



# E|DPC-2014

Electric Drives Production  
Conference 2014

Copyright: ATS Wickel- und Montagetechnik AG

4<sup>th</sup> International Conference

# Electric Drives Production

September 30<sup>th</sup> – October 1<sup>st</sup>, 2014  
Nuremberg, Germany

## Preliminary Program

# SIEMENS



<b>CONTENT</b> .....	2
<b>COMMITTEES</b> .....	3
<b>SPONSORS</b> .....	4
<b>PARTNERS</b> .....	5
<b>TIME SCHEDULE - OVERVIEW</b> .....	6
<b>TUTORIALS</b> .....	7
<b>TIME SCHEDULE</b> .....	8
<b>TECHNICAL TOURS</b> .....	14
<b>ON-SITE PLAN</b> .....	15
<b>EXHIBITION</b> .....	16
<b>SOCIAL PROGRAM</b> .....	17
<b>APPROACH</b> .....	18

The international Electric Drives Production Conference and Exhibition in the last years has been established as an outstanding platform for the exchange of experiences for researchers, product developers, production experts, purchasers and potential users of electric drives.

**E|DPC 2014** offers on two days more than 120 technical presentations in a total of 13 tracks: five of them concentrate on the core topics of electric drives production technologies, materials and systems. The focus of the globally accompanying conference on Energy Transfer for Electric Vehicles (**E|TEV**) is set on the technology of wireless power transmission. For the first time the integrated **Green Factory Colloquium** opens up new ideas and synergies of an environmental compatible production. And last but not least the conference is hosting the **E-MOTIVE** track, organized by the German Engineering Federation (VDMA).

Comprehensive industrial exhibitions, tutorials, poster presentations, technical tours and an inspiring social program will complement the conference and create a sustainable experience for every participant.

## ON-SITE ORGANIZATION

The **registration desk** is located in level 0 in the foyer.

Opening time Conference:

Monday	September 29 <sup>th</sup> , 2014	10:00 AM - 7:00 PM
Tuesday	September 30 <sup>th</sup> , 2014	8:00 AM - 7:00 PM
Wednesday	October 1 <sup>st</sup> , 2014	8:00 AM - 7:00 PM

Phone: +49 (911) 5302 9090

Opening time Exhibition:

Tuesday	September 30 <sup>th</sup> , 2014	9:00 AM - 5:00 PM
Wednesday	October 1 <sup>st</sup> , 2014	9:00 AM - 5:00 PM

**Conference bags** can be picked up at the registration desk. **On-spot registrations** for the conference, the technical tours, the evening reception and WiFi will be possible. **On-site payments** can be settled in cash (EUR) and by credit card.

The on-spot **speakers reception** and welcome drink will take place on **Monday, September 29<sup>th</sup>, 2014 6:00 PM** in the foyer of NCC West.

## PUBLICATION

All registered and accepted papers will be included in conference proceedings and also published at [ieeexplore.org](http://ieeexplore.org), [scopus.com](http://scopus.com) and [scholar.google.com](http://scholar.google.com).

## CONFERENCE CHAIRMAN

**Prof. Franke J.,**  
University of Erlangen-Nuremberg (D)

## PUBLICATION CHAIRMAN

**Prof. Hahn I.,**  
University of Erlangen-Nuremberg (D)

## LOCAL ORGANIZING COMMITTEE

**Prof. Becker S.,**  
University of Erlangen-Nuremberg (D)

**Prof. Drummer D.,**  
University of Erlangen-Nuremberg (D)

**Prof. Feldmann K.,**  
University of Erlangen-Nuremberg (D)

**Prof. Kremser A.,**  
University of Applied Sciences  
Nuremberg (D)

**Kuehl A.,**  
University of Erlangen-Nuremberg (D)

**Prof. Piepenbreier B.,**  
University of Erlangen-Nuremberg (D)

**Risch F.,**  
University of Erlangen-Nuremberg (D)

**Prof. Willner K.,**  
University of Erlangen-Nuremberg (D)

## INTERNATIONAL PROGRAM COMMITTEE

**Prof. Abele E.,**  
Technical University Darmstadt (D)

**Prof. Arai T.,**  
University of Tokyo (J)

**Baum Mueller A.,**  
Baum Mueller GmbH (D)

**Dr. Boehm R.,**  
Buehler Motor GmbH (D)

**Dr. Brandes J.,**  
Siemens AG (D)

**Prof. Covic G.,**  
University of Auckland (NZ)

**Prof. Dietz A.,**  
University of Applied Sciences  
Nuremberg (D)

**Prof. Doppelbauer M.,**  
Karlsruhe Institute of Technology (D)

**Prof. Ehmann B.,**  
University of Queensland (AUS)

**Prof. Endisch C.,**  
Technische Hochschule Ingolstadt (D)

**Prof. Fleischer J.,**  
Karlsruhe Institute of Technology (D)

**Prof. Frey L.,**  
Fraunhofer IISB (D)

**Fritsch W.,**  
ABM Greiffenberger  
Antriebstechnik GmbH (D)

**Froelich O.,**  
FVA - Research Association  
for Drive Technology (D)

**Prof. Gerling D.,**  
University of the Federal Armed Forces  
Munich (D)

**Prof. Hackstein D.,**  
University of Hagen (D)

**Prof. Hameyer K.,**  
RWTH Aachen (D)

**Prof. Hu J.,**  
University of Michigan (USA)

**Prof. Kampker A.,**  
RWTH Aachen (D)

**Prof. Kolar J.,**  
ETH Zuerich (CH)

**Prof. Meins J.,**  
TU Braunschweig (D)

**Dr. Moebius F.,**  
BMW AG (D)

**PD Dr. Moeckel A.,**  
Technical University of  
Ilmenau (D)

**Prof. Monkman G.,**  
University of Applied Sciences  
Regensburg (D)

**Prof. Muetze A.,**  
TU Graz (A)

**Noguchi K.,**  
Aichi Steel Corporation (J)

**Dr. Ombach G.,**  
Qualcomm CDMA  
Technologies GmbH (D)

**Prof. Parspour N.,**  
University of Stuttgart (D)

**Pollmeier S.,**  
VDE Power Engineering Society (D)

**Prof. Reinhart G.,**  
Technische Universitaet Muenchen (D)

**Dr. Sakki R.,**  
ABB Ltd (FIN)

**Prof. Schluecker E.,**  
University of Erlangen-Nuremberg (D)

**Prof. Schmidt M.,**  
University of Erlangen-Nuremberg (D)

**Prof. Shinohora R.,**  
Kyoto University (J)

**Prof. Steinhilper R.,**  
University of Bayreuth (D)

**Prof. Suh I.-S.,**  
Korea Advanced Institute of Science  
and Technology (KOR)

**Prof. Thoms V.,**  
Dresden University of Technology (D)

**Dr. Turki F.,**  
Paul Vahle GmbH & Co. KG, Kamen (D)

**Prof. Verl A.,**  
Fraunhofer-Gesellschaft, Munich (D)

**Dr. Vitek O.,**  
Brno University of Technology (CZ)

The Organizing Committee sincerely thanks the following organizations and companies for sponsoring the E|DPC 2014:

### Conference Sponsor

---

# SIEMENS

**Siemens AG**

[www.siemens.com/drives](http://www.siemens.com/drives)

### Technical Co-Sponsor

---



**IEEE**

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

### Copper Sponsors

---



**Marsilli & Co. S.p.A.**

[www.marsilli.it](http://www.marsilli.it)

### Aluminium Sponsors:

---



**Bühler Motor GmbH**

[www.buehlermotor.de](http://www.buehlermotor.de)

*Are you interested in supporting the E|DPC  
and presenting your company or organization as a sponsor?*

*The E|DPC is the ideal platform for the individual advertising of your  
innovative products and services. For further information, please visit  
our website [www.edpc.eu/sponsoring-partners](http://www.edpc.eu/sponsoring-partners).*

The 4<sup>th</sup> International Electric Drives Production Conference is kindly supported by the following organizations:



