

Wednesday, 24th October 2018

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Venue and Hotel recommendations

PROGRAM 2018

Take note: This is a translation of the original program. Most of the session lectures will be presented in German. Only lectures marked with a star \* will be presented in English. During the plenary session an English translation will be offered.

# 50. KRAFTWERKSTECHNISCHES KOLLOQUIUM 23rd and 24th October 2018

## International Congress Center Dresden Ostra-Ufer 2 | 01067 Dresden

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Professor Dr. Andrea Verstejl, avr- Andrea Verstejl Rechtsanwälte, Berlin  
Dipl.-Ing. (FH) Roland Zepeck, IBD International Business Development, Freising

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### Venue and Hotel recommendations

**Venue and Hotel recommendations**  
The Kraftwerkstechnisches Kolloquium will be held at the International Congress Center Dresden.

**Conference office**  
The conference office is located on the terrace level (main entrance).  
Opening hours:  
23rd October 2018: 08.30 am – 06.00 pm  
24th October 2018: 07.30 am – 03.00 pm  
Phone: +49 (0)351 463-35308

**Hotel reservation**  
Room contingents are available in the hotels below under the heading „Kraftwerk“. Please book directly in the hotel. All prices include breakfast.

**MARITIM Hotel & International Congress Center Dresden**  
Ostra-Ufer 2 | 01067 Dresden  
Phone: +49(0)351-2160 | Fax: +49(0)351-2161000  
Mail: info.dre@maritim.de  
Internet: www.dresden-congresscenter.de  
Room rates: Single room from 123,00 Euro and double room from 163,00 Euro  
➔ End date of the option: 27th August 2018

**Hotel Ibis „Königstein“**  
Prager Straße | 01069 Dresden  
Phone: +49(0)351-4856 2000 | Fax: +49(0)351-4856 2999  
Mail: reservierung@ibis-dresden.de  
Internet: www.ibishotel.com  
Room rate: Single room from 59,00 Euro and double room from 79,00 Euro  
➔ End date of the option: 28th September 2018

**Motel One Dresden am Zwinger**  
Postplatz 5 | 01067 Dresden  
Phone: +49(0)351 438 38-0, Fax: +49(0)351 438 38-10  
Mail: dresden-am-zwinger@motel-one.com  
Internet: www.motel-one.com  
Room rate: Single room from 69,00 Euro and double room double room from 79,00 Euro  
➔ End date of the option: 5th October 2018

You can find more hotel recommendations at: [www.kraftwerkskolloquium.de](http://www.kraftwerkskolloquium.de)

### Terms and Conditions

**Terms and Conditions**  
You can register for the conference via internet, mail, fax or by post until 5th October 2018. A later registration in the conference office is possible but without inclusion in the directory. You will find the registration form at: [www.kraftwerkskolloquium.de](http://www.kraftwerkskolloquium.de)

After the registration you will receive the invoice by mail. You will obtain the conference documents in the conference office before the beginning of the colloquium. The protection of your personal data is a very serious topic for us. Personal data (name, address, e-mail address, etc.) you provide for the conference will be treated in accordance with the data protection regulations. Your name, academic title, institution/company and location will be published in the directory. Furthermore, your data will not be published or handed out to third parties without authorization.

**Program**  
Changes are reserved in the program.

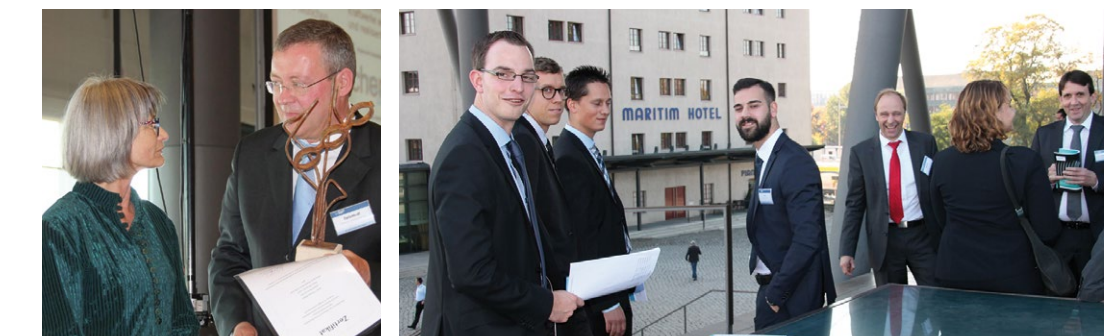
**Conference fee**  
790,00 € full paying adults  
360,00 € university employees, public authorities, main authors of a poster and pensioners

All prices are exclusive VAT (value added tax). The price includes: Participation on October 23rd and 24th October 2018, drinks, cold and warm snacks in the breaks, conference documents (book and e-book with conference topics), the company fair and the poster presentation as well as the evening event on the first day. The main author of a lecture is exempted from the conference fee. The acceptance of credit cards and foreign currency is not possible.

