

# SWISS T&D- DAYS 2023

17/18 OCTOBER 2023

**COME TOGETHER –  
GO FURTHER!**

An event of the PFIFFNER Group



PFIFFNER  
MOSER GLASER  
ALPHA-ET  
HAEFELY  
HAVECO

Media partner

**Transformers**  
MAGAZINE

# WELCOME TO EXCHANGE – WELCOME TO PROGRESS!

## **THE ENERGY GRID OF THE FUTURE FOR A SECURE AND SUSTAINABLE ENERGY SUPPLY**

Alternative energies, e-mobility and carbon dioxide reduction are essential elements of the energy turnaround, happening slowly but steadily. The energy sector faces significant challenges in the future. With the energy transition, also the electrical grid is changing. An awareness about this makes us work today on how to find solutions for tomorrow's demands. The exceptional and novel situation in the energy market necessitates new forms of organisation and orchestration of the electrical grid. A challenge that addresses all authorities, educational institutions and companies in the market.

Energy generation from diverse sources, including renewable sources, is a necessity worldwide. Energy generation options such as onshore and offshore wind turbines, photovoltaic systems and battery storage systems are becoming increasingly important and are being installed and integrated into existing energy grids. And the importance of secure energy storage and supply has never been as evident as today. Establishing, expanding and maintaining a functioning nationwide energy supply is central to every national economy.

## **RENOWNED EXPERTS AND EXCITING SUPPORTING PROGRAM**

The Swiss T&D Days offer the platform to discuss current events and future challenges for electrical transmission and distribution networks and to exchange ideas with power technology experts. Aspects and trends in the area of service life extension of primary equipment through monitoring or the challenges of operating equipment through DC voltage are also of interest.

The Swiss T&D Days is a knowledge and dialogue platform for decision makers in the professional environment of electrical grids and high voltage technology. The organizer is the PFIFFNER group of companies – a manufacturer of energy technology solutions – with roots in the innovative energy canton of Aargau, Switzerland. Within the framework of this platform, the "electrical energy network of the future" will be highlighted with a focus on innovative technological solutions. Thus, there is a new industry meeting place where relevant players can inform themselves, network and drive ideas and new developments.

Engineers and those responsible for transmission and distribution networks and market players in power generation will meet on site, i.e. experts from energy supply companies who are responsible for plants at utilities, industry or in the field of renewable energies, electric railroads or e-mobility. Also in focus are sales partners, purchasers/Purchasing managers of major customers, business managers/CEO, technically responsible and also very important, students and new talents from research and business.

## **BROAD RANGE OF TOPICS FOR INTERESTED SPECIALISTS**

The conference is aimed at a broad audience of experts and specialists. Specialists and decision-makers will illuminate the topics from various perspectives: from the general viewpoint of science, grid operators and cooperation between industry and colleges/universities, against the background of strengthening high-voltage competence and the professional environment of electrical grids. Therefore, the viewpoint of the various education and training partners, or the viewpoint of vocational training, is of great importance. Current topics such as more sustainable insulation solutions, high-voltage direct current transmission and CO<sub>2</sub>-free infrastructures are important. Grid expansion has long been indispensable and is therefore an overarching theme of the contributions and the discussion. But also which innovations will be promoted or demanded in the context of the energy transition are in the center of interest.

## **EXCHANGE OF EXPERIENCE AND NETWORKING**

The aim of the event is to bring the energy community together to discuss technological solution approaches and to network. What makes it very special is that a mix of experienced and younger generation representatives of professors and industry representatives will speak on the main topics of discussion and topics at the Swiss T&D Days.

This event will allow members of the energy community to learn from each other and build relationships that can lead to further collaboration.

## **AN EVENT OF THE PFIFFNER GROUP TOGETHER WITH STRONG PARTNERS**

The Swiss T&D Days are an event of the PFIFFNER Group. Well-known organizations, universities, technical colleges and leading companies from the industry support the large gathering of the power and energy industry.

PFIFFNER International is a family-owned, medium-sized group of companies headquartered in Hirschthal, Switzerland. The group develops, produces and distributes products and solutions for customers in the field of electrical power engineering and electric railroads. With the brands PFIFFNER, MOSER GLASER, HAEFELY ALPHA-ET, PFIFFNER Systems and HAVECO, the companies have been present on the market for many years.

PFIFFNER International, with around 900 employees, has eight production sites, four of them in Switzerland and the others in Germany, Turkey, Brazil and India.

