

Space Military Applications

Location : École de l'Air – Salon de Provence

Objectives : Located in the very heart of Provence, the “École de l'air” is a French academy dedicated to the training of the future officers of the French Air Force.

This course gives an overview of the applications of space, focusing on military ones. The aim is to study both geopolitical and technical aspects of satellite systems. All major fields are addressed: telecommunications, ground observation, and space monitoring. It also includes several technical and cultural visits.

Prerequisites : Mathematics and signal processing basics

Contents : Geopolitical issues in space
Space surveillance
Space communications, Remote sensing
Continuous teamwork : study of a space system
Visit of Thales Alenia Space facilities in Cannes
Free time in Cannes
Visit of an air force base (*conditional approval*)
Or Visit of Aix-en-Provence

Duration : 12 hours (plus the 4-hour Small Sat Workshop)

Coordinator : Captain Georges LAURENT

Bibliography : Satellite Communications Systems, G. Maral & M. Bousquet, Wiley 2010
Remote Sensing: Models and Methods for Image Processing, Robert A. Schowengerdt, Academic Press 2006

Evaluation : Written Exam