

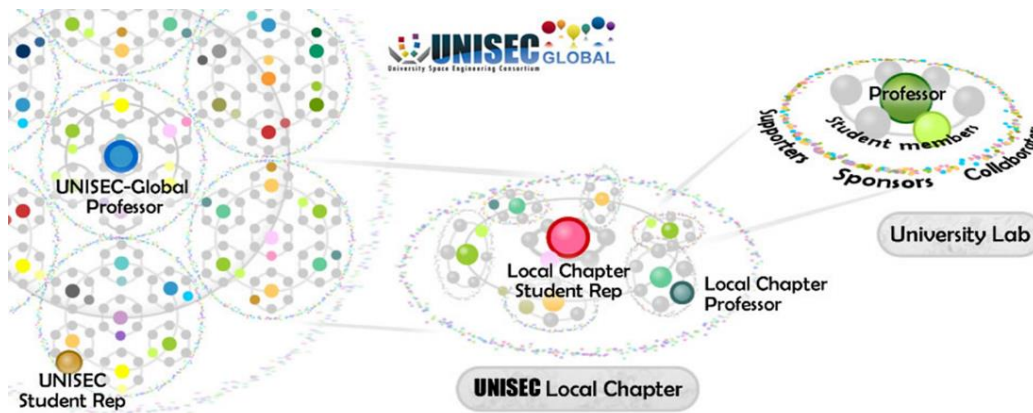
# CLTP and UNISEC-Global VISION 2030-ALL



June 13, 2020  
Rei Kawashima, UNISEC-Global

# What is UNISEC-Global?

- **UNISEC-Global** is an **international nonprofit, non-government organization**, consisting of local-chapters across the world.
- **Established in November 2013 (CLTP started in 2011!)**
- Accepted as **permanent observer by UNCOPUOS in 2017.**
- Its **primary objective** is to help create a world where space science and technology is used by individuals and institutions in every country, rich or poor for peaceful purposes and for the benefit of humankind.



UNISEC stands for  
University Space  
Engineering  
Consortium

# CanSat Leader Training Program (CLTP)



**Objective:** CLTP is a training program for professors/instructors to learn how to conduct satellite hands-on training by experiencing whole process. Participants are expected to teach their students after training. It has contributed to capacity building in basic space engineering and technology.

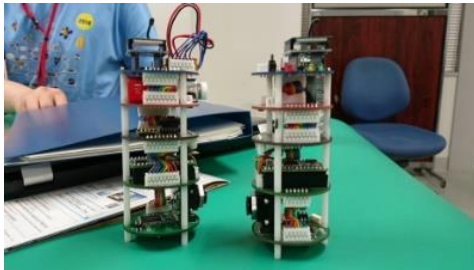
**Launched:** October 2010, **Offered:** Annually

**Graduated:** 96 participants from 46 countries

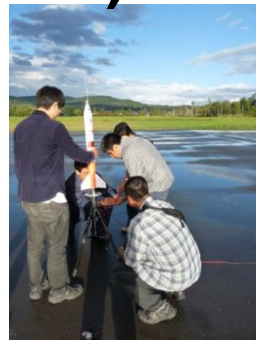
**Since 2017, HEPTA-Sat (more like CubeSat) is used for CLTP.**

**CLTP11 was postponed to 2021 due to COVID19.**

## <CanSat (2011-2016)>

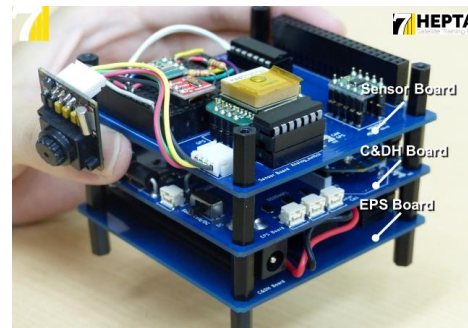


CanSat Manufacturing



Launch Experiment

## <HEPTA-Sat (2017-present)>



# UNISEC-Global Points of Contact (POCs) and CLTP Alumni

POC in 54 regions: **Algeria**, **Argentina**, **Bangladesh**, Belarus, **Bolivia**, Brazil, **Bulgaria**, Canada, Chile, **Colombia**, Costa Rica, **Egypt**, Ethiopia, **Germany**, **Ghana**, **Guatemala**, El Salvador, **India**, Indonesia, **Italy**, **Japan**, Kenya, Lebanon, **Lithuania**, Luxemburg, **Malaysia**, **Mexico**, **Mongolia**, Morocco, Nepal, **New Zealand**, **Nigeria**, Oman, **Peru**, **Rwanda**, **the Philippines**, Saudi Arabia, Singapore, **Samara**, Slovenia, South Korea, **Serbia**, Spain, **South Africa/Angola/Namibia**, Switzerland, **Taiwan**, **Thailand**, **Tunisia**, **Turkey**, Ukraine, USA and Vietnam



**19 CLTP Alumni among 54 POC.**  
(yellow marker)  
**35% of UNIGLO-POC are from CLTP**

**(Local Chapters are written in Red)**

# Vision 2030-ALL

*“By the end of 2030, let’s create a world where university students can participate in practical space projects in **all** countries.”*



Changed from the original  
“Vision 2020-100”  
in 2017

The 2030 Agenda for Sustainable Development  
Key principle: No one will be left behind.