You will find the registration form at: [www.kraftwerkskolloquium.de](http://www.kraftwerkskolloquium.de)

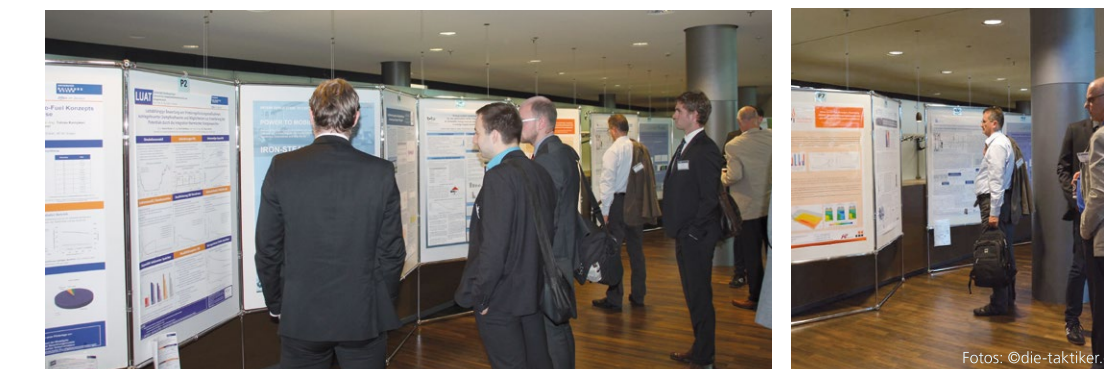
### Conference room 6 Nuclear Energy Symposium

On 24<sup>th</sup> October 2018 there will be a full-day Nuclear Energy Symposium parallel to the Kraftwerkstechnisches Kolloquium and visitors of the conference can take part. The detailed program of the Nuclear Energy Symposium will be published in our updated program in June 2018 and on our website: [www.kraftwerkskolloquium.de](http://www.kraftwerkskolloquium.de).



### Company fair and Poster presentation

Within a company fair companies can take the opportunity to present themselves with a booth. For more information please contact Mrs. Jentschke. There will also be a poster presentation. You can find all poster authors at [www.kraftwerkskolloquium.de](http://www.kraftwerkskolloquium.de)



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### Conference room 4/5 Deposition, Corrosion, Ash removal I

Session Chair: Bhaumik Patel, M.Sc. (Mech. Eng.), Clyde Bergemann GmbH, Wesel

- 08.30 am** **KORRISTENT - Basic research and technological approaches for the low-slugging operation of lignite-fired boilers for LEAG**  
Dr.-Ing. Stefan Guhl, Dr.-Ing. Mathias Klinger, Dr.-Ing. Ronny Schimpke, Caroline Hommel, M.Sc., Dr. rer. nat. Daniela Vogt, Dr.-Ing. Patrick Gehre, Prof. Dr.-Ing. Bernd Meyer, TU Bergakademie Freiberg  
Dr.-Ing. Thomas Brunne, Lausitz Energie Kraftwerke AG, Cottbus
- 09.00 am** **Investigation of the combustion mechanisms and deposition mechanisms of biomass in dust fired processes**  
Dipl.-Ing. Yunus Poyraz, Prof. Dr.-Ing. Roman Weber, Technische Universität Clausthal
- 09.30 am** **Efficiency increase due to integration of thermochemical process parameters**  
Dipl.-Ing. (FH) Marie Kaiser, Dipl.-Ing. (FH) Joos Brell, Dipl.-Ing. (FH) Dominik Molitor, Dipl.-Ing. (FH) Dominik Schneider, CheMin GmbH, Augsburg
- 10.00 am** **Application of radiometric online coal measurement techniques for real-time determination of boiler-relevant coal constituents in the Rhenish lignite district**  
Dr. rer. nat. Michael Schüngel, Dr. rer. nat. Markus Neuroth, Frank Fiedler, RW E Power AG, Bergheim
- 10.30 am** **Coffee break**

### Deposition, Corrosion, Removal II

Session Chair: Dr. rer. nat. Wolfgang Spiegel, CheMin GmbH, Augsburg

- 11.00 am** **Dry ash removal 4.0 – An advancement from the perspective of optimized post-combustion and plant availability**  
Andre Engelmann, M.Sc., Bhaumik Patel, M.Sc. (Mech. Eng.), Clyde Bergemann GmbH, Wesel
- 11.30 am** **Reduction of combustion residues in fired steam generators, by means of a wet-to-dry conversion of the bottom ash handling process - Case studies showing combustion improvement and efficiency increase \***  
Octavian Mitroi, B.Eng., Complexul Energetic Oltenia, Isalnita, Rumänien  
Fulvio Bassetti, B.Eng., Lorenzo Lepore, B.Eng., Magaldi Power, Salerno, Italien
- 12.00 pm** **The influence of the aggressive environments on the Inconel 686 coating in high temperature corrosion experiments \***  
Damian Koclega, M.Sc./Eng., Dr. Agnieszka Radziszewska, AGH University, Krakau, Polen  
Dr. rer. nat. Axel Kranzmann, Bundesanstalt für Materialforschung und -prüfung, Berlin
- 12.30 pm** **Lunch break**

