Aeronautical systems

Component
École Nationale Supérieure d'Électrotechnique d'Électronique

In brief

- **Ametys Code:** N9EE19B
- **Open to exchange students:** Yes

Presentation

Objectives

• Build the model, i.e. the set of differential equations governing the movement (attitude and position) of an aircraft in 3D space, taking into account the environment (gravity, aerology).
• Implement state space modelling and state feedback control for single-input and multi-input cases.
• Perform linear quadratic (LQ) state feedback synthesis and LQG control
• Understand standards for linear systems, Hoo requirements for closed-loop systems, Hoo control and H2 control for aeronautical vehicles

Description

This course examines the design of control laws for aeronautical vehicles.

Pre-requisites

• State space
• Non-linear control