

AEIT2026 International Annual Conference
8-10 September 2026

PRELIMINARY TECHNICAL PROGRAMME

Tuesday, 8 September

8:30-9:00 ***Registration***

9:00-9:15 ***Sala del Chiostro***
Apertura dei lavori

9:15-10:15 **Parallel Special and Technical Sessions**

ROOM A

TS01 Power Systems

TS01_01 1571305827

A Deterministic Synchronization Method for Synchronous Condensers with High-Granularity Modeling and Self-Learning Optimization

Domenico Tedeschi (Terna S.p.A., Italy); Francesco Sanniti and Roberto Benato (University of Padova, Italy)

TS01_02 1571304122

Accuracy-Complexity Trade-Offs in Optimal Reactive Power Dispatch for the Italian Transmission System

Francesco Del Pizzo and Giorgio Giannuzzi (Terna, Italy); Silvia Iuliano (University of Sannio, Italy); Salvatore Tessitore (Terna Rete Italia, Italy); Alfredo Vaccaro (University of Sannio, Italy)

TS01_03 1571294960

Coordinated Regional Operational Security Optimization: A Mathematical Framework for the CROSA Process

Luca Ortolano (Terna, Italy); Claudio Coluzzi (Terna Rete Italia, Italy); Marco Barbetta, Alessandra Restelli and Andrea Mannocchi (Terna S.p.A., Italy); Roberto Puddu (Terna, Italy); Alberto Geri and Marco Maccioni (University of Rome Sapienza, Italy); Ludovico Nati (Sapienza University of Rome, Italy)

TS01_04 1571298664 **Impact of Grid-Forming Inverters on the Propagation of Frequency-Power Waves**

Luca Ponzio and Rossano Musca (University of Palermo, Italy); Mariano Ippolito (Università di Palermo, Italy)

ROOM B

TS02 Telecommunications

TS02_01 1571293517

Analysis of 5G/6G Non-Terrestrial Networks: Architectures, Use Cases, and Sustainability

Marina Lotti, Claudia Carciofi and Simona Valbonesi (Fondazione Ugo Bordoni, Italy)

TS02_02 1571307209

High-Frequency Radio Systems and Networks for 6G Smart Environments: Results from the 6GWINET Project

Francesco Matera, Federica Mangiatordi and Marina Settembre (Fondazione Ugo Bordon, Italy); Umberto Spagnolini, Ilario Filippini, Marouan Mizmizi, Christian Mazzucco and Marco Mezzavilla (Politecnico di Milano, Italy); Paolo Rocca (University of Trento & ELEDIA Research Center, Italy); Daniele Piazza (Adant, Italy); Michele Capobianco (ADANT, Italy); Gianleonardo Solazzi (SIAE, Italy); Luca Maggiani (Sma-rtly Italia, Italy); Federico Civerchia (SmaRTy Italia SRL, Italy)

TS02_03 1571291403

Interference-Driven Clustered Optimisation for FM Spectrum Coordination

Federica Mangiatordi and Emiliano Pallotti (Fondazione Ugo Bordon, Italy)

TS02_04 1571307210

Towards Zero-Touch in the Integration of Terrestrial and Non-Terrestrial Networks: From Intent-Based Networking to Agentic AI

Francesco Matera and Marina Settembre (Fondazione Ugo Bordon, Italy); Alberto Gotta (Isti-Cnr, Italy & CNIT, Italy); Giuseppe Soriano (University of Pisa, Italy); Arcangela Rago, Giuseppe Piro and Luigi Alfredo Grieco (Politecnico di Bari, Italy); Andrea Detti (University of Rome Tor Vergata, Italy & CNIT, Italy); Alessandro Vizzarri (University of Rome Tor Vergata, Italy); Franco Mazzenga (Università di Roma Tor Vergata, Italy); Simone Morosi (University of Florence, Italy & CNIT - Research Unit of Florence University, Italy)

ROOM C

TS03 Power Electronics

TS03_01 1571328328

Closed-Form Impedance Modeling of Grid-Forming Converters with Virtual-Admittance Control for Harmonic Stability Analysis

Emanuele Fedele (University of Naples Federico II, Italy); Salvatore D'Arco (SINTEF Energy, Norway); Luigi Pio Di Noia (Università di Naples Federico II, Italy)

TS03_02 1571306554

Comparative Design and Analysis of Inductive and Capacitive Near-Field Wireless Power Transfer Systems Under Unified Specifications

Reinaldo Avelino, Salvatore Musumeci and Luigi Solimene (Politecnico di Torino, Italy)

TS03_03 1571293411

Impact of Network Modelling on the Stability of Grid-Following Inverters

Riccardo Vignoli (Terna Rete Italia S.p.A., Italy); Giovanni Rinzo (Terna S.p.A., Italy); Giuseppe Lisciandrello (Terna SpA, Italy); Benedetto Aluisio (Terna, Italy); Salvatore Tessitore (Terna Rete Italia, Italy); Silverio Casulli and Luca Orrù (Terna SpA, Italy); Giorgio Giannuzzi (Terna, Italy); Stefano Barsali (University of Pisa, Italy)