# TUESDAY, 17 OCTOBER 2023

**Day 1 – Knowledge Day, Venue:  
FHNW, Brugg-Windisch, Switzerland**

## **CHALLENGES FOR THE ELECTRICAL GRIDS OF THE FUTURE – SCIENCE, INDUSTRY AND GRID OWNERS PERSPECTIVE**

On the first day, mainly customers, representatives/ distributors and students from the D-A-CH region are invited to the Day of Knowledge. The program is divided into three sections. First, renowned professors will speak about the challenges for future electrical grids from a scientific perspective. Therein, for example, they will shed light on topics such as extending the service life of primary devices through monitoring or the challenges of operating equipment through DC voltage. In the second section, speakers from grid operators will report on challenges and innovations in the transmission and distribution grids. The third part is the panel discussion with the main topic, "Strengthening the professional environment of electrical grids/high-voltage technology", with representatives from the industry and the education system. After these substantial contributions, a more relaxed atmosphere shall be created in order to facilitate networking and interpersonal exchange – an aperitif will round off this exiting day. The event will take place at the University of Applied Sciences of Northwestern Switzerland in Brugg-Windisch.

**Please note: The presentations will be held in German and simultaneously translated into English and French.**

# WEDNESDAY, 18 OCTOBER 2023

**Day 2 – Innovations and Technologies of the  
PFIFFNER Group, Venue:  
Kultur & Kongresshaus (KUK) Aarau**

## **INNOVATIONS AND TECHNOLOGIES FOR A SUSTAINABLE ENERGY GRID IN THE FUTURE**

The innovative products, systems and services of the PFIFFNER Group are the focus of the second day. These include the new sensor products from HAEFELY, the 420/550 kV bushings from MOSER GLASER, the new DCCT and F-gas-free instrument transformer from PFIFFNER, the new CBDE disconnecter generation from ALPHA-ET or system reference projects from PFIFFNER Systems/HAVECO. Experts will provide insight into these new developments and Innovations. The venue for the second day is Aarau. An excursion to a power engineering showcase in the energy canton of Aargau, and a special evening event – "a dinner for all" – will conclude the second day.

**Attention: The presentations and guided tours will be held in English.**

# PROGRAM

## TUESDAY, 17 OCTOBER 2023

**08.30 – 08.45** **Welcome/introduction to the conference**  
*Dr.-Ing. Jürgen Bernauer*  
CEO PFIFFNER Group

**08.45 – 09.15** **Challenges to the electrical grids of the future from a system perspective**  
*Prof. Dr. Martin Geidl*  
FHNW University of Applied Sciences and Arts Northwestern Switzerland, School of Engineering, Switzerland

**09.15 – 09.45** **Options for extending the service life of primary equipment**  
*Prof. Dr.-Ing. Stephanie Uhrig*  
University of Applied Sciences, Munich, Germany

**09.45 – 10.15** **Challenges for insulation systems with DC voltage**  
*Prof. Dr.-Ing. Andreas Küchler*  
Technical University of Applied Sciences Würzburg-Schweinfurt (THWS), Germany

**10.15 – 10.45** **Coffee break**

**10.45 – 11.15** **Transient Behaviour of HVDC Insulation Systems**  
*Prof. Markus H. Zink*  
Technical University of Applied Sciences Würzburg-Schweinfurt (THWS), Germany

**11.15 – 11.45** **Materials in insulation technology, in particular, their erosion and tracking resistance**  
*Dipl. Ing. FH Stefan Kuehnel*  
Zittau/Görlitz University of Applied Sciences, Germany

**11.45 – 12.15** **Role and development of Swissgrid's Swiss transmission network**  
*Dipl. Ing. ETH/HTL Antoine Pochon*  
Head of Grid Strategy, Swissgrid AG, Switzerland

**12.15 – 13.30** **Lunch break**

**13.30 – 14.00** **A way towards a CO<sub>2</sub> free substation**  
*Dipl. Ing. Christian Lindner*  
Head of Engineering, Axpo Grid AG, Switzerland

**14.00 – 14.30** **Challenges and Innovations in the Context of the Energy Transition from the Perspective of a German Transmission System Operator**  
*Dr. Florian Martin*  
Head of Asset Technology, TenneT TSO GmbH, Germany

**14.30 – 15.00** **Energy transition 2045 – How can an accelerated expansion of the 110 kV grid of Netze BW succeed?**  
*Dr. Andreas Kühner*  
Head of Grid Development Projects, Netze BW GmbH, Germany

**15.00 – 15.30** **Coffee break**

**15.30 – 16.00** **Digital substation using the example of the transformer**  
*Dipl. Ing. Fredi Belavić*  
Asset Manager, Austrian Power Grid AG, Austria

**16.00 – 16.30** **Basic investigations on electrical insulation systems**  
*Prof. Dr.-Ing. Marc Klemm*  
University of Applied Sciences in Saarbrücken (HTW), Germany

