



## 11th Leading International Conference and Exhibition on Insulated Power Cables

# CALL FOR PAPERS

Lyon - Centre des Congrès— France  
18-22 June, 2023



**Dead lines for your submission**

**Abstracts: November 2022, 15th**

**Abstract acceptance: January 2023**

**Full Texts: April 2023, 15th**

For more informations about the conference, the communication or  
the international exhibition, visit [www.jicable23.jicable.org](http://www.jicable23.jicable.org)

### **Steering Committee**

Chairman: Laurent TARDIF, Association Jicable, France

### **Organization Committee**

Chairman: Gérard LENCOT, Association Jicable, France

Secretary: Naïma CALDERARI, Prysmiangroup

### **International Scientific and Technical Committee**

Chairman: Roland ZHANG, TENNET, Germany

Secretary: Lluís-Ramon SALES CASALS, Prysmiangroup, Spain assisted by Pierre MIREBEAU, Jicable, France

### **Who will be taking part in Jicable'23?**

As for the 10 earlier Jicable conferences held between 1984 and 2019, **Jicable'23** will prove very useful to the following segments of the cable industry: researchers, engineers, decision-makers, raw materials suppliers, manufacturers, consultants, installers and final users.

### **Official language:**

The official language at **Jicable'23** will be English

### **Abstracts:**

All abstracts for proposed papers should be submitted online according to the instructions and the template available on the Jicable web site [www.jicable23.jicable.org](http://www.jicable23.jicable.org) **no later than November 2022, 15**

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

### **Full papers:**

Authors whose papers will have been accepted will be informed by January 2023, full texts in English should be received by the **Jicable'23** secretariat **not later than April 2023, 15**.

The conference programme will be finalized by January 2023.

### **Tutorials:**

Tutorials are planned to be proposed to the participants (topics and dates under consideration).

### **Young Researchers contest:**

Organization Committee of Jicable'23 is setting up a Young Researchers Contest to encourage the participation of students and young researchers. Full-time engineering and science university researchers and Ph.D students are invited to submit abstracts of their research work. The topic of the abstract must fall within one of the programme categories. Students and Researchers whose abstracts are selected will be invited to present papers and answer questions at the Jicable'23 conference during a panel sessions. Prizes will be awarded to the authors of the three best papers.



### **What is Jicable'23?**

**Jicable'23** is an international forum for the exchange of information in the fields of research, industrial development, installation, operation and diagnosis relating to insulated power cables and their accessories, from low voltage and special cables to ultra high voltage cable links and new technologies.

### **Why is Jicable'23 important?**

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

**Jicable'23** will allow in-depth analysis of the State-of-the-Art and future perspectives: new materials, evolution on technologies, improvement in manufacturing process, maintenance policies and remaining life estimation, standardization, field of record, better knowledge of dielectric phenomena, thermal and thermo-mechanical behaviour, digital simulation, testing methods, diagnosis, new innovative solutions for high power transmission, new applications at different levels of voltages.

### Technical Exhibition and Technical visits:

An international **technical exhibition** will be organized during the conference from June 2023, Monday 19 to Wednesday 21 at the conference site. Information concerning the exhibition will be available from the jicable'23 Secretariat.

**Technical visits** will be organized during the conference in Lyon area on Thursday 22, 2023.



### Registration:

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

Concerning the Young Researchers Contest, first author of the selected papers will be exempted from registration fees.

## TECHNICAL TOPICS

### TOPIC A

#### MATERIALS, NEW MATERIALS AND AGEING ASSESMENT FOR AC AND DC CABLE SYSTEMS

- *Materials characterisation: electric, physical and chemical*
- *New materials for cables and accessories*
- *Ageing laws: methods, experimentation, validity*

### TOPIC B

#### CABLES AND ACCESSORIES DESIGN AND MODELLING

1. *Design adaptation to deal with new operating conditions*
2. *Design of dynamic cables*
3. *Technologies compatibility between cable and substation equipment*
4. *Steady state rating, dynamic current rating and RTTR*
5. *Design for both AC and DC*
6. *Electrical, thermal and thermomechanical design*
7. *Sheath bonding, grounding, protection*
8. *Cable characteristics and cable modelling,*
9. *AC resistance of conductors*
10. *Digital modelling validation*
11. *Voltage and current system coordination*
12. *Waterproofing issues*
13. *Issues related to cable integration in networks*

