



european cement research academy

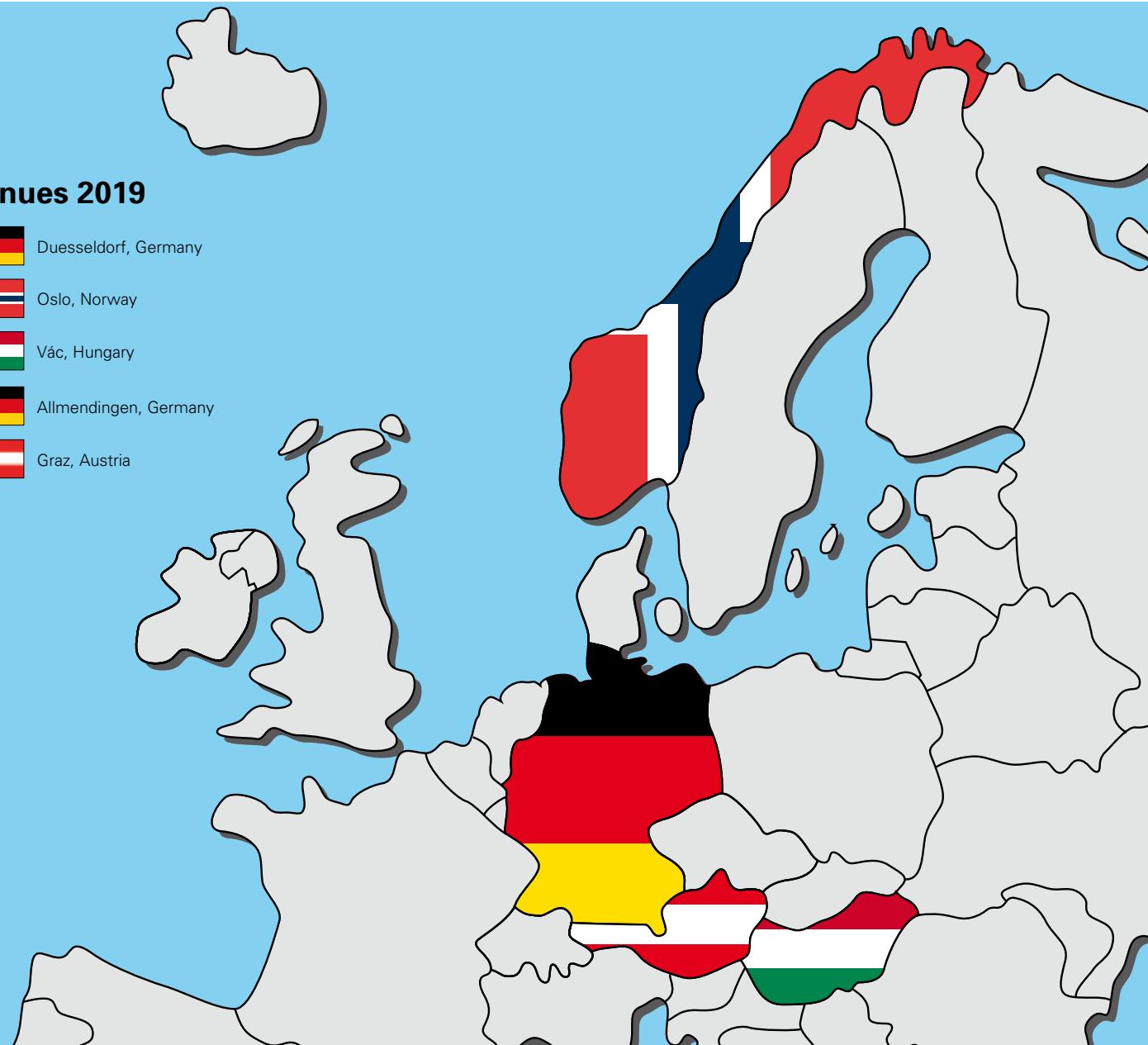


PROGRAMME 2019

Seminars

Venues 2019

-  Duesseldorf, Germany
-  Oslo, Norway
-  Vác, Hungary
-  Allmendingen, Germany
-  Graz, Austria



European Cement Research Academy

Welcome to ECRA's seminar programme for 2019.

This year we are offering seminars on the following topics:

- Quality Control of Cement
- Digitalisation and its Application in the Concrete Sector
- Use of Alternative Fuels and Raw Materials in the European Cement Industry
- Reduction of NO_x and Organic Air Emissions
- Reduction of Mercury Emissions
- Blended Cements: Future Developments

ECRA seminars are designed to bring you the latest technological and scientific developments in the field of cement and concrete, delivered by expert speakers. Most seminars include a half-day visit to a cement plant, ensuring the right balance between theory and practice. All include an informal evening dinner where you can network and exchange views with colleagues from different countries.

