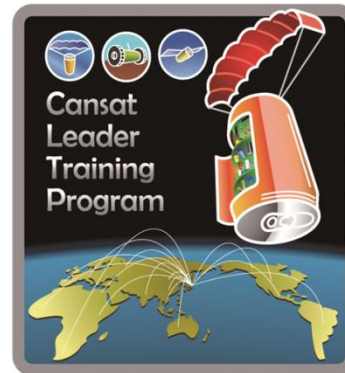




# The 6<sup>th</sup> CanSat Leader Training Program (CLTP6)



University Space Engineering Consortium  
(UNISEC)

<http://www.cltp.info>

# What is CLTP?



CLTP was established in 2011 to contribute to capacity building in space technology and to improve teaching methods-based space engineering education. CLTP will enable the participants to do the following:

- Experiences of the whole cycle of CanSat development including sub-orbital launch experiments through hands-on training.
- Conduct CanSat program in their countries for senior-high school and undergraduate university students.
- Aiming at “international CanSat education network”



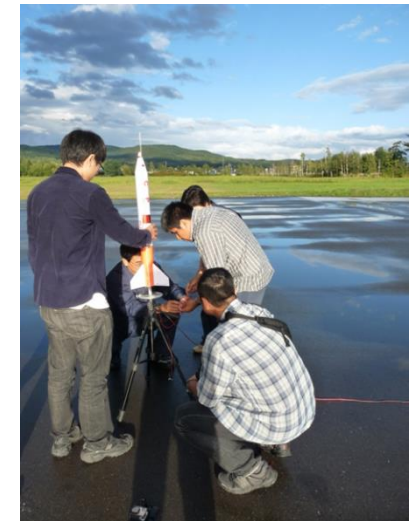
CanSat  
Manufacturing



Vibration Test



Paper craft Rocket



Launch Experiment

# CLTP History & Participants



## CLTP1 (Wakayama Univ. in Feb-March, 2011)

12 participants from 10 countries, namely Algeria, Australia, Egypt, Guatemala, Mexico, Nigeria, Peru, Sri Lanka, Turkey (3), Vietnam.

## CLTP2 (Nihon Univ. in Nov-Dec, 2011)

10 participants from 10 countries, namely Indonesia, Malaysia, Nigeria, Vietnam, Ghana, Peru, Singapore, Mongolia, Thailand, Turkey.

## CLTP3 (Tokyo Metropolitan Univ. in July-August, 2012)

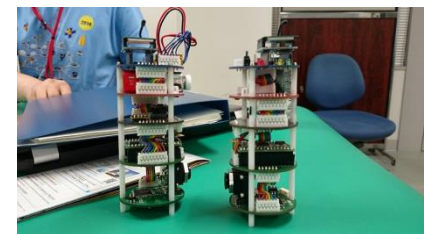
10 participants from 9 countries, namely Egypt (2), Nigeria, Namibia, Turkey, Lithuania, Mongolia, Israel, Philippines, Brazil.

## CLTP4 (Keio Univ. in July-August, 2013)

9 participants from 6 countries, namely Mexico(4), Angola, Mongolia, Philippines, Bangladesh, Japan.

## CLTP5 (Hokkaido Univ. in Sept 8-19, 2014)

7 participants from 5 countries, namely Korea (2), Peru, Mongolia Mexico (2), Egypt.



# Overview of CLTP6



- Date:
  - Online-lecture: July- August, 2015 (TBA)
  - Hands-on training: August 24- Sept 4, 2015
- Venue:
  - Hokkaido University (Sapporo) and Uematsu Electric Co., Ltd (Akabira)
- Eligibility
  - Academic researchers, instructors, and graduate students who belong to universities or research institutes . A Ph.D. degree holder is preferable.
  - Company employees who wants to use CLTP as an education and training program.
- Application Due: Feb 28, 2015

