



**20/22**  
**OCTOBER** 2025  
**TURIN**  
**ITALY**

SCIENTIFIC  
& TECHNICAL  
**PROGRAM**



CAMERA DI COMMERCIO  
INDUSTRIA ARTIGIANATO E AGRICOLTURA  
DI TORINO



[www.hvdc25.jicable.org](http://www.hvdc25.jicable.org)

<b>13.00 - 14.00</b>	<b>OPENING OF THE REGISTRATION DESK</b>
<b>14.00 - 16.00</b>	<p>► <b>TUTORIAL 1</b> Properties, performances and challenges for insulating materials used in the development of HVDC cables <i>Proposed by Gilbert Teyssedre, CNRS, Laplace Toulouse, France and Petru Notingher, University of Montpellier, IES, France</i></p> <p>► <b>TUTORIAL 2</b> Surge and extended overvoltage evaluation of HVDC cable systems for testing – TOVs in HVDC point-to-point systems and LI overvoltages in mixed HVDC OHL-cable systems.</p>
<b>16.00 - 16.30</b>	<b>COFFEE BREAK</b>
<b>16.30 - 18.30</b>	<p>► <b>TUTORIAL 3</b> Recommendations for dielectric testing of HVDC gas insulated system cable sealing ends</p> <p>► <b>TUTORIAL 4</b> Monitoring systems tailored for HVDC systems</p>
<b>19.00 - 20.00</b>	<b>WELCOME COCKTAIL</b>

<b>8.00 - 8.30</b>	<b>OPENING OF THE REGISTRATION DESK</b>
<b>8.30 - 9.15</b>	<b>OPENING CEREMONY</b> <ul style="list-style-type: none"> <li>▶ <b>Opening address by Espen DOEDENS (Nexans, Norway)</b> <i>Chairman, of the International Scientific and Technical Committee</i></li> <li>▶ <b>Leading the Charge into Tomorrow</b> <i>by Marc Joreonse, MJ MarCable Consulting</i></li> </ul>
<b>9.15 - 10.30</b>	<b>Session A1</b> <b>FUNDAMENTAL MATERIAL PERFORMANCE ASPECTS</b> <i>Chairman: Yuriy SERDYUK (Chalmers University, SW)</i> <i>Secretary: Amirhossein ABBASI (NKT, SW)</i> <ul style="list-style-type: none"> <li>▶ <b>Yohei Honna / ENEOS NUC</b> Comparison of water tree growth between insulation materials at HVDC stress with superimposed AC voltage</li> <li>▶ <b>Ramona Huuva / Borealis</b> Enhancing EHVDC cable manufacturing productivity by using an state of the art curing process</li> <li>▶ <b>Christelle Mazel / Nexans</b> Development and perspectives of nanocomposite thermoplastic cable insulation for HVDC applications</li> <li>▶ <b>Hiroaki Miyake &amp; Yasuhiro Tanaka / Tokyo City University</b> Space Charge Observation at the Interface of Two-layered Insulating Material Laminations Simulating the Joint of a DC Cable</li> </ul>
<b>10.30 - 11.00</b>	<b>COFFEE BREAK</b>
<b>11.00 - 12.00</b>	<b>Session A2</b> <b>FUNDAMENTAL MATERIAL PERFORMANCE ASPECTS</b> <i>Chairman: Gilbert TEYSSÉDRE (Laplace-CNRS, Toulouse, France)</i> <i>Secretary: Ramona HUUVA (BOREALIS, SW)</i> <ul style="list-style-type: none"> <li>▶ <b>Paolo Seri &amp; Grazia Berardi / UniBO</b> Conductivity after electrical tests on 525kV cables, factory joint and their interface</li> <li>▶ <b>Giancarlo Montanari &amp; Grazia Berardi / Prysmian</b> Impact of electrothermal aging on HVDC polymeric cable life</li> <li>▶ <b>Shosuke Morita / Central Research Institute of Electric Power Industry</b> Methodology for Deriving Conductivity in XLPE Cable Insulation Using Electric Field Distributions Obtained from Space Charge Measurement by Pulsed Electro-Acoustic (PEA) Method</li> </ul>

**12.00 - 13.15**

**LUNCH BREAK**

**13.15 - 14.30**

**Session B1**

**HVDC CABLE DEVELOPMENT**

*Chairman: Davide PIETRIBIASI (Prysmian, Italy)*

*Secretary: Pierre MIREBEAU (CIGRE, France)*

- ▶ **Muhammad Awais / Ningbo Orient**  
EHVDC Cable Technology: Recent Developments, Critical Barriers, and the Road Ahead
- ▶ **Mohamed El Chmouri / Riyadh Cables**  
Development, manufacturing and challenges of 525 kV DC cables and accessories in Saudi Arabia
- ▶ **Frank de Wild / DNV**  
Perspective on HVDC cable failures and manufacturing line qualification
- ▶ **Jayson Patrick / Electrotechnik**  
Parametric Study Report on Current Ratings of HVDC Cable Systems

**14.30 - 15.10**

**Session B2.1**

**HVDC CABLE DEVELOPMENT**

*Chairman: Hideo TANAKA (Furikawa, Japan)*

*Secretary: Quentin EYSSAUTIER (Nexans, France)*

- ▶ **Aubin Mercier / RTE**  
Use of dynamic rating, use cases on HVDC projects and opening up to the issue of overplanting
- ▶ **Hossein Ghorbani / PeakVolt Professionals**  
Development of flexible factory joints for demanding HVDC applications

