



25th International IFF Conference

PROGRAMME

Concrete DURABILITY

14 + 15 November 2018 in Weimar

Science Days



2018



IAB

Dear conference attendees,

The way we build with concrete is an increasingly popular topic that will determine our future. But which challenges and trends are relevant to it? High-profile speakers from Germany and abroad will question long-established concepts and mindsets and present intriguing lines of thought on building sustainably with concrete. In so doing, they will focus on adopting a holistic, interconnected view of building materials, products, processes and equipment.

The conference agenda will outline options for substituting conventional construction materials and investigate smart approaches to dealing with the fact that our natural resources are finite. It is thus our responsibility to develop innovative products and processes to master this challenge. The construction industry, in particular, is a major consumer of resources that needs to contribute to this endeavour. Key levers to be utilised in this regard include the design of optimised processes and the implementation of efficient, sustainable energy concepts.

Selected presentations will be interpreted simultaneously (German <=> English/Russian). The accompanying exhibition and get-together will provide additional hands-on input and further opportunities to engage in talks over relevant topics.

We look forward to welcoming you!

Hosted by/Partners





08.30

Registration + coffee + exhibition visit

09.30

Opening and words of welcome

Dr.-Ing. Ulrich **PALZER**

Weimar Institute of Applied Construction Research
(IAB Weimar gGmbH)

Minister Wolfgang **TIEFENSEE**

Thuringian Ministry of the Economy, Science and
Digital Society

Peter **KLEINE**

Mayor of the City of Weimar

10.00

Keynote speaker

The façade of the new bauhaus museum – a challenge in terms of design, production and assembly

Prof. Heike **HANADA**

Laboratory of art and architecture

Dipl.-Ing. (FH) Michael **ERHARDT**

Hemmerlein Ingenieurbau GmbH

11.00

Coffee break + exhibition visit

INTERNATIONAL IFF CONFERENCE

Building Materials

Precast Elements

Processes/Equipment

PIPELINE CONSTRUCTION CONGRESS

Condition Assessment/Trenchless Construction

Trenchless Construction/Law

Energy/Building Services

Building Materials



Moderated by: Dr.-Ing. Ulrich Palzer, Dr.-Ing. Barbara Leydolph

11.30

Recycling – the underrated challenge

Prof. Dr.-Ing. habil. Anette **MÜLLER**

IAB Weimar gGmbH

12.00

New laboratory method for on-spec selection of input materials for the manufacture of concrete products

Dr. Jürgen **OECKNICK**

PSA Zurich Area GmbH

Switzerland

12.30

Sustainability of concrete – issues regarding practical compliance with target values

Dr.-Ing. habil. Anja **BUCHWALD**

ASCEM B.V.

Netherlands

13.00

Lunch break + exhibition visit

14.00

Low-cost modular house system – setting a new benchmark for smart construction

Dipl.-Ing. Tobias **GERLICHER**

IAB Weimar gGmbH

14.30

Aluminate cement – potentials in the building materials industry

Dr. Dirk **NIEPMANN**, Kerneos GmbH

15.00

Stirred, not shaken – a new mixing method

Dipl.-Ing. Mirko **LANDMANN**

IAB Weimar gGmbH

15.30

Coffee break + exhibition visit

16.00

Frost and freeze-thaw resistance of concrete – new findings and future trends

Prof. Dr.-Ing. Horst-Michael **LUDWIG**

Bauhaus University Weimar,

F. A. Finger Institute for Building Material Engineering

16.30

Making concrete transparent – a new analytical method using laser-induced breakdown spectroscopy (LIBS)