### Model and Pilot projects

Session Chair: Professor Dr.-Ing. Bernd Neukirchen, Essen

- 01.30 pm** **Physical modeling of a hard-coal mill**  
Jan Claas Scheffler, M.Sc., Prof. Dr.-Ing. Alfons Kather, Technische Universität Hamburg
- 02.00 pm** **Oxyfuel fluidized bed combustion: From laboratory to pilot scale \***  
Jan Hrdlička, Pavel Skopec, Matěj Vodička, František Hrdlička, Czech Technical University in Prague, Tschechische Republik
- 02.30 pm** **Camera-based process control during load reduction using torrefied biomass in coal-fired power plants**  
Dr.-Ing. Hans-Joachim Gehrman, PD Dr.-Ing. Jörg Matthes, Prof. Dr.-Ing. Dieter Stapf, Manuela Hauser, Dr.-Ing. Patrick Waibel, Dipl.-Ing. Markus Vogelbacher, Dr. Hanns-Rudolf Paur, Dr.-Ing. Hubert Keller, Karlsruher Institut für Technologie, Eggenstein-Leopoldshafen
- 03.00 pm** **End of lecture**

### Conference room 2/3 System integration II

Session Chair: Dr.-Ing. habil. Rutger Kretschmer, DREWAG-Stadtwerke Dresden GmbH

- 08.30 am** **Power-to-heat integrated boiler systems - A technology for the parallel use of excess electricity and conventional fuels**  
Dr. Jürgen Peterseim, Dipl.-Ing. Hagen Sagasser, ERK Eckrohrkessel GmbH, Berlin
- 09.00 am** **Cogeneration or Power-to-Heat - grid-connected heat supply with increasing shares of renewable energies**  
Prof. Dr. Ilja Tuschy, Cynthia Boysen, M.Eng., Cord Kaldemeyer, M.Eng., Catharina Kapp, B.Eng., Zentrum für nachhaltige Energiesysteme, Hochschule Flensburg
- 09.30 am** **Power-to-Heat in high-temperature solid-state heat storages: Investigation of flexibility options in the joint project "Energy Lab 2.0"**  
Dr.-Ing. Volker Dreißigacker, Sergej Belik, M.Eng., Dr.-Ing. Stefan Zunft, Deutsches Zentrum für Luft- und Raumfahrt, Stuttgart
- 10.00 am** **Integral parameters for measuring the role of the conventional power plant parks in the energy revolution**  
Dipl.-Ing. Annika Herzhoff, Prof. Dr.-Ing. Roland Scharf, Leibniz Universität Hannover
- 10.30 am** **Coffee break**

### Exhaust gas cleaning I

Session Chair: Professor Dr.-Ing. Rudi Karpf, etc.a Ingenieurgesellschaft für Energie- und Umweltengineering & Beratung mbH, Lich

- 11.00 am** **Different conditions although the same location - Comparison of two SNCR applications on 380 MW<sub>el</sub> lignite blocks**  
Dipl.-Ing. Zoltan Teuber, ERC Technik GmbH, Buchholz
- 11.30 am** **Combining different SNCR technologies as a cost-effective answer to stricter NO<sub>x</sub> emission limits for coal-fired power plants in the EU**  
Dipl.-Ing. Bernd von der Heide, Mehldau & Steinfath Umwelttechnik GmbH, Essen
- 12.00 pm** **Integration of multi-dimensional temperature measurement as into boiler operation and DeNO<sub>x</sub> plant \***  
Alois Kokovnik, HSE Invest d.o.o., Sostanj, Slowenien  
Michael Gerads, Florian Binder, EUtech Scientific Engineering GmbH, Aachen
- 12.30 am** **Lunch break**

### Exhaust gas cleaning II

Session Chair: Dr.-Ing. Andrea Ohle, Technische Universität Dresden

- 01.30 pm** **Low-low emission from electrostatic precipitators \***  
Mads Larsen, B.Sc., FL Smidth, Kopenhagen, Dänemark  
Dipl.-Ing. Michael Brocks, FLS Moller, Hamburg
- 02.00 pm** **Energy use potential of waste gas purification systems behind sewage sludge combustion**  
Dipl.-Ing. Yannick Conrad, Prof. Dr.-Ing. Rudi Karpf, etc.a Ingenieurgesellschaft für Energie- und Umweltengineering & Beratung mbH, Lich  
Dipl.-Ing. Jürgen Petroll, e.quadrat GmbH & Co. KG, Mannheim
- 02.30 pm** **Use of tray technology in existing dual-circuit flue gas desulphurisation plants to reduce pressure loss**  
Dr.-Ing. Stefan Binkowski, Dipl.-Ing. Uwe Schadow, Dr.-Ing. Axel Thielmann, Dr.-Ing. Dorian Rasche, Steinmüller Engineering GmbH, Gummersbach
- 03.00 pm** **End of lecture**

### Conference room 1 Steam turbines

Session Chair: Dr. Detlef Haje, Siemens AG, Görlitz

- 08.30 am** **Increased flexibility in the industrial combined heat and power by using integrated gas-steam process**  
Dipl.-Ing. Thorsten Lutsch, Dr.-Ing. Guntram Buchheim, Prof. Dr.-Ing. Uwe Gampe, Technische Universität Dresden
- 09.00 am** **Experimental investigations of droplet laden flow around blade profiles \***  
Prof. Dr.-Ing. Franz Joos, Helmut-Schmidt-Universität Hamburg
- 09.30 am** **Clever & simple: Combined cogeneration in biomass plants**  
Carina Heimann, Dr. sc. techn. Matthias Schleer, Howden Turbo GmbH, Frankenthal
- 10.00 am** **Siemens advanced steam turbine technology for world record double-reheat steam power plant with highest steam parameters \***  
Dr.-Ing. Benjamin Kloss-Grote, Dipl.-Ing. Michael Wechsung, Dr.-Ing. Rainer Quinkertz, Siemens AG, Mülheim an der Ruhr
- 10.30 am** **Coffee break**

