

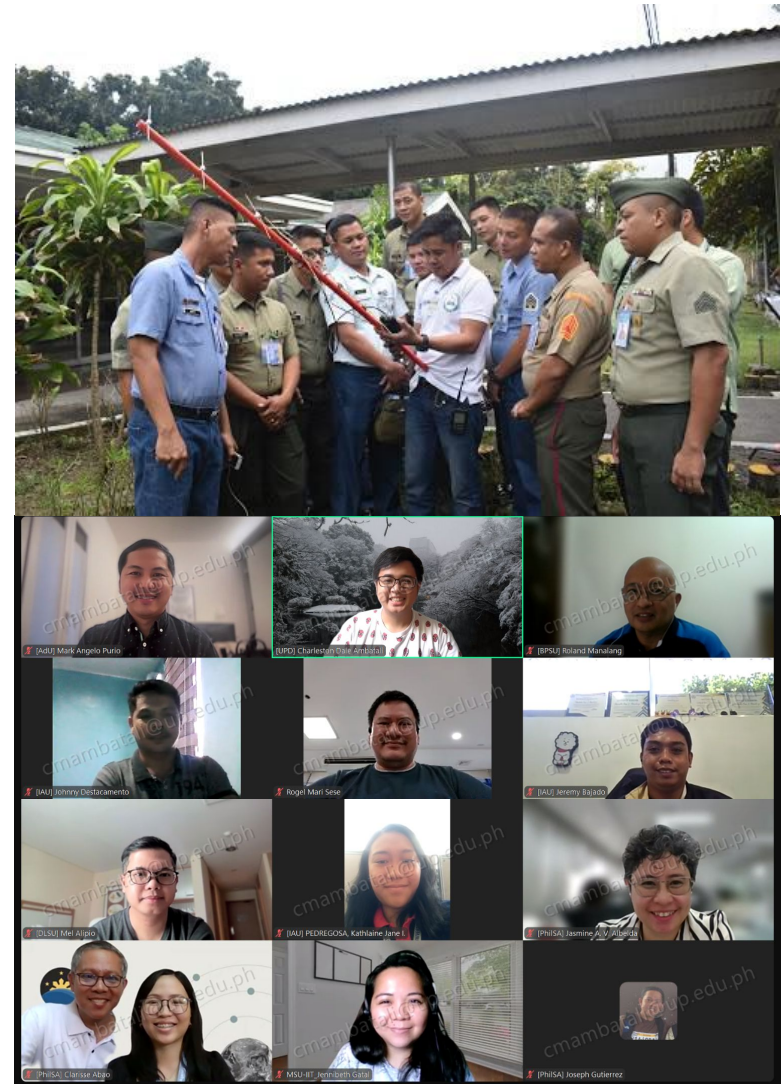
Local Chapter Activity Report at the 50th Virtual UNISEC-Global Meeting

Charleston Dale Ambatali, PhD
UNISEC-Philippines

History of Local Chapter Activities

Established in 2019

- **Attended UNISEC-Global Meeting in 2019**
- Participated in **CLTP** in 2022
- Hosted the **24th UNISEC virtual meeting** on August 2022
- Hosted/Organized seminars:
 - Amateur Radio training
 - Lectures on small satellites
 - SE4E: Space Education for Educators
- Held **local chapter meetings** (latest meeting: October 2024)
- **Space projects:**
 - Maya-2, 3, 4, 5, and 6 deployed
 - Maya-7 under development
 - TERESA and TALA rockets



Member Updates

- *New National Point of Contact starting from May 2024:*

Charleston Dale Ambatali

Assistant Professor

University of the Philippines

- *New member university:*

Indiana Aerospace University

PoC: Engr. Jeremy Bajado

Dept. of Aerospace Engineering



Updated list of member universities

15 MEMBER UNIVERSITIES

1. Adamson University
2. Ateneo de Davao University
3. Bataan Peninsula State University
4. Batangas State University
5. Cebu Technological University
6. De La Salle University
7. FEATI University
8. Holy Angel University
9. **Indiana Aerospace University***
10. Mapua University
11. Mariano Marcos State University
12. Mindanao State University - Iligan Institute of Technology
13. University of Perpetual Help System
14. University of the Philippines
15. University of San Carlos

