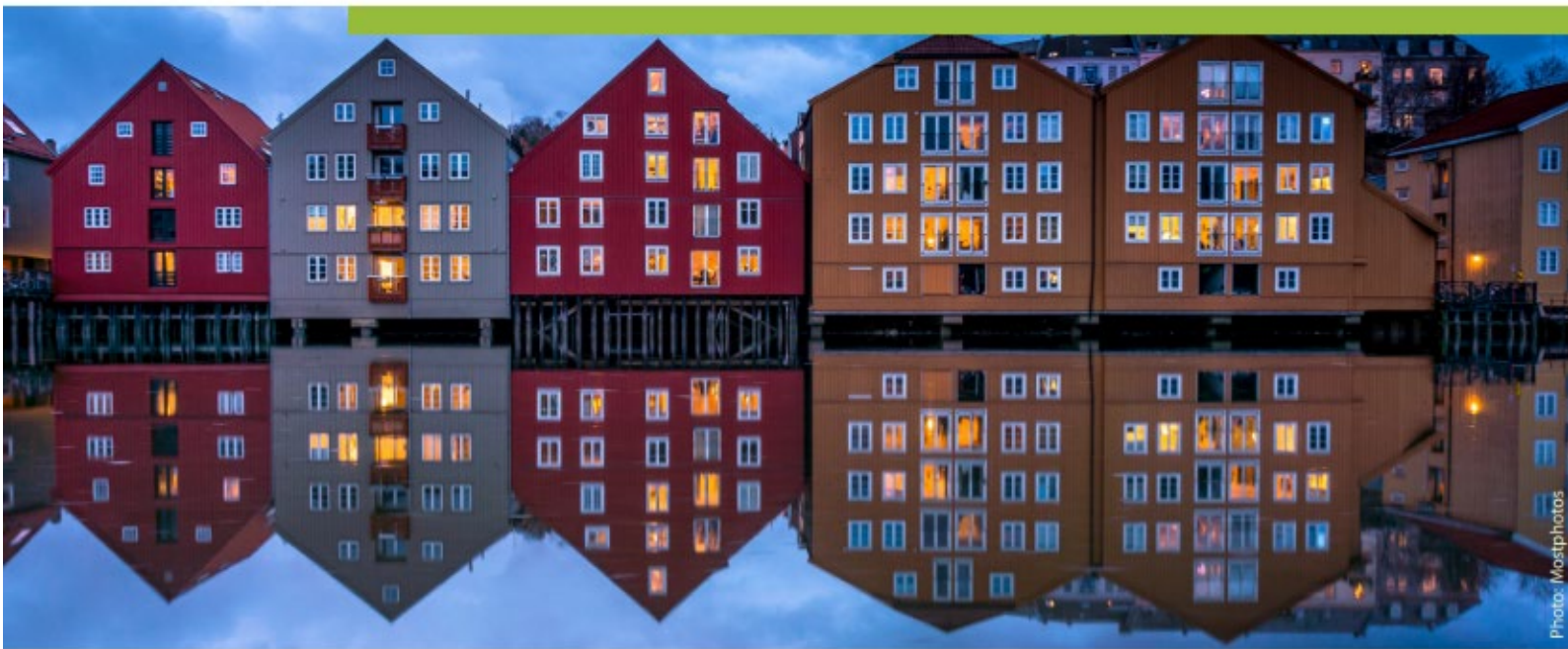


# The 33rd International Conference on Electrical Contacts

## Programme

21–25 June 2026 | Trondheim, Norway  
ICEC2026 | [www.icec2026.com](http://www.icec2026.com)



SUNDAY, 21 June 2026

18:00 – 20:00 REGISTRATION

MONDAY, 22 June 2026

8:00 REGISTRATION

9:00 WELCOME AND OPENING REMARKS

9:10 HIGH-VOLTAGE SWITCHGEAR

Chair: Magne Runde

1.1	<p>INVITED TALK:  <b>Challenges to contact systems in SF6-free high-voltage switchgear</b>  René Peter Paul Smeets</p>
1.2	<p><b>Additively Manufactured Contact Geometries as Opportunity for Future Contact Designs</b>  David Cziumplik, Andreas Laufer, Marius Hinz, Karen Flügel, Dirk Bösche, Michael Kurrat  TU Braunschweig, Braunschweig, Germany</p>
1.3	<p><b>Data-Driven Identification of Equivalent Physical Parameters for Arc Quenching Performance of Gassing Materials</b>  Weidong Cao<sup>1</sup>, Guanyu Wang<sup>1</sup>, Qian Wang<sup>2</sup>, Boya Zhang<sup>1</sup>, Xingwen Li<sup>1</sup>  <sup>1</sup>Xi'an Jiaotong University, Xi'an, China, <sup>2</sup>Xi'an University of Technology, Xi'an, China</p>

