

# Inverter



## Component

École Nationale  
Supérieure  
d'Électrotechnique  
d'Électronique  
d'Informatique  
d'Hydraulique  
et des  
Télécommunications

## In brief

- > **Ametys Code:** N8AE16A
- > **Open to exchange students:** No

## Presentation

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### Objectives

Understand the principles of modulation and filtering of single-phase or three-phase PWM voltage inverters.

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### Description

This course first presents the basic principles of pulse-width modulation control for single-phase or three-phase voltage inverters. The different waveform forms are analyzed to determine the filtering components for voltages and currents. Examples are addressed in the form of a design office and a project.

Be able to size the filtering components associated with a single-phase or three-phase voltage inverter controlled by pulse-width modulation.

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### Pre-requisites

Knowledge of the basic structures of static electric power conversion- Knowledge of second-order filters- Basic knowledge of spectral analysis.