TS03_04 1571293057

Upgrading Two-switch Flyback Converters for High-Power, High Power Density Applications

Claudio Adragna and Emanuele De Bartolomeo (STMicroelectronics, Italy); Federico Levati (ST Microelectronics, Italy)

10:15-11:15 Sala del Chiostro

Panel Resilienza delle grandi infrastrutture

11:15-12:10 Sala del Chiostro

Panel Elettificazione degli usi finali motori della competitività del Paese Parte 1 – Il sistema energetico e le reti

12:20-13:15 Sala del Chiostro

Panel Elettificazione e decarbonizzazione motori della competitività del Paese Parte 2 – Prospettive e opportunità

13:15-14:15 Lunch

14:15-16:00 Sala del Chiostro

**Tavola Rotonda Consorzio IRIS LAB
L'altra faccia dell'Intelligenza Artificiale
Oltre gli algoritmi: la sfida energetica dell'AI**

16:00-16:15 Coffee Break

16:15-18:15 Parallel Special and Technical Sessions

ROOM A

TS04 Smart Grids & Flexibility

TS04_01 1571294578

Edge-Cloud Middleware Architecture for Demand Flexibility Coordination in Sustainable Energy Communities

Nuzhat Khan (UTM, Malaysia); Muhammad Paend Bakht (Maynooth university, Ireland)

TS04_02 1571295087

Harmonic Performance Assessment of Terna's 40 MW Stabilizing Device

Pierluigi Vacante and Francesco Palone (Terna, Italy); Gianluigi Gemelli and Leonardo Soldani (Terna S.p.A., Italy); Tommaso Serni and Sejdi Shehaj (Terna S.p.A, Italy)

TS04_03 1571306798

Real-time optimization of electric vehicle charging in renewable energy communities

Giovanni Brusco (University of Calabria, Italy & Creta Energie Speciali, Italy); Gioanna Loi (University of Calabria, Italy); Daniele Menniti (University of Calabria & CEO Creta Energie Speciali Srl, Italy); Nicola Sorrentino and Pasquale Troiano Scognamiglio (University Pegaso, Italy); Giada Tucci (University of Calabria, Italy)

TS04_04 1571293538

Techno-Economic-Environmental Assessment of V2G Integration in Renewable Energy Communities

Valeria Casalicchio, Tohid Harighi, Giuseppe Rotondo and Matteo Giacomo Prina (Eurac Research, Italy); Grazia Barchi (EURAC Research, Italy)

TS04_05 1571294997

Unlocking Thermal Flexibility: Cold Rooms as Virtual Batteries in the Food Industry

Matteo Gerola (Maps Energy, Italy); Marcelo Dario Rodas Britez (Fondazione Bruno Kessler, Italy); Pietro Bizzarri and Lorenzo Niccolai (Maps S.p.A., Italy); Roberto Doriguzzi-Corin (Fondazione Bruno Kessler, Italy)

TS04_06 1571333273

Load capability assessment of a large low-voltage distribution network

Alessandro Palazzoli (Areti S.p.A., Italy)

TS04_07 1571334439

A Modular Simulator for Grid-Aware Flexibility Orchestration in Heterogeneous Energy Communities

Giulia Crespi (Gruppo IREN, Italy); Giorgia Macciò (University of Genova, Italy); Stefano Massucco (University of Genova & IEES Lab., Italy); Gabriele Mosaico (University of Genoa, Italy); Matteo Saviozzi (Università Degli Studi di Genova, Italy); Ilaria Vigna (Gruppo IREN, Italy)

TS04_08 1571306952

Frequency Support and Power Sharing Dynamics in Mixed Grid-Following and Grid-Forming Low Inertia Distribution Networks

Giampiero Spina (University of Calabria, Italy); Daniele Menniti (University of Calabria & CEO Creta Energie Speciali SrL, Italy); Brusco Giovanni (University of Calabria, Italy & Creta Energie Speciali, Italy); Angel Oswaldo Ocana Guevara (Creta Energie Speciali, Italy); Giuseppe Barone (University of Calabria, Italy); Nicola Sorrentino (University Pegaso, Italy)

ROOM B

TS05 Distribution Networks

TS05_01 1571305931

Data-Driven Monitoring of Power Distribution Grids Using Lab-Sourced Data: Impacts of Pre-Processing and Performance on a Real Use-Case

David Fellner, Jasper Westphalen, Florian Liszt, Michael Waldher, Hans Baumgartner and Andreas Dietmeier (University of Applied Sciences Technikum Vienna, Austria)

TS05_02 1571293431

Energy Losses on Distribution Networks: Regulation, Scenarios and Mitigation Options

Chiara Michelangeli (RSE, Italy); Giacomo Viganò (Ricerca sul Sistema Energetico, Italy); Lorenzo Lelli (Ricerca sul Sistema Energetico S.p.A., Italy); Marco Rossi (Ricerca sul Sistema Energetico, Italy)

