

# Design the Future.

### 09:00 Arrival / Registration

#### 10:00 Welcome and Keynote Speech

#### Increase your competitiveness with "Industry 4.0"

The term Industry 4.0 is for many manufacturing companies still in the dark. But already today the competitiveness of the factories can be drastically increased by cyber physical systems. The lecture will show the potential benefits and the way to Industry 4.0. *N. Gronau / Potsdam University, Chair of Business Information Systems and Electronic Government* 

### 11:00

#### Session 1 – Efficient Communication in Precast Concrete Plants

Chairman C. Prilhofer

#### Industry 4.0 - The technical revolution goes on!

This lecture connects seamlessly to the introductory speech and illuminates Industry 4.0 in the precast concrete industry. Where is Industry 4.0 used today and where are the potentials for the future.

S. Maier / SAA Software Engineering

# Increasing efficiency in the precast concrete company by using model-based information

Keeping track of complex projects and precast parts: Visual working methods based on the intelligent three-dimensional model and automated data flow as efficiency-raising components in the precast concrete company.

H. Rudolph / Hermann Rudolph Baustoffwerk | W. Maresch / Nemetschek Engineering

#### Visualized working processes in heterogeneous production environments

IT systems affect the entire working process of a precast concrete company. In particular, the variety of products and their influence on the applied processes must be considered. A visualization of these processes helps to better plan them, to optimize and to make them comprehensible.

F. Lorenzoni / i-PBS Production Business Solutions

#### Quality seal - Certification of the interface between CAD and fabrication

A new seal of approval – developed by the German Association of Building Systems, section BIM in Precast Construction – helps the proliferation of interface interpretations curb – an invaluable advantage for customers and users. *G. Jösch / Bundesverband Bausysteme e.V.* 

### 12:00 Lunch Break | Exhibition

14:00

Session 2 – Planning and Production of Solid Elements / Chairman R. Neubauer

# Shuttering systems for solid components - Challenges and limitations of automation

The demand for solid components is rising across Europe, slowly but steadily. Concrete plants that want to customize their range of products accordingly, face the challenge to supplement or expand their plant technology as well as their shuttering system kits under economic criteria.

J. Reymann / RATEC

#### Efficient data flow for automated production of solid components

The fabrication of solid components entails additional geometry data (especially for insulation and cladding) describing the components for the automated production process. Moreover, new production planning methods (e.g. for modular formwork) and combinations of fixed and flexible formwork structures must be developed.

R. Borowan / SAA Engineering

#### New flexible building system with a new precast plant for Morton

Company Morton is one of the largest real estate developers in the Russian Federation. To be even more successful in the future and to better respond to the needs of the market, Morton has decided to build a new plant for the precast production of residential buildings. *M. Obinger / Prilhofer Consulting* 

#### Coffee break | Exhibition

### 15:45 Session 3 – Practical Experience Reports / Chairman W. Maresch

#### Visualized and comprehensible quantity take-offs with the Sales Manager on the basis of Allplan Precast

Fast and secure calculation base determination and visualization of quotes. The benefits of model-based quotations for precast concrete companies and their clients. *A. Hausser / Rector Lesage | F. Scheller / Nemetschek Engineering* 

#### Project report on a high-rise building façade with Schöck ComBAR®

On the example of a recently executed construction project, the lecture shows the complete sequence of a high-rise building façade in double-wall construction with Schöck ComBAR® thermal anchors. Description of the individual processes, from planning, design and production through to assembly on site.

A. Decker / Schöck Bauteile

#### Panel discussion: BIM in Precast Construction

Building Information Modelling – the magic word par excellence in the last months. But what importance will BIM actually obtain - for the producer, for government and ultimately for the supply industry (CAD | MES).

D. Bernert / Tekla | R. Neubauer / SAA Engineering | W. Maresch / Nemetschek Engineering

### 17:15

#### My mental strength

Our thoughts determine whether we are successful or not. Therefore, when we get the opportunity to change our thoughts, we also expand our possibilities.