Dipl.-Phys. Gerd **WILSCH**

Federal Institute for Materials Research and Testing (BAM),

Division for Non-Destructive Damage Assessment and

Environmental Measurement Methods

19.30 **GET-TOGETHER:** the perfect opportunity to engage in talks and

Precast Elements

Moderated by: Dr.-Ing. Ingrid Lützkendorf, Dipl.-Ing. David Abouem



11.30	<p>Precast elements for the Rhein-Main-Hallen Wiesbaden project</p> <p>Dipl.-Ing. (FH) Lothar HILDEBRAND P. V. Betonfertigteilwerke GmbH</p>
12.00	<p>The water battery – natural, flexible, unique</p> <p>M. Sc. Susanne KRAMER, Max Bögl Wind AG</p>
12.30	<p>Modular construction 4.0: fast, efficient, sophisticated</p> <p>M. Eng. Tobias LECHNER Lechner Group GmbH</p>
13.00	<p><i>Lunch break + exhibition visit</i></p>
14.00	<p>Feel Fiber – an innovative type of fibre for optimal properties of fibre-reinforced concrete in the fresh and hardened state</p> <p>Dipl.-Ing. Michael HUSS Graz University of Technology, Institute of Structural Concrete, Austria</p>
14.30	<p>Optimisation-based design of precast reinforced concrete components</p> <p>Dipl.-Ing. Mario SMARSLIK Ruhr University Bochum, Department of Civil and Environmental Engineering, Institute of Concrete Structures</p>
15.00	<p>Fastening ventilated façades without thermal bridges – does this work at all?</p> <p>Dipl.-Ing. Werner VENTER Schöck Bauteile GmbH</p>
15.30	<p><i>Coffee break + exhibition visit</i></p>
16.00	<p>SBM/SBQ: many requirements, one goal – a strong connection</p> <p>Dipl.-Ing. Benjamin HAPP H-Bau Technik GmbH</p>
16.30	<p>FILIGRAN® punching shear reinforcement revisited</p> <p>Dr.-Ing. Johannes FURCHE FILIGRAN Trägersysteme GmbH & Co. KG</p>
17.00	<p>Shear anchors for thin-walled precast components</p> <p>M. Sc. Christoph BOMPLITZ, IAB Weimar gGmbH</p>

Processes/Equipment



Moderated by: Dr.-Ing. Justus Lipowsky, Dr.-Ing. Knut Krenzer

09.30

Potentials of two-stage mixing process control for the concrete mixes of the future

Prof. Dr.-Ing. Harald **GARRECHT**

University of Stuttgart, Institute of Construction Materials

10.00

Modelling of the material behaviour of industrial suspensions

Dipl.-Ing. Mathias **DIETZEL**, IAB Weimar gGmbH

10.30

Automation solution for transport and placement processes in a concrete drainage channel production line

Dipl.-Ing. André **DIERKES**, KELLER HCW GmbH

11.00

Coffee break + exhibition visit

3D printing trend forum

11.30

Digital manufacturing with concrete – requirements for material and machinery

Univ.-Prof. Dr.-Ing. Viktor **MECHTCHERINE**

TU Dresden, Institute of Construction Materials

12.00

3D printing of concrete – process and chemistry for complex shapes

Dr. Didier **LOOTENS**

Sika Technology AG, Switzerland

12.30

Concrete pressure and simultaneous installation of reinforcing elements

Dr.-Ing. Hubert **WÄCHTER**, IAB Weimar gGmbH

13.00

Lunch break + exhibition visit

14.00

Precast UHPFRC slabs – factory production control according to French standards

PhD Eric **STORA**, CERIB – Centre d'Études et de Recherches de l'Industrie du Béton, France

14.30

Keep the balance no matter what – concrete components for cars

Dipl.-Ing. Markus **TENWINKEL**, Tenwinkel GmbH & Co. KG

15.00

Value-adding ideas: opportunities for the improvement of existing production lines