### Gas turbines

Session Chair: Dr.-Ing. E. h. Manfred Freemark, VGB PowerTech e.V., Essen

- 11.00 am** **Developments to increase the fuel flexibility of industrial gas turbines by innovative combustion systems**  
Dr.-Ing. Nurettin Tekin, Kawasaki Gas Turbine Europe, Bad Homburg
- 11.30 am** **Retrofit and reverse engineering of a compressor rotor**  
Dr.-Ing. Stephan Schwab, TST-Turbo Service & Trading GmbH, Moers
- 12.00 pm** **Operational results of the high-temperature material Alloy 617 in gas turbines**  
Dr.-Ing. Wilfried Storch, TÜV Rheinland Werkstoffprüfung GmbH, Berlin  
BA-Wirtschafts.-Ing. Martin Seidel, Vattenfall Europe Wärme Berlin AG  
Dipl.-Ing. (FH) Robert Kühberger, GE Power AG, Mannheim
- 12.30 pm** **Lunch break**

### Biomass and alternative fuels

Session Chair: Professor Dr.-Ing. Reinhard Scholz, Technische Universität Clausthal

- 01.30 pm** **Energy wood from the acre: A sustainable instrument for the long-term hedge of biomass fuels**  
Dr. Jan Grundmann, Energy Crops GmbH, Hamburg
- 02.00 pm** **Planning, construction and commissioning of a 100 MW wood dust firing system at a hot water generator**  
Dr.-Ing. Ronald Wilhelm, Dipl.-Ing. Thomas Mahnke, SAACKE GmbH, Bremen  
Jouni Valtatie, M.Sc. (Eng.), Valmet Technologies Oy, Raisio, Finnland
- 02.30 pm** **Co-combustion of additional fuels (residual materials and biofuels) in a coal-fired power plant**  
Bernd Leßmann, Dr.-Ing. Hans-Ulrich Thierbach, Steinmüller Engineering GmbH, Gummersbach
- 03.00 pm** **End of lecture**



## Tuesday, 23rd October 2018

### ■ Hall 4/5 Plenary session

Session Chair: Professor Dr.-Ing. Michael Beckmann, Technische Universität Dresden

- 09.30 am Registration and exhibition opening with coffee and cake
- 10.30 am **Welcome and award of the Boie Prize**  
Professor Dr.-Ing. Michael Beckmann, Technische Universität Dresden
- 11.00 am **Global trends and their impact on energy production**  
Dipl.-Ing. Willi Meixner, Siemens AG, CEO Division Power & Gas, Erlangen
- 11.30 am **Energy supply in the Czech Republic - situation and perspective**  
Ing. Tomáš Hüner, Minister of Industry and Trade of the Czech Republic requested
- 12.00 pm **Energy transformation in Europe**  
Professor Dr. Klaus-Dieter Borchardt, European Commission, Director of the Internal Energy Market, Brussels
- 12.30 pm **Energy policy of the Free State of Saxony – With a view to Germany and Europe**  
Prime Minister of Saxony Michael Kretschmer, Dresden

### 01.00 pm Lunch break

Session Chair: Professor Dr.-Ing. habil. Antonio Hurtado, Technische Universität Dresden

- 02.15 pm **Integrated energy supply – The strategy of the ENBW**  
Dr.-Ing. Hans-Josef Zimmer, CTO EnBW Energie Baden-Württemberg AG, Karlsruhe
- 02.45 pm **LEAG – The guarantor for security of supply, flexibility, price stability and integrated energy supply**  
Dipl.-Ing. Hubertus Altmann, CTO Lausitz Energie Kraftwerke AG and Lausitz Energie Bergbau AG, Cottbus
- 03.15 pm **The failure of the media in reporting on the energy transformation**  
Roland Tichy, Member of the Ludwig Erhard Foundation and editor of the monthly magazine Tichys Einblick, Frankfurt am Main
- 03.45 pm **Coffee break**

### ■ Hall 3 Mercury reductions in Power Plants I

Session Chair: Professor Dr.-Ing. Michael Beckmann, Technische Universität Dresden

- 04.15 pm **BREF – A challenge for the economic power plant operation**  
Dipl.-Ing. Matthias Schneider, Dipl.-Ing. Jan Constantin Hintzen, Dr. rer. nat. Kai Keldenich, STEAG Energy Services GmbH, Essen
- 04.45 pm **Challenges of Hg capture in the lignite power plants of the Lausitz Energie Kraftwerke AG**  
Dipl.-Ing. Günter Heimann, Dipl.-Ing. Andreas Schröter, Dr.-Ing. Olaf Höhne, Lausitz Energie Kraftwerke AG, Cottbus
- 05.15 pm **Hg reduction in Schkopau**  
Dr.-Ing. Jan Schütze, IEM-Fördertechnik GmbH, Kastl
- 05.45 pm **Hg emissions capture in fabric filters of CFB boilers – experiences from real power plant**  
Ing. Petr Karafiát, Alpiq Generation (CZ) s.r.o., Kladno, Tschechische Republik
- 06.15 pm **End of lecture**