M. Horeth / Mentalist

Gala Dinner

# Build on Strengths.

### Workshop series "Precast Technology in Russia"

Conference language Russian

#### Current aspects of building in Russia

The federal association of builders supports risk management in the investment- and building process

I. Ponomarev / Union of Russian Builders Holding GVSU «Centre» focuses on modernization S. Dvuluchanskiy / GVSU «Centre»

#### Precast design with Allplan Precast in Russia

Experience with large-scale and series projects; specific requirements arising from legal requirements (GOST) and market conditions.

I. Boriskin / LSR Group

# Efficient cooperation between CAD and control system with particular reference to a product innovation

New products need new solutions. Implementation of a product innovation in CAD and master control system through customized software development. *M. Reich / Nemetschek Engineering | S. Maier / SAA Engineering* 

#### Automated production of clinker façades in Russia (Practical experience report)

With the award-winning and patented JFI method, sandwich walls with clinker facades are fabricated in Moscow. A joint agent is applied robot controlled, before tiles or clinker bricks are set exactly according to CAD specifications. The benefits: flexible planning, water/cement-proofing, cushioning. *R. Braun / Sommer Anlagentechnik | K. Panek / SAA Engineering* 

Workshops Nemetschek Engineering

#### Structural precast parts: iPart - an intelligent object for every occasion

Flexible and highly efficient design of structural precast parts with the iParts® module in Allplan Precast. Incl. sample projects for stairs design.

B. Leitner / Nemetschek Engineering | L. Schandara / Mischek Systembau

#### **Designing outstanding precast walls**

Sample projects and reference notes from daily work, with special focus on core-insulated walls. *Y. Mesri / Nemetschek Engineering* | *S. Sinz / Hermann Rudolph Baustoffwerk* 

#### Efficient (data-)communication with TIM Technical Information Manager

"Click & Know!" is the principle TIM pursues. Easy to use, TIM cares for a transparent, visualized flow of information across the departments. The new developments in the area of data provision facilitate the exchange of data with other systems (CAD, machine & plant control, ERP systems etc.). *P. Kafka* | *M. Hofmann* / *Nemetschek Engineering* 

#### **Tips and tricks in Allplan Precast**

The software system grows with each release and with it the potential applications. Useful information, valuable tips and time-saving tricks to optimize the work in Allplan Precast. *J. Crespo* | *F. Scheller* / Nemetschek Engineering

# Workshops SAA Engineering

#### Modern work preparation with IPS-LEIT2000 (Hands-on Workshop)

Due to constant development there are new application possibilities, which is a great relief and timesaving for the customer. The process of work preparation offers much potential. But try yourself ..... *R. Patak* | *R. Borowan* / *SAA Engineering* 

#### Modernization of precast plants - A fitness program for the production

Using examples from practice, it is shown how to make existing production lines fit for the future by modernization of control systems and components.

R. Zauner / SAA Engineering

#### Efficient support by the SAA Premium Hotline - and what customers can do

Support from the distance - if you need it! Quick and competent help is decisive with disturbances in production operation to keep negative effects on the production process as low as possible. What additional measures can be taken by customers to get even more efficient support? *C. Arbeithuber* | *G. Zlabinger* / *SAA Engineering* 

Workshops Exhibitors

#### Anchors for low-cost housing at circulation plants

- a.) Connector module for the production of solid walls which are smooth on both sides / neutral walls
- b.) Clip Connector for quick assembly of wall panels
- c.) Anchors for sandwich panels
- D. Rausch / Precontech International

#### Proof of connecting joints with double walls

The connection of double walls concreted on the construction site with the installed precast elements can now be structurally verified by means of a flexible new rope connector, the FS Box. Proof of forces in three directions – tensile forces, perpendicular shear forces and shear forces parallel to the joint – can be executed by this flexible rope connection.