10:40 BREAK

11:10 NON-ARCING CONTACTS

Chair: Åsa Rudolphi Kassman

2.1	<p><b>Investigation of electric and magnetic field in bolted copper busbar joints</b>  Toni Ivas<sup>1</sup>, Philipp Scheidegger<sup>1</sup>, Rolf Brönnimann<sup>1</sup>, Jonas Diaz<sup>1</sup>, Jacim Jacimovic<sup>2</sup>, Lorenz Herrmann<sup>1</sup>  <sup>1</sup>EMPA, Dubendorf, Switzerland, <sup>2</sup>ABB Switzerland, Baden, Switzerland</p>
2.2	<p><b>Investigation of Wear in High-Voltage Circuit Breaker Electrical Contacts</b>  Vincent Niggel<sup>1</sup>, Lorenz Herrmann<sup>1</sup>, Andrew Fairbrother<sup>2</sup>, Rowena Crockett<sup>1</sup>  <sup>1</sup>EMPA, Zurich, Switzerland, <sup>2</sup>Hitachi Energy, Zurich, Switzerland</p>
2.3	<p><b>Understanding of the High-Frequency Impedance Characteristics of Micro-scale Gold-plated Contact Interfaces</b>  Yinnan Zhang<sup>1</sup>, Chao Zhang<sup>1,2</sup>, Yuchen Liao<sup>1</sup>, Wanbin Ren<sup>1</sup>  <sup>1</sup>School of Electrical Engineering and Automation, Harbin Institute of Technology, Harbin, China, <sup>2</sup>School of Instrumentation Science and Engineering, Harbin Institute of Technology, Harbin, China</p>
2.4	<p><b>The performance of offshore charging contacts with and without maintenance with contact grease</b>  Kristian Solheim Thinn, Niklas Magnusson, Erik Bjerrehorn, Olve Moen  SINTEF Energi, Trondheim, Norway</p>

12:30 LUNCH

### 13:30 VACUUM INTERRUPTERS

Chair: Kaveh Niayesh

3.1	<p><b>Current Chopping of Vacuum Interrupters with Stainless Steel Contacts</b>          Christoph Kenel<sup>1</sup>, Siobhan McKeown<sup>1</sup>, Roman Mukin<sup>1</sup>, Dietmar Gentsch<sup>2</sup>, Julien Rault<sup>1</sup>,  <sup>1</sup>ABB Switzerland, Baden Dättwil, Switzerland, <sup>2</sup>ABB Germany, Ratingen, Germany</p>
3.2	<p><b>Comparative Study on Arc Dynamics and Thermal Recovery of different CuCr Contacts for Vacuum Interrupters</b>          Naghme Dorraki<sup>1</sup>, Sergey Gortschacow<sup>2</sup>, Andreas Lawall<sup>1</sup>, Thomas Brauner<sup>1</sup>, Frank Graskowski<sup>1</sup>  <sup>1</sup>Siemens, Berlin, Germany, <sup>2</sup>Leibniz Institute for Plasma Science and Technology, Greifswald, Germany</p>
3.3	<p><b>Evaluation of Surface Temperature of Switching Contacts in Vacuum by Optical Methods</b>          Sergey Gortschakow, Gregor Gött, Ralf Methling, Dirk Uhrlant          Leibniz institute for plasma science and technology, Greifswald, Germany</p>
3.4	<p><b>Effect of Laser Surface Remelting on the Electrical Performance of CuCr Electrical Contacts</b>          Ming Yu<sup>1</sup>, Peng Li<sup>1</sup>, Yong Wang<sup>1</sup>, Xiaojun Wang<sup>1</sup>, Ning Han<sup>1</sup>, Xiaofei Yao<sup>2</sup>  <sup>1</sup>ShaanXi Sirui Advance Materials Co., Xi'an, China, <sup>2</sup>Xi'an Jiatong University, Xi'an, China</p>
3.5	<p><b>Multi-Parameter Investigation of Magnetron Currents in Vacuum Interrupters</b>          Patrick Rumpelt, Philipp Hauch, Marco Thönnessen, Michael Weuffel          ABB, Ratingen, Germany</p>

### 15:10 BREAK

### 15:40 ENVIRONMENTAL EFFECTS

Chair: Sophie Noël

4.1	<p><b>A framework for holistic durability assessment of wire-connector systems under vibrational load – The influence of connector arrangement and wire routings</b>          Roman Probst, Dirk Hilmert, Frederik Kiel, Jian Song          OWL University of Applied Sciences and Arts, Lemgo, Germany</p>
4.2	<p><b>Effect of water content on ablative mechanism of gassing materials under arc action</b>          Qian Wang<sup>1</sup>, Yi Shang<sup>1</sup>, Weidong Cao<sup>2</sup>, Wanmeng Zhao<sup>1</sup>, Yuxuan Liu<sup>1</sup>, Xu Zhong<sup>1</sup>  <sup>1</sup>Xi'an University of Technology, Xi'an, China, <sup>2</sup>Xi'an Jiaotong University, Xi'an, China</p>
4.3	<p><b>Intrusion of particles in open vent hole type relays and related failure modes</b>          Thomas Herrle<sup>1</sup>, Dieter Volm<sup>2</sup>  <sup>1</sup>Panasonic Industrial Devices Europe, Pfaffenhofen an der Ilm, Germany, <sup>2</sup>Panasonic Industry Europe, Ottobrunn, Germany</p>
4.4	<p><b>Effects of Aging on the Mechanical Drop-Shock Performance of SAC305 Solder Interconnects</b>          Saddam Daradkeh<sup>1</sup>, Abdallah Alakayleh<sup>1</sup>, Sufyan Tahat<sup>1</sup>, Waad Tarman<sup>1</sup>, Elizabeth Gainey<sup>1</sup>, George Flowers<sup>1</sup>, Sa'd Hamasha<sup>2</sup>, Jeffrey Suhling<sup>1</sup>  <sup>1</sup>Auburn University, Auburn AL, USA, <sup>2</sup>Binghamton University, Binghamton NY, USA</p>

