



CALL FOR PAPERS

8th International Conference on Insulated Power Cables

PARIS - VERSAILLES - FRANCE
19 - 23 JUNE, 2011



DEADLINES FOR YOUR AGENDAS

🕒 Submission of abstracts: 15 November, 2010 🕒 Full texts: 15 April 2011

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- IEEE French Section *
- The Union of the Electricity Industry (EURELECTRIC) *
- The European Confederation of National Associations of Manufacturers of Insulated Wire and Cable (EUROPACABLE) *
- Association of the Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP) *

🕒 Objectives

■ What is JICABLE'11?

JICABLE'11 is an international forum for the exchange of information in the fields of research, industrial development, installation, operation and diagnoses relating to insulated power cables and their accessories from low voltage and special cables up to ultra high voltage cables and new technology cables.

■ Why is JICABLE'11 important?

Insulated power cables are increasingly used in electric power transmission and distribution networks. This is due to the significant progress achieved in the development of new technologies with higher performances, and motivated by increasing environmental pressure. Cables are recognised as a reliable means for the transmission and distribution of electrical energy.

- Union of Producers, Conveyors and Distributors of Electric Power in Africa (UPDEA)
- Head of ASEAN Power Utilities / Authorities (HAPUA) *
- Arab Union of Producers, Transporters and Distributors of Electricity (AUPTDE) *
- Edison Electric Institute, USA *
- Federation of Electrical Power Companies, Japan (FEPC) *
- Electric Power Council of the Commonwealth of Independent States, Russia *
- Verband der Elektrotechnik Elektronik Informationstechnik e.V. / Deutscher Elektrotechniker (VDE) *
- Electrosuisse *
- Österreichischer Verband für Elektrotechnik (ÖVE) *
- The Institution of Engineering and Technology (IET) *
- Société Royale Belge des Electriciens (SRBE) *
- Federazione Italiana di Elettrotecnica, Elettronica, Automazione, Informatica e Telecomunicazioni (AEIT) *
- European Network of Transmission Systems Operators for Electricity (ENTSO-E) *
- European Regulators Group for Electricity and Gas (ERGEG) *
- Union Française de l'Électricité (UFE)
- Union Technique de l'Électricité (UTE) *
- Prospective 2100, France

*(to be confirmed)

🕒 Committees

- Steering Committee - Chairman: Laurent TARDIF, SYCABEL, Prysmian, France
- Organization Committee
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John SMITH, General Cable Corporation, USA

JICABLE'11 will allow in-depth analysis of the State-of-the-Art and future perspectives: new materials, evolution in technologies, manufacturing process, maintenance policies and condition assessment, upgrading, refurbishment, lessons learnt from service, dielectric phenomena, thermal and thermo-mechanical behaviour, ... new innovative technical solutions for high power transmission: new superconductive materials as well as a closer look at major submarine cable projects connecting High Voltage networks in many countries.

■ Who will be taking part in JICABLE'11 ?

As for the 7 earlier JICABLE conferences held between 1984 and 2007 (581 delegates from 48 countries), JICABLE'11 will prove very useful to the following segments of the cable industry: researchers, engineers, decision-makers, raw materials suppliers, manufacturers, consultants, installers and users.

☉ The following topics will be discussed

1. LV and MV cable systems

- LV and MV cables and accessories (insulated underground and overhead networks)
- New materials, environmentally concerned conception,
- Developments in manufacturing processes and techniques
- Laying methods, experience in service and quality assurance, comparative performances of cables buried with and without mechanical protection
- Operating conditions, thermo-mechanical behaviour, reliability, failure analysis, operating life extension
- Use of telecommunication cables in conjunction with LV and MV cable circuits, powerline communications
- Safety in case of fire
- Standardization

2. HV and EHV cable systems

- HV and EHV AC cables and accessories
- HV and EHV DC cables and accessories
- New developments
- Forced cooling, water cooling, ...
- New materials, environmentally oriented design
- Developments in manufacturing processes and techniques
- Laying methods, technical specifications, shared installation structures, quality assurance, prevention of third party damage, new innovative laying methods implying shorter duration of the work and lesser disturbance for nearby residents
- Operating conditions, maintenance, service experience, reliability, failure analysis operating life extension, improving performances and operating at design limits, upgrading and updating
- Technical and economical optimisation (high stresses, taking into account reliability, availability, temperature in normal, overload and short-circuit conditions, etc.)

