

Local Chapter Activity Report


at the 10th UNISEC-Global Meeting

“UNISEC-Japan”

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History of Local Chapter Activities

- Established in **2002** 
- To facilitate/promote university level students' ***practical space development activities***, such as ***designing, manufacturing and launching small satellites and hybrid rockets***.

“Activities in the past”

- *Organized CLTP from 2011-present*
- *Participated in MIC almost every year*
- *Attended UNISEC-Global Meeting in 2013-present*
- *Organized UNISEC Academy (online course)*
- *Contribution to KiboCUBE Academy*
- *Participated in ARLISS in 1999-present*
- *Held CanSat/HEPTA-Sat Training Program/Competition in 2012 - present*
- *Practical Space Projects : J-CUBE, Mission Assurance Activities, Satellite Projects and Launch at each organization.*

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2011: Launch of the Mission Idea Contest

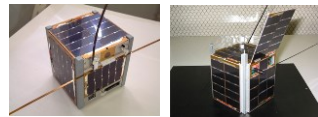


2011: Launch of the CanSat Leader Training Program (CLTP)

2012: Launch of the HEPTA-SAT program



41 universities joined domestically, with over 60 satellites launched.



2003: World's First Successful CubeSat Launch

2013: Establishment of UNISEC-Global

2002: Establishment of UNISEC



1999: Initiated CanSat experiments
Ongoing ARLISS launch experiments in Nevada, USA



POCs in 69 countries and Local Chapters in 29 countries.

UNISEC-JAPAN Activities in 2023-24

**Number of

- Member Universities: 41
- Students: 689
- Professors: over 100
- Others (Corporative members, etc.): 30 corporate members

Example of Key Activities This Year Include

1. *ARLISS2024 (September 9-12)*
2. *CanSat Competition (at Noshiro Space Event)*
3. *UNISEC Deep Space Workshop (Nov 9)*
4. *J-CUBE*
5. *Mission Assurance Activities*
6. *CubeSat Salon*
7. *HEPTA-SAT Training (South Africa, Philippines, Vietnam, Astronaut, JAXA, Japanese companies, Universities)*
8. *CLTP13 (August 19-29)*
9. *Workshop (Dec 21-22) at Fukui Institute of Technology*

ARLISS 2025:
Sep. 7-12, 2025 (TBC)

ARLISS 2024

A Rocket Launch for International Student Satellite



- September 9th – 12th, 2024
- Black Rock Desert, Nevada, USA
- Launch CanSat and perform various missions in cooperation with an amateur rocket organization (AeroPAC). Started in 1999.

Fundraising activity

Students challenged Crowdfunding for the first time and collected about 28,000 USD.

130 students

- Japanese teams: 16 teams
- International teams: 3 teams (Costa Rica, USA, Mexico)



UNISEC Deep Space Workshop

9th November 2024, Himeji, Japan and Online

- To create a University Community to foster collaboration and knowledge exchange among key players in the field of deep space exploration.

Plan to organize the 2nd Workshop in 2025.

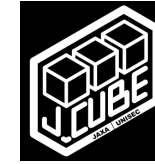
Participants: 50 in person, 80 online

Organizer: PhD Students of the University of Tokyo



Continue this initiative
next year as well

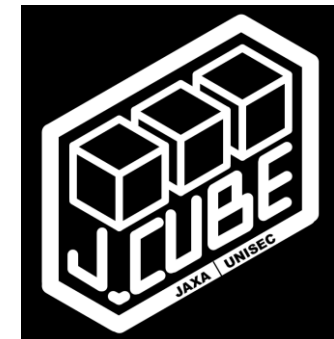
J-CUBE



- A collaboration between JAXA and UNISEC to help emerging space nations get their CubeSats deployed into Low-Earth Orbit via the ISS.



- ISS Deployment – 1U, 2U, 3U
- Discounted launch fee
- Collaboration with a Japanese university is required.
- Technical Support is available.