This year's venues are in Austria, Germany, Hungary and Norway.

For more information and to register, please visit www.ecra-online.org.

We look forward to welcoming you!

Martin Schneider

Managing Director

Seminars

8 May 2019

S19-01 Quality Control of Cement

Objective: Overview of the requirements and modern techniques of quality control in cement plants.

Target group: Quality managers, supervisors and personnel of cement plant laboratories.

Construction materials must ensure safe and durable buildings and infrastructure and are therefore subject to strict requirements which are laid down in European or national legislation supported by the respective standards. In Europe, cement is covered by the EN 197, which sets the requirements for the product as such, but also for its quality control, an important element of which is the factory production control system. The seminar will give an overview of the typical requirements, in particular those defined in the relevant European standards, and of the quality control procedures in cement plants. Common physical and chemical methods as well as modern techniques, e.g. Rietveld analysis, online and inline analysis will be discussed.

Topics:

- Overview of requirements: Construction Products Regulation, REACH, national regulations, European standards
- FPC and Quality Management Systems acc. EN ISO 9001
- Physical methods of quality control
- Isothermal conduction calorimetry (ICC)
- Chemical methods of quality control
- XRF, XRD and Rietveld analysis
- Automation of quality control in cement plants, modern online and inline analysis

Venue: Duesseldorf, Germany
Nearest airport: Duesseldorf

23–24 May 2019

S19-02 Digitalisation and its Application in the Concrete Sector

Objective: An overview of how digitalisation in the construction industry works and its opportunities for the concrete sector.

Target group: R&D, engineering, sales and marketing.

Digitalisation in the construction sector will bring new opportunities and will have a strong impact on the whole construction value chain. In this respect, Building Information Modelling (BIM) will play an important role. Today, BIM is already being used in Europe to varying degrees in the planning and construction of buildings. In addition to BIM, promising new technologies like the additive manufacturing of concrete or 3D printing are emerging on the horizon and will have a substantial effect on the building sector. BIM is likely to be the main driver behind a fully digitalised construction sector. It will change this sector in various ways over a long time horizon. Producers of construction materials need to understand how this future planning method works and which of their data they should feed into this process. The seminar will give an overview of BIM as such and show how its database is linked to new production processes. This seminar will take place in cooperation with the Norwegian Precast Concrete Association and includes a visit to a construction site in Oslo.

Topics:

- Sustainability and its connection to the BIM method
- Integration of EPDs into the planning process
- How cement producers can provide their data
- Upcoming standards relevant for product data
- Data-driven optimisation of cement manufacture
- Cement-based 3D printing: Technologies and methods
- BIM-based structure assessment and concrete repair

Venue: Oslo, Norway
Nearest Airport: Oslo

26–27 June 2019

S19-03**Use of Alternative Fuels and Raw Materials in the European Cement Industry**

Objective: An overview of the current situation regarding the use of alternative fuels and raw materials in the European cement industry.

Target group: Experienced process engineers and waste managers.

The use of alternative materials remains an ongoing issue for the European cement industry. Starting with the main political drivers such as the circular economy and the European waste fuel strategy, the seminar will give a comprehensive overview of the current situation with regard to the use of alternative fuels and raw materials in the EU. In this context, sophisticated pre-treatment and suitable quality control for alternative materials play a major role. Drivers and barriers currently exist which could promote or constrain the use of alternative materials. Alternative fuels and raw materials will be discussed with respect to specific CO₂ emissions of a cement kiln. Health and safety, an issue of growing importance in the context of using alternative materials, will also be discussed. Additionally, political aspects and technical feasibilities will be presented. The seminar includes a visit to the Duna Dráva Cement plant in Vác, Hungary.

Topics:

- Examples of new projects
- Current experience and future prospects for the use of alternative fuels and raw materials
- Current and future drivers and barriers for using alternative fuels and raw materials
- Health and safety aspects regarding the use of alternative materials
- Current legal and political situation

17–18 September 2019

S19-04**Reduction of NO_x and Organic Air Emissions**

Objective: An overview of the latest technologies concerning the reduction of air pollutants (NO_x, NH₃, CO, TOC) from the clinker burning process with regard to present and future legal requirements.

Target group: Process engineers, plant design engineers, environmental engineers, national and international associations.

Legal requirements regarding emissions abatement for cement plants, especially those using alternative fuels and raw materials, challenge the cement industry to constantly improve its level of environmental protection. New developments on an international level are expected to have a further impact on technological developments in the years to come. Participants will be given an overview of currently used state-of-the-art abatement technologies and latest developments as well as plant reports from operating full-scale installations. Primary (process-integrated) and secondary (end-of-pipe) emission abatement measures will be addressed and also upcoming or potential developments in legal requirements. The seminar includes a visit to the SCHWENK cement plant in Allmendingen, Germany, which uses a new DECONOX facility for the reduction of NO_x, organic compounds and CO.

