

PowerDiag2026

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International Workshop on Diagnostics, Testing, Monitoring and Maintenance of Power Equipment

AMADRIA Park, Opatija, Croatia
24–26 June 2026

WORKSHOP PROGRAMME

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1. ORGANIZING COMMITTEE

Danijel Brezak
Lorena Lovrić
Ivica Marušić
Darija Miklenić
Miroslav Petrinić
Igor Provči
Krešimir Siladi
Goran Slipac
Ivan Triplat
Stjepan Tvorčić
Igor Žiger

2. MAIN TOPICS

A1 – Power Generation and Electromechanical Energy Conversion

A2 – Power Transformers and Reactors

A3 – Transmission and Distribution Equipment

D1 – Materials and Emerging Testing Techniques

3. PRESENTATIONS

Topic 1: Power Generation and Electromechanical Energy Conversion

1. Mladen Sasic (IRIS POWER) – **Advanced Diagnostics and Online Monitoring of Power Generators**
2. Vladimir Poljančič (KONČAR - Institute) – **High-Speed Micro-Turbine Generator Monitoring and Control**
3. Bojan Jakovljević (KONČAR - MES) – **From Regulation to Implementation: EC Motor Technology Choices for EU Transformer Cooling**
4. Vladimir Poljančič & Veronika Haramija (KONČAR - Institute) – **Root Cause Analysis on Electrical Energy Equipment**
5. Eduard Doujak (TU WIEN) – **Diagnostics and Condition Assessment of Turbine-Generator Systems**
6. Robert Madarasz (Megger) – **3-Level Strategy of Insulation Status Monitoring for Critical HV Motors and Generators**
7. Petr ŠEVČÍK (OSC) – **Determination of generator losses by calorimetric method**
8. Vladimir Poljančič & Ivan Poljak (KONČAR - Institute) – **Rotating Machines Monitoring Systems**
9. Ivan Poljak & Vladimir Poljančič (KONČAR - Institute) – **Shaft Currents Diagnostics**
10. Igor Kwieciński – Universidad Politécnica de Madrid) – **Development of a fatigue-aware optimisation model for the day-ahead energy and reserve scheduling of a hydropower plant**

Topic 2: Power Transformers and Reactors

1. Robert Madarasz (Megger) – **Transformer Online Monitoring Case Studies**
2. Igor Žiger (KONČAR Instrument Transformers) – **New concept for instrument transformer accuracy**
3. Hamed Hashemi (Optics11) – **Advanced PD Monitoring of Critical Transformers: Improving Asset Insight and Maintenance Decisions**
4. Bruno Basa (SENSOL-Tech) – **PROCESS MONITORING MODULES - A missing link in lifecycle management**
5. Frédéric Dollinger (HAEFELY) – **Offline Capacitance and Tan δ Measurements on Transformers: Basics, Field Lessons & Common Pitfalls**
6. Zsolt Guzsvany (KONČAR) – **KONČAR Services: Connecting the Dots Across the Asset Lifecycle**
7. Haramija, Vrsaljko, Đurina (KONČAR - Institute) – **Transformer Diagnostics through Material Testing**
8. Danijel Brezak (KONČAR Instrument Transformers) – **Modern Transmission Grids and Instrument Transformer Performance**
9. Silvio Radošević (KONČAR - Instrument Transformers) – **Automation of Temperature Rise Measurement for Voltage Instrument Transformers**

Topic 3: Transmission and Distribution Equipment

1. Andrea Smiljanić (SIEMENS) – **Procjena pouzdanosti električne opreme – ConsulTrain platforma/Reliability Assessment of Electrical Equipment – ConsulTrain Platform**
2. Nenad Uzelac – **Diagnostics and Condition Monitoring of High-Voltage Switchgear**
3. Kennedy Darko – **SF₆ Alternatives and Diagnostics of Modern Switchgear**
4. Robert Madarasz (Megger) – **Online PD Monitoring of GIS Substations**
5. I. Radečić (KONČAR - Institute) – **Smart Bushing Surveillance for a Safer Power Grid**
6. Goran Švenda (SCHNEIDER ELECTRIC) – **The World of Power Systems is Changing Rapidly**
7. Danilo Marić (LoRaSi) – **Integrated Asset Intelligence for Next-Generation Transmission Systems: SAMSTEO**
8. Igor Provči (HOPS) – **Diagnostics, Handling, and End-of-Life Management of SF₆ in High-Voltage Equipment**

