

# UNISEC-Hands-on Training during the pandemic

## ARLISS and CLTP

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# ARLISS 1999-2019

## A Rocket launch for International Student Satellites

- CanSat experiment and competition

- AeroPAC (amateur rocket group) provides rockets (up to 4 km) in Blackrock desert, Nevada, USA
- About 100 students attended from Japan every year and students from more than 10 countries joined.



**No ARLISS in 2020  
Not sure In 2021**

**Ken Biba of  
AeroPAC will  
present ARLISS  
on March 20**

# CanSat Experiment in Asagiri plateau in Shizuoka (near Mt. Fuji) in 2020 Dec



- UNISEC-Japan students found a new location for CanSat experiments in Japan.
- Using balloon for “launch.”
- What is needed should be considered with innovative, imaginative spirits.

# CanSat Leader Training Program (CLTP)

**Objective:** CLTP is a training program for professors/instructors to learn how to conduct CanSat (or HEPTA-Sat) training by experience. Participants are expected to teach their students after training. It has contributed to capacity building in basic space engineering and technology.

**Launched:** October 2010 (1<sup>st</sup> CLTP was held in 2011)

**Offered:** Annually

**Graduated:** 96 participants from 46 countries



# CLTP History & Participants (1)

96 participants from 46 countries

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

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

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

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

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

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

## <2013~ iCanSat kit CLTP4-7>

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

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

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

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

### CLTP6(Hokkaido Univ. in August 24-Sept4, 2015)

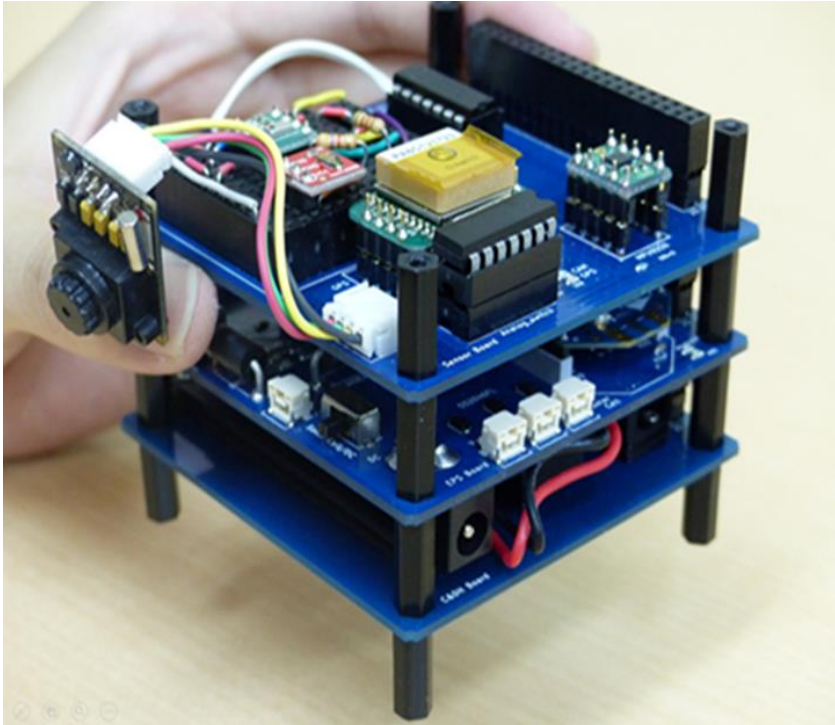
8 participants from 8 countries, namely Angola, UN(Austria), New Zealand, Tunisia, Turkey, Egypt, Bangladesh, Mexico

### CLTP7 (Hokkaido Univ. in Sep 21 - Oct 1, 2016)

8 from 7 countries, namely Egypt, Myanmar, Peru, Nepal (2), Mongolia, Serbia, Dominican Republic

