

Seminar Talk

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Universite de Paris Sud and paris Observatory at Meudon.

Friday, September 18, 2015

3:00 p.m. KH 224

Title: An overview of Space in France and the CubeSat project OGMS-SA (Outgassing Material Study by Spectroscopy Analysis)

Abstract:

This seminar will be divided into two parts. The first part is an introduction about Space agencies/industry in France and a few elements about space projects in general. In the second, I will present an overview of our CubeSat project called OGMS-SA, for Outgassing Material Study by Spectroscopy Analysis.

With the harsh environnement of Space (extreme temperatures, UV, particles-radiation), materials degrade and can affect the duration of a mission or even its security. OGMS-SA CubeSat will take the first step to test and demonstrate a method of measuring the UV-degradation of materiels without the need to bring samples back to Earth for analysis.

Most satellites use the same ingredients: an Electrical Power Subsystem (EPS), an Attitude Determination and Control Subsystem (ADCS), an On-Board Data Handling (OBDH), a Telemetry Tracking and Command subsystem (TT&C), a structure subsystem and a payload. We will briefly discuss each in the context of our CubeSat, while stressing the Ground Segment part in which Virginia Tech and ODU are taking part in.

Bio:

Amir Schnitzer graduated French high school on 2007 near Tel-Aviv, Israel. From 2007 to 2012, he prepared the Bsc. in fundamental physics at Paris-Sud University. In 2012 he did an internship in data reduction of infrared spectra of the European Herschel satellite, and one in 2013 in condensed matter on a pump/probe X-ray/laser experiment at the SOLEIL particle acceleator in France. Mr. Schnitzer is currently doing his astronomical and space-based systems engineering Master internship at UPEC University near Paris on the ground station of the CubeSat project that he will present during this seminar.