### TOPIC C

#### TESTING METHODS ELECTRICAL AND NON ELECTRICAL

1. *Development tests, evaluation, prequalification tests, type tests, acceptance and after laying tests*
2. *Definitions*
3. *Validity*
4. *Low frequency testing*
5. *PD testing as an asset management tool*
6. *Testing of accessories and conductor connectors*
7. *Miscellaneous methods of testing*

### TOPIC D

#### DIAGNOSIS, MONITORING, REMAINING LIFE ESTIMATION

1. *Methods for assessing the properties and characteristics of materials*
2. *Monitoring*
3. *On-line diagnosis of materials*
4. *Fault location methods*
5. *Methods of examination*

# TECHNICAL TOPICS

## TOPIC E—CABLE SYSTEMS, ENVIRONMENT and SUSTAINABLE DEVELOPMENT

1. *Impact of cable system and installation on the environment*
2. *Life cycle analysis, foot print measurement methods*
3. *Regulations impact on cable system and their materials*
4. *Magnetic field limitation and health effects*
5. *Compatibility of cable systems and nearby other systems*

## TOPIC F—LV, MV, HV and UHV AC CABLE SYSTEMS

1. *Cables and their accessories design*
2. *Integration in networks*
3. *Smart grids and new grids cable systems (particularly for MV)*
4. *New developments in manufacturing processes and techniques*
5. *Quality assurance to ensure reliability and availability*
6. *Laying methods*
7. *Operating conditions*
8. *Digital aspects on cable design, installation and operation*
9. *Technical and economical optimization*
10. *Cable systems projects (existing and future)*
11. *Use of telecommunication cables in conjunction with power links*
12. *Standardization*

## TOPIC G—DC CABLE SYSTEMS: LV, MV, HV and UHV

1. *DC cables and accessories design*
2. *New developments in manufacturing processes and techniques*
3. *Integration in AC networks and benefits of DC systems*
4. *Compatibility and coordination between cables links and converters*
5. *Quality assurance to ensure reliability and availability*
6. *Laying methods*
7. *Operating conditions*
8. *Digital aspects on cable design, installation and operation*
9. *Technical and economical optimization*
10. *Cable systems projects (existing and future)*
11. *Phenomena associated at the interfaces: cables and accessories, transition joints*
12. *Space charge measurement*
13. *Ageing phenomena*
14. *Testing methods*
15. *Qualification procedures*
16. *Operating conditions, feedback*
17. *Standardization*

## TOPIC H—SUBMARINE DC and AC CABLE SYSTEMS

1. *AC and DC cable systems design*
2. *AC and DC cable systems projects (existing and future)*
3. *Cable systems for offshore wind power plants and oil platforms*
4. *Digital aspects on cable design, installation and operation*
5. *Integration in existing networks*
6. *Laying methods and mechanical protection, environmental compatibility*
7. *Static and dynamic mechanical stresses during laying and operation*
8. *Reliability and availability*
9. *Technical and economical optimization*
10. *Fault location and repairing methods*
11. *Specific testing methods*
12. *Operating conditions, feedback*
13. *Standardization*

## TOPIC I—INDUSTRIAL AND SPECIAL CABLES

1. *Cables for power plants, chemical industry, buildings, railway, ...*
2. *Other special cables: aerospace, automotive, lift and crane cables, ...*
3. *Cables with improved fire behaviour and fire resistance,*
4. *Cables submitted to harsh external conditions: high mechanical stresses, chemical attack, ionizing, irradiations*

## TOPIC J—EMERGING TECHNOLOGIES AND NEW CHALLENGES

1. *Gas insulated links*
2. *Superconducting links*
3. *Emerging new technologies*
4. *New materials, breakthroughs*
5. *New manufacturing processes*

JICABLE 23 is organized by

### JICABLE ASSOCIATION

17 rue Hamelin –F75116

PARIS (FRANCE)

[www.jicable23.jicable.org](http://www.jicable23.jicable.org)

[contact@jicable.org](mailto:contact@jicable.org)