### 17:00 END OF SESSIONS

### 18:30 ORGAN CONCERT IN NIDAROS CATHEDRAL (see information on back cover)

TUESDAY, 23 June 2026

**9:00 DIAGNOSTICS AND RELIABILITY**

Chair: Xingwen Li

5.1	<p><b>Part 1: Analysis of Electrode Ageing Based on Signatures of Electrical Arcs</b>  Raul Carreira Rufato<sup>1</sup>, Malyk Benmouffok<sup>2</sup>, Cyril Van de Steen<sup>1</sup>, Patrick Schweitzer<sup>3</sup>  <sup>1</sup>Safran Tech, Blagnac, France, <sup>2</sup>IRT Saint Exupéry, Toulouse, France, <sup>3</sup>Institut Jean Lamour-UMR 7198, University of Lorraine, Nancy, France</p>
5.2	<p><b>Part 2: Reflection and Methodology for Arc Database Signal Generation in Aircraft Systems</b>  Malyk Benmouffok<sup>1</sup>, Raul Carreira Rufato<sup>2</sup>, Cyril Van de Steen<sup>2</sup>, Patrick Schweitzer<sup>3</sup>  <sup>1</sup>IRT Saint Exupéry, Toulouse, France, <sup>2</sup>Safran Tech, Blagnac, France, <sup>3</sup>Institut Jean Lamour-UMR 7198, University of Lorraine, Nancy, France</p>
5.3	<p><b>Contact characteristics monitored by AI-Methods</b>  Daniel Kupka<sup>1</sup>, Armin Strahl<sup>2</sup>, Thomas Zimmermann<sup>1</sup>, Arthur Zimmermann<sup>1</sup>  <sup>1</sup>Siemens, Amberg, Germany, <sup>2</sup>Siemens, Regensburg, Germany</p>
5.4	<p><b>Diagnostic of DC Arc Plasmas in Aeronautic Conditions: Application to Arc Fault Detection</b>  Arthur Hellé, Robert Hugon, Frédéric Brochard, Grégory Marcos  Institut Jean Lamour, Nancy, France</p>
5.5	<p><b>Frequency Band Importance Estimation for Arc Faults via Multi-Branch Neural Networks</b>  Abdelhak Maoukouf, Patrick Schweitzer  Institut Jean Lamour - Université de Lorraine, Nancy, France</p>

**10:40 BREAK**

**11:10 ARCING CONTACTS**

Chair: Timo Muetzel

6.1	<p><b>Image Processing–Based Quantification of Contact Microstructure for Erosion Assessment in High Voltage Gas Circuit Breakers</b>  Milad Mohammadhosein<sup>1</sup>, Kaveh Niayesh<sup>2</sup>  <sup>1</sup>University of Tehran, Tehran, Iran, <sup>2</sup>Norwegian University of Science and Technology, Trondheim, Norway</p>
6.2	<p><b>Electrical Performance Study of AgSnO<sub>2</sub>In<sub>2</sub>O<sub>3</sub> Materials with Different Preparation Processes under High Current Surge Conditions</b>  Yibo You, Yangfang Chen, Dai Wan, Xiaofang Yan, Qinghong Wei, Zhenyang Song  Fuda Alloy Materials Co., Zhejiang, China</p>
6.3	<p><b>Contact material testing - modern model switch methods</b>  Armin Strahl<sup>1</sup>, Daniel Kupka<sup>2</sup>, Andreas Kammerl<sup>1</sup>, Marina Logvinova<sup>2</sup>  <sup>1</sup>Siemens, Regensburg, Germany, <sup>2</sup>Siemens, Amberg, Germany</p>
6.4	<p><b>The current transfer to a copper cathode in low-voltage, low-current arcs of short length</b>  Margarita Baeva<sup>1</sup>, Jonas K. C. Ballentin<sup>2</sup>, Dirk Uhrlandt<sup>1,2</sup>  <sup>1</sup>Leibniz Institute for Plasma Science and Technology, Greifswald, Germany, <sup>2</sup>Institute of Electrical Power Engineering, University of Rostock, Rostock, Germany</p>