Topic 4: Materials and Emerging Testing Techniques

1. Haramija, Vrsaljko, Đurina (KONČAR - Institute) – **Transformer Diagnostics through Material Testing**

Technical Panel

Integration of Data Centers in Power System – Igor Šumonja (HOPS), Mario Gudelj (Lucidus), Mislav Crnogorac (Parsec Lab), Bruno Štambak (Dalekovod Group), Velimir Novaković (KONČAR - Digital)

4. KEYNOTE SPEAKERS

Mladen Sasic

Keynote Speech: Advanced Diagnostics and Online Monitoring of Power Generators

Eduard Doujak

Keynote Speech: Diagnostics and Condition Assessment of Turbine–Generator Systems

Robert Madarasz

Keynote Speech: Transformer Online Monitoring Case Studies

Nenad Uzelac

Keynote Speech: Diagnostics and Condition Monitoring of High-Voltage Switchgear

Kennedy Darko

Keynote Speech: SF₆ Alternatives and Diagnostics of Modern Switchgear

Frédéric Dollinger

Keynote Speech: Offline Capacitance and Tan δ Measurements on Transformers: Basics, Field Lessons & Common Pitfalls

5. TIMETABLE

WEDNESDAY – 24 JUNE 2026

ROTATING MACHINES & TRANSFORMERS (SC A1, A2 / D1)

Time	Session	Speaker / Topic
08:00 – 10:00	Registration & Welcome Coffee	
10:30 – 11:30	KEYNOTE – WS-A1.2	Mladen Sasic (IRIS POWER) – Advanced Diagnostics and Online Monitoring of Power Generators
11:30 – 11:50	Technical Presentation	Vladimir Poljančič (KONČAR - Institute) – High-Speed Micro-Turbine Generator Monitoring and Control
11:50 – 12:10	Technical Presentation	Bojan Jakovljević (KONČAR - MES) – From Regulation to Implementation: EC Motor Technology Choices for EU Transformer Cooling
12:10 – 12:30	Technical Presentation	Vladimir Poljančič & Veronika Haramija (KONČAR - Institute) – Root Cause Analysis on Electrical Energy Equipment
12:30 – 13:30	KEYNOTE – WS-A1.1	Eduard Doujak (TU WIEN) – Diagnostics and Condition Assessment of Turbine–Generator Systems
13:30 – 14:30	Lunch Break	
14:30 – 15:00	Technical Workshop – WS-A1.2	Robert Madarasz (Megger) – 3-Level Strategy of Insulation Status Monitoring for Critical HV Motors and Generators
15:00 – 15:40	KEYNOTE – WS-A2.1	Robert Madarasz (Megger) – Transformer Online Monitoring Case Studies
15:40 – 16:10	Technical Presentation	Andrea Smiljanić (SIEMENS) – Procjena pouzdanosti električne opreme – ConsulTrain platforma/Reliability Assessment of Electrical Equipment – ConsulTrain Platform
16:10 – 16:30	Coffee Break	
16:30 – 17:00	Technical Presentation	Petr Ševčík (OSC) – Determination of generator losses by calorimetric method
17:00 – 17:30	Technical Presentation	Francesco Messa/Antoine Ghostine MICOM (by FLIR) – Thermography monitoring for critical substation assets
17:30 – 18:00	Technical Presentation	Igor Žiger (KONČAR Instrument Transformers) – New concept for instrument transformer accuracy
18:00 – 19:30	Haefely – special event	Introduction to Sparkling Wines: A Technical Presentation and Guided Tasting
19:30 – 22:00	Welcome Reception / Networking Dinner	