**16.30 – 17.00** **Project F-gas-free circuit breaker; simulation, experiments, Digital Twin**  
FHNW, FH Ost und TU Braunschweig  
Switzerland, Germany

**17.00 – 17.30** **Panel discussion (Strengthening the professional environment/The Power Lab/Energy Canton Aargau/View of grid operators)**  
Speakers/Experts from Industry and Education

**17.30 – 19.30** **Aperitif / Reception**

# PROGRAM

## WEDNESDAY, 18 OCTOBER 2023

from 08.00 **Welcome coffee / reception of the guests**

**08.30 – 08.40 Introduction PFIFFNER Group**

*Dr.-Ing. Jürgen Bernauer*  
CEO PFIFFNER Group

**08.40 – 09.00 Keynote: Sustainability – Outlook for the Transformer Industry**

*Dr. Mladen Banovic*  
Director / Chief Editor, Transformers Magazine

### STREAM 1 – Instrument Transformers

**09.10 – 09.35 New air-insulated 123 kV current transformer for AIS without SF6 gas**

*Ralf Riel*  
CEO, PFIFFNER Germany  
*Martin Boss*  
Head of Technology, PFIFFNER Switzerland

**09.40 – 10.05 Development of an Eco-Friendly Circuit Breaker**

*Francesco Pisu*  
Head of Circuit Breakers, PFIFFNER Switzerland

### STREAM 2 – Disconnectors

**09.10 – 09.35 Challenges During the Development of a Center Break Disconnector**

*Lorenz Grimm*  
Development Engineer, ALPHA Elektrotechnik

**09.40 – 10.05 First pilot project realised with the new disconnector type CBD 170 kV**

*Mattias Wimmer*  
Head of Disconnectors, ALPHA Elektrotechnik

**10.05 – 10.25 Coffee break**

### STREAM 1 – Instrument Transformers & Testing

**10.30 – 10.55 RC-High Voltage Dividers for HVDC applications**

*Oleg Kuzmin*  
Product & Area Sales Manager, PFIFFNER Switzerland

**11.00 – 11.25 DC-CT, application examples for new DC current transformers up to 10 kA**

*Dr.-Ing. Manfred Winkelkemper*  
Head of R&D, PFIFFNER Switzerland

**11.30 – 11.55 Introduction to HAEFELY's Modular Sensor Platform (HW & SW)**

*Marc Brunner*  
Product Engineer, HAEFELY

### STREAM 2 – Systems and services

**10.30 – 10.55 Presentation of HAVECO based on the Project "Renewal of 170 kV AIS Switchgear"**

*Stefan Häni*  
CEO, HAVECO

**11.00 – 11.25 Sustainable Swiss project – Retrofit of an ewz switchgear for Zurich**

*Walter Stetter*  
CEO, PFIFFNER Systems  
*Felix Behringer*  
Head of Sales Switzerland, PFIFFNER Switzerland