**Tuesday, 23rd October 2018**  
06.30 pm Welcome drink exhibition hall  
07.30 pm Evening event – terrace level  
Internat.Congress Center Dresden

## Tuesday, 23rd October 2018

### ■ Hall 4 Combustion 4.0 I

Session Chair: Dr.-Ing. Andreas Feldmüller, Siemens AG, Mülheim an der Ruhr

- 04.15 pm **Plant management: What digital possibilities exist?**  
Wolfgang Gerndt, Siemens AG, Berlin
- 04.45 pm **Digitalization @ RWE - New paths in power plant optimization**  
Dr.-Ing. Frank Neumann, Prof. Dr.-Ing. Reinhold Elsen, Dr.-Ing. Natividad Jordan Escalona, RWE Power AG, Essen
- 05.15 pm **Model-based operational data analysis to increase efficiency - Linking of process model and sensor data of a power plant**  
Dr.-Ing. Martin Pohl, Dr.-Ing. Tao Wen, ENVERUM Ingenieurgesellschaft für Energie- und Umweltverfahrenstechnik mbH, Dresden
- 05.45 pm **Incident analysis and operational analysis via dynamic reproduction of historical process images**  
Dipl.-Ing. (TH) Uwe Siebert, Mitsubishi Electric Group, Ratingen  
Dipl.-Ing. Olaf Ries, Me-Automation Projects GmbH, Fulda
- 06.15 pm **End of lecture**

### ■ Hall 5 Flexibility I

Session Chair: Dipl.-Ing. Thomas Hörtinger, Lausitz Energie Bergbau AG and Lausitz Energie Kraftwerke AG, Cottbus

- 04.15 pm **Fatigue forecast in flexible operation – Solution strategies for new challenges**  
Dipl.-Ing. Christian Hüttner, Dipl.-Ing. Franz Binder, Dipl.-Ing. Stefan Pfeffer, TÜV SÜD Industrie Service GmbH, München
- 04.45 pm **Flexibilization of a 400 MW combined cycle power plant by bypass operation to maximize district heating**  
Dr.-Ing. Nicolas Mertens, Prof. Dr.-Ing. Henning Zindler, Dipl.-Ing. Marc-Hendrik Prubacki, Uniper Technologies GmbH, Gelsenkirchen
- 05.15 pm **Influences of single burners and their interaction on the mode of operation and optimization of steam generator firing**  
Dr.-Ing. Steffen Griebbe, Dipl.-Ing. Volker Biesold, Dipl.-Ing. Helge Kaß, VPC GmbH, Peitz  
Dipl.-Ing. Axel Becker, KNG Kraftwerks- und Netzgesellschaft mbH, Rostock  
Dr.-Ing. Thomas Brunne, Lausitz Energie Kraftwerke AG, Cottbus  
Dipl.-Ing. Martin Fricke, Trianel Kohlekraftwerk Lünen GmbH & Co. KG  
Dipl.-Ing. Thorsten Thimme, Vattenfall Wärme AG, Berlin
- 05.45 pm **Operation reliability, safety and flexibility enhancement using online furnace and flame monitoring system with thermographical analysis: Case study at 300 MWE oil-& gasfired boilers in Kuwait \***  
Gheorghe Medinschi, Babcock Borsig Steinmüller GmbH, Al-Sharq, Kuwait  
Emad Hussain Alkoot, Ministerium für Wasser und Elektrizität, Kuwait  
Dr. Francesco Turoni, EUTech Scientific Engineering GmbH, Aachen
- 06.15 pm **End of lecture**

### ■ Conference room 1 Sewage sludge treatment

Session Chair: Professor Dr. Andrea Versteyl, avr – Andrea Versteyl Rechtsanwälte Partnerschaftsgesellschaft mbB, Berlin

- 04.15 pm **Sewage sludge – A valuable resource**  
Gunda Röstel, Stadtentwässerung Dresden
- 04.45 pm **Legal consequences of the sewage sludge regulation for the disposal practice**  
Prof. Dr. Andrea Versteyl, avr – Andrea Versteyl Rechtsanwälte Partnerschaftsgesellschaft mbB, Berlin
- 05.15 pm **Sludge recycling as a growth opportunity**  
Dipl.-Ing., Dipl.-Wirt.-Ing. Manfred Becker, MVA Bonn GmbH
- 05.45 pm **Thermal sewage sludge treatment and P-recycling – Technical procedures and practical example**  
Dipl.-Ing. Jörn Franck, M.Sc., Dr. Born - Dr. Ermel GmbH, Achim
- 06.15 pm **End of lecture**

## Tuesday, 23rd October 2018

### ■ Conference room 2/3 System Integration I

Session Chair: Professor Dr.-Ing. habil. Klaus Görner, Universität Duisburg-Essen, Essen

