ENGINEERING days

Build on strengths. Design the future.

Program 2015 ▸
Lectures and Workshops

1st to 2nd Dec 15

Location ▸
The Imperial Riding School Vienna
Vienna / Austria

PRECAST SOFTWARE engineering
A NEMETSCHEK COMPANY

RIB running together SAA

PRILHOFER

09:00 **Arrival / Registration**

10:00 **Welcome and Keynote Speech**

The Future of Precast Concrete – From Precast Producers to System Providers
A producer of precast parts can offer "smart buildings" if he takes over the trades of MEP (HVAC). That means minimization of interfaces, higher value creation and a better market positioning. Based on integrated planning.
C. Prilhofer / Prilhofer Consulting | T. Friedrich / Innogration

11:00 **Session 1 – BIM Building Information Modeling /** *Chairman W. Maresch*

BIM and IFC for Precast
The actual state of the art in the sector of OpenBIM and IFC for precast in all phases of the building process as well as developments at DIN, VDI and BMVI. Successfully realized BIM precast projects complete this lecture.
R. Neubauer / RIB SAA | P. Kafka / Precast Software Eng. | J. Meyer / Zerna

BIM in Precast Plants – Optimization by Linking of all Steps in the Production Process
The company Mischek has been working intensively on the interconnection of all relevant data for the planning, production, dispatching and computing process during the last 15 years. Due to the continuous availability of information data in the entire process, significant advantages arise.
R. Klotz / Mischek

BIM in Structural Precast Construction – Cross-Company Data Flow Realized
The continuous, cross-company and seamless planning process of structural precast elements up to production and shipment at company Klebl will be shown. Continuous 3-D planning can prevent wastage and increase productivity.
B. Heilmeier / Klebl | F. Scheller / Precast Software Engineering

Lean Manufacturing: Optimizing the BIM Process at a Precast Company
Using OpenBIM methods and following a process of advisement, engineering and coordination, company Spaansen Bouwsystemen has been able to reduce its engineering and communication efforts significantly.
M. van Gurp / Buro BIM NL (English)

12:00 **Lunch | Exhibition**

14:00 **Session 2 – Product Innovations** / *Chairman C. Hanser*

Structural Engineer versus Engineering Software
In a system with increasing complexity of the models, the responsibility of the user (engineer) becomes more and more important. Knowledge of the correct use of the respective software is crucial for safe, efficient and optimized design of load-bearing elements.
S. Höhler / Zerna Planen und Prüfen

Coffin Lid Frame with Double Walls – Construction and Realization Based on iWall
The challenging field of semi-precast roof structures in reinforced concrete can be realized with a profound geometrical and structural clarification of details in advance, with sound planning and custom-fit production.
P. Hohlweg | S. Reischl / Rohrdorfer Betonwerke

iParts – The Tool for Structural Precast Construction
"How fast and effective is it possible to design and detail complex structural precast elements with the right software and the right partner?" Review from the point of view of company Lehner.
H. Wiesinger / J. Lehner | M. Reich / Precast Software Engineering

The (R)evolution of the Korbwand® – a New Prefab Wall
Hubert Rapperstorfer presents new means and methods in the design of reinforcement cages for prefabricated walls. The young company "Rapperstorfer Automation" from Upper Austria intends to strongly change the world of precast concrete products.
H. Rapperstorfer / Rapperstorfer Automation

15:10 **Coffee Break | Exhibition**

15:50 **Session 3 – Innovations in Technology** */ Chairman C. Prilhofer*

Smart Factory – Realization in Precast Concrete Plants
Impacts on existing plants and the systematic approach to create a smart factory, which is characterized by adaptability, resource efficiency and ergonomic design.
S. Maier / RIB SAA Software Engineering | M. Obinger / Prilhofer Consulting

Integration of CAD, ERP and MES
A seamless connection between CAD, MES and ERP systems optimizes the production process from design to delivery. Predictive maintenance and CAD-enabled bidding are only two examples which require modern interfaces.
R. Hellriegl / Progress | R. Borowan / RIB SAA Software Engineering

IT Safety in Production
In modern production environments, the same IT systems are used as in the office. But the claims on safety are even higher, to guarantee utmost availability of the production facility. This leads to specific concepts, which are also relevant for the clients.
R. Zauner / RIB SAA Software Engineering

17:15 **Passion 8000**
Gerlinde Kaltenbrunnner reports about the impact of the mountains on her life during the last decades. It's about develpoment of values, willpower and discipline, trust and patience, intuition and enthusiasm. And how to overcome setbacks and gather new motivation.

