CanSat Leader Training Program

November 2010

The program is organized and sponsored by:

University Space Engineering Consortium
www.unisec.jp

Institute for Education on Space
Wakayama University
www.wakayama-u.ac.jp

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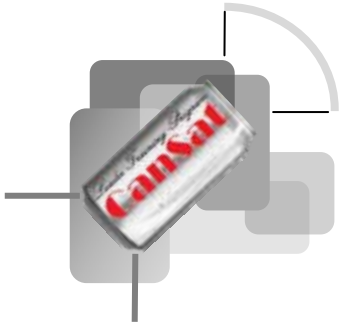
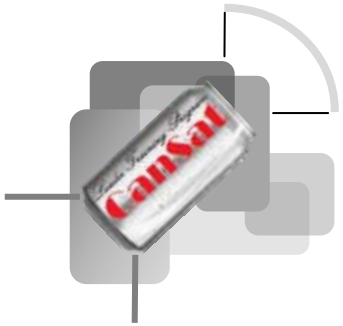


Objectives

This program will contribute to capacity building in space technology and improve teaching methods-based space engineering education.



Approach

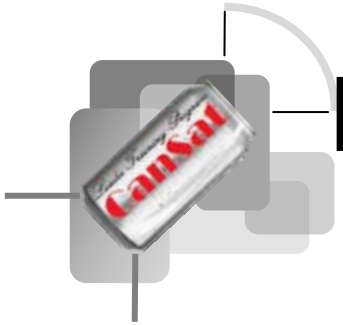
- To increase the number of facilitators who can lead CanSat projects, we will provide promising applicants with opportunities to experience whole process of CanSat building and to write teaching materials.
- To follow up CanSat activities, we will provide net-working opportunities so that participants can improve their teaching skills continuously.

Goal

In the next 5 years, education using CanSat will be available in more than half of nations (about 100 nations) in the world.

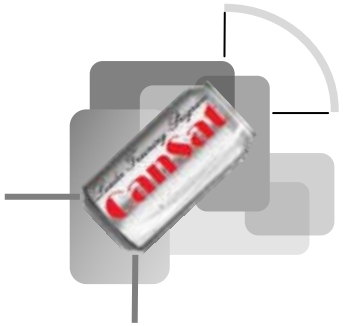
What is CanSat?

The CanSat provides an affordable way to acquire the students with the 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 coke can. The CanSat is launched and ejected from a rocket or a balloon. By the use of a parachute, the CanSat slowly descends back to earth performing its mission while transmitting telemetry. Post launch and recovery data acquisition will allow the students to analyze the cause of success and/or failure.



Merits of CanSat-Based Space Education

- Cansat is an effective tool for education
  - Can conduct projects with relatively low cost
  - Can Experience whole process from mission design, manufacturing, testing to deployment
  - Can make experiment easily with balloon. (possible without rocket launch)
  - Can adjust teaching methods to suit students' level
    - Needs and abilities of high school students and graduate students are different.
  - Can analyze reasons of failure and success as all Cansats come back to the ground.



Who should attend?

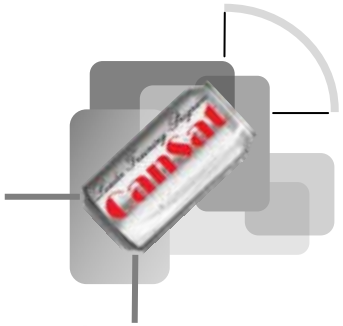
If you want

- to improve your skills in space engineering education,
- to learn effective Hands-on training,
- to experience whole process of cansat building in one month,
- to study Japanese system engineering in Japan,

Please join us!

Schedule

2010 ~ 30 Nov.	Start to accept application
2010 ~ 15 Dec.	Notification to applicants, and start to work on Visa application
2011 14 Feb. ~ 12 Mar.	CanSat building and testing (at Wakayama Univ.)
2011 14 ~ 16 Mar.	Participation in the 2nd Nano-satellite symposium (at Univ. of Tokyo)
2011 18 ~ 20 Mar.	CanSat Experiment with Rockets, Presentation and Closing (in Izu Oshima island)



Application Process

Due:Nov. 30 2010

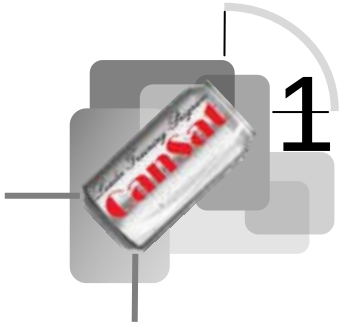
- Application Submission
- Skill Check

Due:Dec.15 2010

- Selection
- Notification to applicants

Meet you on Feb. 14 2011

- VISA application, Arrangement of accommodation, transportation, etc.



1st Year Program Benefits Package

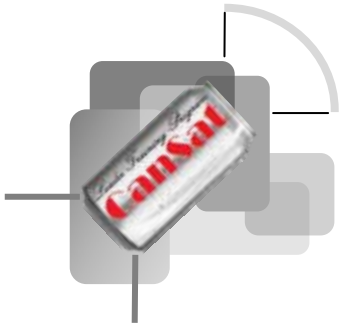
- No Tuition Fee
- The following items will be covered by the sponsor
  - Living Expense and Travel Cost in Japan
  - Laboratory hardware purchase
- Limited Fund is available for Roundtrip air ticket from your home country to Japan.

What is expected from the applicants?

- Hard Working
- Self-motivated
- Initiative
- Future leadership in CanSat-based space education in his/her region
- Join the net-working activities of CanSat based space education

Prerequisites

- Science based education background (graduates faculties of science or Engineering)
- Basic Knowledge in the following science branches:
  - Basics of Aerodynamics (e.g. Parachute falling problem)
  - Basics of electronic circuits and mechatronics (OP-AMPs, Single board PC and Micro-controller and their programming, AD and DA conversion, Data Acquisition)
  - Computer application in mathematics using C-Language. (e.g. write a program to solve system of linear equation in C-Language)
  - Linear algebra
  - Basic knowledge of mechanical production (e.g. basic machining in the workshop)



Contact

For more information:

URL: www.unisec.jp/cltp/en/index.html

email: can_int_lead@crea.wakayama-u.ac.jp

Thank you