**11.30 – 11.55 Sustainable Project Electric Bus "City-wide "**

*Torsten Berth*  
Business Development Manager, HAEFELY

**12:00 – 13.15 Buffet lunch**

Continuation of the conference program on the following page



**PROGRAM**  
**WEDNESDAY,**  
**18 OCTOBER 2023**

**STREAM 1 – High voltage tests**

**13.30 – 13.55** **PD detector DDX 9160/61 as a Tool for Partial Discharge Measurement**

*Dr. Petr Mráz*

Product Manager, HAEFELY

**14.00 – 14.25** **Preliminary experience with a mobile test system for 525 kV DC Cables**

*Michael Gamlin*

Manager System Engineering & Projects,  
HAEFELY

**13.30 – 13.55** **AC on-site cable tests with the mobile system up to 520kV test voltage (RSKF)**

*Dr. Lorenz Bort*

Design Engineer, HAEFELY

**STREAM 2 – Bushings and busbars**

**13.30 – 13.55** **Expansion of the transformer bushing family including the 420 kV and 550 kV range**

*Laurent Vlesik*

Head of Area Sales Managers Bushings,  
MOSER GLASER

**14.00 – 14.25** **Retrofit of transformers with modern bushing technology**

*Laurent Vlesik*

Head of Area Sales Managers Bushings,  
MOSER GLASER

**14.30 – 14.55** **DURESCA busbars for hydroelectric power plants and offshore wind farms**

*Roger Hausy*

Sales Engineer Busbars, MOSER GLASER

**15.30 – 18.00** **Excursion to a power engineering showcase in the energy canton of Aargau**

**18.30 – 23.00** **Dinner for All with entertainment**

# SPEAKERS

## DAY 1



### **DR.-ING. JÜRGEN BERNAUER**

CEO PFIFFNER Group, Program Lead

**Dr. Jürgen Bernauer is an expert in electrical engineering and high-voltage technologies within the global power industry. With over 22 years of experience at ABB, he has held numerous positions in turnkey substations and has been serving as the CEO of PFIFFNER Group since 2019. Jürgen Bernauer boasts an impressive portfolio of over 20 technical papers on Electromagnetic Compatibility. He is an esteemed member of IEEE - Power & Energy Society and EMC Society, and actively supports business start-ups as a member of Business Angels in Switzerland. As a graduate of the renowned Karlsruhe Institute of Technology in Germany, he holds a special place in the institute's community.**



### **PROF. DR. MARTIN GEIDL**

FHNW University of Applied Sciences and Arts Northwestern Switzerland, School of Engineering, Switzerland

**Prof. Dr. Martin Geidl studied electrical engineering at the Graz University of Technology and earned his doctorate in the same subject at ETH Zurich. He gained practical experience at Swissgrid and Tiko Energy Solutions. Since 2018, he is Head of the Institute of Electrical Power Engineering at the University of Applied Sciences Northwestern Switzerland.**

#### **Challenges to the electrical grids of the future from a system perspective**

In the 150-year history of electrical energy supply we have developed large interconnected systems that supply our countries with electricity in a reliable and cost-effective way. The great challenge of our time is to transform existing systems in a way that infrastructure, power generation and energy use become more sustainable. We can only meet these challenges if we find new solutions for the storage of energy, for making consumption more flexible, and for digitalization and automation at all levels.



## **PROF. DR.-ING. STEPHANIE UHRIG**

University of Applied Sciences, Munich,  
Germany

**Prof. Dr.-Ing. Stephanie Uhrig, née Rätzke, received her doctorate in 2009 on the topic of "On the mode of action of nanoscale filler particles in polymer insulating materials for high-voltage technology" at the Chair of High-Voltage and Plant Engineering (Prof. Dr.-Ing. Josef Kindersberger) at the Technical University of Munich (TUM). From 2010, she worked as a product manager for OMICRON Electronics, a manufacturer of measurement and diagnostic devices for power engineering equipment. Her focus was the diagnosis of ageing phenomena in insulations of various equipment and targeted fault detection in power transformers. Since 2017 she is Professor at Munich University of Applied Sciences and a founding member of the In-Institute ISES, the Research Institute for Sustainable Energy Systems. Her research focuses on fault diagnostics of/on ageing operating equipment in the power supply chain and control of flexible loads in the distribution grid. She is a member of VDE ETG Q2 and Convener of CIGRE WG 2020-1.**

### **Options for extending the service life of primary equipment**

This paper reports about the results of the CIGRE workgroup 2020-1. Electrical plants are of high economic value and therefore should have an operational lifespan of more than/ at least four decades. Yet within the necessary grid expansion it will not be possible to permanently renew the primary equipment. Therefore we need to know about possibilities concerning of expanding the operational lifespan. For this purpose, efficient strategies such as maintenance measures, diagnostics or targeted partial renewal are considered, but limits are also considered and practical examples are presented.



## PROF. DR.-ING. ANDREAS KÜCHLER

Technical University of Applied Sciences  
Würzburg-Schweinfurt (THWS),  
Germany

**Dr.-Ing. Andreas Küchler is professor, scientist and book author on the topic of high voltage technology, with international activities in CIGRÉ, IEEE and ETG. He received his PhD in Karlsruhe, was Head of R&D at HSP Hochspannungsgeräte in Cologne and founder of high-voltage engineering research at THWS Schweinfurt.**

### Challenges to insulation systems for DC voltage

High DC voltage applications are becoming increasingly important, but they present completely new challenges for electrical insulation systems that are not known for AC voltage. The formation of DC electric fields, their influence by temperature gradients, the instability of material properties, critical loading scenarios and testing strategies require a fundamental rethinking. Approaches for a safe and economical design of insulation systems for converter transformers, bushings, cables and accessories, among others, are presented.



## PROF. MARKUS H. ZINK

Technical University of Applied Sciences  
Würzburg-Schweinfurt (THWS),  
Germany

**Professor Markus H. Zink is Head of the Institute for Energy and High Voltage Technology and the High Voltage Laboratory at the Technical University of Schweinfurt. His focus of research are the condition assessment of electrical insulation systems and dielectric properties of insulation materials for HVDC applications.**

### Transient Behaviour of HVDC Insulation Systems

A fundamental understanding of the conductivity, polarization and space charge processes is necessary to safely design HVDC insulation systems for future applications with ever-increasing requirements. In particular, the transient behavior of the insulating systems in the transition from the displacement field to the flow field and, thus, the behavior of the insulating materials need to be investigated more carefully. In this respect, research is being carried out at IEHT using, among other things, a system that can simultaneously measure the electric field strength using the Kerr effect and that can measure the current through the insulating system.



