:30 Visual Monitoring and Analysis of Adaptive Structures (and Skins) Michael Becher  
16:45 ThermoSPACE: Design and Control of a Carbon-neutral Heat Storage System Anja Rentz and  
Dr. Marc Linder  
17:00 Control of Adaptive Facades Melanie Gschweng  
17:15 Lifecycle Engineering of Adaptive Skins and Structures David Borschewski

## Closing Keynote

17:30 Prof. Werner Sobek