G. Kaltenbrunner / Extreme Climber

19:45 **Gala Dinner**

Workshops Precast Software Engineering

BIM Booster – Efficient Team Work in Structural Precast Projects
BIM Booster divides the model into partial design segments and allows for a parallel processing with minimal manual coordination. The design complexity decreases, and the data volume is reduced. An intelligent fusion and synchronization of the partial designs is provided, as well as an automatic fault detection.
J. Gottschalk / WMW | J. Eibl / Precast Software Engineering

mTIM – Mobile and Efficient Data Exchange between Precast Plant and Assembly Team
With the mTIM solution, CAD results and the planning data from the ERP system are linked. The information that is required at the construction site is directly made available on a smartphone and tablet. Motivation, goals and experiences of company Oberndorfer.
T. Wagner / Precast Software Engineering

SalesManager in Use – Package Content and Practical Implementation
In this workshop, contents of the module, customized adjustments (assistants and reports) and training contents are presented. Experience is shared and the benefit of deploying this program is demonstrated by practical examples.
D. Spielbrink / Lütkenhaus | J. Crespo / Precast Software Engineering

Design of Complex Reinforcing Steel Mesh for Mesh Welding Machines
Processing of complex reinforcement designed with the Engineering module in 3D for the production in a mesh welding machine, as it is realized at the Fischer Rista AG company.
T. Silabetzschky | O. Wenzel / Precast Software Engineering

Innovations in PLANBAR and TIM
The workshop provides an insight into the most important improvements in PLANBAR 2016 and TIM. The goal is to show the participants hidden developments and functions, in addition to the obvious innovations. Both experienced and new users shall find new ideas for optimizing their work.
M. Hofmann | K. Rieger / Precast Software Engineering

Workshops from Science & Users

Building the 21st Century with Energy Efficient, Earthquake Resistant Building Systems
The workshop will aim to discuss recent building technologies with double-walls and KAP-wave systems with the objective of combining energy efficiency and earthquake resistance with prefabrication technologies allowing for a sustainable and resilient built environment.
Prof. B. Binici / Middle East Technical University, Ankara (English)

Carousel Systems: Measure Production Time for Each Pallet, at Each Station, for Each Element
A decision making tool to get, for any produced element, the actual duration of each production step (casing, steel, reinforcement, concreting…) and for each working station the occupation rates (to identify bottlenecks).
S. Marrié / Betonwerk Bürkle (English)

Workshops RIB SAA Software Engineering

SAA & RIB Bundle their Strengths – Visions and Perspectives for the Construction Industry
RIB-Software AG headquartered in Stuttgart acquires 75% of SAA shares and sets up a center of competence for Smart Production in Vienna, where prospectively new production methods for industrial prefabrication will be developed using new technology.
C. Hanser | R. Neubauer | M. Sauer / RIB SAA Software Engineering

RIB iTWO 4.0 - Planning in the iTWO LAB
Virtual into physical - virtual planning before physical production and construction - that's the new thinking and new working of the iTWO 5D solution. In a virtual LAB all stakeholders of the construction process work together to add the 4th dimension - time and the 5th dimension - cost to the 3D-virtual model. At several stations interdisciplinary optimization and verification of the model takes place. A live-demo.
W. Müller / RIB Software | S. Maier / RIB SAA Software Engineering

Automatic Casting of Multi-layer Wall Elements
Clinker or tile facades, formliner surfaces, coloured- or fibre concrete layers - complete and appropriate CAD-data is basis for volumetric accurate dispatching of concrete, especially for the cost-intensive face concrete. Different flow-measure and shuttering geometry require complex algorithms for control. A fully automatic process includes well configured compaction to achieve high quality elements.
C. Arbeithuber / RIB SAA Software Engineering

Exhibitor Workshops

Quality and Performance Increase in Existing Precast Plants
How is it possible to rise to the challenges posed by the market and to secure and expand competitiveness? Examples for quality and performance increase through tailor-made solutions and optimization in existing precast plants.
D. Kiene / Weckenmann Anlagentechnik

(R)evolution of the Korbwand® - Details of a New Prefab Wall
Calculation and dimensioning basics, cost advantages, examples of use. An interactive workshop to present a completely new product to the public.
H. Rapperstorfer / Rapperstorfer Automation

Practical Experience Report – Reinforcing Solid Elements with Automatically Produced Cages
Implications of modern automatization solutions on productivity, documented using key figures from practical examples. Discussion of possible application perspectives, i.e. in double wall productions.
G. Droschl / EVG

Loading Condition Pressing Water – Use of the Schöck System Thermal Anchor
For buildings in pressing water, there is a risk of water permeation. Schöck offers a thermal anchor accessory, which ensures water impermeability.
A. Hettler / Schöck Bauteile

Exhibitor Workshops

Housing construction in developing countries
For the world's largest growth market in the housing sector with precast concrete, "affordable low-cost housing", PreConTech has developed various new anchoring systems. These are systems for all wall types occurring in the marketplace as well as a modular box system.
D. Rausch / PreConTech