Dr.-Ing. Justus **LIPOWSKY**, IAB Weimar gGmbH

Condition Assessment/Trenchless Construction

Moderated by: Dipl.-Ing. (FH) Hartmut Solas, Dr.-Ing. Wolfgang Berger



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|-------|---|
| 11.30 | MTA Pipe Electroscan – a method to assess the condition of sewers
Marko TAFERNER , MTA Messtechnik GmbH, Austria |
| 12.00 | Cost-efficient sewer monitoring – deformation measurement using the circular laser profiler
B.Eng. (FH) Tobias JÖCKEL , JT-elektronik GmbH |
| 12.30 | Zooming in on district heating lines – optical condition assessment in the context of the FW 437 Worksheet
Dipl.-Ing. Jürgen KRAUSEWALD , IAB Weimar gGmbH |
| 13.00 | Creating operating asset management models for pipeline networks
Dipl.-Ing. (FH) Mike BECK
FICHTNER Water & Transportation GmbH |
| 13.30 | <i>Lunch break + exhibition visit</i> |
| 14.30 | Bringing all stakeholders together – the basis for maintaining sewer networks
Dr.-Ing. Martin WOLF , SiwaPlan Ing.-Ges. mbH |
| 15.00 | Retrofitting cement mortar linings to steel and cast-iron pipes in water supply networks
Dipl.-Volkswirt Horst ZECH , Beratungs- und Managementinstitut für Rohrnetze GmbH |
| 15.30 | <i>Coffee break + exhibition visit</i> |
| 16.00 | The underrated influence of the annular gap on liner performance according to DWA standards
Dipl.-Ing. Wilfried SIEWEKE
BKP Berolina Polyester GmbH & Co. KG |
| 16.30 | starline® STRUCTURE-W – an innovative method for rehabilitating drinking water lines
Dipl.-Ing. (FH) Lars QUERNHEIM
KARL WEISS Technologies GmbH |
| 17.00 | Rehabilitation of the brewery sewer at Warstein – a challenge in terms of material and process
Dipl.-Ing. Lutz KRETSCHMANN
RSC Rohrbau und Sanierungs GmbH Cottbus |

Trenchless Construction/Law

Moderated by: Dipl.-Ing. (FH) H. Solas, Dipl.-Ing. G. Krüger, Dr.-Ing. W. Berger



09.30

Pressing, drawing, cutting, winding – things to know about trenchless pipe replacement methods

Dipl.-Ing. Andreas **HÜTTEMANN**

Rohrleitungsbauverband e. V. (rbv)

10.00

Trenchless pipeline installation taken to the extreme – specific challenges to horizontal directional drilling in the high mountains

Dr. rer. nat. Hans-Joachim **BAYER**

René **SCHRINNER**

TRACTO-TECHNIK GmbH & Co. KG

10.30

A clean affair – state-of-the-art drilling fluid treatment

Dipl.-Geol. Henning **SÖKER**

AMC Europe GmbH

11.00

Coffee break + exhibition visit

11.30

Sustainable, diverse, innovative – pipe rehabilitation using bursting methods

Manfred **PACHUTZKI**

TRACTO-TECHNIK GmbH & Co. KG

12.00

GFRP pipes designed for jacking – even underneath rail tracks

Dr.-Ing. René **THIELE**

Amiantit Germany GmbH

12.30

With or without rubber – pressure transfer means for pipe jacking

Dipl.-Ing. Johannes **MÜLLER**

Arkil Spezialtiefbau Deutschland, A subsidiary of arkil Fundering A/S

13.00

Lunch break + exhibition visit

14.00

Duration
1.5 hours

Amended construction legislation – many new regulations (do not yet) create clarity