**AMA - Association for  
Sensors and Measurement**  
[www.ama-sensorik.de](http://www.ama-sensorik.de)



**FVA - Research Association for  
Drive Technology**  
[www.fva-net.de](http://www.fva-net.de)



**antriebstechnik - Technical  
Magazine for Engineering**  
[www.antriebstechnik.de](http://www.antriebstechnik.de)



**IHK Mittelfranken**  
[www.ihk-nuernberg.de](http://www.ihk-nuernberg.de)



**Automation Valley Nordbayern**  
[www.automation-valley.de](http://www.automation-valley.de)



**IHS Automotive**  
[www.ihs.com](http://www.ihs.com)



**Bayern innovativ**  
[www.bayern-innovativ.de](http://www.bayern-innovativ.de)



**Insitute for Factory Automation  
and Production Systems**  
[www.faps.de](http://www.faps.de)



**Bühler Mechatronic Award**  
<http://www.buehlermotor.com/DE/Mechatronic-Award>



**MHI - German Society for  
Assembly, Handling and  
Industrial Robots**  
[www.wgmhi.de](http://www.wgmhi.de)



**Cluster Mechatronik &  
Automation e.V.**  
[www.cluster-ma.de](http://www.cluster-ma.de)



**City of Nuremberg**  
[www.nuernberg.de](http://www.nuernberg.de)



**ECPE -  
The Industrial Research Network  
for Power Electronics in Europe**  
[www.ecpe.org](http://www.ecpe.org)



**Nuremberg Metropolitan Region**  
[www.metropolregionnuernberg.de](http://www.metropolregionnuernberg.de)



**Electrical Manufacturing Coil  
Winding Association**  
[www.emcw.org](http://www.emcw.org)



**PELS -  
IEEE Power Electronics Society**  
[www.ieee-pels.org](http://www.ieee-pels.org)
















**ETG - The Power Engineering  
Society of the VDE**  
[www.vde.com/etg](http://www.vde.com/etg)



**VDMA -  
German Engineering Federation**  
[www.vdma.org](http://www.vdma.org)

## TIME SCHEDULE OVERVIEW

Monday, September 29 <sup>th</sup> , 2014							
9:00 AM	Tutorials			Technical Tours			
7:00 PM	Speakers Reception						
Tuesday, September 30 <sup>th</sup> , 2014							
9:00 AM	Welcome Coffee in the exhibition hall 12						
9:30 AM	Opening Session						
11:00 AM	Coffee Break in the exhibition hall 12						
	 E DPC-2014 Electric Drives Production Conference 2014	 E DPC-2014 Electric Drives Production Conference 2014	 E-MOTIVE	 E TEV-2014 Energy Transfer for Electric Vehicles Conference 2014	 Green Factory BAVARIA	 Green Factory BAVARIA	 Green Factory BAVARIA
11:30 AM	Production Scenarios for Winding Systems	Environmental Production of Electric Drives	Production Systems for Electric Traction Drives	Markets and Strategies for WPT	Sustainable Production Strategies	Research Group Bayreuth	Process Engineering
1:00 PM	Lunch Break & Postersession in the exhibition hall 12						
2:30 PM	Future Perspectives for Coil Manufacturing	Materials and Processes for Lamination Stacks	Process-Based Innovations of Electromobility	Interoperability and Standards for WPT	Sustainable Planning and Simulation	Resource Efficient Factories	Conversion Technologies
4:00 PM	Coffee Break in the exhibition hall 12						
4:45 PM	Winding Processes for Traction Drives	Magnetic Sheet Metal Material and Processing	New Electric Traction Motor Concepts	High Power Levels for Wireless Power Transfer	Plant Engineering	Green Plastics Engineering	Research Group Bayreuth
7:30 PM	Evening Reception at the Historic Townhall of Nuremberg Welcome Address Guided walking tours						
Wednesday, October 1 <sup>st</sup> , 2014							
	 E DPC-2014 Electric Drives Production Conference 2014	 E DPC-2014 Electric Drives Production Conference 2014	 E DPC-2014 Electric Drives Production Conference 2014	 E TEV-2014 Energy Transfer for Electric Vehicles Conference 2014	 Green Factory BAVARIA	 Green Factory BAVARIA	
9:00 AM	Manufacturing of Electric Drives	Efficient Connection Processes	New Electric Machine Designs	Dynamic Power Transfer Applications	Applications for Machine Tools	Research Group Bayreuth	
10:30 AM	Coffee Break in the exhibition hall 12						
11:15 AM	Isolation Technologies for Electric Drives	Quality Management of Magnetic Properties	Power Electronics and Control Methods	Electronics for Wireless Power Transfer	Green Electric Drives	Processes and Production Machines	
12:45 PM	Lunch Break & Postersession in the exhibition hall 12						
2:15 PM	Computer Integrated Manufacturing	Quality Management in the Electric Drives Production	German Research Funding Focus on Drives Production	EMC, Material, and Production Challenges for WPT	Green Electronics Production	Welding and Melting Technologies	
3:45 PM	Coffee Break in the exhibition hall 12						
4:15 PM	Closing Session Buehler Mechatronic Award: Muhr P., Buehler Motor GmbH, Nuremberg (D) Best Paper Award: Prof. Feldmann K., University of Erlangen-Nuremberg (D)						
5:00 PM	End of Conference						

Exhibition

## TUTORIALS

Monday, September 29<sup>th</sup>, 2014

During the tutorials vendors of materials, product and process technologies as well as research organizations will provide the participants with a profound and applied know-how about specific topics. Tutorials will be held in English or German at the Nuremberg Convention Centre (NCC).

Tutorial documentation and coffee breaks are included in the tutorial fee. All participants of the tutorials also have to register as participants of the E|DPC 2014. For further information and registration please visit our website [www.edpc.eu/tutorials](http://www.edpc.eu/tutorials).

Tutorial 1:	10:00 AM - 4:00 PM	EUR 100,-
<b>Evolution on Open Pole Stator Manufacturing</b> Marsilli & Co. S.p.A.	In this tutorial Marsilli is presenting manufacturing solutions and technologies for the complete process chain of the BLDC stator production. Discussion about the design needs of the product will be an important aspect to guarantee the feasibility of a cost efficient production solution.	
Tutorial 2:	2:00 PM - 5:00 PM	EUR 100,-
<b>Joining Technologies</b> University of Erlangen-Nuremberg	This tutorial offers new manufacturing developments for the joining of insulated copper wires and belonging cable shoes. Thus, the institute FAPS together with industry representatives offer an overview of possible wire diameters and forms and the corresponding manufacturing solutions which guarantee cost efficient and high quality joinings. Moreover, different approaches to quantify the connection quality will be presented.	
Tutorial 3:	10:00 AM - 1:30 PM	EUR 100,-
<b>Electrical Drivetrains using the Novel Intelligent Stator Cage Machine (ISCAMA)</b> FEAAM GmbH University of the Federal Armed Forces Munich	Based on a novel electrical machine design it will be shown during this tutorial how the entire electrical drivetrain (e.g. for the automotive industry) can be optimized concerning costs, efficiency, fail-safety, and weight simultaneously.	
Tutorial 4:	2:00 PM - 5:00 PM	EUR 100,-
<b>The Proper Handling of Power Electronic Components</b> Infineon Technologies AG	The tutorial deals with the challenges encountered of manufacturing power electronic converters. It will address material handling and root causes of device failures due to handling. Possible consequences will be discussed and hints be given on how to prevent the most common flaws while assembling power electronic components.	