TS05_03 1571298244

Generating Synthetic MV Distribution Networks from GIS Open Data: a Framework Applied to Italy

Giacomo Viganò and Marco Rossi (Ricerca sul Sistema Energetico, Italy)

TS05_04 1571300972

Scalable Hierarchical Methodology for Low Voltage Adequacy Assessment in Distribution Network Planning

Corrado Maria Caminiti, Aleksandar Dimovski and Davide Fratelli (Politecnico di Milano, Italy); Massimo Franceschini (SET Distribuzione spa, Italy); Matteo Collini (SET Distribuzione SpA, Italy); Marco Merlo (Politecnico di Milano, Italy)

TS05_05 1571306883

TSO-DSO coordination: application of Ri.Ge.Di procedure in the Italian power system

Giorgio Orlando (TERNA, Italy); Cristiano Quaciari (Terna Rete Italia, Italy); Cosimo Pisani (Terna, Italy); Guido Coletta (Terna Rete Italia S.p.A., Italy); Marco Galici, Alfonso Pandolfi, Raffaele De Lucia, Verdiana Ambrosi, Francesca Moccia and Fabio Bulgarelli (Terna, Italy)

TS05_06 1571290969

Voltage or Thermal Limits? The Real Nightmare in Distribution Grids with V2G-enabled EVs

Fabrizio De Caro (University of Sannio, Italy); Giuseppe Graber and Vito Calderaro (University of Salerno, Italy); Alfredo Vaccaro (University of Sannio, Italy); Vincenzo Galdi (University of Salerno, Italy)

TS05_07 1571333273

Optimal Scheduling of Demand-side Resources for Local Flexibility Services

Angelo Velini (Politecnico di Bari, Italy); Marco Menga (Politecnico di Bari, Italy & Gridspertise, Italy); Roberto Cometa (Politecnico di Bari, Italy); Alessandro Burgio (ENI Plenitude, Italy); Sergio Bruno (Politecnico di Bari, Italy)

ROOM C

TS06 Diagnostics & Monitoring

TS06_01 1571318286

Assessment of Insulation Degradation in Cast-Resin Power Transformers Using Electrical Diagnostic Methods

Marco Balato (University of Naples, Italy); Antonio Di Pasquale (Università degli studi di Napoli Federico II, Italy); Diego Iannuzzi (Università di Napoli Federico II, Italy); Andrea Oppio (University of Naples Federico II, Italy); Mario Pagano (Università degli Studi di Napoli Federico II, Italy); Carlo Petrarca (University of Naples, Italy)

TS06_02 1571306394

Gateway Uplink Sizing for Multi-Tenant MQTT Delivery with Replication and a Unified Namespace

Kyrylo Nemchenko (National Technical University (Kiev Polytechnical Institute), Ukraine); Larysa S. Globa (National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine); Alessandro Vizzarri (University of Rome Tor Vergata, Italy); Franco Mazzenga (Università di Roma Tor Vergata, Italy)

TS06_03 1571304907

RESP: a Risk Evaluation Semantic Platform for Energy Networks Assets

Luca Croce (RSE, Italy); Gabriele Paludetto (RSE Spa, Italy)

TS06_04 1571294529

Study of the Impacts of Diurnal and 'Nighttime' Heat Waves on Energy Demand in Sicily

Claudio Francesco Nicolosi, Giuseppe M Tina, Cristina Ventura and Stefano Aneli (University of Catania, Italy); Antonio Gagliano (University of Catania & Italy, Italy)

TS06_05 1571306898

Sustainable Management of SF₆ Gas in High-Voltage Equipment: Regulatory Innovation and Professional Competencies

Laura Benanti, Chiara Vergine, Paolo Azzerboni, Sebastiano M. Vitali and Massimiliano Nebuloni (Terna, Italy)

TS06_06 1571293441

The New Italian Secondary Voltage Regulation: a data-driven MPC approach

Martina Giampaglia (Polytechnic Institute of Milan, Italy); Andrea Pomarico (Politecnico di Milano, Italy); Salvatore Tessitore (Terna Rete Italia, Italy); Silverio Casulli (Terna SpA, Italy); Paolo Di Gloria (Terna Rete S.p.A., Italy); Giorgio Giannuzzi (Terna, Italy); Alberto Berizzi (Politecnico di Milano, Italy)

TS06_07 1571306479

Stability-aimed Tuning of Measurement Filters in C-HIL System

Samuele Sbuelz, Samuele Trevisiol, Federico-Monti Bragadin, Andrea Alessia Tavagnutti, Andrea Vicenzutti, Daniele Bosich and Giorgio Sulligoi (University of Trieste, Italy)

16:15-18:15 Sala del Chiostro
SME and Start Up Session

18:15-18:45 Sala del Chiostro
Student Grant Isabella Sassi Bonadonna

Wednesday, 9 September

8:45-10:45 Parallel Special and Technical Sessions

ROOM A

TS07 Resilience of Distribution and Transmission Systems – Special Session

TS07_01 1571294965

Performance Evaluation of Software-defined Protection Concepts on Industrial Automation Hardware in Digital Substations