# Who should attend?



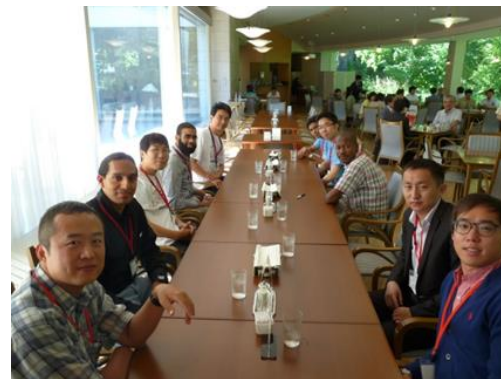
- You should apply if you:
  - Want to learn basic space technology.
  - Want to learn teaching methodology in space engineering
  - Are in position to teach entry level courses in space engineering.
  - Want to expand your international network in space engineering education.
  - Want to experience studying in Japan
  - Need to improve your knowledge and skills in space engineering education
  - Want to interact with competent international participants from all over the world.
  - Understand how enjoyable and meaningful teaching and learning with CanSat.



# Comments from CLTP5 participants



- *“Be ready for joining and meeting extraordinary people from all around the world while getting involve in Japanese culture and knowledge of space.”* (Mexico)
- *“A great opportunity, not only to learn the technical aspects of a CanSat/CubeSat, however also to learn the methodology of teaching, and furthermore, a great opportunity connect with future CanSat/CubeSat leaders around the world.”* (Korea)
- *“I have learned a lot from the program and also from the other participants. I am totally sure that this program encourage participants to develop new technological programs in their countries.”* (Peru)



# How to Apply?



- Admission Requirements
  - Applicants are screened for admission on the basis of their professional qualifications and their achievements, as well as their background assessment test, the teaching methods and plans of post-CLTP. English proficiency is also essential.
- Submission of an application form through website:  
[https://www.cltp-online.info/application\\_form.php](https://www.cltp-online.info/application_form.php)
- Submission of the following documents by email to [<secretariat\(at\)cltp.info>](mailto:secretariat@cltp.info)
  - Assessment test
  - Letter of Recommendation
  - Essay (teaching methods and plans after CLTP)
  - Copy of your passport



# CLTP6 Schedule

**Application, Assessment Test, other documents submission**

February 28, 2015



**Selection Notification to applicants and start of VISA issuance process**

April 15, 2015



**Online Lecture sessions start and last for one month**

July 6, 2015 (TBC)



**Arrive to Japan and Starts the Hands-on training sessions**

Before August 24, 2015





# Participation fee

- The participation fee is divided into two categories:
  - Academic Fee: 300,000 yen (about USD 2,500)
  - Corporate Fee: 500,000 yen (about USD 4,167)
- The participation fee covers accommodations, transportation between Sapporo and Akabira (launch site), course materials including CanSat/launching paper rocket, the use of test facilities.
  - If a participant would like to independently arrange for accommodations and stay at such a facility at own responsibility, then 100,000 yen will be deducted from the fee.
- The participants have to arrange their own flight from their country to shin-chitose airport (CTS) or Sapporo city in Hokkaido island



# Follow-up activities

- The CLTP participant will be expected to make a follow-up report to the CLTP Office within two years after the completion of the CLTP Program. The report may touch on how your CanSat activity will be sustainable in your country.
- Participation in the future CLTPs as teaching assistant/lecturer.
- Joining “CanSat Education” group discussion during the annual UNISEC Global Meeting



# Post- CLTP Activities

- CLTP (teaching professors) in Turkey and Mexico
- CTP (teaching students) at universities in Egypt, Ghana, Peru, Mexico, Mongolia, Nigeria and the Philippines, etc.
- National CanSat Competitions in Lithuania, Mongolia, Turkey, Peru, etc...
- Participation in the international CanSat Competition from Egypt, Peru, Mongolia, Turkey, Guatemala, etc...

**The 5<sup>th</sup> CanSat Training Program (CTP5)**  
Organized by  
Space Systems Technology Laboratory (SSTLAB), Aerospace Engineering Department,  
Faculty of Engineering, Cairo University  
In Cooperation with  
University Space Engineering Consortium – Egypt (UNISEC-Egypt)

**What is CTP?**  
The CanSat Training Program (CTP) was launched in 2011 at the Space System Technology Laboratory (SSTLAB) to contribute to capacity building in space technology and improve teaching methods based on space engineering education. In the next 5 years, education using CanSat will be expected in about 100 nations in the world.