Forschungszentrum für  
Elektrische Antriebstechnik  
und Aktorik München  
Research Center for  
Electrical Drives and  
Actuators Munich



9:30 AM	<b>Opening Session</b>	
11:00 AM	<b>Coffee Break in the exhibition hall 12</b>	
	<b>Session 1</b> <b>Production Scenarios for Winding Systems</b>	<b>Session 2</b> <b>Environmental Production of Electric Drives</b>
11:30 AM	<b>New Winding Technology</b> Dr. Ovrebe S., SmartMotor AS, Trondheim (N)	<b>A Model to Assess The Sustainability of Manufacturing Equipment Using The Example of a Reusable Frequency Converter Housing</b> Drechsel M. W., Audi Planung GmbH, Ingolstadt (D)
12:00 PM	<b>Insulation and Material Technology for New Winding Systems</b> Weyl P., Von Roll Schweiz AG, Breitenbach (CH)	<b>Optimizing Production Plants with Active Power Measurement Procedures</b> Reger A., Fraunhofer IPA, Bayreuth (D)
12:30 PM	<b>Manufacturing Technology for New Winding Systems</b> Bayer P., Micamation AG, Daellikon (CH)	<b>Minimization of Energy Needs in the Industry of Electric Drives Manufacturing Considering Process-Related Temperature Curves</b> Kohl J., University of Erlangen-Nuremberg (D)
1:00 PM	<b>Lunch Break &amp; Postersession in the exhibition hall 12</b>	
	<b>Session 3</b> <b>Future Perspectives for Coil Manufacturing</b>	<b>Session 4</b> <b>Materials and Processes for Lamination Stacks</b>
2:30 PM	<b>Active Controllable and Flexible Winding Needle</b> Schneider M., University of Erlangen-Nuremberg (D)	<b>Annealing of Electrical Steel</b> Dr. Hilinski E., Tempel Steel Company, Chicago (USA)
3:00 PM	<b>Cast Coils for Electrical Machines and their Application in Automotive and Industrial Drive Systems</b> Groeniger M., Fraunhofer IFAM (D)	<b>A Material Model for Lamination Stacks Based on Rough Contacts</b> Luscheider V., University of Erlangen-Nuremberg (D)
3:30 PM	<b>Case History: BLDC High Flexibility in a Mass Production System</b> Kiefer D., Marsilli & Co. S.p.A., Castelleone (I)	<b>Laser Beam Welding of Electrical Steel Stacks - Investigation of the Weldability</b> Schade T., Robert Bosch GmbH, Stuttgart (D)
4:00 PM	<b>Coffee Break in the exhibition hall 12</b>	
	<b>Session 5</b> <b>Winding Processes for Traction Drives</b>	<b>Session 6</b> <b>Magnetic Sheet Metal Material and Processing</b>
4:45 PM	<b>Needle Winding for Distributed Windings without the Use of Insulating Disks</b> Stenzel P., Audi AG, Ingolstadt (D)	<b>Metallurgical Solutions for New Top Performance Non-Oriented Electrical Steel for Cores</b> Jacobs S., ArcelorMittal, Gent (B)
5:15 PM	<b>Needle Winding Technology for Symmetric Distributed Windings</b> Grosse T., RWTH Aachen University (D)	<b>Laser Manufacturing of Electrical Machines</b> Siebert R., Dresden University of Technology (D)
5:45 PM	<b>Flexible Production Concepts for the Winding of Efficient Electric Traction Drives</b> Bickel B., University of Erlangen-Nuremberg (D)	<b>Continuous Rotational Cutting of Lamination Sheets for Electrical Machines</b> Hubert M., University of Erlangen-Nuremberg (D)
7:30 PM	<b>Evening Reception</b>	



9:30 AM	Opening Session	
11:00 AM	Coffee Break in the exhibition hall 12	
	<b>Session E-MOTIVE i</b> <b>Production Systems for Electric Traction Drives</b>	<b>Session E TEV I</b> <b>Markets and Strategies for WPT</b>
11:30 AM	<b>Transformable Production Technologies as a Reaction on a Varying Demand of Electric Traction Motors</b> Reinders C., RWTH Aachen University (D)	<b>Unplugging the Electric Car</b> Prof. Mi C., University of Michigan (USA)
12:00 PM	<b>Uncertainty and Statistical Methods for Electrical Machine Production</b> Fyhr P., Lund University (S)	<b>Electric Vehicles - Global Production, Wireless Charging and Outlook</b> Scott B., IHS Automotive (UK)
12:30 PM	<b>The Five Fundamental Jigsaw Pieces of Successful Lean Implementation in a Siemens Motor Factory in Mexico</b> Dr. Beitinger G., Siemens AG, Erlangen (D)	<b>Wireless Underground Power Supply for Trolley Buses and Transferability to Other Vehicle Categories</b> Prof. Pucher E., Vienna University of Technology (AUT)
1:00 PM	Lunch Break & Postersession in the exhibition hall 12	
	<b>Session E-MOTIVE ii</b> <b>Process-Based Innovations of Electromobility</b>	<b>Session E TEV II</b> <b>Interoperability and Standards for WPT</b>
2:30 PM	<b>High Bandwidth Current Sensors as an Enabler for Advanced Control Techniques</b> Dr. Slatter R., Semsittec GmbH, Lahnau (D)	<b>A Universal Definition of the Interoperability for Cross-Manufacturer Contactless Charging Systems</b> Dr. Thamm S., ifak, Magdeburg (D)
3:00 PM	<b>Cost Estimation of Electric Traction Machine and Gearbox for a Hybrid Vehicle Application</b> Domingues G., Lund University (S)	<b>Interoperability Requirements for Stationary Wireless Charging and Potential Solutions</b> Dr. Ombach G., QUALCOMM CDMA Technologies GmbH (D)
3:30 PM	<b>Generic Method to Proof the Freedom from Interference in Accordance with ISO 26262</b> Dr. Hoch S., ICS AG, Stuttgart (D)	<b>Design of a 3kW Primary Power Supply Unit for Inductive Charging Systems Optimized for the Compatibility to Receiving Units with 20kW Rated Power</b> Zimmer M., University of Stuttgart (D)
4:00 PM	Coffee Break in the exhibition hall 12	
	<b>Session E-MOTIVE iii</b> <b>New Electric Traction Motor Concepts</b>	<b>Session E TEV III</b> <b>High Power Levels for Wireless Power Transfer</b>
4:45 PM	<b>Design and Measurement of a Laminated Permanent Magnet Excited Transverse Flux Machine for Electrical Vehicles</b> Seibold P., University of Stuttgart (D)	<b>Development of a Highly Efficient Inductive Power Transfer System for Charging Electric Vehicles using SiC MOSFETs</b> Reichert S., Fraunhofer ISE, (D)
5:15 PM	<b>Highly Integrated Drive Train Solution: Integration of Motor, Inverter and Gearing</b> Dr. Burkhardt Y., Siemens AG, Erlangen (D); Rauh H., Fraunhofer IISB, Erlangen (D)	<b>High Efficient, Compact Vehicle Power Electronics for 22kW Inductive Charging</b> Schumann P., Robert Bosch GmbH (D)
5:45 PM	<b>Investigation of the Segment Order in Step-Skewed Synchronous Machines on Noise and Vibration</b> Blum J., BMW AG, Munich (D)	<b>Electric Operability of an Inductive Charging System for Electric Vehicles in an Urban Area</b> Borrmann D., Fraunhofer IAO (D)
7:30 PM	Evening Reception	