**12:30 LUNCH**

### 13:30 SUSTAINABILITY

Chair: Makoto Hasegawa

7.1	<p>INVITED TALK:  <b>Engineering Sustainability: From Commitment to Competitive Advantage</b>            John Marsh            TE Connectivity</p>
7.2	<p><b>Pathway to Sustainability in Connector Development: Influence of material and design changes</b>            Isabell Buresch            TE Connectivity, Wört, Germany</p>
7.3	<p><b>Sustainable Contact Materials: Comparison between Different Contact Materials for MV Switchgears regarding their Resistance and CO2 Equivalent</b>            Nils Wilm Rosebrock, Michael Kurrat            Technical University Braunschweig, Germany</p>

### 14:50 BREAK

### 15:20 FUNDAMENTALS

Chair: Christian Kroepfl

8.1	<p><b>Geometric Influence on Repulsion Forces in Butt Contacts</b>            Sergey Perekopskiy            TE Connectivity, Berlin, Germany</p>
8.2	<p><b>An integrated BEM-FEM simulation framework for the calculation of constriction resistances between rough surfaces</b>            Robert Scherr, Thomas Wielsch            Weidmüller Group, Detmold, Germany</p>
8.3	<p><b>Setup for electrical and mechanical characterization of copper junctions at the microscale</b>            Jonas Diaz<sup>1</sup>, Toni Ivas<sup>2</sup>, Rafael Philipona<sup>3</sup>, Philipp Scheidegger<sup>4</sup>, Rolf Brönnimann<sup>4</sup>, Jacim Jacimovic<sup>5</sup>, Johann Michler<sup>1</sup>, Lorenz Herrmann<sup>6</sup>  <sup>1</sup>Laboratory for Mechanics of Materials and Nanostructures, Empa Swiss Federal Laboratories for Materials Science and Technology, Thun, Switzerland, <sup>2</sup>Laboratory for Advanced Materials Processing, Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland, <sup>3</sup>School of Biomedical and Precision Engineering, University of Bern, Bern, Switzerland, <sup>4</sup>Laboratory for Transport at Nanoscale Interfaces, Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland, <sup>5</sup>ABB Motion Services, Turgi, Switzerland, <sup>6</sup>Empa Swiss Federal Laboratories for Materials Science and Technology, Dübendorf, Switzerland</p>
8.4	<p><b>Mass transfer from a molten bridge to separating electrodes</b>            Paul G Slade<sup>1</sup>, Roland S Timsit<sup>2</sup>  <sup>1</sup>Consultant, Itaca, United States, <sup>2</sup>Timron Scientific Consulting, Toronto, Canada</p>
8.5	<p><b>Influence of contact geometry and interfacial force on contact behaviour: Combined theoretical and simulation validation</b>            Akshata Sangle<sup>1</sup>, Stefan Goetz<sup>1</sup>, Florian Bruhn<sup>2</sup>  <sup>1</sup>Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany, <sup>2</sup>iwis smart connect, Rieden am Forggensee, Germany</p>

### 17:00 END OF SESSIONS

WEDNESDAY, 24 June 2026

**9:00 COATED CONTACTS**

Chair: Peter Jaeger

9.1	<b>Contacting of Copper Clad Aluminum Hairpins for Electric Drives using Laser Welding</b> Felix Wirthmann, Marcel Baader, Tobias Zürrlein, Fabian Giesbert, Thorsten Ihne, Florian Risch Institute for Factory Automation and Production Systems, Friedrich-Alexander-University Erlangen-Nuremberg, Nuremberg, Germany
9.2	<b>Effect of Ag/TiO<sub>2</sub> Nanoparticles on the Electrical Performance and Durability of Silver Coatings for Electrical Contacts</b> Alsayed Abdel Aal, Michael Blauth, Jian Song Ostwestfalen-Lippe University of Applied Sciences and Arts, Lemgo, Germany
9.3	<b>Advanced Silver Coatings for Connector Applications in E-Mobility</b> Sönke Sachs <sup>1</sup> , Isabell Buresch <sup>2</sup> <sup>1</sup> TE Connectivity, Bensheim, Germany, <sup>2</sup> TE Connectivity, Wört, Germany
9.4	<b>Tribological and electrical properties of electrodeposited tin zinc coatings</b> Aurore Brézard Oudot, Sophie Noël, Julien Acquadro, Thierry Leblanc, Philippe Testé, Frédéric Houzé Centralesupelec, Gif sur Yvette, France
9.5	<b>Silver reduction through high-performance composite technologies and non-precious metal sub-layers</b> Timo Mützel, Havva Cinaroglu Doduco Contacts & Refining, Pforzheim, Germany