**History**  
CTP1: July 20 – August 1, 2011  
CTP2: January – February, 2012  
CTP3: January – February, 2013  
CTP4: February – March, 2014

**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.

**What is SSTLAB?**  
Founded and operated by students, The Space Systems Technology Laboratory (SSTLAB) is a student based running laboratory, started in August 2011. The SSTLAB mission is to promote space science and engineering education at Cairo University.

**What is UNISEC-Egypt?**  
University Space Engineering Consortium (UNISEC) is a non-profitable organization (NPO) to support practical space development activities in universities and colleges, such as small satellite and hybrid rockets. It was founded in Japan in April 2002. In November 2013, UNISEC Global was acknowledged and in November 2014 UNISEC-Egypt was acknowledged as the local chapter of UNISEC-Global in Egypt.

**The following technical topics will be covered in CTP5**

- Programming with Arduino microcontroller board.
- Using different types of sensors: mems IMUs, temperature, pressure and others.
- Design and implementation of ground stations.
- Design and fabrication of structure and recovery systems.
- Design and fabrication of PCB electronics.

**Date and Time**  
CTP5 will be held from January 27 – February 9, 2015, From 9:00 AM until 7:00 PM.

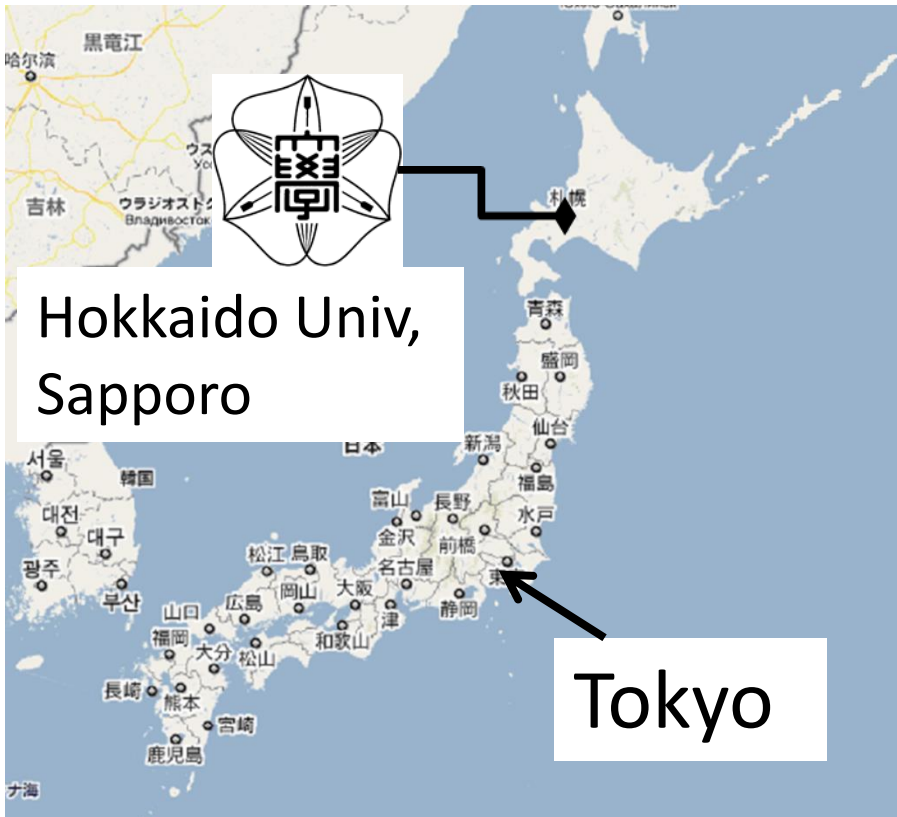
**Venue**  
Space System Technology Laboratory,  
Department of Aerospace Engineering Building  
40000, 3F, Faculty of Engineering, Giza, Egypt.

**For further information**  
Email : [info@sstlab.eg.org](mailto:info@sstlab.eg.org)  
Facebook: <https://www.facebook.com/SSTLAB>

Logos: SSTLAB, AE, Cairo University, UNISEC EGYPT

The 5<sup>th</sup> CanSat Training Program in Egypt

# Hokkaido University



Founded in 1876  
Number of students: about 18,000



# Join us!



<http://www.cltp.info>