RAin Katja **DAMROW**

Kanzlei Damrow

attendees

Energy/Building Services

Moderated by: Dipl.-Ing. (FH) Torsten Schmidt, Dipl.-Ing. (FH) Hartmut Solas



- | | |
|-------|---|
| 09.30 | Hybrid, cross-sectoral heat supply through cold networks
Bernd FELGENTREFF
Technische Beratung für Systemtechnik |
| 10.00 | Using waste heat for cooling – saving up to 90% on your electricity bill
Dipl.-Ing. (FH) Steffen KÜHNERT , Fahrenheit GmbH |
| 10.30 | LOGSTOR diffusion-proof pipe systems
Henric THOMAS
LOGSTOR Deutschland GmbH |
| 11.00 | <i>Coffee break + exhibition visit</i> |
| 11.30 | Output-controlled brine-to-water heat pumps from Alpha-InnoTec
Ralf ACHTMANN
ait-deutschland GmbH |
| 12.00 | Engineering and demand-based design of split heat pumps
Dipl.-Ing. (FH) Michael GRITZKI
MAX WEISHAUPT GmbH, Erfurt Branch |
| 12.30 | Continuous improvement of district heat supply to the Weimar Werk commercial and industrial estate
Dipl.-Ing. Sarah VAUTZ
AGFW-Projektgesellschaft für Rationalisierung, Information und Standardisierung mbH |
| 13.00 | Energy efficiency and functionality of wastewater pumps
Prof. Dr.-Ing. Paul Uwe THAMSEN
Technische Universität Berlin |
| 13.30 | <i>Lunch break + exhibition visit</i> |
| 14.30 | Innovative supply concept for the IAB Weimar research demonstrator
M. Eng. Florian ZUNKEL
IAB Weimar gGmbH |
| 15.00 | Better than water?! – Hydrogels for heat storage
Dr. Thomas VOLK
Geohumus GmbH |

Registration

Please complete the registration form using block capitals and send this form by email to kontakt@iab-weimar.de or fax to **+49.3643.8684-113**. You can also sign up at our website www.iab-weimar.de.

.....
First name/name/title

.....
First name/name/title

.....
Company/institution

.....
Address

.....
Telephone

.....
Fax

.....
Email

Which panels are you planning to attend?
(Please mark the appropriate panels.)

14 November 2018

☐ Building Materials

☐ Precast Elements

☐ Condition Assessment/
Trenchless Construction

15 November 2018

☐ Processes/Equipment

☐ Trenchless Construction/
Law

☐ Energy/
Building Services

I/We attend as follows:

☐ **14 November 2018** ☐ **15 November 2018**

	1 day	2 days

Members/CPI subscribers/ early bookers up to 30 Sept 2018	€195.00	€350.00
Registration after 30 Sept 2018	€220.00	€390.00
Civil servants/students	€90.00	€180.00

*(plus VAT; this fee includes simultaneous interpretation of
selected presentations, conference proceedings in German
and English, meals and drinks)*

CPI subscriber ID

–

☐ **Get-together** on 14 November 2018 – €45.00 *(plus VAT)*

We would like to book an **exhibition stand**:

- ☐ up to 6 m² €1,320.00
- ☐ more than 6 m² €190.00/m²

*(plus VAT; this fee includes free attendance for two persons;
a 10% discount applies to members/early bookers up to
30 September 2018)*

Registrations must be sent by **5 November 2018**.

The invoice will be sent to you by email/post and is payable
upon receipt.

.....
Place, date

.....
Company stamp, signature

Terms and Conditions of Participation

Hosted by

IAB – Weimar Institute of Applied Construction Research
(IAB Weimar gGmbH)

Über der Nonnenwiese 1
99428 Weimar, GERMANY

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📠 +49.3643.8684-113

kontakt@iab-weimar.de



Conference venue

Leonardo Hotel Weimar
Belvederer Allee 25
99425 Weimar, GERMANY

📞 +49.3643.722-0

📠 +49.3643.722-2111

info.weimar@leonardo-hotels.com



Cancellation policy

Any cancellation is subject to a processing fee of €50.00. A cancellation fee amounting to 50% of the attendance fee (as stated in the registration form) applies to any registration cancelled after 10 November 2018. Any cancellation must be communicated to us in writing.

Privacy

Attendees agree and accept that the organiser gathers and processes personal data pursuant to the privacy provisions of the General Data Protection Regulation (GDPR). Attendees further agree and accept that any photographs taken during the event may be published free of charge.

Final provisions

Should any provision of these terms and conditions of participation be or become invalid or unenforceable, this shall not affect the validity of the entire agreement. Any agreements, individual approvals or special arrangements must be confirmed in writing by the organiser. These terms and conditions are governed by the laws of the Federal Republic of Germany.

Room Reservation

For your overnight stay, we have pre-booked a limited number of rooms at Leonardo Hotel Weimar until **26 October 2018** under the heading **"IAB-Wissenschaftstage 2018"**.