# UNISEC-Global's Approach

## Training Program

HEPTA-Sat Training  
CanSat Leader Training Program  
An International Student Satellite  
Launch (ARLISS)

## Forum, Conferences, Technical competitions

UNISEC-Global Meeting,  
Nano-satellite Symposium,  
Mission Idea Contest







**Vision 2030-ALL**

## Debris Awareness and Solutions

Debris Mitigation Competition  
IAA Study Report: A Handbook for  
Post-Mission Disposal of Satellites  
less than 100kg

## Support Global Space Projects initiated by member universities

# UNISEC-Global History of Activities

Year/Activity	CLTP <small>Cansat Leader Training Program</small> 	DMC/DDC 	MIC 	Nano-satellite Symposium 	UNISEC-Global Meeting 
2010				1 <sup>st</sup>	
2011	1 <sup>st</sup> and 2 <sup>nd</sup>		1 <sup>st</sup>	2 <sup>nd</sup> and 3 <sup>rd</sup>	
2012	3 <sup>rd</sup>		2 <sup>nd</sup>	4 <sup>th</sup>	
<b>2013</b>	<b>4<sup>th</sup></b>		<b>Pre 3<sup>rd</sup></b>	<b>5<sup>th</sup></b>	<b>1<sup>st</sup> (Japan)</b>
2014	5 <sup>th</sup>		3 <sup>rd</sup>	-	2 <sup>nd</sup> (Japan)
2015 	6 <sup>th</sup>		Pre 4 <sup>th</sup>	6 <sup>th</sup> (ISTS30)	3 <sup>rd</sup> (Japan)
2016	7 <sup>th</sup>	1 <sup>st</sup>	4 <sup>th</sup>	7 <sup>th</sup>	4 <sup>th</sup> (Bulgaria)
2017	8 <sup>th</sup>	2 <sup>nd</sup>	Pre 5 <sup>th</sup>	8 <sup>th</sup> (ISTS31)	5 <sup>th</sup> (Italy)
2018	9 <sup>th</sup>		5 <sup>th</sup>	-	6 <sup>th</sup> (France)
2019	10 <sup>th</sup>		6 <sup>th</sup>	9 <sup>th</sup> (ISTS32)	7 <sup>th</sup> (Japan)
2020	Postpone		Postpone	Postpone	?
2021	11 <sup>th</sup>		7 <sup>th</sup>	10 <sup>th</sup> (ISTS33)	

UNISEC-JAPAN

UNISEC-GLOBAL

# CLTP Future Directions?

- CLTP Characteristics
  - Study for teaching others (altruistic, not selfish motivation)
  - Education-oriented, not event-oriented
  - Adequate size
  - Teaching Practice for Diverse participants
  - Evolving technology and teaching methods
  - Life change experience
  - Experience whole process

- CTP to Diverse targets:
  - Space Engineering students
  - High school and younger
  - Non engineers (legal, finance, business, politics, etc.)

- Design sustainable Eco-System
  - Who will pay for what?
  - Who will teach whom for what?
  - Who want to keep CLTP?

- Bridge to real satellite projects
  - Components
  - Launch opportunities
  - Technology
  - Testing facility
  - Mission - Collaboration with Mission Idea Contest

**A World Alliance with Satellites  
to solve Global Issues (SDGs)**



# Acknowledgement

- **Shinichi Nakasuka** – Father of Nano/Micro satellite projects and its education programs in Japan. Main researcher for Hodoyoshi Project that financially supported CLTP1-4.
- **Mansur Çelebi** (CLTP1) and **Rustem Aslan** – Sent Mansur to CLTP1 – Host of the 1<sup>st</sup> CLTP Alumni Meeting
- **Tejumora Taiwo** (CLTP3)– First proposer of CLTP-Alumni Meeting
- **Tetusya Iwasaki**, Financial contributor (CLTP5-10)
- **Host of CLTP1-10 and lecturers, contributors, TAs**
  - CLTP8-10 Masahiko Yamazaki, Nihon University
  - CLTP5-7 Tsuyoshi Totani, Hokkaido Univ & Uematsu Electric.
  - CLTP4 Naohiko Kotake and Seiko Shirasaka, Keio University
  - CLTP3 Hironori Sahara, Tokyo Metropolitan University
  - CLTP2 Yasuyuki Miyazaki, Nihon University
  - CLTP1 Hiroaki Akiyama, Wakayama University