M. Kintscher / Pfeifer Seil-und Hebetechnik

#### Tekla solutions for the circular production of flat precast elements

Presentation of new developments for floor slab and double wall with link to production via PXML and Unitechnik. Project collaboration in precast construction with Tekla BIMsight. *J. Fennema / Tekla* 

#### New possibilities in reinforcement of solid wall elements

Latest machine technology simplifies the fabrication of reinforcement cages for the solid wall production. The flexible bending equipment in connection with the reinforcement welding line provides flexible cage elements which serve as the basis for manufacturing reinforcement. *H. Rapperstorfer / EVG Entwicklungs- und Verwertungs-Gesellschaft* 

#### Thin facades with Schöck Combar ® thermal anchors. Exchange of experiences.

Glass fibre connectors, handling, advantages, improvements, adjustment to markets. *A. Hettler / Schöck Bauteile* 

#### Workshops Exhibitors

#### Integration of decentralized organizations in the GESYS ERP system

with autonomous management, diverging software and IT structures, with unification of the CI, communication and calculation basis, taking into account country-, location-and product-specific features, and the possible integration of other locations or divisions – by way of an example. *N. Schmidt / GESYS* 

#### Punching shear resistance of Filigran slabs more than doubled

Component examinations with floor slabs lead the Filigran punching shear reinforcement FDB II to European Technical Approval ETA according to Eurocode 2. J. Furche | U. Bauermeister / Filigran Trägersysteme

#### Efficient enterprise-wide planning with the i-PBS Enterprise Suite

Many new features make it easier to handle the complex planning processes in the precast concrete industry. Implementations of these projects based on current possibilities are demonstrated. *F. Lorenzoni* | *T. Leopoldseder / i-PBS Production Business Solutions* 



# Design the Future.

#### Production of insulation for precast concrete elements in continuous processing

Based on the patented JFI method, a machining centre for insulation plates was developed in order to achieve additional benefits by using standard insulation plates from different materials (EPS, XPS, mineral wool). These are connected to each other endlessly and machined in stripes: less waste, greater flexibility in the planning, easier - manual installation is also possible.

R. Braun / Sommer Anlagentechnik

#### Practical and fast! Fixing inserts to the mould using the CASTTEC system

Casttec is the fast, easy and effective solution for fixing structural and architectural inserts, such as foams, wood, plastic and weld plates onto the moulds. The Casttec system is now being used extensively in some of the most important and prestigious precast factories in Europe and the United States, saving them time and money, and helping to significantly boost their productivity.

R. Elmes / Power Adhesives

#### Coffee break | Exhibition

#### 15:50 Session 5 – Innovations in Production Technology / Chairman C. Prilhofer

#### Circulation control, current status and future potential

The times in which circulation control systems just transported a pallet from station A to station B, can be relegated to history. Current circulation control handles a wide range of tasks and interconnects the individual machines to an optimized whole. C. Mertens / Unitechnik

#### Innovations in the control area

Mobile plant operation and decentralized visualization: analysing interferences via smartphone or tablet PC at critical points. Innovative improvements in proven control solutions. C. Arbeithuber / SAA Engineering

#### CM-shuttering – Extremely accurate shuttering with minimal use of polystyrene

The system of CM-shuttering was designed to reduce the use of filling elements. With this system, element edges can be formed without polystyrene in 1-centimeter grid. Special shuttering lengths are used for this purpose, with which all centimetre lengths can be formed by selective combination.

R. Hellrigl / Progress Maschinen & Automation

#### Pallet with light-weight or without supporting structure

Energy savings and CO2 emissions are becoming increasingly important for all European industries. We can show an example of how this is possible. T. Zinke / KIT – Karlsruher Institut für Technologie | C. Prilhofer / Prilhofer Consulting



# **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, the lectures "Design the future" will be translated to English and Russian simultaneously. The workshop-series "Precast Technology in Russia" will be held in Russian language or be translated.
- Order and time of the workshops will be published at the conference.
- 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 2013 / 3rd Dec. - 4th Dec. 2013, Vienna, Austria

# **NEMETSCHEK** Engineering

Nemetschek Engineering GmbH Stadionstraße 6 5071 Wals Siezenheim / Austria www.nemetschek-engineering.com Tel: +43 662 854 111 Fax: +43 662 854 111-610 info@nemetschek-engineering.at



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