.....
First name/name

.....
Street/number

.....
Postcode/place name

.....
Telephone/fax

.....
Email

I book with binding effect ☐ Single room: €58.00/night
 ☐ Double room: €70.00/night

Arrival: after 04.00 p.m.? ☐ YES ☐ NO

Departure:

(The above room rates include breakfast, complimentary use of swimming pool and whirlpool and exercise room, and VAT. Cancellation is free of charge up to seven days prior to arrival. Hotel parking facilities must be paid for separately.)

Special requests:

.....
Place, date

.....
Company stamp, signature

Please fax to Leonardo Hotel Weimar: +49.3643.722-2111

Confirmation by Leonardo Hotel Weimar

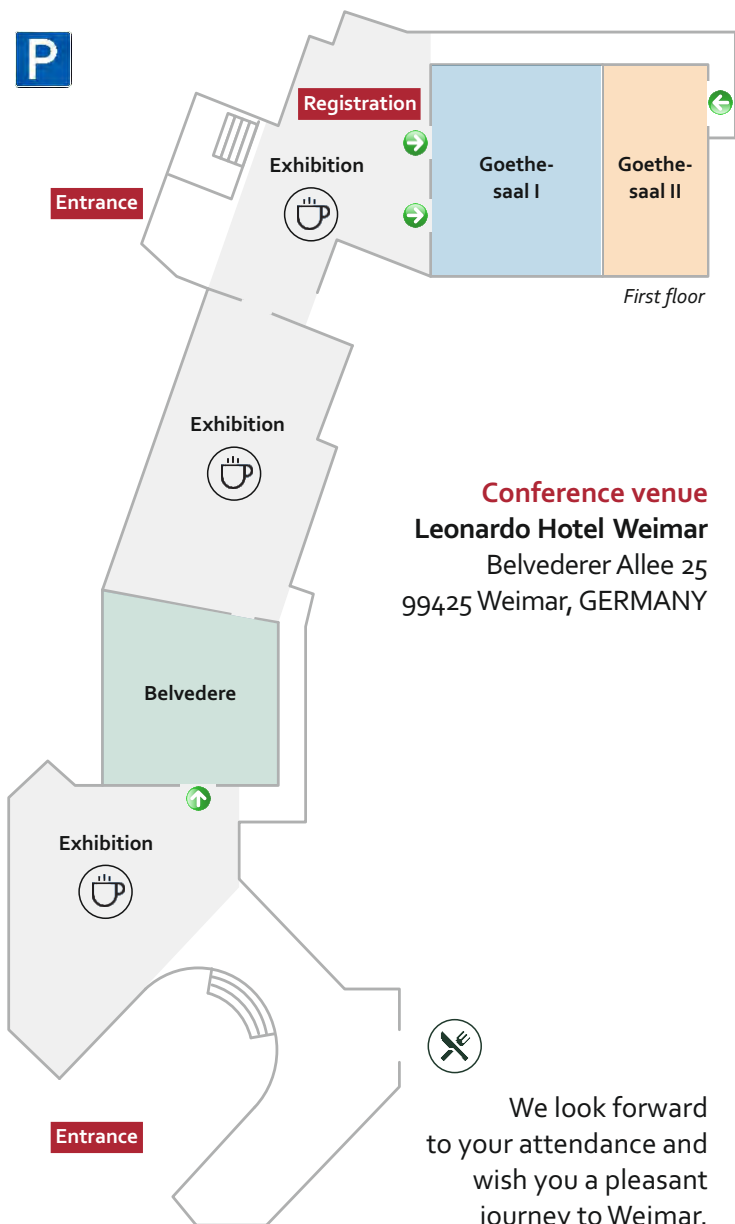
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Reservation no., date

.....
Hotel stamp, signature

Hosted by

**IAB – Weimar Institute of Applied Construction Research
(IAB Weimar gGmbH)**

Über der Nonnenwiese 1
99428 Weimar, GERMANY



First floor

Conference venue

Leonardo Hotel Weimar

Belvederer Allee 25
99425 Weimar, GERMANY



We look forward
to your attendance and
wish you a pleasant
journey to Weimar.