OUFTI-1: the CubeSat from ULg

Educational project
Hands-on satellite experience for students, through a series of satellites dedicated to scientific experiments.

Since 2007: more than 40 students from universities of Liège and Louvain, and from engineering schools

Academic and industrial supervisors

Three innovative payloads
D-STAR
New radio-communications protocol:
• Digital
• Simultaneous voice and data transmission
• Complete routing capacity, including roaming
• First use in Space!

Experimental EPS
• Digitally controlled
• Developed in collaboration with Thales Alenia Space ETCA

New solar cells
• Triple junction (GaInP/GaAs/Ge)
• High efficiency: 30% (instead of max. 28%)
• Developed and provided by AzurSpace

CubeSat concept
« CubeSat » Standard for nanosatellites developed by CalPoly & Stanford.

Easier access to space
Shorter development time

1 kg liter watt

System overview
MECH: antenna deployment
ADCS: fully passive
EPS: analog & digital
OBC: COTS & Home-made

THER: mainly passive
COM: D-STAR + AX.25

Objective: Launch end-2012