Static Converters HVDC Networks

Component
École Nationale Supérieure d'Électrotechnique d'Électronique

In brief

- **Ametys Code:** N9EE21C
- **Open to exchange students:** Yes

Presentation

Objectives

Understand the converter topologies used for high-voltage direct current power transmission.

Know how to size and model an AC/DC conversion station for high-voltage direct current power transmission.

Description

This course presents the conversion topologies used for high-voltage direct current power transmission: thyristor rectifiers, voltage inverters, and modular multilevel converters. A design office project on the dimensioning of an HVDC link illustrates the course content.

Application project for the "converters for HVDC networks" course.

Half-day theme: High-power semiconductors: presentation in the form of a half-day conference given by an industry representative (ABB) on semiconductor technologies suitable for high-power converters.

Pre-requisites

Three-phase thyristor rectifiers, voltage inverters

Rules for combining switching cells and static converters.