Florian Weißberg, Svenja Joseph and Christian Rehtanz (TU Dortmund University, Germany); Nils Johannsen (Beckhoff Automation GmbH & Co. KG, Germany)

TS07_02 1571305997

Prioritizing What Must Not Stop: Vulnerability Management for Grid Automation Systems

Roberto Minicucci (GE Vernova, Italy)

TS07_03 1571306733

Assessment of capital-light interventions to enhance the resilience of overhead lines against wet snow sleeves formation and strong wind in the Italian National Transmission Grid

Emanuele Ciapessoni (RSE - Ricerca sul Sistema Energetico, Italy); Diego Cirio and Andrea Pitto (Ricerca sul Sistema Energetico RSE S.p.A., Italy); Giovanni Pirovano (RSE, Italy); Simona Ciancio (Terna, Italy); Alessandro Lazzarini (Terna Corporate S.p.A., Italy); Federico Falorni and Giuseppe Berrettoni (Terna, Italy)

TS07_04 1571306819

A Linear Programming Based Grid-Aware Industrial Energy Management System with Power-System-in-the-Loop Validation

Stefan Bühner, Thomas Schwierz, Florian Weißberg and Christian Rehtanz (TU Dortmund University, Germany)

TS07_05 1571306900

Hydrological Modeling for Flood Risk Assessment of Electrical Transmission Infrastructure in the Serio River Basin

Chiara Vergine (Terna, Italy); Gabriella Petaccia (Università di Pavia, Italy); Francesco Cecchetelli (University of Pavia, Italy); Matteo Pagliardi and Pier Luigi Zanni (Terna, Italy); Giuseppe Barbero (University of Pavia, Italy); Vincenzo Lo Regio (Terna Rete Italia, Italy)

TS07_06 1571306901

Building today the Transmission Grid of tomorrow: infrastructure, operational organization and legacy for Milano-Cortina 2026

Sergio Tricoli and Michele Bennato (Terna, Italy); Marco Lawrence Crociani (Terna Rete Italia, Italy); Chiara Vergine (Terna, Italy); Cristiano Quaciari (Terna Rete Italia, Italy)

ROOM B
TS08 Renewable Energy

TS08_01 1571283536

AI-Based Anomaly Detection for Floating Offshore Wind Power Systems under Incomplete Data

Mehdi Forouzanfar (Department of Mechanical, Energy and Management Engineering (DIMEG), University of Calabria, Rende (CS), Italy); Hossein Safaeipour (Ahv. Campus, Islamic Azad University, Iran); Anna Pinnarelli (University of Calabria, Italy); Vahid Mirahi (Iran)

TS08_02 1571305353

Assessment of Evaporation Rates in Basins Partially Covered by Floating Photovoltaic Systems

Claudio Francesco Nicolosi and Giuseppe M Tina (University of Catania, Italy); Antonio Gagliano (University of Messina, Italy); Alessio Cucuzza, Fabrizio Bizzarri and Andrea Canino (Enel Green Power, Italy)

TS08_03 1571306323

Experimental Validation of a Dynamic Load Model for Distribution Network Restoration

Sebastian Dambone Sessa, Francesco Sanniti and Roberto Benato (University of Padova, Italy); Cosimo Pisani, Michele Poli and Giorgio Giannuzzi (Terna, Italy)

TS08_04 1571293113

Hydrological modeling to support water management and hydropower production: a case study

Mattia Carlin (Dolomiti Energia, Italy); Marco Lomazzi and Fabio Rameni (DHI Srl, Italy); Simone Ippoliti, Diego Bandera, Diego Avesani, Bruno Majone and Michael Christian Matiu (University of Trento, Italy); Lorenzo Giovannini (Università di Trento, Italy); Dino Zardi (University of Trento, Italy); Alessio Franzinelli and Francesco Colaone (Dolomiti Energia, Italy)

TS08_05 1571326071

Power Hardware-in-the-Loop Validation of Upward Power Reserve Control for Frequency Regulation by Photovoltaic Plants

Francesco Conte (Campus Bio-Medico University of Rome, Italy); Fabio D'Agostino (University of Genova, Italy); Stefano Massucco (University of Genova & IEES Lab., Italy); Marco Raffaele Rapizza (Ricerca sul Sistema Energetico - RSE S.p.A., Italy & Politecnico di Milano, Italy); Matteo Saviozzi (Università Degli Studi di Genova, Italy); Alessandro Veroni (RSE - Ricerca sul Sistema Energetico, Italy)

TS08_06 1571293196

Topology Optimization for Congestion Management Based on Analytical Linearization of Power-Flow Equations

Benedetto Aluisio and Paolo Cattaneo (Terna, Italy); Giovanni Rinzo (Terna S.p.A., Italy); Andrea Nerli, Andrea Rucci and Sebastiano Pinna (Deda Next Srl, Italy); Giorgio Giannuzzi and Andrea Fronteddu (Terna, Italy); Federico Lanzellotto (Terna Rete Italia, Italy); Adriano Gubernali (Terna, Italy)