## **DIPL. ING. FH STEPHAN KUEHNEL**

Zittau/Görlitz University of Applied Sciences, Germany

**Dipl. Ing. FH Stephan studied energy engineering at the University of Applied Sciences Zittau/Görlitz where he has been working as a research associate in the field of high voltage technology since 2012. His focus of research is surface behaviour of polymer insulating materials under DC and AC load and under foreign layer load. Since 2016 he is PhD student in a cooperative doctoral program with the TU Dresden.**

### **Materials in insulation technology, in particular, their erosion and tracking resistance**

The presentation will first give a brief overview of the requirements for insulating materials for high-voltage engineering, especially for outdoor applications in the medium- and high-voltage grid. The material property of erosion and tracking resistance of polymeric insulating materials will be discussed in detail, and future challenges due to the increased use in HVDC applications will be pointed out. A central point is a current research into developing a test method for determining erosion and tracking resistance for DC voltage applications.



## **DIPL. ING. ETH/HTL ANTOINE POCHON**

Head of Grid Strategy, Swissgrid AG, Switzerland

**Antoine Pochon is a graduate engineer at ETH/HTL in electrical engineering. He started his career in 1993 at ABB in the area of protection systems and power electronics. He then held various positions at Groupe E, Alpiq and Romande Energie. Since 2020, he has been Head of Grid Strategy at Swissgrid.**

### **Role and development of Swissgrid's Swiss transmission network**

The electricity grid and secure grid operation are essential prerequisites for Switzerland's high quality of life and prosperity. The demands on the power grid have changed significantly in recent years. This development will intensify with the energy transition in the coming decades. A grid that is expanded to meet demand is essential for Switzerland's long-term security of supply. It is, therefore, important that efficient approval and authorization procedures accelerate the modernization of the transmission grid.



## **DIPL. ING. CHRISTIAN LINDNER**

Head of Engineering, Axpo Grid AG,  
Switzerland

**Dipl. Ing. Christian Lindner graduated in electrical energy engineering at the TU Wien in 1990 and earned an eMBA at the University of Zürich in 2010. In 1991 he started as a project manager for developing HV circuit breakers at ABB and from 1996 to 1999 Head of R&D for HV AIS Circuit breakers at ABB. He joined the ABB Management AG in Oerlikon as Assistant Vice President for the global R&D and Marketing for HV substations. Since 2002 he serves as Vice President R&D at Areva T&D in France, since 2007 he is BU Manager for Grid Engineering at Axpo. He is President of the FKH and Member of the CIGRE National Committee of Switzerland and representative of the SC A3.**

### **A way towards a CO<sub>2</sub> free substation**

HV substations have a CO<sub>2</sub> footprint due to the different HV products, due to civil works and electric losses. In his presentation he describes the various sources of direct and indirect CO<sub>2</sub> emissions from a grid operator's perspective. The focus is to reduce the CO<sub>2</sub> footprint in the operational phase and with the right choice of technology. Therefore, environmental parameters are becoming key in the selection of the product. SF<sub>6</sub>-free solutions are available, but this technology represents a minor fraction of the CO<sub>2</sub> footprint of a substation. Therefore, different ways to finally become CO<sub>2</sub> free must be found.



## **DR. FLORIAN MARTIN**

Head of Asset Technology,  
TenneT TSO GmbH, Germany

**Dr. Florian Martin studied electrical engineering, electrical systems engineering and high-voltage engineering. He obtained his engineering diploma at the University of Karlsruhe (TH) 2003. By 2008, he had completed his doctorate on the topic of "High Voltage Test System based on Power Electronic Frequency Converter" as part of a cooperation between HighVolt and the Karlsruhe Institute of Technology (KIT). Since then, Florian Martin has worked for TenneT TSO GmbH (formerly E.ON Netz). Initially, as a specialist in electrical power factor correction in substations. In 2013 Mr. Martin moved to management and has since been responsible for various technical areas. Currently, Dr Martin is Head of Corporate Asset Technology in Asset Management and, together with the department, is responsible for all guidelines for technical energy transmission systems that TenneT TSO uses in the Dutch and German onshore and offshore grids regarding primary and secondary technology.**

### **Challenges and Innovations in the Context of the Energy Transition from the Perspective of a German Transmission System Operator**

The German transmission grid for climate neutrality was presented for the first time in 2023 as the target grid for 2037/2045. In addition to grid expansion on- & offshore AC and DC, innovative resources are required to ensure grid stability. The challenges in planning, realization and operation of the current and the target grid will be shown in the presentation. A focus will be put on the prerequisites and the anticipated developments in the power sector. Innovations on the resource and supply chains will be discussed while maintaining the concrete project reference.