	<b>Session 7</b> <b>Manufacturing of Electric Drives</b>	<b>Session 8</b> <b>Efficient Connection Processes</b>
9:00 AM	<b>Influences of the Design and Production on the Characteristic Properties of Multipolar Bonded Magnets</b> Kurth K., University of Erlangen-Nuremberg (D)	<b>Evaluation of Energy Efficient Joining Processes in the Field of Electric Drives Manufacturing Considering Quality Aspects</b> Spreng S., University of Erlangen-Nuremberg (D)
9:30 AM	<b>Optimized Processes for Energy Efficient Magnet Assembly and Magnetization</b> Meyer A., University of Erlangen-Nuremberg (D)	<b>Optimized Winding and Connection Concept for an Integrated BLDC-Motor Drive</b> Neubauer A., Mahle GmbH, Stuttgart (D)
10:00 AM	<b>Reliable Connections Between Copper and Aluminum for High Voltage Applications</b> Hofmann K., Bayerisches Laserzentrum GmbH, Erlangen (D)	<b>Innovative Solutions for the Optimization of the Manual Connection Process</b> Halder H., Otto Rist GmbH & Co. KG, Baienfurt (D)
<b>10:30 AM</b>	<b>Coffee Break in the exhibition hall 12</b>	
	<b>Session 10</b> <b>Isolation Technologies for Electric Drives</b>	<b>Session 11</b> <b>Quality Management of Magnetic Properties</b>
11:15 AM	<b>Influence of Different Impregnation Methods and Resins on Thermal Behavior and Lifetime of Electrical Stators</b> Richnow J., University of the Federal Armed Forces Munich (D)	<b>Magneto-Optical and Field-Metric Evaluation of the Punching Effect on Magnetic Properties of Electrical Steels with Varying Alloying Content and Grain Size</b> Naumoski H., Daimler AG, Ulm (D)
11:45 AM	<b>Impact of Impregnating Materials and Impregnating Processes on the Partial Discharge Resistance of Low Voltage Electrical Machines</b> Kuschnerus M., ELANTAS Beck GmbH, Hamburg (D)	<b>3-Axis Magnetic Field Camera for Ultrafast and High Resolution Inspection of Permanent Magnets</b> Dr. Vervaeke K., MagCam NV, Leuven (B)
12:15 PM	<b>Innovative and Energy-Efficient Resin Technologies within the Production of Electric Drives</b> Hofmann B., University of Erlangen-Nuremberg (D)	<b>Magneto-Optical Quality Control of Magnetic Materials</b> Dr. Richert H., Matesy GmbH, Jena (D)
<b>12:45 PM</b>	<b>Lunch Break &amp; Postersession in the exhibition hall 12</b>	
	<b>Session 13</b> <b>Computer Integrated Manufacturing</b>	<b>Session 14</b> <b>Quality Management in the Electric Drives Production</b>
2:15 PM	<b>Fault Analysis of Linear Winding Processes for Noncircular Orthocyclic Coils</b> Sell-Le Blanc F., Karlsruhe Institute of Technology (D)	<b>Comparison of End of Line Tests for Serial Production of Electric Motors in Hybrid Truck Applications</b> Butov A., Daimler AG, Stuttgart (D)
2:45 PM	<b>Structural Mechanics Process Simulation of Coil Winded Stator Segments for E-Traction Drives</b> Boenig J., University of Erlangen-Nuremberg (D)	<b>Analysis of Different Modeling Methods for the Diagnosis of PMSM Motor Faults in Production Lines</b> Wu C., Robert Bosch GmbH, Schwieberdingen (D)
3:15 PM	<b>Simulation of Thin-Walled Injection Molded Magnets</b> Nguyen M., University of Stuttgart (D)	<b>Quality Assurance in Lamination Stack Production</b> Kraemer A., Karlsruhe Institute of Technology (D)
<b>3:45 PM</b>	<b>Coffee Break in the exhibition hall 12</b>	
<b>4:15 PM</b>	<b>Buehler Mechatronic Award:</b> Muhr P., Buehler Motor GmbH, Nuremberg (D)	
<b>4:40 PM</b>	<b>Best Paper Award:</b> Prof. Feldmann K., University of Erlangen-Nuremberg (D)	
<b>4:50 PM</b>	<b>Closing Words:</b> Prof. Franke J., University of Erlangen-Nuremberg (D)	

	<b>Session 9</b> <b>New Electric Machine Designs</b>	<b>Session E TEV IV</b> <b>Dynamic Power Transfer Applications</b>
9:00 AM	<b>Thermal Optimization of Vacuum Ironless Motor</b> Dr. Van Vuure T., Tecnotion, Almelo (NL)	<b>Conductive Feeding of Electric Vehicles from the Road While Driving</b> Asplund G., Elways AB (SWE)
9:30 AM	<b>Heat Transfer Analysis of a Traction Machine with Directly Cooled Laminated Windings</b> Dr. Reinap A., Lund University (S)	<b>Dynamic Inductive Power Transfer for Electric Vehicles</b> Dr. Turki F., Paul Vahle GmbH & Co. KG, Kamen (D)
10:00 AM	<b>New Methods for Reducing the Cogging Torque and Torque Ripples of PMSM</b> Dr. Dajaku G., FEAM GmbH, Neubiberg (D)	<b>Automatic Tuning Concept for a Three-Phase Inductive Power Transfer System</b> Arnold R., Karlsruhe Institute of Technology (D)
10:30 AM	<b>Coffee Break in the exhibition hall 12</b>	
	<b>Session 12</b> <b>Power Electronics and Control Methods</b>	<b>Session E TEV V</b> <b>Electronics for Wireless Power Transfer</b>
11:15 AM	<b>Grid-Side Control of Inverters for Power Generation in Microgrids</b> Dr. Benesch N., Siemens AG, Erlangen (D)	<b>A Systematic Comparison of Hard- and Soft-Switching Topologies for Inductive Power Transfer Systems</b> Diekhans T., Robert Bosch GmbH (D)
11:45 AM	<b>Modular Integration of a 1200 V SiC Inverter in a Commercial Vehicle Wheel-Hub Drivetrain</b> Hilpert F., Fraunhofer IISB, Erlangen (D)	<b>Wired and Wireless Charging of Electric Vehicles: A System Approach</b> Lempidis G., Fraunhofer IWES (D)
12:15 PM	<b>Sensorless Observer Based Hysteresis Control of a Transversalflux Machine</b> Bauer J., University of Applied Sciences Landshut (D)	<b>Loss Model and Control of Bidirectional LCL-IPT System</b> Voglitsis D., TU Delft (NL)
12:45 PM	<b>Lunch Break &amp; Postersession in the exhibition hall 12</b>	
	<b>Session 15</b> <b>German Research Funding Focus on Drives Production</b>	<b>Session E TEV VI</b> <b>EMC, Material, and Production Challenges for WPT</b>
2:15 PM	<b>Large-Series Production of Novally Electric Radial Flux Motors</b> Schwab O., Compact Dynamics GmbH, Starnberg (D)	<b>Calculation of Ohmic Losses for Litz Wire Applications by a Coupled Numeric Analytical Method</b> Roskopf A., Fraunhofer IISB (D)
2:45 PM	<b>Simulation-Based Improvement of a Lamination Stack Production</b> Stoll J., Karlsruhe Institute of Technology (D)	<b>Magnetic Field Emission Comparison at Different Quality Factors with Series-Parallel Compensation Network for Wireless Power Transfer to Vehicles</b> Batra T., Aalborg University (DK)
3:15 PM	<b>Hysteresis-Model Oriented Test Procedure for Soft-Magnetic Properties of Printed or Laminated Toroids</b> Lindner M., Technical University of Chemnitz (D)	<b>Optimization Approach of Contactless Power Transfer Systems for Electric Vehicles from a Process and Material Perspective</b> Risch F., University of Erlangen-Nuremberg (D)
3:45 PM	<b>Coffee Break in the exhibition hall 12</b>	
4:15 PM	<b>Buehler Mechatronic Award:</b> Muhr P., Buehler Motor GmbH, Nuremberg (D)	
4:40 PM	<b>Best Paper Award:</b> Prof. Feldmann K., University of Erlangen-Nuremberg (D)	
4:50 PM	<b>Closing Words:</b> Prof. Franke J., University of Erlangen-Nuremberg (D)	