- Integration in networks
- Use of telecommunications cables in conjunction with HV and EHV links, powerline communications
- Safety in case of fire
- Standardization

3. Submarine cables

- AC and DC cables systems
- Technical and economical optimization for the different parts of the installation
- Cables systems for offshore wind power plants and oil platforms
- DC cables and accessories
- Laying, embedding and protection techniques
- Operating conditions, feedback
- Integration in the network

4. Economy and costs of cable systems

- Global cost and ownership cost
- Cost reduction and optimisation of cable systems
- Reducing the number of joints: cost of reliability, maintenance, ...
- Different costs of investment (civil works, cable, laying, joints, ...)
- Losses in operation
- Cable systems and smart grids
- Shared installation structures : multipurpose, ...

5. Ageing, diagnosis, maintenance, remaining life estimation and management

- Methods for assessing the properties and characteristics of materials and possible impact on the performances of cables and accessories
- Ageing laws : methods, experimentation, validity
- Monitoring
- On-line diagnosis of materials and tests for fault location
- Methods of examination
- Expert systems
- Remaining life estimation
- Life extension

6. Cables for the future

- Gas-insulated cables (SF6 and other gases)
 - Technologies under development
 - EHV / UHV cables
 - Long-distance use
 - Laying and civil engineering
 - Repair methods
- Superconducting links
 - Feedback from the first High Temperature Superconducting links (HTSC)
 - Prospects for new High Temperature Superconductors (HTSC)
 - Low-temperature properties of insulating materials
 - Technico-economical evaluation
 - Questions related to the integration of superconducting links in standard networks
- Other new underground power transmission systems
- Prospects of nanotechnologies : nanotubes, nano-filled polymers, ...

7. Technical challenges encountered with cable systems

- Integration of long cables (high power) in networks (compensation, static stability and dynamics of networks, distribution of the power flows in the mixed networks),
- Generation output with cable systems: compensation, no load voltage,
- Long length lines for bulk power transmission (tens of km to hundred km), how to ensure reliability and operability,

8. Industrial and special cables

- Technologies and installation (eg. land, underwater, overhead and spatial cables; wind power plants, PV photovoltaic / solar energy cables, nuclear power plants, etc.)
- Substation cables, generation station cables, LV secondary cables (AC and DC cables)

- Cables with improved fire resistant characteristics
- Cables submitted to high mechanical stresses
- New materials
- Developing manufacturing techniques

9. Cables, environment and sustainable development

- Impact of cables on the environment (aerial / overhead, underground, submarine)
- Magnetic field mitigation and health concerns
- Environment friendly design
- Impact of the environment on cable systems (tropical, etc.)
- Corrosion
- Derating in metallic structures
- Specific technologies
- Lifecycle analysis
- End-of-life treatment methods
- Developments in cable regulations
- Coexistence of cables and nearby systems (eg. telecommunications)

10. Design

- Electrical, thermal and thermo-mechanical design
- Steady state and dynamic conditions
- Ampacities
- Sheath bonding, Grounding and protection
- Cable characteristics and cable modelling
- Associated computer codes; validation
- Voltage and current system coordination
- Issues related to Cable integration in networks

11. Testing methods

- Definitions
- Selection criteria
- Validity
- Development tests, evaluation, prequalification tests, type tests, acceptance and after laying tests
- Low frequency testing
- PD testing as maintenance tool

☉ Official Languages

The official languages at **JICABLE'11** will be **English and French**. Simultaneous translation will be provided in both languages.

☉ Abstracts

All abstracts for proposed papers should be submitted online according to the instructions and the template available on the jicable site www.jicable.org by the deadline: **15 November, 2010**.

The abstract in **English** should be adequately detailed and present a synopsis of the paper (in 500 words maximum, one single page as far as possible) emphasising any new ideas, with title, author's names, their affiliations and emails.

A booklet containing all the abstracts of papers accepted for presentation will be forwarded to all conference delegates registered in advance.

☉ Full Papers

Authors whose papers will have been accepted will be informed by the end of December, 2010. Full texts in **English** should reach the **JICABLE'11** Secretariat by 15 April, 2011. The conference programme will be finalized by 15 January, 2011.

☉ Technical Exhibition and Technical Visits

An international technical exhibition will be organised during the conference from Monday June 20th to Wednesday June 22nd 2011 at the Conference site. Information concerning this exhibition is already available from the **JICABLE'11** Secretariat.

Technical visits will be organized for the participants during the Conference in the Paris region on Thursday June 23rd 2011.

☉ Registration

Registration fees will be specified at a later date. These fees will include attendance at the conference and a copy of the abstracts and proceedings. **Please note that authors of papers to be presented are not exempted from registration fees**, and at least one author of each paper must be registered, failing which the relevant paper will be withdrawn.

☉ Conference Venue

JICABLE'11 will be held at the Palais des Congrès in Versailles.

SEE YOU IN PARIS-VERSAILLES!