Mission Assurance Activities

- Promotion of mission assurance activities with support from JAXA
 - Development of a Mission Assurance Handbook
 - Establishment of an information-sharing portal site
- To improve the mission success rate of satellite projects at universities and polytechnic colleges in Japan, including not only the first projects but also subsequent ones, by summarizing key points for faculty members and students.

MA Handbook (Ver.3)

1. Introduction
2. Project management
3. Mission definition
4. Conceptual design
5. Detail design
6. Production
7. Testing
8. Operation
9. Post-operation
10. Sustainability of university satellite program

English version is also available online



Follows the chapters of mission assurance handbook



The screenshot shows the homepage of the Mission Assurance Handbook website. The header includes the UNISEC logo and the text '超小型衛星 Mission Assurance 情報共有Webサイト'. The URL 'https://ma.unisec.jp/' is prominently displayed. Below the header, there is a navigation menu with 10 items: 01 はじめに, 02 プロジェクトマネジメント, 03 ミッション定義, 04 概念設計/基本設計, 05 詳細設計, 06 製作, 07 試験, 08 運用, and 09 運用後. The main content area features a welcome message and a QR code. A user profile for '中須賀 真一' (Nakasukage Makoto) is visible, along with a detailed text block about mission assurance.

CubeSat Salon

- To offer **free consulting services** for CubeSat projects and companies interested in entering the space sector, with five one-hour slots available weekly, focusing on early-stage projects and exploring business possibilities, while discussing strategies to explain ideas to management in a **relaxed atmosphere over coffee or tea**.

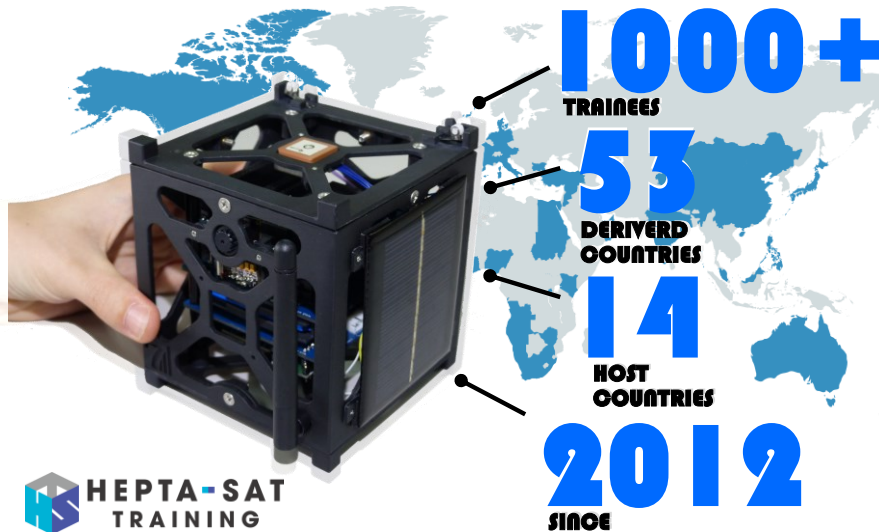


Reservations Open for
Both Domestic and
International Participants

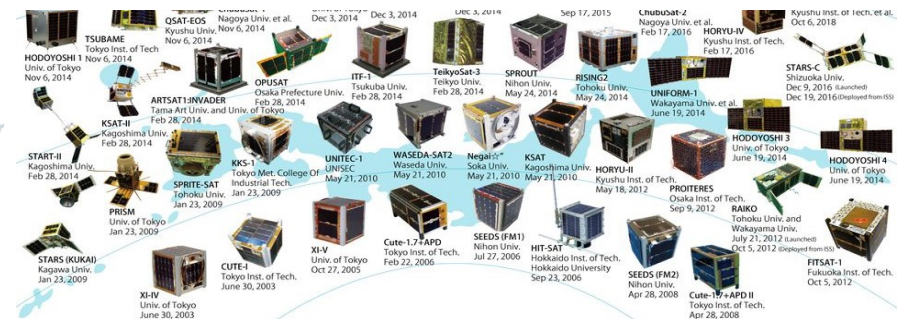


HEPTA-SAT TRAINING

- A capacity-building platform for passing on knowledge and skills in spacecraft system development through practical satellite projects.
 - Additionally, it serves as a deeper initiative to enhance the foundation of knowledge and technology in spacecraft system development, continuously fostering practical talent and refining methods for human resource development and satellite development **through iterative practice.**