## TIME SCHEDULE

Tuesday, September 30<sup>th</sup>, 2014



9:30 AM	Opening Session		
11:00 AM	Coffee Break in the exhibition hall 12		
	<b>Session Green Factory A</b> <b>Sustainable Production Strategies</b>	<b>Session Green Factory B</b> <b>Research Group Bayreuth</b>	<b>Session Green Factory C</b> <b>Process Engineering</b>
11:30 AM	<b>GEM-Portal</b> Brandmeier M., University of Erlangen-Nuremberg (D)	<b>Green Factory Bayreuth:</b> <b>Integration In a New Lab Building</b> Dr. Freiburger S., Fraunhofer IPA, Bayreuth (D)	<b>Analysis of Electric Energy</b> <b>Consumption in the German Industry</b> Javied T., University of Erlangen-Nuremberg (D)
12:00 PM	<b>E Benchmark</b> Kreitlein S., University of Erlangen-Nuremberg (D)	<b>Methodologies to Increase Energy</b> <b>Efficiency in Discrete Manufacturing</b> Dr. Boehner J., Fraunhofer IPA, Bayreuth (D)	<b>E Flow</b> Scholz M., University of Erlangen-Nuremberg (D)
12:30 PM	<b>Green Controlling</b> Rackow T., University of Erlangen-Nuremberg (D)	<b>Identifying Energy Efficiency</b> <b>Potentials by Applying Flexible</b> <b>Measurement Concepts</b> Reger A., Fraunhofer IPA, Bayreuth (D)	<b>EPEX/VTOP</b> Prof. Arlt W., University of Erlangen-Nuremberg (D)
1:00 PM	Lunch Break & Postersession in the exhibition hall 12		
	<b>Session Green Factory D</b> <b>Sustainable Planning and Simulation</b>	<b>Session Green Factory E</b> <b>Resource Efficient Factories</b>	<b>Session Green Factory F</b> <b>Conversion Technologies</b>
2:30 PM	<b>Green PPS</b> Brossog M., University of Erlangen-Nuremberg (D)	<b>Green Factory Augsburg:</b> <b>A Platform for Research,</b> <b>Demonstration and Learning</b> Schmidt V., Fraunhofer IWU, Augsburg (D)	<b>Efficient Aluminium</b> Prof. Merklein M., University of Erlangen-Nuremberg (D)
3:00 PM	<b>E Simulation</b> Brossog M., University of Erlangen-Nuremberg (D)	<b>Energy Concepts for</b> <b>Manufacturing Companies</b> Unterberger E., Fraunhofer IWU, Augsburg (D)	<b>RehZahn</b> Prof. Merklein M., University of Erlangen-Nuremberg (D)
3:30 PM	<b>EffiPLAS</b> Paryanto, University of Erlangen-Nuremberg (D)	<b>Simplified Product Life Cycle</b> <b>Assessments by Use of Intelligent</b> <b>Measurement Concepts</b> Gebbe C., Fraunhofer IWU, Augsburg (D)	<b>KS-Sim</b> Donhauser T., University of Erlangen-Nuremberg (D)
4:00 PM	Coffee Break in the exhibition hall 12		
	<b>Session Green Factory G</b> <b>Plant Engineering</b>	<b>Session Green Factory H</b> <b>Green Plastics Engineering</b>	<b>Session Green Factory I</b> <b>Research Group Bayreuth</b>
4:45 PM	<b>SimEM</b> Prof. Wenk M., Amberg-Weiden University of Applied Sciences (D)	<b>Eco<sup>2</sup>Skin (D)</b> Prof. Drummer D., University of Erlangen-Nuremberg (D)	<b>Energy Efficiency: Optimization of</b> <b>Factory Equipment</b> Hamacher M., Fraunhofer IPA, Bayreuth (D)
5:15 PM	<b>EffiAkust</b> Prof. Becker S., University of Erlangen-Nuremberg (D)	<b>Effitrusion</b> Prof. Reichel H., Hof University of Applied Sciences (D)	<b>Improving Energy Efficiency of</b> <b>Assembly Processes</b> Weeber M., Fraunhofer IPA, Bayreuth (D)
5:45 PM	<b>E SysDEN</b> Friedrich F., Coburg University of Applied Sciences and Arts (D)	<b>ReSAF</b> Prof. Drummer D., University of Erlangen-Nuremberg (D)	<b>Optimizing Production Plants with</b> <b>Active Power Measurement</b> <b>Procedures</b> Reger A., Fraunhofer IPA, Bayreuth (D)
7:30 PM	Evening Reception		

## TIME SCHEDULE

Wednesday, October 1<sup>st</sup>, 2014



	Session Green Factory J Applications for Machine Tools	Session Green Factory K Research Group Bayreuth
9:00 AM	<b>E<sup>2</sup>D</b> Prof. Zaeh M., Technical University Munich (D)	<b>Energy Efficiency Assessment of CFRP-Cutting Processes</b> Ellert F., Fraunhofer IPA, Bayreuth (D)
9:30 AM	<b>eco-mill-5</b> Prof. Michos G., University of Applied Sciences Schweinfurt-Würzburg (D)	<b>Energy Efficiency Optimization of Industrial Cleaning Systems</b> Kuebler F., Fraunhofer IPA, Bayreuth (D)
10:00 AM	<b>GreenBearings</b> Prof. Wartack S., University of Erlangen-Nuremberg (D)	<b>Improving Energy Efficiency in Intralogistics</b> Lohr K., Fraunhofer IPA, Bayreuth (D)
<b>10:30 AM</b>	<b>Coffee Break in the exhibition hall 12</b>	
	Session Green Factory L Green Electric Drives	Session Green Factory M Processes and Production Machines
11:15 AM	<b>BOMA</b> Prof. Dietz A., University of Applied Sciences Nuremberg (D)	<b>Biological Degreasing of Metal Components</b> Hilmer S., Fraunhofer IWU, Augsburg (D)
11:45 AM	<b>E Vertech</b> Spreng S., University of Erlangen-Nuremberg (D)	<b>Format Flexible and Resource Efficient Packaging Machines</b> Stich P., Fraunhofer IWU, Augsburg (D)
12:15 PM	<b>E Solation</b> Hofmann B., University of Erlangen-Nuremberg (D)	<b>Evaluation of the Resource Efficiency of Production Machines</b> Schmidt V., Fraunhofer IWU, Augsburg (D)
<b>12:45 PM</b>	<b>Lunch Break &amp; Postersession in the exhibition hall 12</b>	
	Session Green Factory M Green Electronics Production	Session Green Factory O Welding and Melting Technologies
2:15 PM	<b>REEP</b> Esfandiyari A., University of Erlangen-Nuremberg (D)	<b>SmartMelting</b> Prof. Schlueter W., Ansbach University of Applied Sciences (D)
2:45 PM	<b>RUDiS</b> Prof. Reichenberger M., University of Applied Sciences Nuremberg (D)	<b>EkuLeis</b> Prof. Schmidt M., University of Erlangen-Nuremberg (D)
3:15 PM	<b>ENORMA</b> Prof. Pohlau F., University of Applied Sciences Nuremberg (D)	<b>ELISS</b> Prof. Schmidt M., University of Erlangen-Nuremberg (D)
<b>3:45 PM</b>	<b>Coffee Break in the exhibition hall 12</b>	
<b>4:15 PM</b>	<b>Buehler Mechatronic Award:</b> Muhr P., Buehler Motor GmbH, Nuremberg (D)	
<b>4:40 PM</b>	<b>Best Paper Award:</b> Prof. Feldmann K., University of Erlangen-Nuremberg (D)	
<b>4:50 PM</b>	<b>Closing Words :</b> Prof. Franke J., University of Erlangen-Nuremberg (D)	

## POSTERSESSION IN THE EXHIBITION HALL 12

Tuesday, September 30<sup>th</sup>, 2014 and Wednesday, October 1<sup>st</sup>, 2014

### Active Control of Gear Pair Vibration with an Electronically Commutated Motor as Actuator

Benzel T., Robert Bosch GmbH, Reutlingen (D)

### Determination of the Prospective Energy Consumption of Manufacturing Technologies with Methods-Energy Measurement (MEM)

Bornschlegl M., Audi Planung GmbH, Ingolstadt (D)

### Defect Reduction in the Production of Electric Drives by Downstream Compensation and Space-Resolved Inspection

Coupek D., University of Stuttgart (D)

### Standardization and Innovation: Dissolving this Contradiction with Modular Production Architectures

Foerstmann R., RWTH Aachen University (D)

### Alternative Cooling-Concepts for Lightweight Electric Motors

Peter M., Karlsruhe Institute of Technology (D)

### Bi-Directional Charging System for Electric Vehicles

Schaefer M.,

University of Applied Sciences Wuerzburg-Schweinfurt (D)

### Simultaneous Contact less Charging of Multiple Electric Vehicles

Prof. Schmidt H.-P.,

OTH Technical University of Applied Sciences, Amberg-Weiden (D)

### On the Effect of Material Processing: Microstructural and Magnetic Properties of Electrical Steel Sheets

Steentjes S., RWTH Aachen University (D)

## TECHNICAL TOURS:

Monday, September 29<sup>th</sup>, 2014

Leading industrial companies and research institutes will offer the opportunity to visit their facilities to all participants.

