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Leibniz  
Universität  
Hannover

Courtyard by Marriott Hannover Hotel (Germany), June 6 - 9, 2017



XVIII International UIE-Congress

# ELECTROTECHNOLOGIES FOR MATERIAL PROCESSING

Preliminary  
Program

International  
Union  
for Electricity  
Applications (UIE)

Leibniz Universität  
Hannover



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### Background and Purpose of the UIE-Congress

Following the long tradition of International UIE-Congresses starting 80 years ago in the Netherlands and recently taken place in Durban/South Africa 2004, Krakow/Poland 2008 and St. Petersburg/Russia 2012 the Institute of Electrotechnology of the Leibniz Universität Hannover/Germany organizes the **XVIII International UIE-Congress** on Electrotechnologies for Material Processing in **Hannover** (Germany), **June 6 - 9, 2017**.

The UIE-Congress 2017 will be an excellent forum for presentations and discussions of recent results in scientific and applied research as well as innovative industrial developments and technological solutions by international scientific, research and industrial experts.

### Powered by

**Vulkan-Verlag**, heat processing magazine

**AMPERE** Association for Microwave Power in Europe for Research and Education

**UIE** International Union for Electricity Applications

**EWH** Vereinigung zur Förderung des Instituts für Elektrowärme der Universität Hannover

### Contact



**Prof. Dr.-Ing. Egbert Baake**

Chairman of the Congress

email: [uie2017@etp.uni-hannover.de](mailto:uie2017@etp.uni-hannover.de)



**Prof. Dr.-Ing. Bernard Nacke**

Chairman of the Congress

[www.uie2017.org](http://www.uie2017.org)



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### Tuesday, June 6, 2017

17.00 – 21.00

**Registration und Welcome Reception**

### Wednesday, June 7, 2017

09.00 – 09.30 **Opening Ceremony**

Representative of the Leibniz Universität Hannover

Prof. Dr. Egbert Baake (President of UIE and Chairman of the Congress)

Prof. Dr. Bernard Nacke (Head of the Institute of Electrotechnology and Chairman of the Congress)

09.30 – 11.00 **Plenary Session I** (Keynote Presentations)

#### **UIE – Past & Future**

Prof. Koen van Reusel, Katholieke University Leuven (Belgium)

#### **An insight into steelmaking processes by computational fluid dynamics**

Prof. Hans-Jürgen Odenthal, SMS Group (Germany)

#### **Induction Heating: The Day After Tomorrow (American Perspective)**

Dr. Valery Rudnev, Inductoheat Inc. (USA)

11.00 – 11.30: Coffee break + Exhibition of Companies

11.30 – 12.30 **Plenary Session II** (Keynote Presentations)

#### **Internet of things – the brave new world of thermoprocessing?**

Dr. Andreas Seitzer, Himmelwerk GmbH (Germany)

#### **Magnetic stirring and sonication of metal melts**

Dr. Gunter Gerbeth, Helmholtz-Zentrum Dresden-Rossendorf (Germany)