## **DR. ANDREAS KÜHNER**

Head of Grid Development Projects,  
Netze BW GmbH, Germany

**Dr. Andreas Kühner is Head of Network Development Projects, Netze BW GmbH, Germany. He has 25 years of professional experience in the energy industry in various management positions with both transmission and distribution systems operators. Currently he is responsible for constructing high-voltage and high-pressure gas plants of Netze BW, a subsidiary of EnBW. He received his PhD at the Karlsruhe Institute of Technology (KIT).**

### **Energy transition 2045 – How can an accelerated expansion of the 110 kV grid of Netze BW succeed?**

The decarbonization of the energy supply until 2045 and the associated grid construction will be exemplified using the 110 kV grid of Netze BW. The speaker will discuss the challenges of a fast and secure grid conversion, as a "business as usual" approach is insufficient. Technical and procedural acceleration measures that will secure success will be presented.





## DIPL. ING. FREDDY BELAVIĆ

Asset Manager, Austrian Power Grid AG,  
Austria

**Dipl. Ing. Fredi Belavić is Asset Manager at Austrian Power Grid since 2018. His main responsibilities include asset management of high-voltage switchgear, specifically the development of maintenance, strategy and retrofits in power transformers and instrument transformers. He focuses on technology developments related to digitalization, monitoring and insulation technology in these areas. He is involved in developing and implementing the digital substation at APG. Before that, he worked 11 years as a Sales and Application Engineer in the protection and control technology area.**

### **Digital substation using the example of the transformer**

Transformers are the heart of the power system. They are expensive resources with long delivery times. Their failure poses problems in the energy supply and causes very high costs. The goal is to keep the transformers in operation as long as possible in an economical way. Thermal, electrical and mechanical stress factors can reduce the transformer's life. The power transformers are "digitalized" and equipped with sensors to monitor the aging factors more carefully. With the help of the implemented software solutions, the operation of the transformers can be optimized, all faults can be detected and diagnosed early, and malfunctions and unplanned shutdowns can be avoided.



## PROF. DR.-ING. MARC KLEMM

University of Applied Sciences in Saarbrücken (HTW), Germany

**Prof. Dr.-Ing. Marc Klemm is Professor in the field of High Voltage Engineering and Electrical Engineering at the Hochschule für Technik und Wirtschaft at the Universität des Saarlandes. He studied electrical engineering with focus on high voltage engineering, circuit feedback, measurement and sensor engineering (especially climate sensor technology) and worked in various positions at Alstrom Power Generation AG Mannheim (ehemals ABB Kraftwerke) from 2001 to 2006.**

# SPEAKERS

## DAY 2

### **DR.-ING. JÜRGEN BERNAUER**

CEO PFIFFNER Group

### **DR. MLADEN BANOVIC**

Director / Chief Editor,  
Transformers Magazine

### **RALF RIEL**

CEO, PFIFFNER Germany

### **MARTIN BOSS**

Head of Technology,  
PFIFFNER Switzerland

### **FRANCESCO PISU**

Head of Circuit Breakers,  
PFIFFNER Switzerland

### **LORENZ GRIMM BSC**

Development Engineer,  
ALPHA Elektrotechnik

### **MATTHIAS WIMMER**

Head of Disconnectors,  
ALPHA Elektrotechnik

### **OLEG KUZMIN**

Product & Area Sales Manager,  
PFIFFNER Switzerland

### **DR.-ING. MANFRED WINKELNKEMPER**

Head of R&D, PFIFFNER Switzerland

**MARC BRUNNER**

Product Engineer, HAEFELY

**STEFAN HÄNI**

CEO, HAVECO

**WALTER STETTER**

CEO, PFIFFNER Systems

**FELIX BEHRINGER**

Head of Sales Switzerland,  
PFIFFNER Switzerland

**TORSTEN BERTH**

Business Development Manager,  
HAEFELY

**DR. PETR MRÁZ**

Product Manager, HAEFELY

**MICHAEL GAMLIN**

Manager System Engineering &  
Projects, HAEFELY

**DR. LORENZ BORT**

Design Engineer, HAEFELY

**LAURENT VLESIK**

Head of Area Sales Managers Bushings,  
MOSER GLASER

**ROGER HAUSY**

Sales Engineer Busbars,  
MOSER GLASER

# ARRIVAL AND ACCOMMODATION

For rail and air travelers, the venues can be reached conveniently by public transport. Of course, parking facilities are also available at the conference centers in sufficient numbers.