Topics:

- Legislative regulations
- Raw material-related emissions
- General overview of catalytic emission reduction and presentation of different catalyst types relevant for cement production
- Reports from operating SCR installations
- Emission reduction by DECONOX
- Emission reduction by AUTONOX
- Emission reduction by hot gas filtration

Venue: Vác, Hungary**Nearest airport:** Budapest**Venue:** Allmendingen, Germany**Nearest Airport:** Stuttgart

Seminars

29–30 October 2019

S19-05 Reduction of Mercury Emissions

Objective: Overview of the latest technologies concerning the abatement and measurement of mercury emissions with regard to present and future legal requirements.

Target group: Process engineers, plant design engineers, environmental engineers, national and international associations.

The use of abatement technologies in the cement industry has a long tradition. In view of increasing stringent legal requirements the challenge is to further develop and improve established as well as new technologies. This seminar will give an overview of current developments and will present first-hand plant reports regarding abatement technologies for the reduction of mercury emissions from the clinker burning process. In addition, the latest technologies and experiences concerning the measurement of mercury will be presented. The seminar includes a visit to the Wietersdorfer & Peggauer cement plant in Austria which uses a split preheater system for the reduction of mercury emissions (xmercury).

27–28 November 2019

S19-06 Blended Cements: Future Developments

Objective: Improved knowledge of composite cements with limestone and/or calcined clay.

Target group: R&D managers, quality managers with experience in cement and concrete technology, portfolio managers.

Participants will gain extended knowledge of the latest developments in blended cements. Besides information about new developments in the cement standard, the focus will be on cements with high proportions of limestone and on the production and use of calcined clays as a main cement constituent. A case study on the production of calcined clay cements in a European cement plant will be presented. Influences on cement properties and on concrete durability will be discussed in detail and supplemented by new research results. The seminar will contain overview lectures and case studies offering sufficient time for discussion with the participants. The seminar includes a visit to the Spenger GmbH & Co. KG cement plant in Erwitte.

Topics:

- Present and future environmental legal requirements and their impact on the cement industry
- The behaviour of mercury in the clinker burning process and the impact of dust shuttling on emissions
- Operational experiences with mercury abatement techniques
- Mercury measurement

Topics:

- Portland composite cements: Standard production application, overview
- Portland limestone cements: Challenges and limits
- LC³: Latest developments
- Calcined clay as a cement main constituent
- Production of calcined clays
- Advantage of calcined clay produced by use of cooler heat

Venue: Graz/Klein St. Paul, Austria
Nearest Airport: Graz

Venue: Duesseldorf, Germany
Nearest Airport: Duesseldorf

Registration

Registrations can only be made online via the ECRA website www.ecra-online.org. All current registration deadlines are shown on the website. Participants will receive written confirmation of their registration.

Participation fee

Unless stated otherwise, the participation fee per person for each seminar/workshop is 1,350 EUR for participants from ECRA member companies/organisations.

There is a discount of 25 % for each additional participant from the same company address.

Cement associations which are ECRA members may delegate one participant to each seminar/workshop free of charge.

Participants from companies or organisations which are not ECRA members will be charged double.

The participation fee includes lectures, handouts, refreshments, lunch, evening dinner and, where necessary and possible, group bus transfers to and from the nearest airport to the venue.

VAT application:

Invoices issued to recipients in Germany:
The standard German rate of VAT, currently 19 %, will be applied.

Invoices issued to recipients in other EU countries:
VAT will not be applied if the recipient provides a valid VAT registration number (reverse charge rule according to Art. 196, 205 EU-Directive 2006/112).

Invoices issued to recipients in non-EU countries:
VAT will not be applied. A certificate of tax residence is required.

The above-mentioned VAT application rules apply only to the participation in ECRA seminars, workshops and training courses.

Hotel accommodation

Hotel accommodation is not included in the participation fee. ECRA will provide hotel recommendations, but participants must book their accommodation with the hotel directly themselves. In the event of the cancellation of a room reservation the terms and conditions of the hotel apply.

Payment

Participants will receive an invoice which is payable immediately upon receipt by bank transfer. Payment will be accepted in Euros only.

Cancellations

Participation fees will be refunded for cancellations made in writing up to seven days before a seminar/workshop takes place. No refund will be made for cancellations received after this date.

ECRA reserves the right to change the content of its seminars and workshops and to cancel these in the case of insufficient bookings or other circumstances beyond its control. In the case of cancellation by ECRA, participants are entitled to a full refund of their participation fee. ECRA is not responsible for any other loss incurred by a participant resulting from the cancellation or alteration of a seminar/workshop by ECRA.

These terms and conditions are governed by German law.

Duesseldorf, January 2019

For more information please visit www.ecra-online.org

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