- 04.15 pm **Novel ancillary services: extended island operation capability using thermal power plants**  
Dr.-Ing. Gunnar Löhning, Florian Wenzel, M.Eng., Dipl.-Ing. Dietmar Haake, Dipl.-Kfm. techn. Frank Mehlow, Lausitz Energie Kraftwerke AG, Cottbus
- 04.45 pm **Flexibilization of a natural gas power plant by integration of methanol synthesis**  
Dipl.-Ing. Florian Möllenbrück, Mike Dressler, M.Sc., Dr.-Ing. Gerd Oeljeklaus, Prof. Dr.-Ing. habil. Klaus Görner, Universität Duisburg-Essen, Essen
- 05.15 pm **Boundary conditions for power-to-MeOH applied as flexible power consumption process, battery, grid-connected system**  
Dipl.-Ing. (FH), Dipl.-Ök. Christian Schweitzer, Robert Hensel, Sten Wrani, bse Engineering Leipzig GmbH
- 05.45 pm **ALIGN-CCUS: Diesel fuel substitute DME from separated CO<sub>2</sub> from the Niederaussem power plant**  
Dr. rer. nat. Peter Moser, Dipl.-Ing. Georg Wiechers, Dr.-Ing. Sandra Schmidt, Dipl.-Ing. Knut Stahl, RWE Power AG, Essen | Dr.-Ing. Muhammad Majid, Dr.-Ing. Arthur Heberle, Mitsubishi Hitachi Power Systems Europe GmbH, Duisburg  
Hiroshi Kakihira, M.Sc., Dr. rer. nat. Mutsuhiro Maruyama, Asahi Kasei Europe GmbH, Düsseldorf  
Prof. Dr.-Ing. Ralf Peters, Stefan Weiske, M.Sc., Dr.-Ing. Petra Zapp, Dr.-Ing. Stefanie Troy, Forschungszentrum Jülich GmbH  
Marcel Neumann, M.Sc., Dipl.-Ing. Bastian Lehrheuer, VKA, RWTH Aachen  
Dr.-Ing. Sharareh Schaub, Dr.-Ing. Thorsten Schnorbus, FEV Europe GmbH, Aachen
- 06.15 pm **End of lecture**

### ■ Conference room 4/5 Transfer of existing facilities

Session Chair: Dipl.-Ing./IWE Hans Christian Schröder, Schröder Anlagenservice GmbH, Weinheim

- 04.15 pm **Technical challenges during the transfer of existing facilities to other locations in the European context**  
Dipl.-Ing./IWE Hans Christian Schröder, Schröder Anlagenservice GmbH, Weinheim  
Dipl.-Ing. Klaus Gerwers, Standardkessel Baumgarte Service GmbH, Duisburg
- 04.45 pm **Risk and insurance management for new and rebuild projects**  
Dr. Michael Härig, Marsh GmbH, Düsseldorf
- 05.15 pm **Relocation of power plant facilities: Risks and opportunities in the licensing procedure**  
Dr. Michael Neupert, Kümmerlein Rechtsanwälte & Notare, Essen
- 05.45 pm **Condition registration and procedures for rebuilding at a new location from ZÜS perspective and a notified body**  
Dipl.-Ing./IWE Achim Foes, TÜV SÜD Industrie Service GmbH, Filderstadt  
Dipl.-Ing./IWE Hans Christian Schröder, Schröder Anlagenservice GmbH, Weinheim
- 06.15 pm **End of lecture**

### ■ Conference room 6

#### Measuring technology and control technology

Session Chair: Professor Dr.-Ing. Alfons Kather, Technische Universität Hamburg

- 04.15 pm **Official emission determination in practice using PEMS as an alternative to conventional AMS**  
Dipl.-Math. Florian Schunke, DURAG data systems GmbH, Freiburg
- 04.45 pm **Continuous classification of fine dust particles – The future of dust measurement**  
Dipl.-Ing. univ. Kai Klinder, Dr. Alexander Schladitz, SICK Engineering GmbH, Ottendorf-Okrilla
- 05.15 pm **Dealing with electrical and electronic safety devices at combustion plants in the context of deterministic and probabilistic failure preventing strategies**  
Dipl.-Ing. (FH) Johann Ströbl, TÜV SÜD Industrie Service GmbH, Regensburg
- 05.45 pm **A field report on flame stability analyses with a flame detector**  
Dipl.-Ing. Christian Deselaers, Dr. rer. nat. Cornelius Wülker, Dipl.-Ing. Mathias Klostermann, DURAG GmbH, Hamburg
- 06.15 pm **End of lecture**

## Wednesday, 24th October 2018

### ■ Hall 3 Mercury reductions in Power Plants II

Session Chair: Dr. rer. nat. Kai Keldenich, STEAG Energy Services GmbH, Essen

- 08.30 am **Oxidation behavior of mercury in coal combustion**  
Dipl.-Ing. Anne-Christin Schwiager, Dr.-Ing. Andrea Ohle, Prof. Dr.-Ing. Michael Beckmann, Technische Universität Dresden
- 09.00 am **Cost-effective mercury abatement at hardcoal-fired boilers by small amounts of bromide and PRAVO® \***  
Prof. Dr.-Ing. Bernhard Vosteen, Vosteen Consulting GmbH, Köln  
Dr. Gabor Fülöp, PANICHEMIE Dr. Gabor Fülöp e.K., Kerpen  
Michael Kramer, Andreas Gruber-Waltl, M.Sc., Andritz AG, Raaba, Österreich
- 09.30 am **Continuous mercury emission measurement in Europe**  
Dipl.-Wirt.-Ing. Florian Greiter, SICK AG, Überlingen  
Michael Klein, SICK Vertriebs-GmbH, Düsseldorf
- 10.00 pm **Long-term sampling - A reliable method for safe monitoring of dioxin and mercury emissions in the course of BAT revisions**  
Dipl.-Phys. Jürgen Reinmann, Environment S.A Deutschland, Bad Homburg
- 10.30 am **Coffee break**

