

Place and Venue

The city of Karlsruhe has almost 300 000 inhabitants and is the third largest city in the federal state of Baden-Württemberg, Germany. Since it is one of the warmest cities in Germany, the impact of climate change on buildings, infrastructure, etc. in town and in the surrounding regions is of particular importance. Therefore, Karlsruhe is predestined as a place to promote the dialog between construction technology and climate sciences.

The Karlsruhe Institute of Technology (KIT) is a merger of Universität Karlsruhe and Forschungszentrum Karlsruhe and is one of the leading research institutions in the technological sector. Its main focal points are research, teaching, and innovation. KIT is part of the Helmholtz Association, which is the biggest research organisation in Germany.

KIT Innovation Management transfers new findings, innovative ideas, and expert knowledge directly to products and business.



Scientific Committee

- **Prof. Andreas Wagner** (chairman) *building science*
wagner@kit.edu
- **Prof. Dr. Andreas Gerdes** *construction chemistry*
andreas.gerdes@kit.edu
- **Prof. Dr. Armin Grunwald** *sustainability*
armin.grunwald@kit.edu
- **Prof. Dr. Christoph Kottmeier** *meteorology/climatology*
christoph.kottmeier@kit.edu
- **Prof. Dr. Thomas Lützkendorf** *sustainability/economy*
thomas.luetzkendorf@kit.edu
- **Prof. Kevin Lomas** *building science*
k.j.lomas@lboro.ac.uk
- **Prof. Dr. Helmut Mayer** *meteorology/climatology*
helmut.mayer@meteo.uni-freiburg.de
- **Prof. Dr. Harald S. Müller** *materials technology*
sekretariat-bt@ifmb.uka.de
- **Prof. Dr. Manfred N. Partl** *materials technology*
manfred.partl@empa.ch
- **Prof. Dr. Ralf Roos** *construction techniques*
ralf.roos@kit.edu

Local Organizing Committee

South German Climate Office
(Süddeutsches Klimabüro am KIT)
Dr. Hans Schipper
Dr. Christina Endler
klimabuero@kit.edu
+49 (0)721 608 42831
www.sueddeutsches-klimabuero.de



Institute of Functional Interfaces
Prof. Dr. Andreas Gerdes
andreas.gerdes@kit.edu
+49 (0)721 925 1354

Call for Papers

Climate and Constructions

Conference and Workshops
24 and 25 October 2011
Hotel Blauer Reiter, Karlsruhe, Germany

COMPETENCE AREA
„EARTH AND ENVIRONMENT“



Construction and Climate Change

Welcome and Invitation

You are kindly invited to contribute with your expertise to the conference and workshops „Climate and Constructions“, an international and interdisciplinary event to be held for the first time at the Karlsruhe Institute of Technology (KIT). Experience from various activities shows the urgent need for a scientific dialog in this field.

The construction sector is the technical sector with the highest mass and energy flows caused anthropogenically worldwide. For example, the production of cement is about 2.5 bn tons emitting around 1 bn tons carbon dioxide, annually.

The construction sector therefore has a significant impact on our climate. As is shown by the example of asphalt, the effects are also vice versa: Asphalt for hot-summer use in Central Europe embrittles due to low temperatures in winter and thus, gets irreparably damaged. The costs of repair in consequence of the winter 2009-2010 are estimated at approx. 7 bn Euros in Germany.


Until now, there are only few basic studies about the mutual impact of climate and construction, although it is of prime importance for all branches involved. Yet, knowing the impacts on constructions and buildings opens decisive advantages for future construction technology.

Objective

The aim of the conference is to bring together various disciplines, to promote an intense dialog, and to increase the understanding of the mutual impact of climate change and all sectors of construction technology.



Prof. Andreas Wagner



Prof. Dr. Christoph Kottmeier

Conference Topics

The conference topics cover a wide range of construction research fields that are affected by the changing climate. We invite you to contribute to one of the following topics in the context of climate change:

Construction Chemistry

Development of longer-lasting, optimized properties, ecological, economical, and easy-to-handle materials to reduce materials and energy input.

Building Science

Innovative building technologies and concepts which help to prevent damage caused by increasing climate extremes and provide indoor environments with high energy and comfort performance.

Materials Technology

Innovation of materials technology with focus on mechanical properties, processibility, and serviceability of materials to reduce deformation and damage of infrastructure and building.

Construction Techniques

Method of building development and construction developed for infrastructure. Structural design is affected by building science, construction chemistry, and materials technology.

Urban Climatology

Part of environmental climatology dealing with substantial and energetic interactions between the atmosphere and the urban area, assessment and methods of quantification of urban climate.

Workshops

In four parallel workshops, researchers, experts, and practitioners discuss the latest technical developments, new operational concepts with regard to needs of further improvement and sustainable implementation.

Information on Paper Submission

We invite persons from research institutions, industry, authorities, and others to submit a paper for oral or poster presentation. Authors are requested to submit an abstract in English before June 30. The procedure is available on the conference website.

www.sueddeutsches-klimabuero.de/cac

All submissions should be original and preferably have not been previously accepted for publication in a journal.

Conference Proceedings

Authors whose abstracts are selected will be invited to submit a full paper for an oral presentation (max. 10 pages) or a poster presentation (max. 6 pages). The proceedings will be available at the conference.

Deadlines

Submission of abstracts	30 June 2011
Submission of full papers	30 September 2011
Registration deadline	30 September 2011
Conference	24 and 25 October 2011

Registration Fees

(incl. proceedings, coffee breaks, and lunch):

Regular	160 Euros (180 Euros at box office)
Students	90 Euros (100 Euros at box office)
Dinner	50 Euros

Venue

Hotel „Blauer Reiter“
Amalienbadstraße 16
76227 Karlsruhe