

AEIT HVDC

international conference 2025

Operational Experience and
Technological Development
for Application Worldwide

Genova, Italy ■ May 29-30 ■ 2025



Overview

High Voltage Direct Current (HVDC) transmission draws a growing interest of TSO in Europe and all over the world.

Major developments in technology make HVDC in many cases more reliable, flexible, economically affordable, also to facilitate RES integration. Wider applications are now possible, and many projects are under development, making HVDC an even more interesting business than before for TSOs and for manufacturers and engineering companies.

AEIT HVDC International Conference 2025 will serve as an international forum for the presentation and exchange of system and technological advances, research results and real applications in the broad fields of HVDC Power Systems.

The 2025 edition of the conference also aims to feature presentations on medium and low-voltage topics, reflecting the ongoing interest from DSOs and in view of future initiatives, thus addressing applications in distribution networks and microgrids, including both terrestrial and marine contexts, such as power systems for ships and harbors.

In addition to the HVDC, MVDC and LVDC projects, technologies, operating experiences and applications listed further on in the topics of interest, the following issues are also within the scope of the conference:

- HVDC, MVDC and LVDC applications, technologies, and future perspectives
- Sustainability and environmental aspects
- New developments within the HVDC cable system
- Market perspectives.

AEIT HVDC International Conference 2025 will bring together leading utilities, universities, transmission system operators, distribution system operators, consultants, equipment suppliers, and solution providers to help shape the future of power transmission industry.



Important Dates

Full Papers submission

• April 14, 2025

Acceptance notification

• April 28, 2025

Final Manuscript and authors' registration:

• May 15, 2025

Secretariat

AEIT Ufficio Centrale

Via M. Macchi 32 • 20124 Milano, Italy

E-mail: hvdc2025@aeit.it

Website: <https://convegni.aeit.it/HVDC2025>

organized by



in cooperation with



with the technical cosponsorship of



Submission of Papers

Authors who intend to submit a paper must first register the title of the contribution and the name of authors in EDAS (<https://2025aeithvdc.edas.info/>). The working language of the conference is English. Subsequently, within the scheduled deadline, submit the full paper (six pages) as PDF following the IEEE layout requirements by using the template given at the conference web page: <https://convegnaeithvdc2025.it/> via EDAS <https://2025aeithvdc.edas.info/>

The full paper should contain a complete description of the proposed technical contribution along with some results, suitably framed in the related state of the art. Each paper will be reviewed in terms of relevance with respect to the scope of the event, originality and quality of the technical content, overall organization and writing style. All Papers accepted will be included in the Conference Proceedings. **Conference content will be submitted for inclusion into IEEE Xplore as well as other Abstracting and Indexing (A&I) databases.**

Topics of interest include - but are not limited - to:

- HVDC existing and planned National and International projects
- MVDC and LVDC existing and planned projects
- HVDC Grid operation and protection
- HVDC platforms interoperability and cybersecurity
- Wide area monitoring and control
- MVDC and LVDC network operation and protection
- Control of HVDC grid converters and offshore wind farms
- Monitoring & service aspects
- Test method developments for DC cable systems
- Grid codes and Standards
- Interoperability of multi-vendor HVDC platforms
- Flexible Power Flow Control in HVDC grids
- HVDC Cables for high performance transmission lines
- Evaluation of offshore HVDC grid configuration
- HVDC and grid forming
- HVDC and FACTS integration
- HVDC grids and offshore wind farms
- HVDC links
- HVDC return sea electrodes for High Power links
- HVDC technology (converter stations, cables, overhead lines)
- HVDC VSC links with OHL: management of fugitive DC faults
- HVDC-VSC systems
- HVDC/MVDC multi-terminal grids
- Interaction of HVDC systems with the AC networks
- Meshed HVDC Schemes: Control Design and Experimentation
- Multilevel High-Power Converters for Voltage Source HVDC
- Operating experience of existing HVDC Systems
- Overhead line conversion from HVAC to HVDC
- Refurbishment and upgrade of existing DC systems
- Power Electronic Devices and Converters
- AC network harmonic impedance and HVDC harmonic performance
- Terrestrial and Marine MVDC and LVDC Microgrids
- HV and LV shore-connections
- Sustainability and environmental aspects
- Critical raw materials and supply chains for HVDC technologies
- Market perspective
- Lessons learnt: Europe's experience with HVDC

