

ELTEE 2018

Evolution of Functional Performance and Expected Lifetime of Electrical Equipments

Grenoble, FRANCE,
16-17 October 2018

CALL FOR PAPERS



Organization:

ELTEE is one of those conferences organized by the APIME (Association for the Promotion of Innovation in Electrical Equipment).

APIME, Domaine Universitaire, 730 Rue de la Piscine, 38402 SAINT-MARTIN-D'H RES
Tel: 04 56 52 88 65

Chairman: J-L Bess de

Website: www.apime38.com

E-mail: apime38@gmail.com



Scope

The structure of the electric grids (transmission, distribution and traction) includes electro-technical power components with lifetimes of up to several decades. Their aging is conditioned by the operating and environmental constraints to which they are subject. For economic reasons, the management of these assets implies having predictive lifetime models and optimal maintenance procedures. On the other hand, the structural and functional evolution of the centralized networks implies to consider the reliability of the electronic power converters, in particular of their constitutive components.

Objectives

The lifetime prediction of electro-technical and electronic power components requires specific approaches, given their diversity (transformers, lines, cables, circuit breakers, surge arresters, generators, motors, IGBTs, MOSFETs...). For this purpose, predictive reliability methods based on physical models, test results and feedback should be used. These types of approaches must allow Transmission System Operators to make economic decisions of maintenance, renewal or extension of lifetimes in a context of uncertainty and long-term.

TOPICS

For Electrical Engineering Applications a main issue is the reliability of the components and the systems. Modeling and simulation tools enable to account designing process, lifetime analysis, diagnostics and health monitoring.

The current context of the digitization of Industry 4.0, the Internet of Things (IoT) and cloud computing makes it possible to address these issues with a view to efficiency and significant reduction in management costs.

The themes of this conference concern: Stakeholders Institutions, OEM, Grid Operators, Private asset owners.

The conference aims to analyze some of these topics from theoretical and practical ways.

Provisional Topics (not strictly limited to):

- Specific analysis to electrical apparatus and components : electrical machines, transformers, lines, cables, surge arresters, power electronics, wind farms, PV panels, stationary batteries and so on.
- Mission profiles, functional and environmental stresses
- Life duration : physical degradation and reliability models, lifetime extension
- Availability factors: reliability, maintainability
- experience return, failure probability, cloud data...
- Dynamic maintenance :supervision, optimal policies,
- Cost-Benefit Analysis: investment costs, maintenance costs, failure costs, resource allocations
- Future challenges : network sensors, real time computing, IoT, big data, cloud computing

Languages

English will be the preferred language for papers and presentations during the conference. French language would also be an option for both sessions and the text of the communications in the final proceedings.

Abstracts Submission:

Prospective authors should submit an abstract of one or two pages (A4) through easychair <https://easychair.org/conferences/?conf=eltee2018>

Important dates:

Abstract Submission deadline: **8 Sept 2018**

Notification of acceptance: **11 Sept 2018**

Full paper submission deadline: **8 Oct 2018**

16-17 October ELTEE 2018, Grenoble, France

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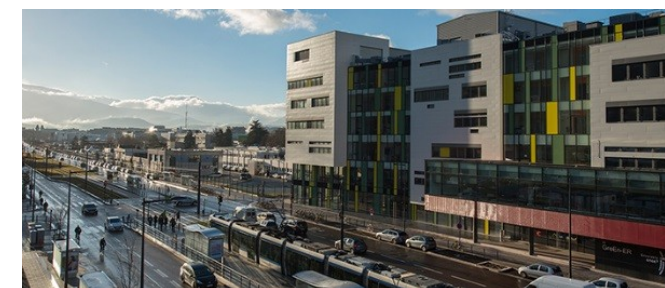
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Venue

Grenoble INP-ENSE³

21 rue des Martyrs, GRENOBLE, France.

The venue of the conference is quickly accessible from the station by using Tram B, stop CEA-Cambridge (Journey time : 5 min, every 5 min).



Web Site

<https://www.apime38.com/eltee-018>