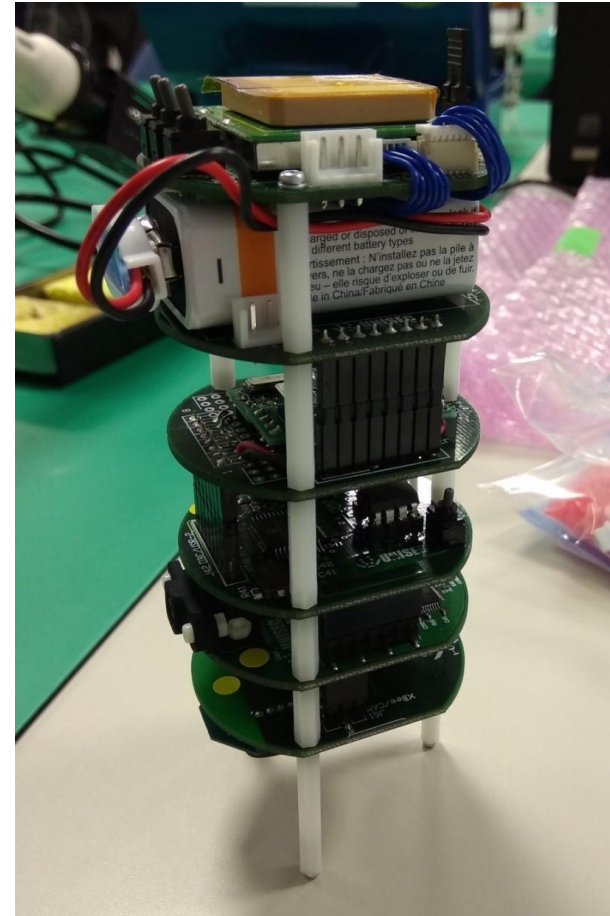


# Training Programs: Educational Kits



**HEPTA-Sat**

(CLTP8-10, HEPTA-Sat Training Workshops)



**i-CanSat** (CLTP3-7, CTP)

[http://unisec.jp/library/i-cansat/manual\\_CanSat\\_textbook\\_eng\\_v5.pdf](http://unisec.jp/library/i-cansat/manual_CanSat_textbook_eng_v5.pdf)

# CLTP History & Participants (2)

<2017~ HEPTA-Sat Kit: CLTP8-10>

96 participants from 46 countries

## CLTP8 (Nihon Univ. in Sep 7 - Sep 16, 2017)

9 from 7 countries, namely Bolivia, Egypt, El Salvador, Malaysia, Nepal, Turkey (+Japanese Students)

## CLTP9 (Nihon Univ. in August 20- August 31, 2018)

8 from 6 countries, namely Argentina, India, Japan, Malaysia, Mongolia, UAE (+Japanese participants for 3-day teaching practice)

## CLTP10 (Nihon Univ. in August 19-August 30, 2019)

15 from 11 countries, namely Australia, Bhutan, Bulgaria, Cambodia, Colombia, Kenya, Morocco, Myanmar, Peru, Rwanda, Zimbabwe



No CLTP  
in 2020

Not sure  
In 2021

# Online Hands-on Training?

- Developing HEPTA-Sat Lite (simple kit)
- Planning to develop online course material
- Hardware prototype – slow development
  - Original plan – August in 2020
  - Reality – March in 2021?
- What is Online Hands-on Training?
  - Hardware delivery to participants?
  - Remote teaching through internet?
  - Realtime teaching or recorded teaching?
  - Is it effective?



# Guiding Principles for UNISEC-Global

<Tech

1. E
  2. E
  3. C
  4. P
- <Ma
5. P
  6. S
  7. P
9. Use imaginative and innovative ways of achieving the maximum result using available personnel, technical and financial capabilities even if they are limited.

8. Evaluate your results realistically and reflect them to your subsequent activities.

<Fundamental spirits>

9. U
  10. I
  11. P
  12. E
- Let's get out from a small box and be innovative and imaginative!

<http://www.unisec-global.org/guidingprinciples.html>