

## PARTICIPANTS, SPEAKERS, SPONSORS

### Participants:

If you are interested in the METEC & 4<sup>TH</sup> ESTAD 2019, fill in the "Keep me informed" form at the conference website.

As a participant of the METEC & 4<sup>TH</sup> ESTAD 2019 you will receive a ticket for free entrance to the GIFA, METEC, THERMPROCESS and NEWCAST.

### Speakers:

A detailed "Call for Papers" will be sent out in early 2018.

### Sponsors:

We would be pleased to offer you a sponsorship package tailored to suit your own needs. This would enable you to promote your products and to ideally position yourselves as a solution provider for your branch. Please contact TEMA Technologie Marketing AG for further details.  
(+49 241 88 970-302 | info@metec-estad.com)

More Information is available at  
[www.metec-estad2019.com](http://www.metec-estad2019.com)

## SUMMARIZED PRELIMINARY TIMETABLE

### June 2019

Monday 24	Early Congress registration   Get-together
Tuesday 25	Opening/plenary session   Technical sessions Evening event
Wednesday 26	Technical sessions
Thursday 27	Technical sessions   Closing session
Friday 28	Plant visits

Exhibition

### HOST

Steel Institute VDEh | Dr.-Ing. Hans Bodo Längen  
Sohnstr. 65 | 40237 Düsseldorf | Germany  
Phone: +49 211 6707-444 | Fax: +49 211 6707-440  
[www.stahl-online.de](http://www.stahl-online.de)

### CONGRESS SECRETARIAT / ORGANIZATION

TEMA Technologie Marketing AG | Attn. Ms. Jutta Grawitter M.Sc.  
Aachener-und-Münchener-Allee 9 | 52074 Aachen | Germany  
Phone: +49 241 88970-302 | Fax: +49 241 88970-999  
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### VENUE

CCD Congress Center Düsseldorf | DüsseldorfCongress  
Veranstaltungsgesellschaft mbH | Stockumer Kirchstraße 61  
40474 Düsseldorf | Germany | [www.duesseldorfcongress.de](http://www.duesseldorfcongress.de)  
Phone: +49 211 4560-8401 | Fax: +49 211 4560-8556

### TRAVEL

Düsseldorf is easily reachable by plane to Düsseldorf International Airport (DUS), railway or car. The CCD Congress Center Düsseldorf is set on the bank of the Rhine and linked to Messe Düsseldorf exhibition center.  
[www.metec-estad2019.com](http://www.metec-estad2019.com)



# METEC & 4<sup>TH</sup> ESTAD 2019

**DÜSSELDORF, GERMANY**  
CCD CONGRESS CENTER DÜSSELDORF  
24 – 28 JUNE 2019

## FIRST ANNOUNCEMENT

**IRONMAKING**

...accompanying  
the METEC Trade Fair.



[www.metec-estad2019.com](http://www.metec-estad2019.com)

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## ABOUT ESTAD 2019

Only those who continue to develop their business remain competitive. The prerequisite for this development means being constantly informed about the latest and most sophisticated technological advances, exchanging ideas and initiating and expanding networks with clients, partners and suppliers. With the accompanying METEC conference 4th European Steel Technology and Application Days 2019 (4th ESTAD 2019) the Steel Institute VDEh offers visitors the perfect opportunity to reach these objectives. At this event you will acquire the latest information on new ideas and developments as well as on the state-of-the-art in metallurgical process technologies iron and steel production, steel materials and steel application:

### MAIN TOPICS:

#### IRONMAKING

#### STEELMAKING

#### ROLLING AND FORGING

#### STEEL MATERIALS AND THEIR APPLICATION, ADDITIVE MANUFACTURING, SURFACE TECHNOLOGIES

#### ENVIRONMENTAL AND ENERGY ASPECTS

The topics include all aspects in **Industry 4.0** (Cyber physical systems, horizontal and vertical integration, big data...)

## IRONMAKING

### Cokemaking

- Fundamentals in cokemaking
- Coal blending practise
- Latest developments in slot oven plant technology and design
- Latest developments in heat recovery oven plant technology and design
- New cokemaking technologies
- Coke oven repair techniques and life prolongation
- Measures for improving coke quality
- Measurement of wall displacement and pressure of coke oven chamber
- Coke plant operation, instrumentation and automation
- Improving productivity and safety
- Stamp charging technology
- Coke oven gas cleaning and utilization of by-products
- Graphite formation at coke ovens
- Coke quenching technologies
- Coke oven refractories

### Sintering and pelletising

- Fundamentals in sintering
- Sinter plant construction and layout
- Sinter process optimisation
- Sinter plant operation and automation
- Use of concentrates in sinter mix
- Sinter quality
- Sinter cooling
- Sinter plant waste gas cleaning
- Energy recovery and use in sinter plants
- Fundamentals in pelletising
- Pellet plant construction and layout
- Pellet plant operation and automation
- Production of acid and fluxed pellets
- Use of hematite and/or magnetite pellet feed for pellet production
- Pellet qualities
- Reduction of pellets under different conditions

### Blast furnace ironmaking

- Fundamentals in blast furnace ironmaking
- Blast furnace construction and design

- Blast furnace process optimization and automation
- Modern process control techniques
- Blast furnace relinings
- Blast furnace campaign life extension
- Blast furnace refractories and cooling
- Blast furnace charging
- Blast furnace productivity
- Blast furnace hearth management
- Hot metal and slag quality
- Coke quality requirements and reduced coke rates
- Injection of auxiliary reductants (coal, oil, gas, plastics) and oxygen
- Hot blast stoves
- New blast furnaces
- Blast furnace liquid management and casting practice
- Gas cleaning devices
- Top gas expansion and recovery turbines
- Oxygen and top gas recycling blast furnace
- Alternative blast furnace processes

### Direct reduction and smelting reduction

- Fundamentals in direct reduction and smelting reduction
- Production and use of DRI and HBI
- Gas-based DRI processes and new developments
- Hydrogen based DRI processes
- Coal-based DRI processes and new developments
- Transport and charge of hot DRI to electric arc furnaces
- Shipment of DRI and HBI
- Current status of Corex and Finex processes
- Status of Hlsarna process
- Other smelting reduction processes

### Industry 4.0 in the steel industry

- Cyber Physical Systems
- Horizontal Integration
- Vertical Integration
- End-to-end engineering
- Big Data
- Self organisation
- Material tracking, material genealogy
- Through Process Quality Control
- Predictive Maintenance
- IT- Aspects (Cyber Security, IT-Network, Standardisation, etc.)
- Application examples in steel industry