TS08_07 1571296448

National Scale Characterization of Residential and Workplace EV Charging Management for Bulk Power System Evaluation

Sara Salamone (RSE spa, Italy); Filippo Colzi (RSE, Italy)

TS08_08 1571306855

A Python Tool for Optimal Sizing of PV and BESS in Railway Traction Power Substations

Alessandro Ruvio (University of Rome La Sapienza, Italy); Maria Carmen Falvo (University Sapienza of Rome, Italy); Massimo Pompili and Marco Maccioni (University of Rome Sapienza, Italy); Tommaso Bragatto and Ludovico Nati (Sapienza University of Rome, Italy)

ROOM C

TS09 Protection & Automation

TS09_01 1571306949

Arc Flash Risk Analysis Quantifying the Human Error Contribution Effects

Roberto Benato, Francesco Sanniti and Sebastian Dambone Sessa (University of Padova, Italy); Luciano Minto (Italy); Pietro Antonio Scarpino (University of Florence, Italy)

TS09_02 1571313625

Availability analysis and economic trade-off of possible power supply architectures for the IT room of an AI data center

Fabio Bignucolo and Angela Carollo (University of Padova, Italy); Riccardo Clementi (Ortus Italy, Italy)

TS09_03 1571295037

Integration of Differential Protection Systems in Primary Transmission Network Lines

Gionata La Barba, Giorgio Giannuzzi, Luciano Vignolini, Gianluca Ramundo and Stefano Terzulli (Terna, Italy)

TS09_04 1571305934

New Generation Link Boxes for High-Voltage Cable Systems: A Modular, Enclosure-Free Architecture Addressing the Limitations of Conventional Technology

Pietro Corsaro (C&G Agency GmbH, Switzerland)

TS09_05 1571311123

Towards an Energy Labelling Methodology for Road Tunnels: Indicators, Models, and Performance Assessment

Giovanni Mercurio Casolino (University of Cassino, Italy); Pietro Varilone (Università degli Studi di Cassino, Italy); Paola Verde (University of Cassino, Italy); Sebastiano Nicotra and Stefano D'Ambrosio (ANAS, Italy); Pietro Palladino (Politecnico di Milano, Italy)

10:45-11:00 Coffee Break

11:00-12:00 Sala del Chiostro

Panel Telecomunicazioni Edge Cloud Computing nelle reti di telecomunicazioni: le sperimentazioni E-CLONET ed InDRA

12:00-13:00 Sala del Chiostro

Panel Sicurezza nei Lavori Elettrici e Sistemi Elettrici Complessi

13:00-14:00 Lunch

14:00-15:00 Sala del Chiostro

Panel Ritorni dell'esperienza Milano Cortina 2026 - investimenti infrastrutturali sul sistema elettrico e gestione operativa

15:00-16:15 Sala del Chiostro

Case Histories

15:00-16:15 Parallel Special and Technical Sessions

ROOM A

TS10 Microelectronics, AI and Space – Special Session

TS10_01

Microelectronics roadmap

Enrico Sangiorgi - University of Bologna

TS10_02

Integrated Multiphysics Virtual Prototyping Workflow for SiC based Power Modules

Gaetano Bazzano and Alessandro Tumminia (Vishay, Italy); Michele Calabretta (University of Messina, Italy)

TS10_03

TBD

Francesco Rundo - University of Catania

TS10_04

The European Chips Act: are we closing the gap?

Livio Baldi (AEIT - AMES Society, Italy); Paolo Azzoni (INSIDE Industry Association, The Netherlands); Antonio Imbruglia (AEIT & STMicroelectronics, Italy); Enrico Sangiorgi (Alma Mater Studiorum - Università di Bologna, Italy); Vittorio Ferrari (University of Brescia, Italy)

TS10_05

TBD

Enrico Massoni - ESA-ESTEC

ROOM B

TS11 Industrial Applications

TS11_01 1571293854

A Fast Computational Framework for Generating Eco-Drive Speed Profiles for Urban Railways

Giuseppe Graber (University of Salerno, Italy); Piera Stella (Italy); Vito Calderaro (University of Salerno, Italy); Luigi Fratelli (Hitachi Rail SpA, Italy); Vincenzo Galdi and Antonio Piccolo (University of Salerno, Italy)

TS11_02 1571294235

Feasibility of electrifying maritime, lake and lagoon passenger routes in Italy using different types of vessels

Manuel Sozzi (RSE, Italy); Sara Salamone (RSE spa, Italy); Giuseppe Mauri (RSE, Italy)

TS11_03 1571306969

Model-Based Code Generation vs Handwritten Firmware for STM32-based Motor Drives: Runtime Performance and Flexibility Trade-offs

Nicolò Pinzan, Fausto Stella, Paolo Pescetto, Gianmario Pellegrino and Salvatore Musumeci (Politecnico di Torino, Italy)