## Venue Day 1

### ARRIVAL FHNW BRUGG-WINDISCH

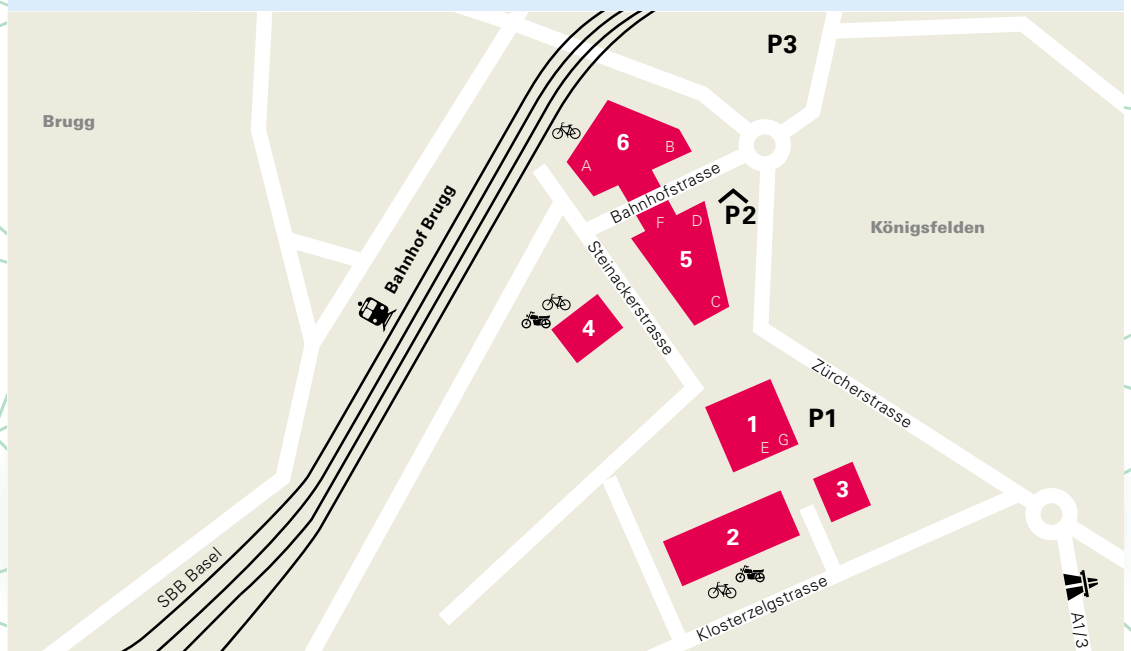
University of Applied Sciences Northwestern Switzerland, FHNW Campus Brugg-Windisch, Bahnhofstrasse 6, 5210 Windisch, T +41 56 202 77 00, [empfang.windisch@fhnw.ch](mailto:empfang.windisch@fhnw.ch)

#### Arrival by public transport

The campus is located less than an hour from Basel, Bern, Zurich and a two-minute walk from Brugg train station. It is optimally accessible by public transport.

#### Arrival by car

Choose the A3 freeway with exit 19 Brugg-Windisch. When programming your navigation aid, please note that the campus is located on the ground of the municipality of Windisch. For passenger cars, 240 public parking spaces are available in the basements of building 5 (P2).



The Swiss T&D Days will take place in buildings 3 and 1 (Networking Zone).

## Venue Day 2

# ARRIVAL KUK (KULTUR & KONGRESSHAUS AARAU)

kultur & kongresshaus aarau, Schlossplatz 9, CH-5000 Aarau  
T +41 62 843 50 50, kuk@aarau.ch



### Approach from direction Zurich

Exit T5 / Aarau-Ost, right lane direction Aarau / Suhr (T5). Entering the city of Aarau via left lane (Luzern / Bern / Olten / Aarau) onto Rohrerstrasse / Laurenzenvorstadt. About 10m before entering the old town, the Schlossplatz with the kultur & kongresshaus aarau is located on the right (there is no parking available there). The closest parking garage is Kasernenparking.

### Approach from Bern

Exit Aarau-West (Schöffland, Kölliken, Suhr) in the direction of Aarau / center. At the traffic circle Rosengarten (with Turbine) turn right into Hintere Bahnhofstrasse (access to parking garage "Behmen" here!). At the traffic circle Gais take the 3rd exit, drive straight on in the middle lane towards Altstadt. About 10m before entering the old town, you will see the Schlossplatz with the kultur & kongresshaus aarau on the right. There are no parking facilities there. The closest parking garage is Kasernenparking.