**10:40 BREAK**

**11:10 ELECTRIC ARCS**

Chair: Rod Martens

10.1	<b>Simulation of the Electrical Arc Motion between Busbar Electrodes</b> Camille Gouze <sup>1</sup> , Yann Cressault <sup>1</sup> , Flavien Valensi <sup>1</sup> , Malyk Benmouffok <sup>2</sup> , Michael Darques <sup>2</sup> , Cyril Van de Steen <sup>3</sup> <sup>1</sup> Université de Toulouse, Toulouse, France, <sup>2</sup> IRT Saint Exupery, Toulouse, France, <sup>3</sup> Safran group, Toulouse, France
10.2	<b>Big-Data-Driven Screening and Optimization Design of Gassing Materials (PAs) for DC Circuit Breakers</b> Qian Wang <sup>1</sup> , Yuxuan Liu <sup>1</sup> , Weidong Cao <sup>2</sup> , Xinzgan Chen <sup>1</sup> , Yi Shang <sup>1</sup> , Xu Zhong <sup>1</sup> <sup>1</sup> Xi'an University of Technology, Xi'an, China, <sup>2</sup> Xi'an Jiaotong University, Xi'an, China
10.3	<b>Investigation of dynamic microarcs in air complementing a unified nonequilibrium model</b> Jonas Karl Christian Ballentin <sup>1</sup> , Margarita Baeva <sup>2</sup> , Dirk Uhrlandt <sup>1,2</sup> <sup>1</sup> Institute for Electrical Power Engineering, University Rostock, Rostock, Germany, <sup>2</sup> Leibnitz Institute for Plasma Science and Technology, Felix-Hausdorff-Str. 2, Greifswald, Germany
10.4	<b>Comparison of numerical solving for electric arc modelling</b> Cyril Van De Steen <sup>1</sup> , Camille Gouze <sup>2,3</sup> , Malyk Benmouffok <sup>3</sup> , Yann Cressault <sup>2</sup> <sup>1</sup> Safran Tech, Toulouse, France, <sup>2</sup> Laboratoire plasma et conversion d'énergie, Toulouse, France, <sup>3</sup> IRT Saint Exupéry, Toulouse, France

**12:30 LUNCH**

**13:30 SPECIAL APPLICATIONS**

Chair: Werner Johler

11.1	<b>Advanced Contact Materials for Hot-Switching MEMS Relay Applications</b> Dipl.-Ing. Martin Köhne Robert Bosch, Renningen, Germany
11.2	<b>Characterisation of Pt/PEDOT/Si Layered Structures for MEMS Contacts</b> Nasser Aldhahri <sup>1</sup> , Yoshishige Tsuchiya <sup>1</sup> , Tomoyuki Kurioka <sup>2</sup> , Punvinai Vinaisuratarn <sup>2</sup> , Joji Higuchi <sup>2</sup> , Tso-Fu Mark Chang <sup>2</sup> , Masato Sone <sup>2</sup> , Liam Boodhoo <sup>1</sup> , Thomas Bull <sup>3</sup> , Yan Yang <sup>4</sup> , John W. McBride <sup>3,4</sup> <sup>1</sup> School of Electronics and Computer Science, University of Southampton, United Kingdom, <sup>2</sup> Institute of Integrated Research, Institute of Science Tokyo, Japan, <sup>3</sup> School of Engineering, University of Southampton, United Kingdom, <sup>4</sup> TaiCaan Technologies, Southampton, United Kingdom
11.3	<b>Mating Cycle Component-Level Testing for E-Mobility: Mating Force, Micro-Ohm Contact Resistance, and Wear</b> Felix Greiner, Soenke Sachs, Frank Ostendorf TE Connectivity, Bensheim, Germany
11.4	<b>Innovative Stamped Terminals plated with Reel-to-Reel Silver Graphite for Automotive Connectors</b> Maxime Porte, Rene Lehmann APTIV, Nuremberg, Germany

**14:50 BREAK**
**15:20 DYNAMIC PHENOMENA**

Chair: Thomas Schoepf

12.1	<b>Investigation of contact dynamic welding mechanisms of silver tin-oxide based on the evolution of eroded surface morphology</b> Chao Zhang, Guoliang Chen, Yubin He, Wanbin Ren Harbin Institute of Technology, Harbin, China
12.2	<b>Experimental verification on forming carbon films onto the friction surface of contact wires when using metalized carbon contact strips</b> Kento Mitani, Yoshitaka Kubota, Fumiko Morimoto Railway Technical Research Institute, Hikari-cho, Kokubunji-shi, Japan
12.3	<b>Influence of current waveform on km/s range electric sliding contact in the context of electromagnetic launchers</b> Vincent Andraud, Paul Gapenne, Quentin Hassler, Philippe Baumann, David Bluntzer, Markus Schneider ISL, Saint-Louis, France

**16:20 END OF SESSIONS**
**17:30 ARCHBISHOP'S PALACE MUSEUMS OPEN (see information on back cover)**
**19:00 CONFERENCE DINNER AT THE ARCHBISHOP'S PALACE**