HEPTA-SAT TRAINING



HEPTA-SAT TRAINING 2023 - 2024

Planning overseas workshops 2025 —let's make it happen together!

- Conducting training programs both domestically and internationally, including those for **space agencies**, **space companies**, **university courses** on model-based systems engineering, and **astronaut candidate** training programs.



HEPTA-SAT
TRAINING

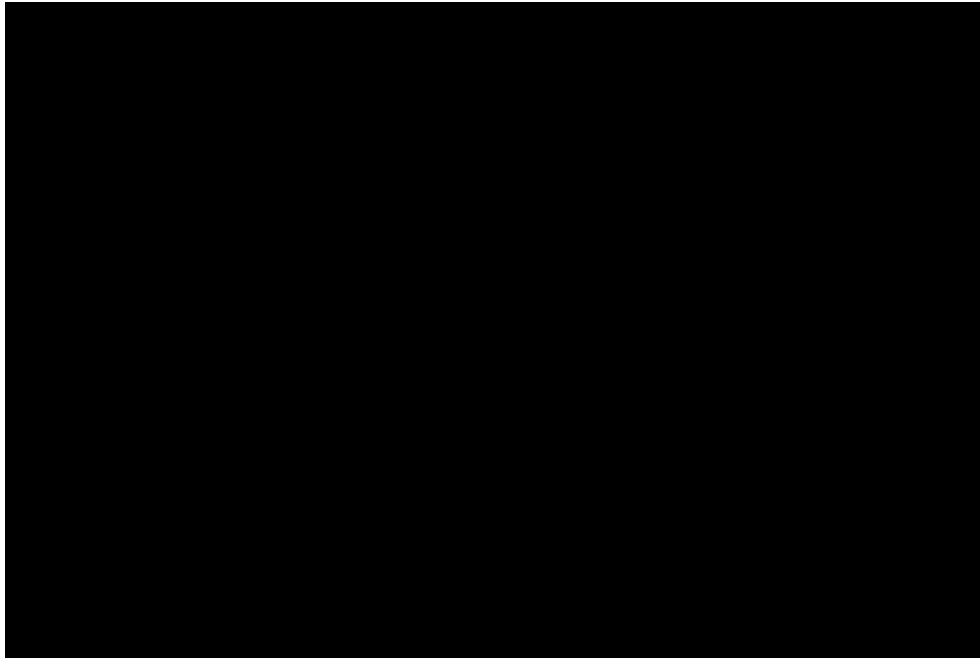
UN-Sponsored One-Day HEPTA-SAT Workshop
Stellenbosch University | November 30

CLTP 14: August 19-29, 2025

CLTP 13

CubeSat/CanSat Leader Training Program

- To equip participants with the skills and knowledge necessary to teach CubeSat development in their own countries in the future.



Adopted HEPTA-SAT since 2017



CLTP13, Nihon University | Aug.19 -29



10 participants from both domestic and international locations

Plan for 2024-25 and beyond

CLTP 14: August 19-29, 2025

ARLISS2025: Sept 7-12 (TBC), 2025

Overseas HEPTA-SAT Training: TBD

2nd UNISEC-DEEP SPACE WORKSHOP

Host 11th UNISEC-Global Meeting (Oct or Nov)

J-CUBE Coordination

**Supported by individuals, corporations,
governments, and agencies
— but most importantly, by students.**