Executive Committee

Enrico Maria Carlini • Terna • CIGRE Italy President • AEIT General Vicepresident • AEIT HVDC 2025 General Chair
Roberto Caldon • AEIT, • AEIT HVDC 2025 Technical Program Co-Chair
Stefano Massucco • AEIT-AEE President • AEIT HVDC 2025 Technical Program Co-Chair & Local Chair
Marcello Capra • Senior Advisor MASE • AEIT HVDC 2025 Technical Program Co-Chair
Angelo L'Abbate • RSE • AEIT HVDC 2025 Technical Program Co-Chair
Eleonora Riva Sanseverino • Università di Palermo • AEIT HVDC 2025 Technical Program Co-Chair

Organising Committee

Franca Chiusi • AEIT Administration, Italy
Rossano Musca • Publication Chair, Italy
Giuseppe Notaro • AEIT Events, Italy
Adamo N. Panzanella • Logistics Chair, Italy
Stefano Pirani • Web Services Chair, Italy
Gianfranco Veglio • Finance Chair, Italy

Technical Committee

Alfonso Damiano • CMAEL President, Italy
Paola Verde • GUSEE President, Italy
Domenico Villacci • ENSIEL Director, Italy
Roberto Benato • Università di Padova, Italy
Radu Bojoi • Politecnico di Torino, Italy
Andrea Bombardi • RINA, Italy
Paolo Bordignon • RXHK, China
Carlo Cecati • Università dell'Aquila, Italy
Antonio Chiarelli • Fincantieri, Italy
Bruno Cova • CESI, Italy
Fabio Crescimbin • Università Roma Tre, Italy
Fabio D'Agostino • Università di Genova, Italy
Massimo Debenedetti • CETENA, Italy
Riccardo De Zan • Terna, Italy
Luca Di Rienzo • Politecnico di Milano, Italy
Chiara Gandolfi • RSE, Italy
Giorgio Maria Giannuzzi • Terna, Italy

Antonio Gomez-Exposito • Universidad de Sevilla, Spain
Oriol Gomis Bellmunt • CITCEA-UPC, Spain
Giorgio Graditi • ENEA, Italy
Gianni Grasso • ASG Superconductors, Italy
Mats Hyttinen • Hitachi, Sweden
Reza Iravani • University of Toronto, Canada
Massimo La Scala • Politecnico di Bari, Italy
Stefano Lauria • Sapienza Università di Roma, Italy
Willem Leterme • RWTH Aachen University, Germany
Stefano Malgarotti • CESI, Italy
Mario Marchesoni • Università di Genova, Italy
Marco Marelli • Prysmian Group, Italy
Luigi Martirano • Sapienza Università di Roma, Italy
Massimo Marzinotto • Terna, Italy
Giovanni Mazzanti • Università di Bologna, Italy
Silvia Moroni • Terna, Italy
Mario Nervi • Università di Genova, Italy
Carlo Alberto Nucci • Università di Bologna, Italy
Maria Jose Perez Molina • PLOCAN, Spain
Alberto Persico • Hitachi Energy, Sweden
Massimo Pompili • Sapienza Università di Roma, Italy
Enrico Ragaini • ABB, Italy
Massimo Rebolini • CIGRE Italia, Italy
Federico Silvestro • Università di Genova, Italy
Giorgio Sulligoi • Università di Trieste, Italy
Luis Vaccaro • Università di Genova, Italy
Dirk Van Hertem • KU Leuven, Belgium
Dario Zaninelli • Politecnico di Milano, Italy