THURSDAY, 25 June 2026

**9:00 DC SWITCHING**

Chair: John McBride

13.1	<p><b>Enhancing the Interrupting Capability of Low-voltage DC Hybrid Circuit Breakers</b>            Caizhi Gao<sup>1</sup>, Zhaozi Zhang<sup>1</sup>, Silei Chen<sup>2</sup>, Xingwen Li<sup>1</sup>, Yinfang Huang<sup>3</sup>  <sup>1</sup>State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, Xi'an, China, <sup>2</sup>School of Electrical Engineering, Xi'an University of Technology, Xi'an, China, <sup>3</sup>Shanghai Liangxin Electrical Co., Pudong, China</p>
13.2	<p><b>Post-arc erosion of metal surfaces</b>            Pierre Corfdir, Luca Sulmoni, Christoph Kenel, Patrick Sütterlin            ABB Corporate Research, Baden-Dättwil, Switzerland</p>
13.3	<p><b>Experimental Characterization of DC Fault Arcs and Comparative Analysis with AC Fault Arcs</b>            Frederik Mingers, Verena West, Willem Leterme            RWTH Aachen University, Aachen, Germany</p>
13.4	<p><b>Break arc behaviors of Ag, AgSnO<sub>2</sub>, AgNi and AgZnO in inductive DC loads up to 20V/20A under magnetic field application</b>            Makoto Hasegawa, Reo Oikawa, Haruto Oiwa, Yuna Onishi            Chitose Institute of Science and Technology, Chitose, Japan</p>
13.5	<p><b>Determination of post-arc conductance by hybrid switching of low voltage DC currents</b>            Diego Gonzalez<sup>1</sup>, Luz Gonzalez<sup>2</sup>  <sup>1</sup>Leibniz-INP, Greifswald, Germany, <sup>2</sup>Ludwig-Jahn Gymnasium, Greifswald, Germany</p>

**10:40 BREAK**

**11:10 NON-ARCING CONTACTS**

Chair: Magne Runde

14.1	<p><b>LPBF-based, additively manufactured contact ring segments for closed-form coil stators</b>            Alexander Vogel, Felix Wirthmann, Muhammed Kilic, Thorsten Ihne, Jörg Franke, Florian Risch            Institute for Factory Automation and Production Systems - Friedrich-Alexander-University Erlangen-Nuremberg, Germany</p>
14.2	<p><b>Separable connection of prismatic batteries</b>            Tag Hammam<sup>1</sup>, Peter Andersson<sup>1</sup>, Lars Gunnarsson<sup>2</sup>, Therese Källgren<sup>3</sup>  <sup>1</sup>Swerim, Kista, Sweden, <sup>2</sup>Scania CV, Södertälje, Sweden, <sup>3</sup>Traton, Södertälje, Sweden</p>
14.3	<p><b>Evaluation of current-carrying capacity of silver-based oxide contact pairs</b>            Chang Sun<sup>1</sup>, Chao Zhang<sup>1</sup>, Yinnan Zhang<sup>1</sup>, Wanbin Ren<sup>1</sup>, Yinghua Fu<sup>2</sup>  <sup>1</sup>Harbin Institute of Technology, Harbin, China, <sup>2</sup>Nanchang Chixi Technology Company, Nanchang, China</p>
14.4	<p><b>The Role of Mechanical Stress in Electrical Contact Elements during Short-Circuits</b>            Toni Israel<sup>1</sup>, Tom Kufner<sup>1</sup>, Philipp Strehler<sup>1</sup>, Julian Angel Czajor<sup>1</sup>, Michelle Pomsel<sup>2</sup>, Christian Hildmann<sup>2</sup>, Stephan Schlegel<sup>2</sup>  <sup>1</sup>Stäubli Electrical Connectors, Allschwil, Switzerland, <sup>2</sup>Dresden University of Technology, Dresden, Germany</p>

**12:25 CLOSING REMARKS**

**12:30 LUNCH**

## GOLD SPONSOR

### Hindustan Platinum

Hindustan Platinum, a leading refiner and manufacturer of precious metal products and services, stands at the forefront of electrical contact innovation — combining material science, precision engineering, and sustainability. With a legacy spanning over six decades, we are a trusted global partner delivering high-performance electrical solutions across switchgear, control gear, automotive, aerospace, and home appliance industries. Every contact we produce reflects our commitment to precision, reliability, and durability. Supported by advanced R&D and stringent quality control, our value-engineered designs optimize material composition and geometry to achieve superior conductivity, wear resistance, and cost efficiency. Our comprehensive portfolio includes silver powders, semi-finished wires and strips, finished contact materials, assemblies, and brazing alloys — providing dependable, application-specific solutions for diverse industries. With world-class facilities in India and Puerto Rico, we deliver consistent quality and responsiveness to global markets. At the core of our operations lies a cutting-edge production facility in India, featuring an in-house LBMA and LPPM-accredited precious metals refinery, complemented by a NABL accredited Analytical Testing Laboratory. Our advanced IT infrastructure and automation systems ensure seamless production planning, efficient manufacturing, and precise inventory management, delivering excellence at every stage. Guided by the Science-Based Targets initiative (SBTi) and aligned with the UN-backed Race to Zero campaign, Hindustan Platinum continues to advance towards net-zero operations — shaping a sustainable, connected future built on trust, innovation, and technological excellence.

## GOLD SPONSOR

### Heraeus Precious Metals / Choksi Heraeus

Heraeus is a globally active, family-owned technology group based in Hanau, Germany. The company comprises 15 operating companies whose products and services span the Business Areas of Metals & Recycling, Healthcare, Semiconductor & Electronics, and Industrials. In fiscal year 2024, Heraeus generated revenues of €29.4 billion and employed roughly 15,200 people across 40 countries. This makes Heraeus one of the top ten largest family-owned enterprises in Germany.