Innovations for new applications in sandwich wall panels
This workshop will cover advancements in insulated wall panels and Glass Fiber Reinforced Polymer connectors for such applications. With a new type of reinforcing available for the concrete layer, this can be made as thin as 15 mm, and new connectors for such thin layers are discussed. Structural composite panels and the connectors for such applications will be presented.
A. Sold | V. Seshappa / Thermomass (English)

12:30 **Lunch | Exhibition**

14:00 **Session 4 – Practical Experience Reports** / *Chairman R. Neubauer*

**ICPH-Integrated Construction and Precast Hub –
a Uniquely Singapore's Concept in Integrated Precast & Prefab Production**
The five-storey Precast Hub seamlessly integrates different production lines to produce more than 25 different types of precast components. The design, planning, scheduling, production, inventory tracking and delivery are managed efficiently by the integration of BIM, production control and ERP software.
R. Chan / SEF Construction (English)

Architectural Facades – Produced Fully Automatically
At Morton's precast factory DSK Grad a complete automation solution for industrial production of facade elements with formliners has been implemented for the first time. Starting with the design in CAD, automatic planning and scheduling is performed in the MES, which leads to automatic storage, retrieval and quality control of the formliner matrices in a power & free plant. By use of a different method, individual tile facades with colour patterns are successfully produced at company GVSU.
M. Detroy / CSF Förderanlagen | C. Hanser / RIB SAA Software Engineering

Increased Efficiency in Administration and Technical Office
Over the last decades, efficiency in precast production has been tremendously increased. However, work flows and efficiency in administration and technical office has changed only slightly although appropriate instruments are available. This presentation shows potentials and strives to stimulate new ideas.
F. Schuster / Innbau | C. Prilhofer / Prilhofer Consulting

15:10 **Coffee Break | Exhibition**

15:50 **Session 5 – Energy Efficiency** / *Chairman W. Maresch*

Machining Centre for Producing Insulation and Other Flat Parts at DSK Grad
Continuous processing by connecting standard elements and continuous machining of holes, lengths, widths and contours. The innovation reduces the average cost by means of automation, reduction of cutting waste, low emission and environmentally friendly processing.
K. Hübner / Sommer Anlagentechnik

Optimum Heating System for Warm Concrete Production
Production of warm concrete is essential in cold weather conditions and for optimized maturity control in both ready-mix and precast production. To produce warm concrete economically, a heating system is needed which is powerful enough and at the same grants the best efficiency. The basic technology as well as the use of the TURBOMATIC™ heating system in specific applications is presented.
P. Lillqvist / Polarmatic

Thermal Disconnected Precast Concrete Elements on the Limits of Constructions
Innovative buildings require more and more extraordinary solutions.
Using practical examples, the construction work in highly thermally insulated precast concrete is shown.
A. Decker / Schöck Bauteile

Insulation Material - Next Generation!
The GEOLYTH new insulation material is based on cement matrix for many core insulation applications, especially for reinforced concrete wall elements. It can also substitute the common insulation material, with high performance technical parameters and low production energy consumption.
K. Enzenhofer / Geolyth

17:00 **End of the Conference**

Conference Location

The Imperial Riding School Vienna, A Renaissance Hotel
Ungargasse 60 / 1030 Wien, Österreich
Tel: +43 1 711 75–0
www.imperialrenaissance.at

Information

- The conference language is German or English, the lectures „Design the Future" will be translated into English/German and Chinese simultaneously.
- Order and time of the workshops as well as language(s) of the lectures will be published at the conference.
  One workshop series will be translated to English/Chinese simultaneously.
- In parallel on both days: Exhibition of suppliers, consulting & software companies.
- Reservation of rooms can be done easily using the direct link at the event homepage (attention: limited number of rooms).

Registration & Information: www.engineeringdays.at

Engineering Days 2015 / 1st Dec. – 2nd Dec. 2015, Vienna, Austria

PRECAST SOFTWARE engineering
A NEMETSCHEK COMPANY

Precast Software Engineering GmbH
Stadionstraße 6
5071 Wals-Siezenheim / Austria
www.precast-software.com
Tel: +43 662 854 111-0
Fax: +43 662 854 111-610
info@precast-software.com

RIB SAA
running together

RIB SAA Software Engineering GmbH
Gudrunstraße 184/4
1100 Vienna / Austria
www.saa.at
Tel: +43 1 6414247-0
Fax: +43 1 6414247-21
office@saa.at

PRILHOFER

Prilhofer Consulting GmbH & Co.KG
Münchener Straße 1
83395 Freilassing / Germany
www.prilhofer.com
Tel: +49 8654 6908-0
Fax: +49 8654 6908-40
mail@prilhofer.com