Hydraulics : Learning By Project

Component
École Nationale Supérieure d'Électrotechnique d'Électronique

In brief

Code ELP: N6EM05B

Presentation

Objectives

External link towards the pitch of the course

It's about being able to calculate pressure losses in a hydraulic network by reading a Moody diagram or by developing an ad hoc digital program. The calculation of quantities related to a hydraulic jump is a second objective. Finally, the establishment of links between hydraulics and fluid mechanics is an integral part of this teaching.

This teaching combines several educational formulas:

- Traditional Transmissive Education (ETT): Teachers expose knowledge through lectures and tutorials.
- Project Apprenticeship (APP): the realization of projects motivates a search for useful information, independently.
- Progress in Groups (PEG): An individual course work is followed by group discussions and collaborations.

Description

Non-contractual information.
Last update on 18 December 2024

The hydraulics in charge processes pressurized flows in closed conduits. Free surface hydraulics treat flows in open channels. The essential notions are:

- Hydraulic load
- Linear load losses
- Singular charge losses

Hydraulic machines refer to pumps as well as turbines. The essential notions are:

- The three types of pumps
- Load balance and yields
- Operating parameters

Useful info

Non-contractual information.
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