Heraeus Precious Metals is part of the Heraeus Group and globally leading in the precious metals industry. The company covers the value chain from trading to precious metals products to refining and recycling. It has extensive expertise in all platinum group metals as well as gold and silver.

Electrical contact systems are part of the core business. Components made from precious metals are used for switching and sliding contacts, meeting high standards, and ensuring optimal functionality across various industries, including information technology, automotive, and industrial applications. Electrical contacts are available in various sizes, shapes, and materials. Expert guidance is provided to support material selection and customization, based on detailed analysis conducted in Heraeus' in-house laboratories. From initial concept to series production, comprehensive support is delivered by Heraeus and its joint-venture partner Choksi Heraeus.

## GOLD SPONSOR

### SAXONIA Technical Materials

SAXONIA Technical Materials GmbH, based in Hanau, Germany, is part of the internationally active SAXONIA Group, which has around 1,500 employees. With decades of experience in global markets and internationally recognized expertise, the company is one of the leading suppliers of high-quality contact materials, and silver-containing functional materials.

Contact materials made of silver and silver alloys are indispensable when it comes to electrical contacts in low voltage switching applications. Thanks to their outstanding material properties, they are the starting products for an extensive range of semi-finished contact materials for a wide range of applications.

Our range of silver-based contact materials includes fine silver and various silver alloys as well as silver-based composite materials such as silver-nickel (AgNi), silver-tin oxide (Ag/SnO<sub>2</sub>), silver-graphite (AgC), silver-tin oxide-indium oxide (Ag/SnO<sub>2</sub>/In<sub>2</sub>O<sub>3</sub>), silver-zinc oxide (Ag/ZnO), and silver-iron (AgFe).

Our silver-tungsten (carbide) materials (AgW, AgWC) and copper-tungsten (Cu/W) are manufactured using either the press-sinter infiltration (PSI) or press-sinter repress (PSR) process. The sintered contacts are ideal for all types of circuit breakers and protective switches.

With innovative solutions, technological expertise, and global experience, SAXONIA Technical Materials stands for technical materials in perfection.

## GOLD SPONSOR

### Fudar Alloy

Fudar Alloy is a high-tech enterprise specializing in R&D, manufacturing, sales, technical consulting, and related services for electrical contact materials. The company operates four manufacturing bases with a site area of 110,000 square meters, and has over 1,600 employees. Its core business focuses on electrical contact materials—the “heart” of low-voltage electrical equipment. Its main products include silver alloy wires, contact rivets, contact tips, P.M. contact tips, clad strips, profile materials, silver-based brazing materials, and contact assemblies. These products are widely used in low-voltage electrical equipment such as circuit breakers, relays, switches, and contactors, serving a broad range of electrical contact applications.

With a strong global presence, Fudar Alloy’s products are exported to over 32 countries and regions. The company has ranked first in China for production volume and sales revenue within its niche market for many consecutive years.

Fudar Alloy has consistently focused on electrical contact materials, following a "One Meter Width and One hundred Meter Depth" path of specialization and innovation, continuously exploring new technologies, breaking through new processes, and developing new materials, upholding the mission of "Small Materials Change the Big World", and striving to become a global leader in overall solutions for electrical contact systems

## SILVER SPONSOR

### Electracon Paradise

We specialize in a complete range of contact materials — including AgSnO<sub>2</sub>, AgNi, AgZnO, AgCdO, as well as refractory materials like AgW, AgWC, CuW and AgC — in the form of rivets, tips, wires and profiles. With a fully integrated manufacturing setup covering powder metallurgy, internal oxidation, cladding, and precision processing, cold forging, etc we are equipped to deliver consistent quality at scale. What differentiates us is our ability to offer custom-engineered solutions, backed by strong metallurgical expertise, reliable delivery, and long-term OEM partnerships.

## SILVER SPONSOR

### Littelfuse

Littelfuse is a global industrial technology company that enables a safer, more sustainable, and more connected world. Founded in 1927, the company designs, manufactures, and delivers innovative circuit protection, power control, and sensing solutions. Littelfuse products are widely used across automotive, industrial, electronics, data communications, and renewable energy markets. With a strong focus on reliability, safety, and performance, Littelfuse partners closely with customers to solve complex challenges and support critical applications. Headquartered in the United States, the company operates globally, serving customers through a broad portfolio of trusted brands and technologies

