

Conference venue

Federal Highway Research Institute (BAST)

Brüderstraße 53

51427 Bergisch Gladbach

www.bast.de

www.intelligentebruecke.de



Registration

For your registration until **15. February 2018**, please use the electronic form at www.bast.de/Termine

The conference is free of charge.

Hotel reservation

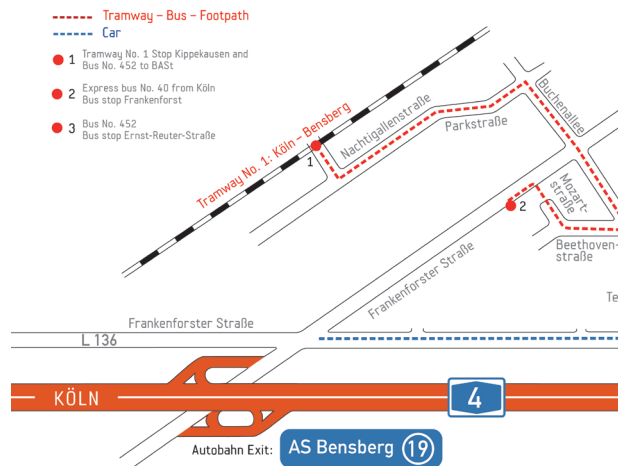
www.bergischgladbach.de

www.hotels-in-koeln.de

Timetable

for public transport

www.koeln.de/fahrplan



How to reach BAST

By car

Highway A4 heading from Cologne to Olpe, exit Bensberg (19), follow the signs for "Bundesanstalt für Straßenwesen".

By train

From Cologne central railway station:

Rapid-transit bus 40 from "Breslauer Platz" bus stop, (destination Bensberg) to "Frankenforst" bus stop, followed by a walk of roughly 15 minutes.

About 20 - 30 minutes by taxi.

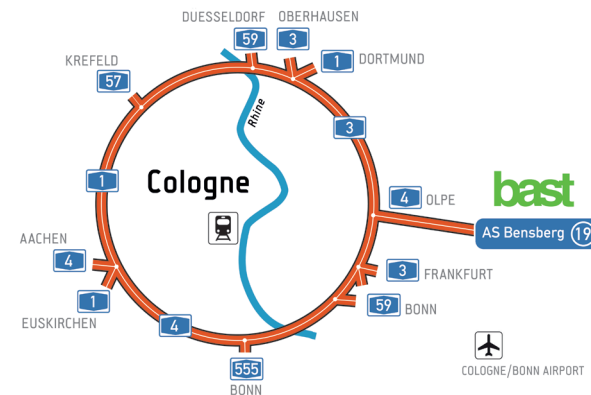
By plane

From Cologne/Bonn airport:

Regional (S) tram line 13, travelling to the "Deutz/Messe" tram stop. Tram line 1, (destination Bergisch Gladbach Bensberg) to "Kippekausen" tram stop.

Or with regional (S) tram line 13 to the "Dom/Hauptbahnhof" tram stop. Continue from Cologne central station as described above.

About 15 minutes by taxi.



Smart Bridge – New Developments Symposium



21. March 2018

at the
Federal Highway Research
Institute



New Developments

Our road networks are faced with major challenges: aging building fabric, increasing traffic loads, impacts of climate change, new quality requirements and a still limited budget for road infrastructure. In order to maintain a reliable road network, new and innovative approaches must be pursued. This applies in particular to bridge structures.

At the moment, the maintenance management of bridges is primarily based on regular visual building inspections. Damages are only discovered when they are obvious - which is uneconomical. However, damage and critical reactions of the structure often occur within the structure, in areas which are not visible. The damages are caused by the actually, but often not exactly known effects on the structure.

Existing and new build bridges should be able to provide information on their condition and its development at an early stage additionally to the building inspections. This requires flexible and modularly adaptable systems for measuring technical support in and on the building, differentiated assessment procedures and appropriate maintenance management.

In recent years relevant components have been developed and used in pilot studies. The aim of the symposium is to present research results and to discuss the further development in form of pilot studies. One focus of the symposium is on the results of the research project SMART DECK, an intelligent, multifunctional amplification and protection system for bridge decks.

From 9:00 Coffee and networking

09:30 Welcome and opening
Stefan Strick, President of BAST

09:40 Road bridges in the future – Requirements from the awarding authority's perspective
Prof. Dr. Gero Marzahn, BMVI

09:50 Smart Bridge – Current developments
Dr. Peter Haardt, BAST

Application and value

Dr. Peter Haardt, BAST

10:00 Monitoring in the life cycle of bridges
Prof. Dr. Steffen Marx, Engineering office Marx Krontal GmbH

10:20 Monitoring of bridges and use of the data
Prof. Dr. Helmut Wenzel, VCE Vienna Consulting Engineers

10:40 COST TU 1402 „Quantifying the Value of Structural Health Monitoring“
Prof. Dr. Sebastian Thöns, DTU Civil Engineering Copenhagen

11:00 Break

Research activities

Dr. Peter Haardt, BAST

11:30 Innovation and Networking for Fatigue and Reliability Analysis of Structures - Training for Assessment of Risk
Dr. Odile Abraham, IFSTTAR

11:50 Reliability quantification for continuously monitored existing bridges
Dr. Alois Vorwagner, AIT

12:10 Osimab – Monitoring, assessment and forecast system based on Smart Data
Dr. Matthias Müller, BAST

12:30 Lunch and poster session

SMART-DECK

Sarah Dabringhaus, BAST

13:30 From concept to demonstration
Dr. Till Büttner, Eurovia

13:50 Integral moisture monitoring
Carla Driessen, ibac, RWTH Aachen

14:10 Preventive cathodic corrosion protection
Gregor Gerhard, instakorr GmbH

14:30 Break

Pilot studies

Dr. Peter Haardt, BAST

15:00 Structural monitoring of Lezíria Bridge since its construction
Dr. António Nunes de Sousa, BRISA - Concessao Rodoviaria

15:20 Smart Bridge in the „Digitales Testfeld Autobahn“
Prof. Dr. Ursula Freundt, Engineering office Prof. U. Freundt

15:40 duraBAST
Dr. Iris Hindersmann, BAST

16:00 Discussion
Moderator Dr. Peter Haardt, BAST

16:15 End