12.30 – 13.30 Lunch break + Exhibition of Companies

### Parallel Sessions

13.30 – 15.10 **Melting processes**

4 Presentations

#### **Induction heating**

4 Presentations

15.10 – 15.50 Coffee break + Exhibition of Companies

15.50 – 17.30 **Cold crucible furnace**

4 Presentations

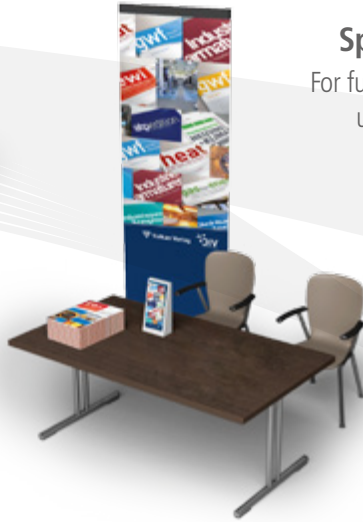
#### **Induction hardening**

4 Presentations

17.30 – 18.30 **Poster Session**

## Sponsoring & Exhibition

For further information please contact:  
u.perkovic@vulkan-verlag.de



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### Thursday, June 8, 2017

#### Parallel Sessions

- 09.00 – 10.40 **Continuous casting**  
4 Presentations  
**Induction heat treatment**  
4 Presentations
- 10.40 – 11.10 Coffee break + Exhibition of Companies
- 11.10 – 12.50 **Crystal growth**  
4 Presentations  
**Induction strip heating**  
4 Presentations
- 12.50 – 13.50 Lunch break + Exhibition of Companies

#### Parallel Sessions

- 13.50 – 15.30 **Electromagnetic processing of materials**  
4 Presentations  
**Induction billet heating**  
4 Presentations
- 15.30 – 16.00 Coffee break + Exhibition of Companies

- 16.00 – 17.40 **Magnetohydrodynamics**  
4 Presentations  
**Industry 4.0**  
4 Presentations

19.00 – 23.00 **Congress Dinner** in the Historical Town Hall of Hannover

### Friday, June 9, 2017

#### Parallel Sessions

- 09.00 – 10.40 **Solidification processes**  
4 Presentations  
**Process control**  
4 Presentations
- 10.40 – 11.10 Coffee break + Exhibition of Companies
- 11.10 – 12.40 **Measurement technique**  
4 Presentations  
**Sustainable processes**  
4 Presentations
- 12.40 – 13.00 **Closing Ceremony**
- 13.00 – 14.00 Lunch break + Exhibition of Companies

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### Exhibition area

A table-top display exhibition area will be offered for participants from industry and research institutions for presentation of their products, solutions and services. Please contact: Mrs Ute Perkovic, email: [u.perkovic@vulkan-verlag.de](mailto:u.perkovic@vulkan-verlag.de)

### Further information

More information about the XVIII International UIE-Congress 2017 will be available from the Congress Office:

UIE-2017 Congress Office  
Institute of Electrotechnology  
Leibniz Universität Hannover  
Wilhelm-Busch-Strasse 4  
D-30167 Hannover (Germany)  
Phone: +49 511 762 2872 / 3248 / 5533  
Fax: +49 511 762 3275  
email: [uie2017@etp.uni-hannover.de](mailto:uie2017@etp.uni-hannover.de)

or at the following URL address:

[www.uie2017.org](http://www.uie2017.org)

### Main Topics:

- Material processing by heating and melting
- Magneto-hydrodynamics in industrial processes
- Solidification in metallurgical and semi-conductor processes
- Microwave and RF material processing
- Production processes for innovative materials and products
- Process control and optimization
- Industry 4.0 in electromagnetic processing
- Energy efficiency and sustainability of industrial thermal processes

### Time and Location



The Congress will be held in **Hannover** (Germany) on **June 6 - 9, 2017** in the **Courtyard by Marriott Hannover Hotel**, which is right on the beautiful lake Maschsee. This modern hotel is located near the city centre and not far away from the royal gardens and the historic town hall. The city of Hannover is the economic, cultural and scientific centre of Lower Saxony.

[www.uie2017.org](http://www.uie2017.org)



## Participation Fee

The early bird registrations fee is **590,- EUR** (Deadline March 31, 2017) and regular registration fee is **690,- EUR**.

For Ph-D students (a certificate is required) the early bird registration fee is **450,- EUR** and Ph-D student regular registration fee is **550,- EUR**.

Accompanying person registration fee is **200,- EUR**.

All fees cover the conference proceeding book incl. memory stick, conference materials, refreshments, coffee and lunch breaks; welcome reception and conference dinner.

## Language

The official language of the congress will be English.

## Location

Courtyard by Marriott Hannover  
Hotel Maschsee  
Arthur-Menge-Ufer 3  
30169 Hannover (Germany)



## Contact

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Institute of Electrotechnology  
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