### Technical Tour A:

10:00 AM - 2:00 PM

EUR 100,-

#### Research on Electric Drives

10:00 AM:

**Friedrich-Alexander-University of Erlangen Nuremberg**

Egerlandstraße 7, Erlangen

12:30 PM:

**E|Drive-Center**

(Bavarian Technology Center for Electric Drives)

Fuerther Str. 246b, Nuremberg



### Technical Tour B:

10:00 AM - 2:00 PM

EUR 100,-

#### Electric Drives Production

10:00 AM:

**Bühler Motor GmbH**

Anne-Frank-Str. 33-35, Nuremberg

12:30 PM:

**E|Drive-Center**

(Bavarian Technology Center for Electric Drives)

Fuerther Str. 246b, Nuremberg

**requested:**

*Siemens AG, Drive Technologies Large Drives*

*Vogelweiherstr. 1-15, Nuremberg*



## ON-SITE PLAN

### Floor Plan

E|DPC 2014 will take place at the Exhibition Centre Nuremberg in hall 12 and within the Convention Center NCC West.

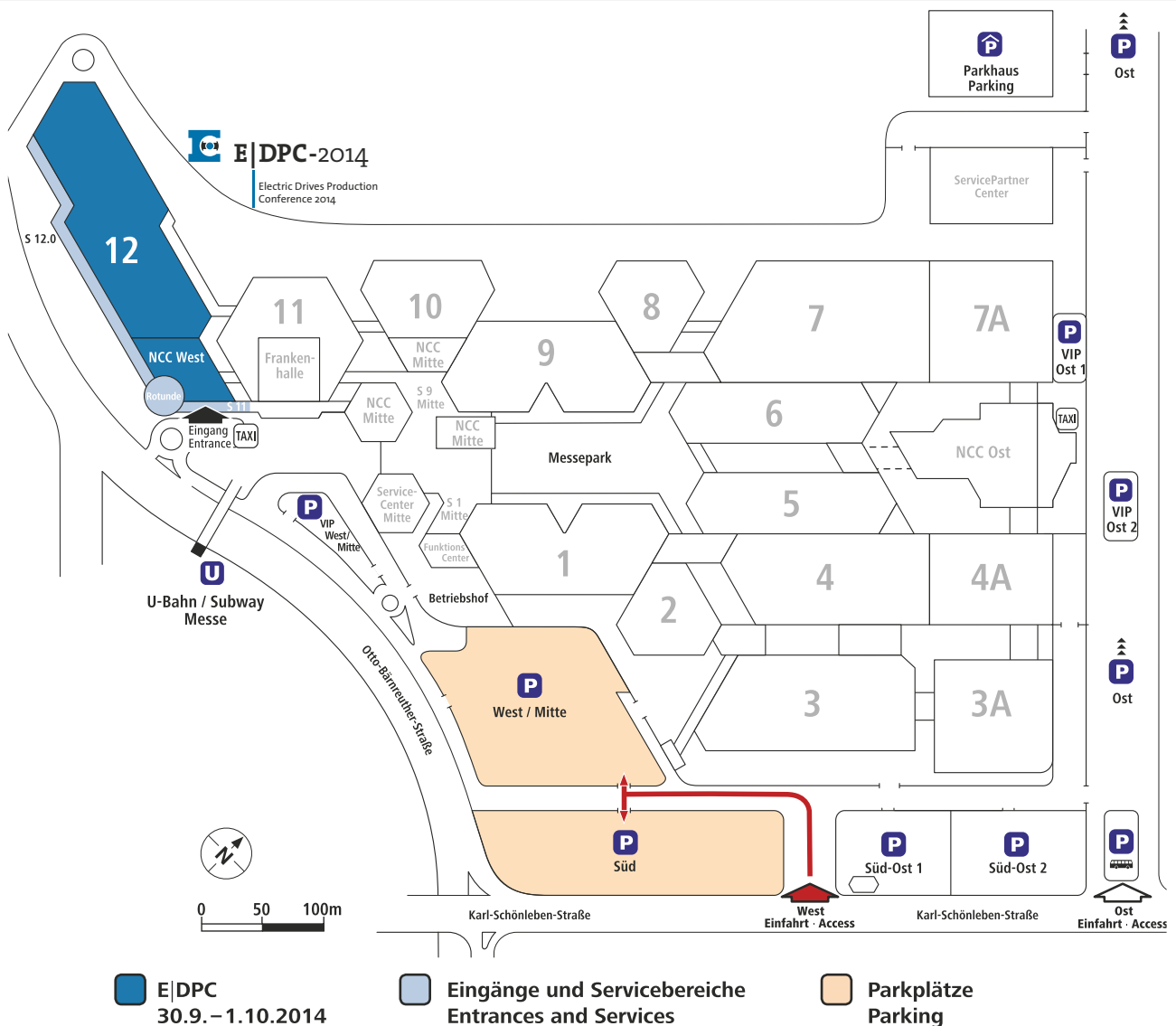
The subway station „Messe“ is also located at the west entry of the Nuremberg Exhibition.

### You will find the

- Conference information desk located in level 0
- Exhibition taking place in hall 12
- Exhibition information desk located in Press Centre
- Conference in level 2



### Exhibition Centre Nuremberg



## EXHIBITION IN HALL 12

**Tuesday, September 30<sup>th</sup>, 2014 and Wednesday, October 1<sup>st</sup>, 2014**

The EJDPC exhibition showcases components, semi-finished goods and materials as well as production-related cutting-edge processes in the production of electric drives and generators.

Meet German and international providers of this technology. Find out about the latest products, innovations and trends, as well as current issues to produce your electric drive or generator. You will receive trend-setting impulses for the use and processing of new materials, productive and flexible assembly technologies as well as innovative motor topologies and control concepts. Visit the exhibition in hall 12 and take the chance to meet new dialogue partners from industry and science.

The event will appeal to engine manufacturers, looking to strengthen their market position whether based on cost, quality or innovation, as well as to car manufacturers and suppliers, who want to systematically plan their entry into electromobility.

Producers of electric machines and electro-mechanic products receive comprehensive information regarding the production of electric drives.

### Exhibition topics

The structure of the product groups are based on the elements and the production-related cutting-edge processes in the field of the production of electric drives and generators.

#### Elements

- Components
- Semi-Finished Goods and Materials

#### Production-related cutting-edge processes

- Production Techniques / Manufacturing Facilities and Tools
- Quality, Testing / Measurement / Diagnostic Systems
- Software
- Electric Drives Manufacturing Services

**Register for your free entry ticket to the exhibition at [www.edpc-expo.com/tickets](http://www.edpc-expo.com/tickets) with the code: 1412301029**

### Exhibitors (as of June 2<sup>nd</sup> 2014)

AMA Association for Sensors and Measurement

ATOP SpA

ATS Wickel- u. Montagetechnik AG

Aumann GmbH

Bakker Magnetics B.V.

bdtronic GmbH

CD-adapco

DOMEL D.O.O.

Dr. Brockhaus Messtechnik GmbH & Co. KG

ELANTAS Beck GmbH

EMB – Elektromaschinenbau GmbH

Friedrich-Alexander-Universität Nürnberg-Erlangen

FVA Research Association for Drive Technology

GKN Sinter Metals Engineering GmbH

Hans Mayer Elektrotechnik GmbH

HEDRICH GmbH

Hübers Verfahrenstechnik Maschinenbau GmbH

MagCam NV

Marsilli & Co. S.p.A

Matesy GmbH

M-Pulse GmbH

PMG Füssen GmbH

Rudolf Pack GmbH & Co. KG

RUFF GmbH

Scheugenpflug AG

Schleich GmbH

Senis AG

SICK Vertriebs-GmbH

Siemens AG

Stiefelmayer-Lasertechnik GmbH & Co. KG

TMC Sensortechnik GmbH

VACUUMSCHMELZE GmbH & Co. KG

Victrex Europa GmbH

Gebr. Waasner Elektrotechnische Fabrik GmbH

Wieland-Werke AG

**Secure your  
stand space  
from**

**EUR 1,775,00 plus VAT  
[www.edpc-expo.com/exhibitors](http://www.edpc-expo.com/exhibitors)**

## CONTACT MESAGO

**mesago**  
Messe Frankfurt Group

Franziska Hesse

Tel: +49 (711) 61 94 6 65

E-Mail: [franziska.hesse@mesago.com](mailto:franziska.hesse@mesago.com)

Web: [www.edpc-expo.com](http://www.edpc-expo.com)



## SOCIAL PROGRAM

Tuesday, September 30<sup>th</sup>, 2014

### EVENING RECEPTION

The E|DPC 2014 Evening Reception is an official stand-up reception, given by the Lord Mayor of the City of Nuremberg at the historic townhall of Nuremberg, Rathausplatz 2. Detailed technical discussions are guaranteed and accompanied by piano background music and a carried franconian buffet. All conference participants and exhibitors are eligible to register free of charge for the attendance of the evening reception.