TS11_04 1571311114

Modelling and Performance Comparison of Grazing Light and Conventional Vault-Mounted Lighting Systems in Road Tunnels

Susanna Brusi (ANAS, Italy); Giovanni Mercurio Casolino (University of Cassino, Italy); Alessio Mazzarella (Italy); Pietro Varilone (Università degli Studi di Cassino, Italy); Paola Verde (University of Cassino, Italy); Pietro Palladino (Politecnico di Milano, Italy); Antonio Gallo (Anas S.p.A., Italy)

TS11_05 1571331814

Road-Tunnel Electrical Infrastructure as a Strategic Asset for Highway EV Charging Networks: A Preliminary Feasibility Assessment

Cristina Moscatiello (Sapienza University of Rome, Italy); Elisa Belloni (University of Perugia, Italy); Luigi Martirano (University of Rome, Italy)

ROOM C

TS12 Power Quality & EMC

TS12_01 1571306526

Accessing the FDP Method for Protecting Fixed Service Links Under Time Varying Interference

Silvi Kodra (Fondazione Ugo Bordon, Italy); Claudia Carciofi (Via Indipendenza 24, Italy); Valeria Petrini, Manuel Faccioli and Marcello Folli (Fondazione Ugo Bordon, Italy)

TS12_02 1571298290

Grid-Impedance-Based Control of Bidirectional EV Chargers for Static Voltage Support

Marcel Esser, Robert Jahn and Alfio Spina (TU Dortmund University, Germany)

TS12_03 1571277947

Impact of common building materials on mmWave signals propagation at 33 GHz and 75 GHz

Massimo Celidonio (Fondazione Ugo Bordon, Italy); Fernando Consalvi (FUB, Italy)

TS12_04 1571306772

In-Vehicle Exposure to Radiofrequency Signals from Mobile Base Stations: Measurements and Ray-Tracing Analysis in 5G NR Scenarios

Simona Valbonesi (Fondazione Ugo Bordon, Italy); Claudia Carciofi (Via Indipendenza 24, Italy); Andrea Garzia, Marina Lotti and Paolo Grazioso (Fondazione Ugo Bordon, Italy)

TS12_05 1571306681

Industrial Impact of a Blue Skies Research: Overhead Line Sequence Impedance Computations by the Multiconductor Cell Analysis (MCA)

Roberto Benato and Sebastian Dambone Sessa (University of Padova, Italy); Giorgio Giannuzzi (Terna, Italy); Andrea Giovacchini (Terna Rete Italia, Italy); Federico Martellini and Giorgio Orlando (TERNA, Italy); Cosimo Pisani (Terna, Italy); Francesco Sanniti (University of Padova, Italy)

16:15-16:30 Coffee Break

16:30-18:30 Parallel Special and Technical Sessions

ROOM A

TS13 HVDC, MVDC and LVDC Technologies and Systems – Special Session

TS13_01 1571306417

Classification of European HVDC Systems Based on Converter Technology and AC Grid Integration: Implications for Frequency Regulation

Mohammad Qawaqneh and Gaetano Zizzo (University of Palermo, Italy); Antony Vasile (University of Brescia, Italy); Angelo L'Abbate and Lorenzo Carmine Vitulano (RSE SpA, Italy)

TS13_02 1571306551

Adaptive control logics for future HVDC: Italian approach

Fabio Bassi, Giorgio Giannuzzi and Roberto Gnudi (Terna, Italy); Federico Lanzellotto (Terna Rete Italia, Italy); Roberto Meloni and Giuseppe Masones (Terna, Italy)

TS13_03 1571306738

Design, Qualification Testing and First Installation of a HVDC Transition Joint, High Performance Thermoplastic Elastomer (HPTE) to Cross-Linked Polyethylene (XLPE)

Luca Biotto (Prysmian, Italy); Paolo Boffi (Prysmian Group, Italy); Davide Pietribiasi (Prysmian, Italy)

TS13_04 1571306769

Towards Future Hybrid AC/DC Control Rooms: Bridging Legacy SCADA Systems and Interoperable Service-Oriented Architectures

Huda Mughari (ASM Terni S.p.A., Italy); Roberto Antonini (Artel Srl, Italy); Francesca Santori (ASM Terni, Italy); Tommaso Bragatto (Sapienza University of Rome, Italy); Massimo Cresta (TDE, ASM Terni SpA, Italy); Prashanth Kumar Pedholla (ASM Terni S.p.A., Italy)

TS13_05 1571306791 Role and Challenges of Ceramic-Filled Epoxy-Based Insulation in SF₆ -Free Switchgear: Preliminary Experimental Insights and Perspectives for MVDC Applications

Narjis Zahra (Polytechnic Institute of Milan, Italy); Roberto Penzo, Pierluigi Invernizzi and Natalino Vigorelli (ABB Distribution Solutions, Italy); Andrea Basso Peressut, Luca Andena and Giovanni Dotelli (Politecnico di Milano, Italy); Marco Riva (ABB spa, Italy)

