IEEE esars 2026 europe itec

8th edition of the International Conference on

ELECTRICAL SYSTEMS FOR AIRCRAFT, RAILWAY, SHIP PROPULSION AND ROAD VEHICLES (ESARS) AND INTERNATIONAL TRANSPORTATION ELECTRIFICATION CONFERENCE

Toulouse, France

From 27 to 30 October 2026

https://www.esars.info/

Call for papers

The Organizing Committee is pleased to announce the 8th edition of the Internaonal Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS) and IEEE International Transportation Electrification Conference (ITEC) 2026, which will be held at the Institute of Engineering INP-N7 in Toulouse, France, 26-30 October 2026. The aim of the Conference is to promote a forum where people in the electrical transportation systems community can share their experiences and bring perspectives about present and future challenges.

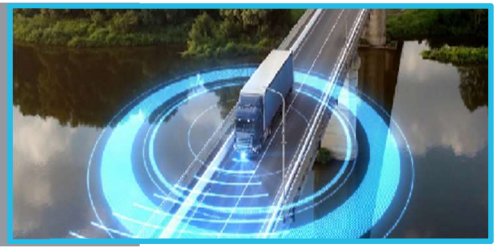
The ESARS-ITEC 2026 conference announces that the 30% of the papers recommended by the conference committee are eligible to be submitted to TTE as post-conference paper, with following requirement:

1) the paper submitted to TTE should correctly cite the conference paper as reference
2) the cover letter should mention explicitly it is a post-conference paper sponsored by PELS and summarize the additional contents compared with conference paper
3) the submitted paper to TTE should have at least 30% to 50% new contents.

Important dates

Digest submission:	~~31 March 2026~~	**30 April 2026**
Notification of provisional acceptance:		1 June 2026
Registration Early Bird opens in June 2026		
Final Paper Submission deadline:		15 July 2026
End of Early Bird:		15 September 2026

Your final paper is definitely accepted once your registration is completed



Main topics of ESARS-ITEC 2026 include but are not limited to:

AIRCRAFT ELECTRICAL APPLICATIONS

Advanced concepts and technologies to enable the all- electric aircraft
- Embedded Systems
- Electromechanical actuators
- Electrical auxiliary systems
- New storage system

Power generation and distribution
- New sources of aircraft main propulsive power
- Onboard electrical system architectures
- Onboard energy management

Electrical Drives and Power Systems
- Design of Motors and their Control
- Fault Diagnostics
- Power Systems Control and Stability
- Reliability

SHIPBOARD ELECTRICAL APPLICATIONS

Electrical propulsion
- Converters and Drives
- All electric and hybrid ships

Integrated power systems
- System integration
- Storage systems
- Modeling, simulation and design methodologies

Power Generation
- Power System Control
- Stability and quality
- Electrical generators
- Design methodologies

Ship functional safety
- Reliability and dependability
- Reconfigurability, diagnostics

Electric solutions for improving efficiency
- Actuators
- On-Board energy management

ELECTRICAL RAILWAY TRACTION SYSTEMS

Power Train
- Innovative converter and motor topologies
- Onboard Energy management

Power Supply Systems
- Substations
- Wayside storage system
- Overhead systems and Conductor rail systems
- Energy management

Autonomous and dual mode vehicle
- New energy sources and storage systems
- Electric-Hybrid power trains
- Multi winding transformer and rectifier

Modeling, simulation and design methods
- Complex Systems
- Load flow, optimization method design and control

- Electromagnetic compatibility
- Safety and security systems
- Railway signaling and interoperability systems
- Light railways vehicles for urban mobility
- Metro and underground urban railways systems

ELECTRICAL SYSTEMS IN ROAD VEHICLES

Onboard energy sources and storage systems: design, control and integration
- Energy management and control strategies
- Device integration, testing and validation
- Thermal management

Powertrain systems
- Electric propulsion systems
- Traction power converters
- Powertrain testing and validation
- Traction electric motor design
- Powertrain control strategies
- Range and weight optimization

Auxiliary systems
- Switching power supplies
- Power steering
- Ancillary services

Vehicle environment
- EMI/EMC in the vehicle environment
- Modelling, simulation, vehicle-level design methods and tools - Safety and reliability
- Tools and methods for onboard diagnostic

INFRASTRUCTURES FOR E-MOBILITY & H-MOBILITY

E-mobility
- Grid interface technologies
- Microgrids for charging station facilities
- Hyper-charge stations
- Ultrafast charging station (UFCS) and impact on the grid
- Vehicle-to-grid (V2G), vehicle-to-infrastructure (V2I), and vehicle-to-home (V2H) interfaces
- Energy Storage Systems and RES integration
- DC & AC Distributed architectures
- Smart EV charging scheduling
- Electrification of heavy-duty and off-road vehicles

H-mobility
- Novel hydrogen storage technologies
- Fuel cell converters
- RES integration for green hydrogen production
- Sensors, actuators, and monitoring systems for hydrogen plants

ENERGY STORAGE AND FUEL CELL SYSTEMS

- Modeling
- Thermal management
- Interface power converters
- Batery Management Systems
- SOC and SOH identification methods
- Hybrid energy storage systems

BATTERY CHARGERS: WIRELESS, FAST, AND ULTRA-FAST

- On-board/off-board smart charging infrastructures
- Isolated and nonisolated charger
- Stationary and dynamic wireless charging in roadways
- Design and control issues
- Partial power processing architectures
- Integrated powertrain converter and batery charger

Special Session and Workshop

The conference will include Special Sessions or Workshops on highly specialized topic areas reporting technical trends and breakthroughs within the scope of the conference. Special Sessions are organized at the initiative of one or more individuals, who must adhere to specific procedures published on the conference website.

Paper Submission

The working language of the conference is English. The paper digest should consist of a minimum of 4 pages (excluding references) and include sections such as introduction, methodology, and provisional results. Link : https://www.conftool.com/esars-itec-2026/index.php?page=index

Authors are requested to prepare the manuscripts in the IEEE two-column format, using the template available in the ESARS 2026 Website and to convert it in PDF using the IEEE PDF eXpressTM facility. No other format in the Digest submission and in the final version can be accepted. For the final submission, the paper may contain up to 6 full pages, including figures and references. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

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