### BUFFET

A regional buffet will be prepared and served.

### AGENDA of the Evening Reception

- 07:30 PM: **Welcome Address**
- 08:00 PM: **Opening of the buffet**
- 08:45 PM: **Guided Walking Tours**

### HOTEL RECOMMENDATION

For hotel recommendation please contact the tourist office Nuremberg:

Tel.: +49 (911) 2336 121  
<http://www.hotel.nuernberg.de>

### TOURIST INFORMATION

Nuremberg Convention and Tourist Office  
Frauentorgraben 3  
90443 Nuremberg

Tel.: +49 (911) 2336 0  
<http://www.tourismus.nuernberg.de/>

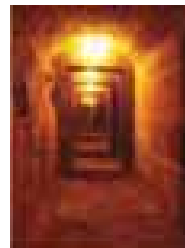
### GUIDED WALKING TOURS

Parallel to the evening reception several half-hour guided tours through the historic town of Nuremberg will be offered free of charge.

#### GUIDED WALKING TOUR A

##### *Medieval Dungeons*

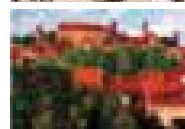
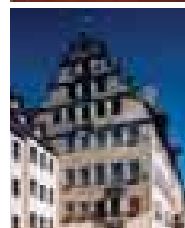
Just walk downstairs and take a tour through the vaulted cellars below the historic townhall, built in Nuremberg's golden age. Let these mediaeval dungeons and the feeling of being imprisoned in the Middle Ages give you some goose bumps.



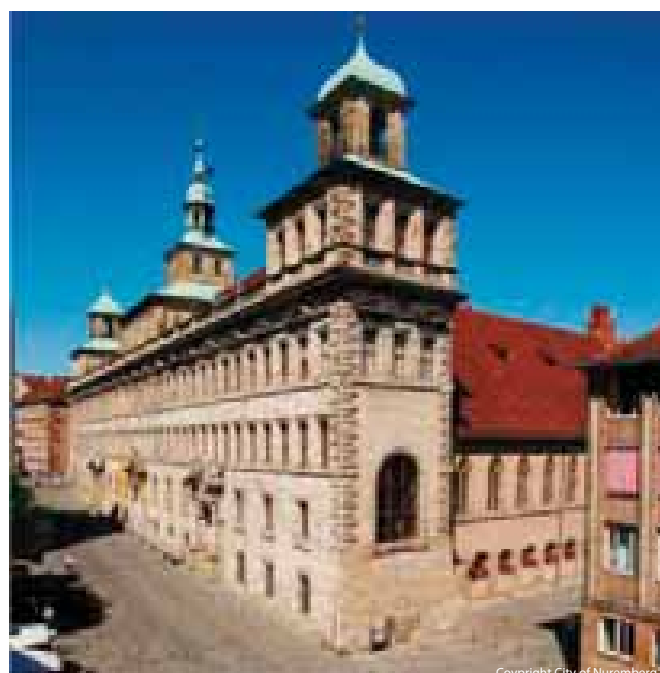
#### GUIDED WALKING TOUR B

##### *Nuremberg Old Town*

Take an exciting walk from the townhall, via the famous fountain "Schöner Brunnen" to the castle of Nuremberg. There you'll enjoy the beautiful view over Nuremberg.