UNISEC-PH Activities in 2023-24

**Number of

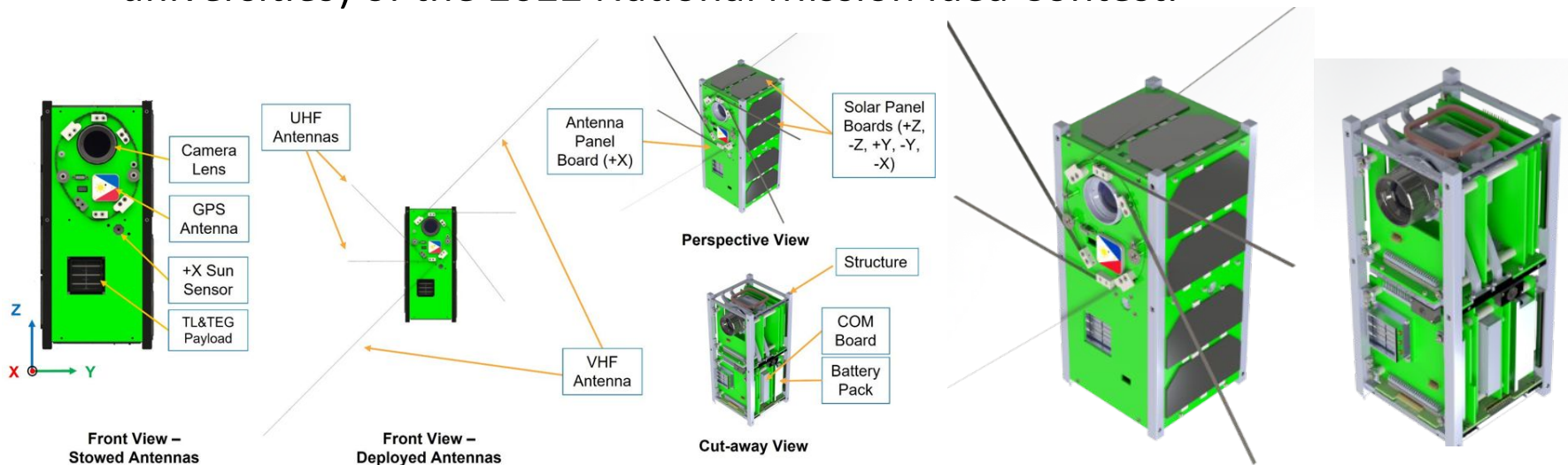
- Member Universities: 15
- Students: 60
- Professors: 15
- Others (Corporative members, etc.): Active collaboration with PhilSA; pending collaborations with Space Generation Advisory Council (SGAC) Philippines.

- Attended the Philippine Space Week **Forum on the Registration Convention** organized by the Philippine Space Agency.



Maya 7

- Maya-7 is a 2U CubeSat which is the next in line to be developed under the Maya CubeSat heritage
- Kicked off in September 2022.
- Participants: Scholars of the **PhILSA AD ASTRA** program, enrolled in the *Nanosatellite Engineering Track of MS/ME Electrical Engineering* program in the University of the Philippines.
- **It has nine (9) missions** – four (4) are from the winners (*member universities*) of the 2022 National Mission Idea Contest.



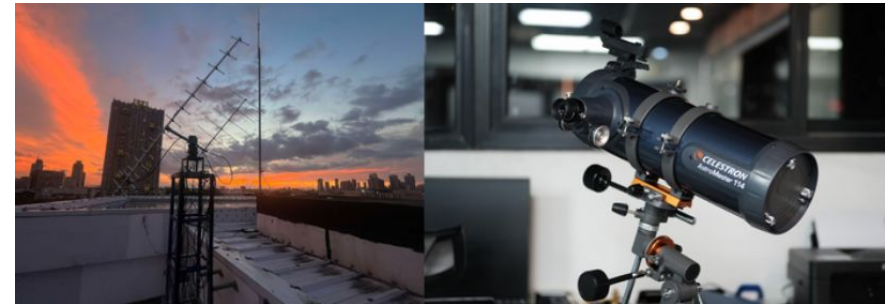
Maya 7

- **Preliminary Design Review** was held in 2023.
- **Preliminary Design Model/Proto-Engineering Model (PDM/PEM)** finished fabrication in Q3 of 2024.
- Ongoing verification of the PDM/PEM.
- **Engineering Model** design is also underway.



Establishment of the STAR Lab

- The **Space Technologies & Applications Laboratory (STAR Lab)** was **established in 2023** in Adamson University.
- Supports the **Space Engineering Education** in the University and other public engagements.
- Facilities and Equipment:
 - GRS (ongoing development)
 - ArcGIS
 - HeptaSat Training Kits
 - Reflector Telescope
 - GPU Server, etc.



STAR Lab Activities

- **Research:**
 - Multiple conference attendance and presentations (IAC 2024)
 - Multiple publications.
 - Ongoing research proposal to the Department of Science and Technology
- **Extension:**
 - Satellite Development and Data Processing Upskill
 - Analog Space Mission Simulation
 - Events and webinars



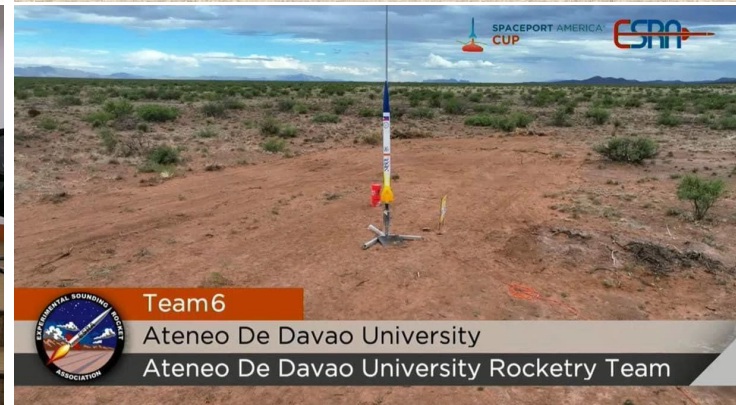
Activities in the AD ASTRA Lab

- Ateneo de Davao AeroSpace Training and Research Advancement (AD ASTRA) Laboratory
- **Research focus:**
 - Unmanned Aerial Systems
 - Systems Engineering for Space and the Environment
 - Computational Fluid Dynamics and Flight Simulation
 - Aerospace Materials Using Additive Manufacturing
 - Upper Atmosphere and Astronomical Research
 - Rocket Technology Development
 - Small Satellite Research



AD ASTRA in the Spaceport America Cup

- The **1st university in the Philippines** accepted to participate.
- Competed in the 10k Solid Rocket COTS category.
- Launched the **SIBOL Rocket** in June 2024.