THURSDAY – 25 JUNE 2026**SWITCHGEAR & TRANSFORMERS (SC A3 / A2)**

Time	Session	Speaker / Topic
09:00 – 10:00	KEYNOTE – WS-A3.1	Nenad Uzelac – Diagnostics and Condition Monitoring of High-Voltage Switchgear
10:00 – 10:45	KEYNOTE – WS-A3.2	Kennedy Darko – SF ₆ Alternatives and Diagnostics of Modern Switchgear
10:45 – 11:00	Opening Ceremony	KONČAR (Mario Radaković - Member of the Management Board), HRO Cigre (Goran Slipac - President), Organizing committee
11:00 – 12:30	<i>Technical Panel</i>	<i>Integration of Data Centers in Power System – Igor Šumonja (HOPS), Mario Gudelj (Lucidus), Mislav Crnogorac (Parsec Lab), Bruno Štambak (Dalekovod Group), Velimir Novaković (KONČAR - Digital)</i>
12:30 – 13:30	Technical Workshop – WS-A3.2	Robert Madarasz (Megger) – Online PD Monitoring of GIS Substations
13:30 – 14:30	Lunch Break	
14:30 – 14:45	Technical Presentation	I. Radečić (KONČAR - Institute) – Smart Bushing Surveillance for a Safer Power Grid
14:45 – 15:15	Technical Presentation	Hamed Hashemi (Optics11) – Advanced PD Monitoring of Critical Transformers: Improving Asset Insight and Maintenance Decisions
15:00 – 15:30	Technical Presentation	Goran Švenda (SCHNEIDER ELECTRIC) – The World of Power Systems is Changing Rapidly
15:30 – 15:50	Technical Presentation	Danilo Marić (LoRaSi) – Integrated Asset Intelligence for Next-Generation Transmission Systems: SAMSTEO
15:50 – 16:10	Technical Presentation	Bruno Basa (SENSOL-Tech) – PROCESS MONITORING MODULES - A missing link in lifecycle management
16:10 – 16:30	Coffee Break	
16:30 – 17:30	KEYNOTE – WS-A2.2	Frédéric Dollinger (HAEFELY) – Offline Capacitance and Tan δ Measurements on Transformers: Basics, Field Lessons & Common Pitfalls
17:30 – 18:00	Technical Presentation	Zsolt Guzsvany (KONČAR) – KONČAR Services: Connecting the Dots Across the Asset Lifecycle
18:00 – 18:15	Technical Presentation	Haramija, Vrsaljko, Đurina (KONČAR - Institute) – Transformer Diagnostics through Material Testing
18:15 – 18:30	Technical Presentation	Danijel Brezak (KONČAR - Instrument Transformers) – Modern Transmission Grids and Instrument Transformer Performance
20:00 – 23:00	Conference Dinner	

FRIDAY – 26 JUNE 2026
D1 / INTEGRATED DIAGNOSTICS

Time	Session	Speaker / Topic
09:30 – 10:30	Technical Presentation – WS-A1	Vladimir Poljančič & Ivan Poljak (KONČAR - Institute) – Rotating Machines Monitoring Systems
10:00 – 10:30	Technical Presentation	Ivan Poljak & Vladimir Poljančič (KONČAR - Institute) – Shaft Currents Diagnostics
10:30 – 11:00	Technical Presentation	Silvio Radošević (KONČAR - Instrument Transformers) – Automation of Temperature Rise Measurement for Voltage Instrument Transformers
11:00 – 11:30	Coffee Break	
11:30 – 12:00	Technical Presentation	Igor Provči (HOPS) – Diagnostics, Handling, and End-of-Life Management of SF ₆ in High-Voltage Equipment
12:00 – 12:30	Technical Presentation	Igor Kwieciński (Universidad Politécnica de Madrid) – Development of a fatigue-aware optimisation model for the day-ahead energy and reserve scheduling of a hydropower plant
13:00 – 13:30	Closing Ceremony	POWERDIAG 2026
13:30 – 14:30	Lunch Break	

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Megger provides advanced transformer testing and diagnostic solutions supporting condition-based maintenance and lifecycle optimisation for modern power systems.

At the core of our portfolio are the **TRAX** multifunction platform and **FRAX** sweep frequency response analyser. TRAX enables a wide range of electrical tests—TTR, winding resistance, excitation current, leakage reactance, and dielectric diagnostics—within a single, portable system. With a “connect once” approach, it significantly reduces setup time while improving test consistency and safety.

FRAX complements this by delivering high-sensitivity frequency response analysis for the detection of mechanical and geometrical changes in transformer windings, enabling early identification of transport damage, short circuits, or ageing effects.

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Megger’s technologies are designed for demanding high-voltage environments, offering automated workflows, robust data quality, and actionable insights for utilities, service providers, and researchers.

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Topics 2026

- T1** Electric mobility
- T2** Advanced integrated power trains for electric vehicles
- T3** Electric motor industry
- T4** Transformers
- T5** Electric motors for pumps and compressors
- T6** Special electrical machines and actuators
- T7** Ev charging stations and batteries
- T8** Electric motors for household appliances
- T9** Measurements and testing of electric machines
- T10** Materials Manufacturing technologies
- T11** Software
- T12** Software



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