TS13_06 1571306719

Current/OS - developing industrial standards for LVDC and MVDC systems

Antonello Antoniazzi, Paolo Catapane and Marco Riva (ABB spa, Italy)

TS13_07 1571306716

DC Data Centers - Challenges and solutions for DC power distribution in AI data center

Paolo Catapane, Antonello Antoniazzi and Marco Riva (ABB spa, Italy)

ROOM B

TS14 Energy Markets & Regulation

TS14_01 1571306826

Accelerated Replacement of User-Owned Distribution Transformers: The EU-TRACE Framework for Fleet Characterisation and Policy Design

Filippo Sterpi and Angelo Baggini (ECD srl, Italy); Franco Bua (Engineering Consulting and Design, Italy)

TS14_02 1571294543

Market Power in Sequential Electricity Markets: A Bilevel Simulation Approach

Maria Teresa Vespucci and Giovanni Micheli (University of Bergamo, Italy); Gianluigi Migliavacca (RSE, Italy); Dario Siface (RSE SpA, Italy)

TS14_03 1571296257

Postpaid Policy Enforcement in 5G Core Network

Promila (Centre for Development of Telematics, India); Priyatosh Mandal (Centre for Development of Telematics, New Delhi, India); Neha Kashyap and Anjali Bansal (Centre for Development of Telematics, India)

TS14_04 1571306887

Recent Outcomes of the Italian Ancillary Service Market (2015-2024)

Silvia Canevese and Antonio Gatti (Ricerca sul Sistema Energetico - RSE S.p.A., Italy)

TS14_05 1571306880

A Dynamic Probabilistic Methodology for Replacement Reserve Sizing for the Italian Power System with High NPRES Penetration

Silvia Canevese, Gaia Ceresa, Emanuele Ciapessoni, Diego Cirio and Antonio Gatti (Ricerca sul Sistema Energetico - RSE S.p.A., Italy)

TS14_06 1571304111

Development and Application of a National Italian Power System Dataset for 2030 Scenario Analysis

Lorenzo Carmine Vitulano (RSE SpA, Italy); Francesca Curinga (RSE S.p.a, Italy)

ROOM C

TS15 Measurements & Sensors

TS15_01 1571280044

A Simulation-Based Framework for the Assessment of Renewable Energy Communities and Their Impact on Energy Poverty

Massimiliano Zanchiello (Ordine degli Ingegneri della Provincia di Roma, Italy); Simona Stoklin (Ordine degli Ingegneri della Provincia di Latina, Italy); John Forrester and Manuel Leiva Lopez (Cesviter Consulting srl, Italy)

TS15_02 1571305161

Adaptive Wide-Area Oscillation Monitoring Using a Flexible FFT-TK Framework

Annalisa Liccardo (University of Naples Federico II, Italy); Giorgio Giannuzzi (Terna, Italy); Salvatore Tessitore (Terna Rete Italia, Italy); Marco Principe (Terna, Italy)

TS15_03 1571306812

Quantifying the cooling demand in non-residential buildings: A non-intrusive load monitoring approach

Marco Gabba (LEAP, Italy); Filippo Bovera (Politecnico di Milano, Italy); Matteo Zatti (LEAP, Italy)

TS15_04 1571306505

Towards a PHIL-Validated Digital Twin of a PMU: Synchrophasor Estimation and Inertia Monitoring in Low-Inertia Grids with PLL Algorithms

Rossano Musca and Fabrizio Centonze (University of Palermo, Italy); Giuseppe Sciumè (Università di Palermo, Italy); Eleonora Riva Sanseverino (University of Palermo, Italy)

TS15_05 1571294391

Phasor Simulation Effectiveness on Stability Studies of Power Systems with VSC-Interfaced Resources

Stefano Barsali (University of Pisa, Italy); Elia Berti (RSE, Italy); Massimo Ceraolo (Università di Pisa, Italy); Giovanni Lutzemberger, Gianluca Pasini and Claudio Scarpelli (University of Pisa, Italy)

16:30-17:30 Sala del Chiostro

Panel Competenze professionali

17:30-18:45 Sala del Chiostro

Panel Energia Nuovi codici di rete europei

21:00

Cena del Convegno

Thursday, 10 September

8:45-10:30 Parallel Special and Technical Sessions

ROOM A

TS16 Energy Storage Systems

TS16_01 1571306692

A Data-Driven Multi-Scenario Strategy for Optimal Operation of a Battery Storage System in Wholesale Energy Market

Rouzbeh Shirvani (University of Pavia, Italy); Asja Alic (University of Trento, Italy); Alessandro Bosisio (University of Pavia, Italy); Vincenzo Trovato (University of Trento, Italy & Imperial College London, United Kingdom (Great Britain)); Silvia Zordan (University of Trento, Italy)

TS16_02 1571306869

A PV-Based Supercapacitor Test Bench Using a Bidirectional Interleaved DC/DC Converter