HeptaSat Training in ADDU

- Was held in February 23-24, 2024 together with Nihon University.
- 1st HEPTASAT training in the Philippines.
- Total of 24 participants from different institutions.
- Supported by ADDU, Japanese Consulate in Davao, and DOST Region XI.



Space Activities in IAU

- Indiana Aerospace University (IAU) **formally joined UNISEC-PH** in September 2024.
- Activities in the past year:
 - CanSat drop test from weather balloon.
 - Space Week
 - Model Rocket Competition



Rocket Development in IAU



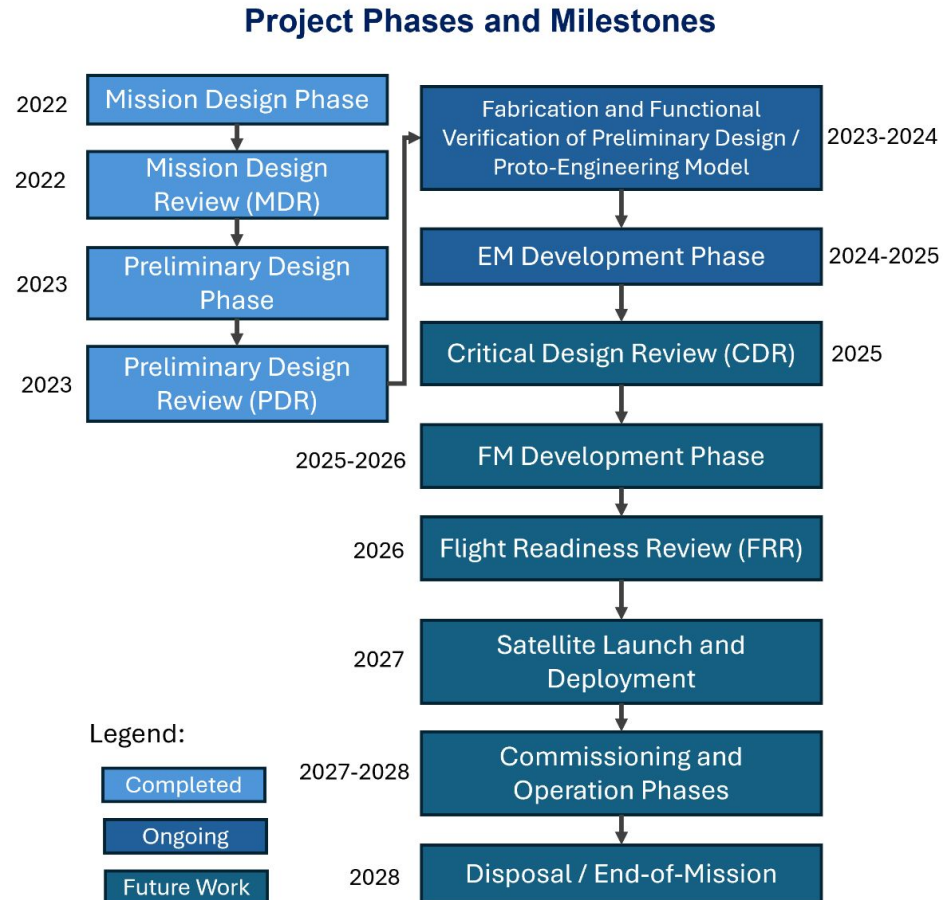
TERESA III



TERESA IV

Plan for 2024-25 and beyond

- Development of Maya-7 will continue.
- Critical Design Review in 2025, then Flight Readiness Review in 2026.
- **Target launch by 2027.**



Plan for 2024-25 and beyond

- Indiana Aerospace University is organizing a **can satellite and rocket competition** open for all universities in PH.




PHILIPPINE CAN SATELLITE
ROCKET COMPETITION
EVENT DATE: MARCH 10-14, 2025
VENUE: IAU TO MEDELLIN, CEBU PHILIPPINES
Open For Registration
REGISTRATION IS FREE
DEADLINE: NOVEMBER 8, 2024
For more inquiries email us at iauaernd@gmail.com



Plan for 2024-25 and beyond

- Continuous offering of **Satellite Engineering Courses** in the University of the Philippines.
- Harmonize activities of member universities.
- Make **UNISEC Philippines visible** to different universities nationwide.
- Explore possible **collaborations with SGAC Philippines** for webinars and space-related events.

THANK YOU!

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