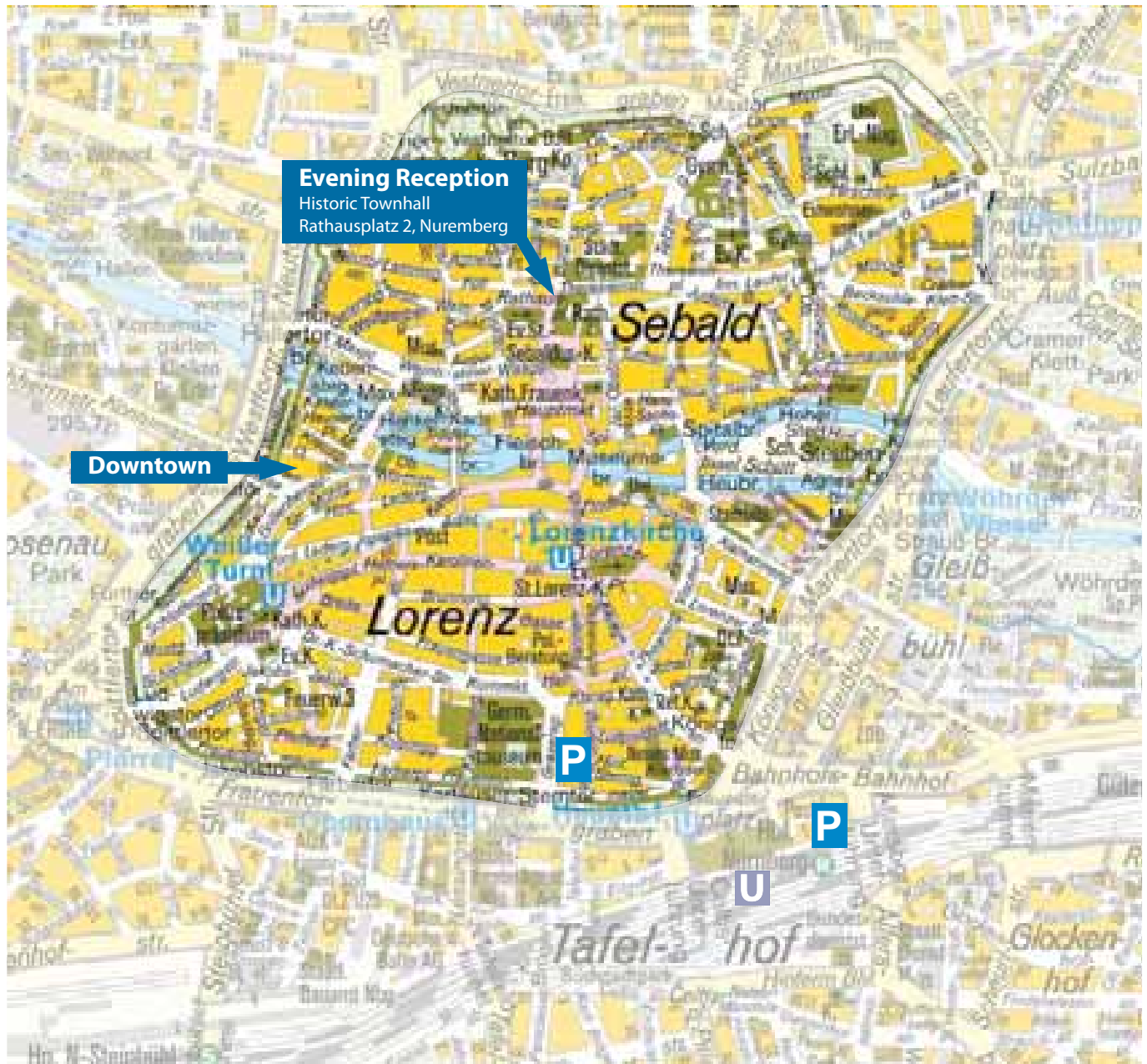
Copyright City of Nuremberg



Historic townhall of Nuremberg

Copyright City of Nuremberg

## MAP OF THE CITY OF NUREMBERG

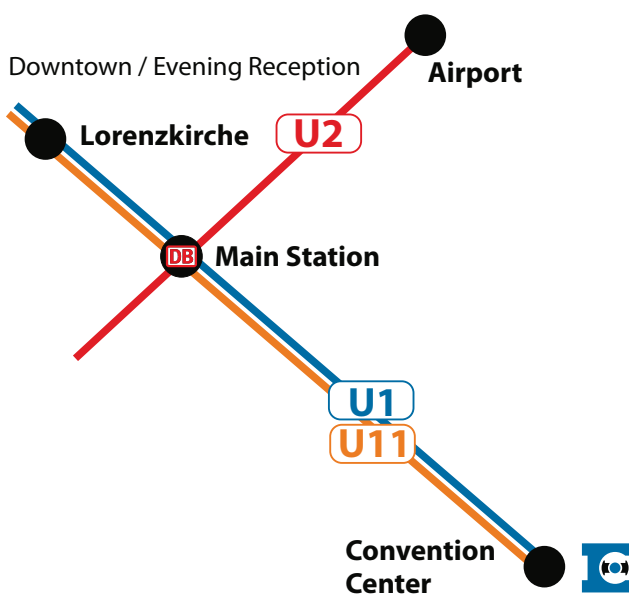


## APPROACH

### | HIGHWAYS TO NUREMBERG



### | SUBWAY LINES IN NUREMBERG



### | BY CAR

You may reach E|DPC via car from **the Highway**:

- A9: Take exit 52 - Fischbach
- A6: Take exit 59 - Langwasser
- A73: Take exit 34 - Zollhaus
- Your navigation system will find NuernbergMesse if you enter "Karl-Schoenleben-Strasse" as address or Messezentrum as a special destination.

### | BY PUBLIC TRANSPORTATION

To reach E|DPC from **Nuremberg Main Station**:

- Take subway no. 1 or 11 in direction "Langwasser"
- Take stop "Messe"

To reach E|DPC from **Nuremberg Airport**:

- Take subway no. 2 in direction "Roethenbach"
- Take stop "Main Station"
- Take subway no. 1 or 11 in direction "Langwasser"
- Take stop "Messe"

Please find more Information on the website [www.vgn.de](http://www.vgn.de)

### | EVENING RECEPTION

To reach the E|DPC Evening Reception from the Convention Center by **public transportation**:

- Take subway no. 1 or 11 in direction "Fuerth"
- Take stop "Lorenzkirche"
- 5 min on foot towards "Hauptmarkt"

After crossing the market square, the historic townhall is located on the right hand side.

To reach the Evening Reception from the Convention Center by **car**, enter the address "Rathausplatz 2" as destination in your navigation system. The next parking garage is "Hauptmarkt" located in Augustinerstraße 4.



## VENUE

E|DPC 2014 will take place at the Nuernberg Convention Center (NCC) West and hall 12 of NuernbergMesse on September 30<sup>th</sup> and October 1<sup>st</sup>, 2014. For your accommodation several hotels are booked all over the city. For prices and reservation, please use the reservation form on our website [www.edpc.eu](http://www.edpc.eu). Nuremberg boasts a unique mixture of tradition and modern times. Both people born here and people who moved here appreciate its extraordinary quality of life. At the same time, Nuremberg is a modern city with 500,000 inhabitants, and the centre of a prospering European metropolitan region with 2.5 million inhabitants. Its almost thousand years of history are still obvious in its cityscape. Please find more information at [www.nuernberg.de](http://www.nuernberg.de).

## EXHIBITION

E|DPC 2014 will be completed by a focussed exhibition. Companies, research institutes and other organizations will be offered the opportunity to present their products and services to all participants. The exhibition is organized by the Mesago Messe Frankfurt GmbH. For any further questions regarding the E|DPC Exhibition please contact Ms. Franziska Hesse ([franziska.hesse@mesago.com](mailto:franziska.hesse@mesago.com)) or visit the website [www.edpc-expo.com](http://www.edpc-expo.com).

## SPONSORSHIP

Are you interested in supporting E|DPC 2014 and presenting your company or organization as a sponsor? E|DPC 2014 is the ideal platform for the individual advertising of your innovative products and services. For further information, please visit our website [www.edpc.eu/sponsoring-partners](http://www.edpc.eu/sponsoring-partners).

## REGISTRATION

By fax: +49 (911) 5302 9070      Online: [www.edpc.eu](http://www.edpc.eu)  
By email: [service@edpc.eu](mailto:service@edpc.eu)

For the fax registration please use the following registration form:

Salutation \_\_\_\_\_ Title \_\_\_\_\_  
First Name \_\_\_\_\_  
Last Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Department \_\_\_\_\_  
Street/Unit number \_\_\_\_\_  
Postal Code \_\_\_\_\_ City \_\_\_\_\_  
Country \_\_\_\_\_  
Phone \_\_\_\_\_  
Fax \_\_\_\_\_ Mobile phone \_\_\_\_\_  
email \_\_\_\_\_

### CONFERENCE FEE

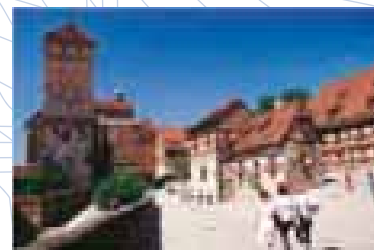
Includes access to all conference sessions (including the Green Factory sessions), access to the exhibition, participation at the evening reception, coffee and lunch breaks, conference proceedings (printed and electronic) as well as entitlement to participate at the tutorials and technical tours.

- |                                    |                  |
|------------------------------------|------------------|
| <input type="radio"/> Standard Fee | 980,- € plus VAT |
| <input type="radio"/> Reduced Fee* | 580,- € plus VAT |

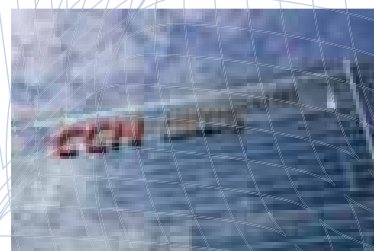
I also register for

- |  |         |                  |
|--|---------|------------------|
| <input type="radio"/> Tutorial               | # _____ | 100,- € plus VAT |
| <input type="radio"/> Technical Tour Package | # _____ | 100,- € plus VAT |
| <input type="radio"/> Evening Reception      |         | included         |

\* Reduced fee for International Program Committee members, speakers, exhibitors and university members. All prices plus VAT.



Copyright City of Nuremberg



Copyright Mesago Messe Frankfurt GmbH

## RELEASE FORM

By registering to the E|DPC conference you agree to store, administrate and use your personal data for the generation of your invoice and for informing you continuously about the latest research results and technology transfer activities of the Institute for Factory Automation and Production Systems (FAPS) of the University of Erlangen-Nuremberg and of Mesago Messe Frankfurt GmbH plus affiliates. Your personal data will not be transferred to third parties. If you do not wish to receive further information, please inform us immediately.

With the registration you also agree that photographs of your person shall be taken during the conference E|DPC. The University of Erlangen-Nuremberg shall have the non-exclusive, transferable, worldwide right in perpetuity to exploit such photographs in any and all forms, including, but not limited to reporting on the aforementioned conference.

Cancellations received in writing prior to August 1<sup>st</sup>, 2014 will be refunded less a 100,- € plus VAT administration fee. After August 1<sup>st</sup>, 2014 the fee will be fully charged.

### Conference Organizer:

E|DPC office, c/o FAPS-TT GmbH  
Fuerther StraÙe 246b, D-90429 Nuremberg

## VENUE

NürnbergMesse GmbH - NCC  
Messezentrum, 90471 Nuremberg

Conference Coordinator  
Alexander Kuehl

phone: +49 (911) 5302 9090

fax: +49 (911) 5302 9070

email: [service@edpc.eu](mailto:service@edpc.eu)

web: [www.edpc.eu](http://www.edpc.eu)