**15.10 - 15.40**

**COFFEE BREAK**

**15.40 - 16.20**

**Session B2.2**

**HVDC CABLE DEVELOPMENT**

*Chairman: Hideo TANAKA (Furikawa, Japan)*

*Secretary: Quentin EYSSAUTIER (Nexans, France)*

- ▶ **Lukasz Chmura / TenneT**  
Qualification of connectors for the use in HV and EHV DC accessories
- ▶ **Falk Hardt / NKT**  
Test experience with TB758 and related standardization

**16.20 - 17.30**

**Session C**

**HVDC CABLE SYSTEM GRID INTERACTION**

*Chairman: Antoine CHRETIEN (RTE, France)*

*Secretary: Servane HALLER (Nexans, France)*

▶ **Tanumay Karmokar / TenneT**

Impact of DC Current Interruption on Transient Voltage Test Requirements of HVDC Cable Systems

▶ **Luigi Colla & Vincent Joubert / Prysmian**

Modeling transient phenomena for HVDC land system

▶ **Giancarlo Montanari / FSU**

HVDC cable energization and voltage polarity inversion: how to minimize risk and extent of PD

▶ **Robert Gerlach / RWTH Aachen University**

Experimental investigation of polymer cable insulation dielectric strength under damped oscillation transient voltage and DC overvoltage stress

**17.30 - 19.30**

**YOUNG RESEARCHERS POSTER SESSION**

**20.00 - 20.45**

**GALA DINNER**

▶ **Museum visit**

**20.45**

▶ **Start of the cocktail**

**7.45 - 8.15**

**OPENING OF THE REGISTRATION DESK**

**8.15 - 9.30**

**Session D**

**NEW MECHANICAL FRONTIERS FOR HVDC CABLING**

*Chairman: Lluís SALES (Prysmian, Spain)*

*Secretary: Jacco SMIT (Tennet, NL)*

- ▶ **Antoine Chretien / RTE**  
Dynamic DC cables connecting floating converter stations
- ▶ **Shahriyar Babayev / TenneT**  
2GW ± 525 kV HVDC Tunnel Installation – System-Integrated Development within SuedLink
- ▶ **Lars Lervik / Nexans**  
Deepwater HVDC MI Cable Systems and related TOV testing
- ▶ **Roman Svoma / PowerSure Technology**  
Challenging installation conditions affecting HVDC cables

**9.30 - 10.00**

**COFFEE BREAK**

**10.00 - 11.15**

**Session E**

**MONITORING & SERVICE ASPECTS, AND OTHER**

*Chairman: Roland ZHANG (Tennet, Germany)*

*Secretary: Matthieu CABAU (RTE, France)*

- ▶ **Heiner Ottersberg / Prysmian**  
Monitoring of extra-long submarine cables
- ▶ **Jozua van Oosterom / TenneT**  
RTTR and monitoring lessons learned for DC connections
- ▶ **Dan Keller / HIGHVOLT Dresden**  
Condition monitoring of offshore cable systems with practical examples
- ▶ **Uwe Schichler / TU Graz**  
The easy road to MVDC cable systems

**11.15 - 12.30**

**Session F**

**TESTING, OPERATIONAL FEEDBACK AND PERSPECTIVE**

*Chairman: Frank DE WILD (DNV GL, NL)*

*Secretary: Peter MOHAUPT (Mohaupt High Voltage, Austria)*

► **Marc Fenger / Kinetrics**

Testing of HVDC cables

► **Shoji Mashio / Sumitomo Electric**

5 year field experience of HVDC XLPE cable system towards new generation filled type XLPE cable

**12.30 - 12.45**

**CLOSING SESSION**

**12.45 - 14.00**

**LUNCH BREAK**

**14.00 - 18.00**

**VISIT**

► **Technical visit**

**Piedmont - Savoy: Italy-France HVDC interconnection**

Description: This visit will allow participants to discover both the converter station itself and the somewhat unique design of this interconnexion (with a capacity of 1200 MW, consisting of 2 bipolar HVDC cables +/-320 kV with synthetic insulation (cross section of the Aluminum conductors: 2500 mm<sup>2</sup>) between Italy and France. Commissioned at full power in 2023, it increases the capacity for electrical energy exchange between the two countries by 40 %. To minimize its environment impact, this 190 km long interconnexion primarily uses existing road infrastructure, including 66 km along highways, 18 km along national roads, 6 viaducts, 3 tunnels, one hydroelectric gallery, and 6,5 km of the Fréjus road tunnel. Comprehensive studies, digital simulations and preliminary test have been conducted to optimize the very varies installation conditions it encounters along its route.

As for the converter station, it is equipped with Voltage Source Converts (VSC); the VSC used IGBT transistors, which allows for great operational flexibility by finely adjusting the active (transit) power and reactive (voltage maintenance) power.

► **Touristic visit**

**Lingotto: Discover Fiat Industry and the architectural transformation**

Description: The Lingotto building has been for years the production center of FIAT company with its famous "pista" on the rooftop to test cars. Renzo Piano, born September 1937 in Genoa, is an Italian architect 1998 Pritzker Prize, who transformed this industrial factory in a convention center, shopping mole and Pinacoteca on the roof top.

During the visit of these premises, your guide will describe the transformation of this historical building.