### ■ Mercury reductions in Power Plants III

Session Chair: Dipl.-Ing. Sylvio Sauer, Uniper-Kraftwerk Schkopau

- 11.00 am **Mercury, SO<sub>3</sub> & co. – New paths in dry flue gas cleaning in power plants**  
Dipl.-Ing. Martin Sindram, Dr.-Ing. Diethelm Walter, Lhoist Germany Rheinkalk GmbH, Wülfrath  
Dipl.-Ing. (FH) Frank Hermitschek, Walhalla Kalk GmbH & Co. KG, Regensburg
- 11.30 am **Researches on the distribution of hearth furnace coke in dust-laden flue gas by laser absorption at the pilot plant for Hg emission reduction at BoA1 in Niederaußem**  
Dr. rer. nat. Peter Moser, Dipl.-Ing. Knut Stahl, Dipl.-Ing. Andreas Pudel, Thomas Reinartz, Beate Reusch, RWE Power AG, Essen  
Prof. Dr.-Ing. Reinhold Kneer, Dr.-Ing. Bernd Hillemacher, Dr.-Ing. Manuel Reddemann, Dipl.-Ing. Matthias Höfler, Dr.-Ing. Tim Gronarz, en2Aix – energy engineering Aachen GmbH
- 12.00 pm **Simultaneous mercury and SO<sub>2</sub> separation from exhaust gases with stationary sorbents – Results and experiences from lignite power plants**  
Dr. rer. nat. Ole Petzoldt, W.L. Gore & Associates GmbH, Putzbrunn
- 12.30 pm **Lunch break**

### ■ Mercury reductions in Power Plants IV

Session Chair: Dipl.-Ing. Günter Heimann, Lausitz Energie Kraftwerke AG, Cottbus

- 01.30 pm **Fixing mercury from flue gas, WFGD and waste water - Only HgS mercury sulfide is an acceptable mineral for final disposal**  
Dipl.-Ing. (FH) Jürgen Fritzsche, NET GmbH, Mannheim  
Dipl.-Ing. Lutz Peter Nethé, LPN Consulting, Potsdam
- 02.00 pm **Novel approach to mercury emission control for WFGDs \***  
John Meier, Dan Schwarz, Raul Espinosa, Nicholas Denny, Steve Hoefs, Nalco Water, USA
- 02.30 pm **Removing mercury in WFGDs - A comparison between the state of research and practical experiences**  
Dr.-Ing. Margot Bittig, Isabelle Klöfer, M.Sc., Institut für Energie- und Umwelttechnik e.V., Duisburg  
Dipl.-Ing. Daniel Herrmann, Dr.-Ing. Andrea Ohle, Technische Universität Dresden
- 03.00 pm **End of lecture**

## Wednesday, 24th October 2018

### ■ Hall 4 Combustion 4.0 II

Session Chair: Dr.-Ing. Martin Pohl, ENVERUM Ingenieurgesellschaft für Energie- und Umweltverfahrenstechnik mbH, Dresden

- 08.30 am **Optimizing operations in power plants: What about fuzzy control, big data & co.?**  
Dr.-Ing. Martin Horen, solutions-ahead Schweiz GmbH, Zürich
- 09.00 am **Hybrid model-based optimization of power plant operation**  
Dr.-Ing. Martin Habermehl, Dipl.-Ing. Stefan Tschunko, Dr.-Ing. Martin Weng, aixprocess GmbH, Aachen
- 09.30 am **Digital WIP - Increasing efficiency and reducing emissions by using big data**  
Dipl.-Ing. Robert von Raven, Dr.-Ing. Axel Hanenkamp, Martin GmbH für Umwelt- und Energietechnik, München
- 10.00 am **Application of thermodynamic models for diagnosis and monitoring**  
Waldemar Hoffmann, M.Eng., Dipl.-Math. Thomas Will, Dr.-Ing. Ralph Ernst, Steinmüller Engineering GmbH, Gummersbach
- 10.30 am **Coffee break**

### ■ Combustion 4.0 III

Session Chair: Dr. Frank Neumann, RWE Power AG, Essen

- 11.00 am **Power plant Mannheim - Calculation of KPIs with high information content to avoid loss of efficiency and unscheduled failures**  
Dipl.-Ing. Peter Krüger, Dipl.-Ing. Christian Pagel, STEAG Energy Services GmbH, Essen  
Dipl.-Ing. Torsten Driemer, Grosskraftwerk Mannheim AG
- 11.30 am **Reduced fuel consumption and improved reliability due to anomaly detection in power plant data**  
Dr. rer. nat. Peter Deeskow, Dipl.-Ing. Urs Steinmetz, STEAG Energy Services GmbH, Essen  
Dr.-Ing. Jürgen Brandt, RWE Power AG, Grevenbroich
- 12.00 pm **Systematic digital collection of data**  
Dipl.-Ing. (FH) Jürgen Wilkening, INP Deutschland GmbH, Römerberg
- 12.30 pm **Lunch break**