### Parking facilities

There are no parking spaces for visitors and guests at the kultur & kongresshaus aarau.

Please use the public parking spaces and parking garages. We recommend the public barracks parking at Laurenzenvorstadt (2 minutes on foot to the kultur & kongresshaus aarau).

### **Closure Aarau old town**

The old town of Aarau is closed to through traffic from the end of Laurenzenvorstadt (parking and driving prohibited!). Loading and unloading or boarding and alighting for persons is possible without restrictions on the Schlossplatz.

### **Arrival by train**

On foot in the direction of the city, you can reach the "kuk" in about 8 minutes: follow Bahnhofstrasse in the direction of the center, after Confiserie Brändli/90 Grad Café turn right into Kasinostrasse, continue straight ahead until the end of Kasinostrasse, cross the street, turn left, continue straight ahead for about 20 meters, turn right at Valiant Bank onto Schlossplatz, where the kuk is located.

## **ACCOMMODATION**

In the region of Northwestern Switzerland you will surely find a suitable accommodation option among the various offers. You will find a list of hotels in the immediate vicinity of the respective venue on the event website. The transfer from and to the hotels (according to the offer on the website) is guaranteed. If you would like a transfer from the airport or train station to the hotel of your choice, please note this when registering.

A contingent of rooms has been reserved in each of the following hotels. You can book the rooms directly by indicating "Swiss T&D Days". The following hotels are available for selection:

### **Centurion Towerhotel**

Steinackerstr. 1  
5210 Windisch  
[www.centurion-towerhotel.ch](http://www.centurion-towerhotel.ch)  
[info@centurion-towerhotel.ch](mailto:info@centurion-towerhotel.ch)  
+41 56 460 22 22

### **Blue City Hotel**

Haselstrasse 17  
5400 Baden  
[www.bluecityhotel.ch](http://www.bluecityhotel.ch)  
[home@bluecityhotel.ch](mailto:home@bluecityhotel.ch)  
+41 56 200 18 18

### **Trafo Hotel**

Bruggerstrasse 56  
5400 Baden  
[www.trafohotel.ch](http://www.trafohotel.ch)  
[home@trafohotel.ch](mailto:home@trafohotel.ch)  
+41 56 203 80 80

***ibis Baden Neuenhof***

Alte Zürcherstrasse 53  
5432 Neuenhof  
www.ibis.com  
HA9A0@accor.com  
+41 56 544 49 49

***Hotel aarau-West***

Muhenstrasse 58  
5036 Oberentfelden-Aarau  
www.hotelaarauwest.ch  
hotel@aarau-west.ch  
+41 62 737 01 0

***Holiday Inn Express Aarburg-Oftringen***

Bernstrasse 4  
4665 Oftringen  
www.ihg.com  
info@hiex-oftringen.ch  
+41 62 787 78 80

***Mercure Lenzburg Krone***

Kronenplatz 20  
5600 Lenzburg  
www.krone-lenzburg.ch  
mail@krone-lenzburg.ch  
+41 62 886 65 65

# TICKET COSTS

## DAY 1

For the one-day event on October 17, 2023, you can book the admission ticket directly on the Internet, see [www.swiss-td-days.ch/en/registration/](http://www.swiss-td-days.ch/en/registration/). The cost of the event is Fr. 400.– per person. The catering during the conference (incl. aperitif riche) is included. Students pay only Fr. 50.– per person for the day ticket (upon presentation of the ID at the reception).

The number of seats is limited to 200. It is recommended to buy the ticket in time.

## DAY 2

The costs for the second day of the event will be covered by the Pfiffner Group and participation is free for all. However, registration or purchasing a ticket in the ticket store is required. You can get the free ticket at [www.swiss-td-days.ch/en/registration/](http://www.swiss-td-days.ch/en/registration/).

Attention: the number of seats is also limited on the second day. There are 250 seats available.



# REGISTRATION

**You can register for the conference quickly, easily and conveniently via the online platform "Eventfrog". You can purchase tickets online in the ticket store. Register or redeem your ticket in time for the event. The event is limited with max. 200 on day 1 and with max. 250 participants on day 2 [due to space and quality reasons.**

# INFORMATION

**The Pfiffner organization team and their partners will support you with professional advice on all aspects of your participation in Swiss T&D Days. If you have any questions or uncertainties, please contact us by e-mail at [marketing@pmw.ch](mailto:marketing@pmw.ch). You can reach us by telephone during normal business hours on 062 739 28 79.**

**You would like to support the event yourself or make it known to your target groups? Logos and image data for publication and advertising purposes are available on request.**