## SILVER SPONSOR

### Electrical Contacts Limited

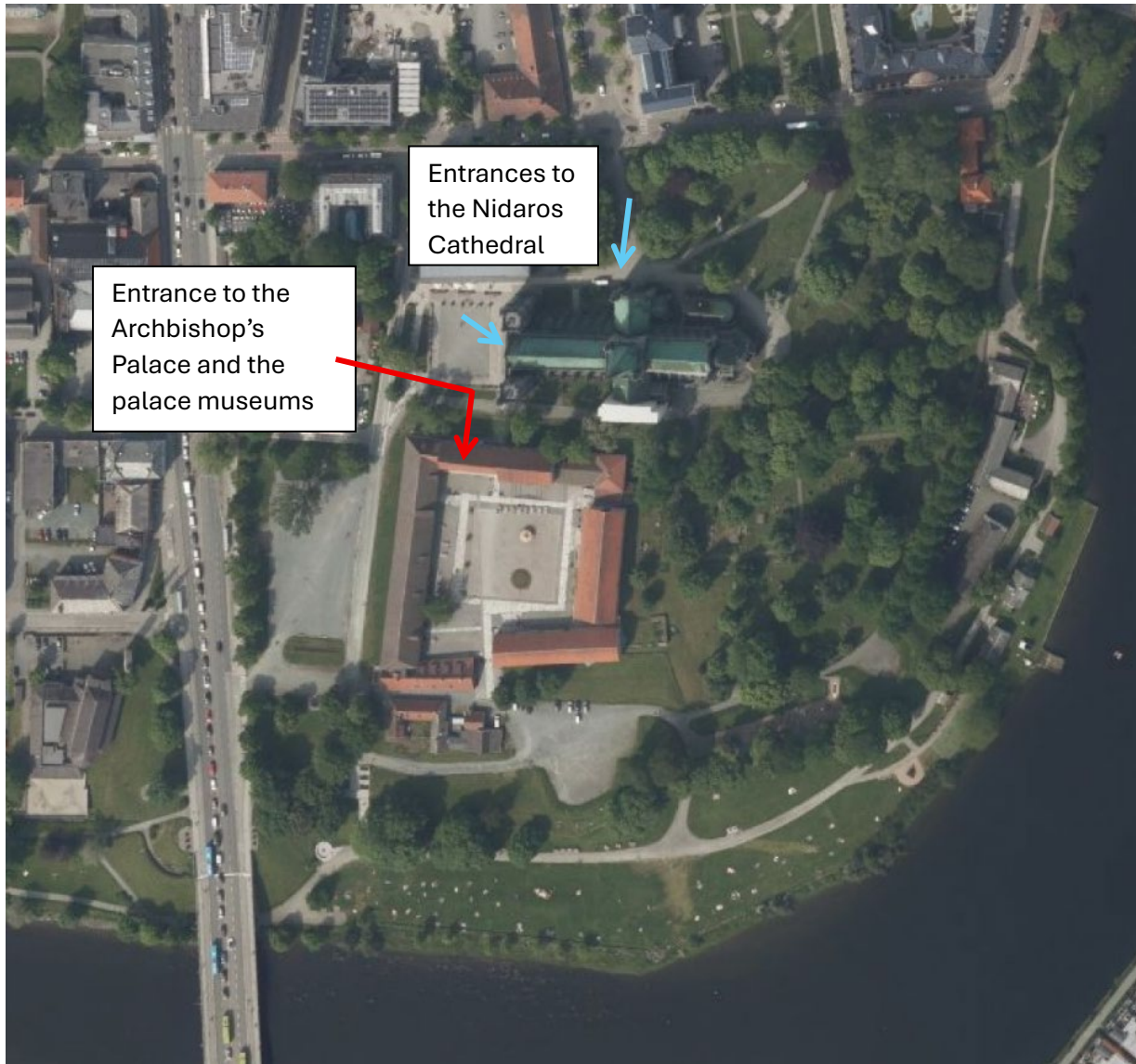
Electrical Contacts Limited is a 55+ year old company serving OEM customers in the circuit protection field. ECL deploys two proprietary technologies: unit compaction refractory metal contact production and cladding of ductile contact materials. From these two technologies we supply discrete contact pieces, brazed contact sub-assemblies plus buttons and tapes. Quality is our hallmark. ECL has a strong position in NAFTA. ECL is present outside NAFTA as well. As a privately held company we present multiple advantages to our customers.

“Continuously improve. Adapt. Survive. Thrive. Together we make ECL better for the benefit of all stakeholders.”

## SILVER SPONSOR

### ABB

ABB is a global technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. By connecting its engineering and digitalization expertise, ABB helps industries run at high performance, while becoming more efficient, productive and sustainable so they outperform. At ABB, we call this ‘Engineered to Outrun’. The company has over 140 years of history and around 110,000 employees worldwide. ABB’s shares are listed on the SIX Swiss Exchange (ABBN) and Nasdaq Stockholm (ABB).



## Social Programme information

### **MONDAY 18:30-19:00 ORGAN CONCERT IN NIDAROS CATHEDRAL**

Enter the Nidaros Cathedral through the East or North entrances (blue arrows). After the concert you will have the opportunity to look around inside the cathedral.

### **WEDNESDAY CONFERENCE DINNER AND MUSEUM VISITS**

Enter the Archbishop's Palace through the North entrance (red arrow). Remember to wear your badge. The Archbishop's Palace Museum and the West wing vault where the Crown Regalia are on display will be open to us from 17:30 to 19:00. Staff will be present to answer questions. Conference dinner starts with refreshments at 19:00.

See also [www.icec2026.com](http://www.icec2026.com)