

Space Technology Program Can-Sat Training Project

New participants Summer 2014

In the framework of the cooperation with the University Space Engineering Consortium (UNISEC), and the Cairo University Engineering Faculty Aerospace Department, the Planetarium Science Center (PSC) launched the Can-Sat Training Program, one of the activities of Space Technology Program for the Faculty of Engineering, Alexandria University. The Can-Sat training provides an affordable way to gain the students basic knowledge to many challenges in building a satellite. Students will be able to design and build a small electronic payload that can fit inside a soda can. The Can-Sat is launched into high altitude by rockets, balloons and/or aircrafts; and experiments are performed during descent by parachute, simulating the satellite operations in space. With the use of a parachute, the Can-Sat slowly descends back to Earth performing its mission while transmitting telemetry. Post launch and recovery data acquisition will allow them to analyze the cause of success and/or failure. The Can-Sat training develops the capacity building in space technology and improve teaching methods based on space engineering education.

The Can-Sat Training Program (CTP) provides a training course to experience whole cycle of Can-Sat development that involves:

- * Design, fabrication, and launch by parachute.
- * The participants will be expected to submit scientific papers.

Course Duration: Sunday, 3 August 2014 – Thursday, 21 August 2014

Fees: 250.– EGP

Target age: 2nd and 3rd year, Faculty of Engineering (Departments of Communication, Power, Mechanics, Programming)

Minimum number: 16 students

Maximum number: 20 students

Notes:

For additional information, please contact the Planetarium Science Center
Telephone: +(203) 4839999; Ext: 2350, 2351
Fax: (+203) 4820464

- ** The candidates should pass acceptance procedures before payment.
- ** The participants who pass at least 90% of the course duration will receive an attendance certificate.

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Can-Sat

3 - 21 August 2014

Date		Activity	Time	Room	Duration
Sunday	3-8-2014	Can-Sat (objective, mission, subsystem)	12:00 noon	Workshop C	3 hrs.
Monday	4-8-2014	Can-Sat controller- Mbed program	12:00 noon	Workshop C	3 hrs.
Wednesday	6-8-2014	Sensors (analogue sensors and digital sensors)	12:00 noon	Workshop C	3 hrs.
Thursday	7-8-2014	Sensors (Gyro, Temp and humidity , Barometer , accelerometer)	12:00 noon	Workshop C	3 hrs.
Sunday	10-8-2014	Xbee	12:00 noon	Workshop C	3 hrs.
Monday	11-8-2014	Connections (Mbed+2 analogue sensors + 2 digital sensor + xbee)	12:00 noon	Workshop C	3 hrs.
Wednesday	13-8-2014	Connections (Mbed + 2 analogue sensors + 2 digital sensor + xbee)	12:00 noon	Workshop C	3 hrs.
Thursday	14-8-2014	Theory of (parachute design, Can-Sat design)	12:00 noon	Workshop C	3 hrs.
Sunday	17-8-2014	Implementation	12:00 noon	Workshop C	3 hrs.
Monday	18-8-2014	Implementation	12:00 noon	Workshop C	3 hrs.
Wednesday	20-8-2014	Implementation	12:00 noon	Workshop C	3 hrs.
Thursday	21-8-2014	Implementation	12:00 noon	Workshop C	3 hrs.

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