Salvatore Musumeci, Luigi Solimene and Carlo Ragusa (Politecnico di Torino, Italy); Mauro Zucca (INRIM, Italy); Melika Hassanzadeh (Istituto Nazionale di Ricerca Metrologica (INRIM), Italy)

TS16_03 1571306053

Battery and Hydro Storage Providing Active Inertia and Damping Power with Grid Forming Converters

Giordano Costanzi (University of Trento, Italy); Vincenzo Trovato (University of Trento, Italy & Imperial College London, United Kingdom (Great Britain)); Edoardo Gino Macchi (Fondazione Bruno Kessler, Italy); Saman Korjani (FBK, Italy)

TS16_04 1571304999

Reshaping the dynamic load of AI Data Centers with Long Duration Energy Storage

Antonio Zingales (SAET spa, Italy)

TS16_05 1571277745

Stochastic Multi-Objective Nonlinear AC-OPF for Cost-Emission Trade-Off in Distribution Networks

Ayesha and Gabriele Mosaico (University of Genoa, Italy); Federico Silvestro (University of Genova, Italy)

ROOM B

TS17 AI & Data Analytics

TS17_01 1571306720

AI and Electric Mobility: An Emerging Competition for Grid Capacity

Antony Vasile (University of Brescia, Italy); Davide Astolfi (Università di Brescia, Italy); Marco Pasetti (University of Brescia, Italy); Gaetano Zizzo and Eleonora Riva Sanseverino (University of Palermo, Italy); Alessandra Flammini (University of Brescia, Italy)

TS17_02 1571304477

Domain-Aware Transfer Learning with Fleet-Based Sensor-Health Gating for Wind Turbine Power Performance Monitoring

Davide Astolfi (Università di Brescia, Italy); Antony Vasile and Marco Pasetti (University of Brescia, Italy); Alfredo Vaccaro (University of Sannio, Italy)

TS17_03 1571296498

Edge-Weighted Graph Neural Networks for Fraud Detection in Bitcoin Trust Networks

Dhvani Rana and Drishti Bhardwaj (India)

TS17_04 1571293945

Gas Flow Estimation in Real Distribution Networks using Graph Machine Learning

Francesca Soldan (RSE Spa, Italy); Carlo Tornelli (RSE, Italy); Enea Bionda (RSE Spa, Italy); Alessandro Verosimile, Leonardo Gori and Andrea Damiani (Politecnico di Milano, Italy); Marco D Santambrogio (Politecnico di Milano & MIT, Italy)

TS17_05 1571291398

Learning-to-Optimize as the Missing Architectural Layer of AI-Native Networks

Giambattista Amati, Federica Mangiatordi, Pierpaolo Salvo, Emiliano Pallotti and Simone Angelini (Fondazione Ugo Bordoni, Italy)

TS17_06 1571296508

Privacy-Preserving Representation Learning through Embedding-Space Anonymization

Dimitrios Panagoulas (University of Piraeus, Greece); Evangelia-Aikaterini Tsichrintzi (Noetiv, Greece); Evangelos Sakkopoulos (University of Piraeus, Greece)

ROOM C

TS18 Emerging Technologies

TS18_01 1571306893

Civil Engineering Measures for Power System Resilience: Restoration and Risk Mitigation Interventions Following the 2025 Flood Events

Emanuela De Luca, Massimiliano Nebuloni, Pier Luigi Zanni, Andrea Cinelli, Simone Talomo and Chiara Vergine (Terna, Italy)

TS18_02 1571306904

Electrical Infrastructure Planning and Operations for Mega-Events: The Milano Cortina 2026 Winter Olympic and Paralympic Games

Vincenzo Di Luozzo, Luca Noli and Andrea Venturato (Fondazione Milano Cortina 2026, Italy); Chiara Vergine (Terna, Italy)

TS18_03 1571306761 Power Transmission: Applying BIM Methodology to EPCI HV Infrastructure Projects

Martino Dalla Valle (Prysmian, Italy); Ilaria Porcarelli (Collegue, Italy)

TS18_04 1571306529

Toward Experimental Validation of Holonic Power Systems: Requirements and Conception of a Hybrid Co-Simulation Framework

Alfio Spina (TU Dortmund University, Germany); Andreas Ulbig (RWTH Aachen University, Germany); Antonello Monti (RWTH Aachen University & Institute for Automation of Complex Power Systems, Germany); Christian Rehtanz (TU Dortmund University, Germany)

TS18_05 1571305939

Synergistic Integration of Solar Generation, Green Hydrogen Production, and MgB₂ Superconducting DC Transmission for Sustainable Desert Ecosystems

Pietro Corsaro (C&G Agency GmbH, Switzerland)

10:00-11:30 Sala del Chiostro

Forum AI + Questione etica legata al suo utilizzo

11:30-12:15 Sala del Chiostro

6G: AI/ML per le reti intelligenti e resilienti di prossima generazione

12:15-12:45 Aperitivo

12:45-13:00 Sala del Chiostro

AEIT2026 International Annual Conference-CHIUSURA