



# autonomous energy systems, hybridization, embedded systems



#### Component

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

#### In brief

> plugin.odf-inp:PLUGINS\_ODF\_COURSE\_NBHOURS\_TXT: 10.5

> Code: NEGA0B

## Presentation

#### **Objectives**

At the end of the course, the student will be able to identify the architectures of the hybrid systems and to know the energy/power characteristics of some sources and energy storage elements.

He will be able to analyze the mission of an energy system, to evaluate the relevance of its hybridization and to design a hybrid system.

The student will also be able to propose an energy management strategy of a multi-source energy system by respecting the intrinsic characteristics of the associated sources.

### Description

In addition to the hybridization theorie and the energy management of multi-source systems, the course is based on several examples of hybrid energy systems from the Laplace laboratory experience feedback. These examples relate in particular to the transport field (aeronautics, rail and road).





## Useful info

### Place

> Toulouse

