# SIMULATION OF
## CAST IRON

Basics, Metallurgy, Casting Defects

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**Registration by E-Mail to:**
**academy@magmasoft.de**
**or by Fax to: +49 (0)241/88901-62**

**SEMINAR**
**SIMULATION OF CAST IRON**

November 28, 2018

Your investment for this seminar is net 370,– €.

Mr          Ms

Title

Surname          First Name

Company          Function

Address

Postal Code          City

E-Mail

Phone          Fax

X

Date          Signature

**Conditions of registration:** By registration you accept the general terms and conditions of MAGMA GmbH bindingly. Please refer to our website **www.magmasoft.de.**

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**Contact**

Dipl.-Ing. Tristan Kotthoff
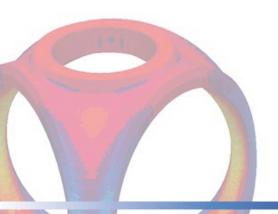Laura Leineweber, M. Sc.
Malaika Heidenreich

**MAGMA** *academy*

# THEME

This seminar conveys all the important parameters influencing the properties of ferrous alloys as a casting and construction material. Furthermore, you will understand how casting process simulation accompanies and optimizes the production process.

The possibilities of casting process simulation for predicting the casting's quality and characteristics are presented in detail. The focus lays on the discussion of the manufacturing conditions' influence on casting defects, microstructure and local characteristics, which are evaluated with the help of designs of experiments and autonomous optimization. The seminar aims at the development of specific measures for establishing robust manufacturing conditions and optimized casting technologies in iron casting.

# SEMINARS
# IN-HOUSE

You can also book this seminar specifically tailored for your goals on-site in your company. The number of participants should be between 10 and 15. If you are interested, please feel free to contact us!

# CONTENT

- Introduction to cast iron alloys, standardization
  - Graphite morphology
  - Mechanical properties
  - Application areas
- Prediction of the microstructure and mechanical properties with **MAGMASOFT®**
- Metallurgical basics
- Solidification of iron alloys
  - Inoculation
  - Influence of alloying elements
- Consideration of the metallurgical boundary conditions in **MAGMASOFT®**
- Casting defects in iron casting
  - Mold filling-related defects (cold laps, gas and air entrapments, slag inclusions)
  - Solidification-related defects (shrink holes/ porosity, sand burn-on/ penetration, microstructure anomalies)
- Prediction and identification of casting defects with **MAGMASOFT®**

# INFORMATION

**Intended Audience**

Professionals working in process planning, quality management and production in your iron foundry, as well as users of simulation results within the process chain.

**Date** (9:00 am - 5:00 pm)

- November 28, 2018

**Lecturers**

Dipl.-Ing. Mathias Bodenburg
Dipl.-Ing. Guido Busch

**Your Investment**

Net 370,– €

**Venue**

MAGMA Gießereitechnologie GmbH
Kackertstraße 11, 52072 Aachen (Germany)
MAGMAacademy, 2nd Floor