### ■ Combustion 4.0 IV

Session Chair: Dipl.-Ing. Robert von Raven, Martin GmbH für Umwelt- und Energietechnik, München

- 01.30 pm **State assessment of electrical operating equipment based on a diagnostic and forecasting tool**  
Dr.-Ing. Thomas Krüger, Lausitz Energie Kraftwerke AG, Cottbus  
Prof. Dr.-Ing. Wolfgang Kästner, Dipl.-Inform. Jana Hänel, Hochschule Zittau/Görlitz, IPM, Zittau
- 02.00 pm **Digital control over the machinery**  
Dipl.-Ing. Ulrich Lieske, ZEDAS GmbH, Senftenberg
- 02.30 pm **Evaluating the dynamic mode of operation of a lignite power plant using high time resolving measurement data and an unsteady process model**  
Jan Koltermann, M.Eng., Dr.-Ing. Sebastian Meinke, Lausitz Energie Kraftwerke AG, Cottbus  
Jens Hinrich Prause, M.Sc., Dr.-Ing. Moritz Hübel, Prof. Dr.-Ing. habil. Dr. h.c. Egon Hassel, Universität Rostock
- 03.00 pm **End of lecture**

## Wednesday, 24th October 2018

### ■ Hall 5 Flexibility II

Session Chair: Dipl.-Ing. Hellmuth Brüggemann, GE Boiler Deutschland GmbH, Stuttgart

- 08.30 am **Use of flue gas heat to increase the energy efficiency of thermal power plants**  
Dr.-Ing. Matthias Meierer, Dipl.-Ing. Norbert Eimer, Grosskraftwerk Mannheim AG
- 09.00 am **Damage analyses on dissimilar welds of a power plant superheater**  
Dipl.-Ing. Johannes Seichter, Siempelkamp Prüf- und Gutachter-Ges. mbH, Dresden  
Dipl.-Ing. (FH) Stefan Wenke, Lausitz Energie Kraftwerke AG, Boxberg
- 09.30 am **Monitoring components of steam generators of the Lausitz Energie Kraftwerke AG under the requirements of load flexibility**  
Dipl.-Ing. Thomas Hauke, Dipl.-Ing. Peter Jentsch, Lausitz Energie Kraftwerke AG, Cottbus
- 10.00 am **Fundamental considerations on change fatigue of power plant components in context of extended measures of plant supervision**  
Dr.-Ing. Kai Bauerbach, Dr. rer. nat. habil. Paschalis Grammenoudis, MMEC MANNESMANN GmbH, Düsseldorf
- 10.30 am **Coffee break**

### ■ Flexibility III

Session Chair: Dr.-Ing. Oliver Then, VGB PowerTech e.V., Essen

- 11.00 am **Evaluation of Ignition and combustion behavior of solid fuels with the support of a plasma torch \***  
Reyhane Youssefi, M.Sc., Dipl.-Ing. Jörg Maier, Dr. Stefan Merli, Prof. Dr. Günter Scheffknecht, Universität Stuttgart
- 11.30 am **Plasma-assisted combustion to expand the flexible operation of coal-fired power plants**  
Dipl.-Ing. Frank Kluger, Dr.-Ing. Dragisa Ristic, Dipl.-Ing. Rajkumar Daniel, GE Boiler Deutschland GmbH, Stuttgart
- 12.00 pm **Conversion of a steelwork off-gas fired steam generator from constant pressure to modified sliding pressure mode \***  
Dipl.-Ing. Laura Zifferer, Dipl.-Ing. Christian Scheinecker, voestalpine Stahl GmbH, Linz, Österreich  
Ao.Univ.-Prof. Dipl.-Ing. Dr. techn. Wolfgang Sanz, Technische Universität Graz, Österreich  
Dr. Peter Pechtl, VTU Energy GmbH, Grambach, Österreich  
Dr. Gottfried Brandstetter, ANDRITZ AG, Raaba-Grambach, Österreich
- 12.30 pm **Lunch break**

### ■ Flexibility IV

Session Chair: Dr.-Ing. Sebastian Grahl, Technische Universität Dresden

- 01.30 pm **Flexibilisation of Reuter West due to the use of electric hot water generators**  
Thomas Bartsch, Chris Lappee, Peter Konrny-Asmussen, Vattenfall Wärme Berlin AG
- 02.00 pm **Fossil-fueled power plants in the energy revolution - An example of environmentally and flexibly oriented conversion of the ZWSF boiler No. 2 at the Turow power plant**  
Dipl.-Ing. Grzegorz Szastok, Sumitomo SHI FW Energia Polska Sp. z o.o., Sosnowiec, Polen
- 02.30 pm **Simulation of load-flexible steam generator operation based on a coupled mill-combustion chamber model**  
Dipl.-Ing. Karsten Meyer, Dipl.-Ing. Torsten Kehr, Dr.-Ing. Sebastian Grahl, Prof. Dr.-Ing. Michael Beckmann, Technische Universität Dresden
- 03.00 pm **End of lecture**