



UNITED NATIONS  
Office for Outer Space Affairs

مركز محمد بن راشد  
للفضاء  
MOHAMMED BIN RASHID SPACE CENTRE



# Access to Space for All Payload Hosting Initiative (PHI)



**2<sup>nd</sup> Round Announcement of Opportunity Webinar**  
**1 November 2023**

# Access to Space for All

## Space Technology Capacity Building

The goal of the Access to Space 4 All initiative is to provide research and orbital opportunities for UN Member States **to access space and to ensure that the benefits of space, in particular for sustainable development, are truly accessible to all**



**Acquire cutting-edge skills** for jobs and other opportunities and **develop hands-on capabilities** from A-Z



**Free of charge access** to unique ground and space infrastructure, technology, and information



**Gain international cooperation experience** through working with the UN and space-faring partners



**Visibility** to the R&D and space activities already done in the country/region



**Motivate the young generation** and **boost interest in STEM**

### Access to Space for All in Numbers

- **9** Hands on Opportunities
- **1** Annual Fellowship
- **32** Awardees involving **44** Entities from **32** countries
- **5** CubeSats launched
- **7** Microgravity Experiments performed
- **20** projects in development
- **68** Scholarships granted
- **80+** Hours of educational content on YouTube



**SPACE AGENCIES**



**RESEARCH INSTITUTIONS AND UNIVERSITIES**



**PRIVATE SECTOR**







# Access to Space for All

## Impact of the initiative



**Ellas construyen el satélite guatemalteco**

Conozca a las siete estudiantas que participan en el proyecto del CubeSat.

**BUENA VISTA #GuatemalaEnEspacio**

**ESTAMOS HACIENDO HISTORIA**  
Estudia Ingeniería Industrial y en el marco del espacio de Maestría y Contratación Docente, se hizo presencia una gran muestra de ingenieras de grado en el área de Ingeniería Industrial en la Universidad de Guatemala el día 11 de octubre de 2020. "Es importante que las futuras ingenieras estén conscientes de las mismas oportunidades que se están creando aquí en UGUA, y que puedan aprovecharlas al máximo, preparándose con responsabilidad para que sigan su camino profesional", afirmó **LUCCIA LARA**, de 22 años, en el cargo de la divulgación del proyecto.

**ME APRENDIÓ DE TODOS**  
Respecto a la ciencia investigadora mejor del espacio que no estaba. Investigadora. Por lo general cuando se habla de ingeniería, se piensa que es para los hombres, pero en esta oportunidad que las futuras ingenieras están conscientes de las mismas oportunidades que se están creando aquí en UGUA, y que puedan aprovecharlas al máximo, preparándose con responsabilidad para que sigan su camino profesional, afirmó **LUCCIA LARA**, de 22 años, en el cargo de la divulgación del proyecto.

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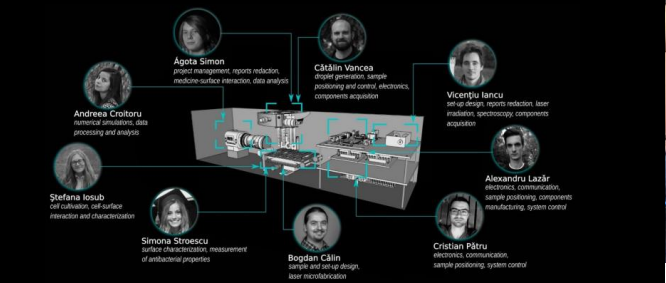
**"No debemos enviar nada a los hombres"**

Este proyecto muestra que Guatemala, pese a ser un país en vías de desarrollo, está dando los primeros pasos en el mundo de la tecnología espacial, porque demuestra que somos capaces de estudiar cosas que antes se consideraban imposibles, como estudiar el espacio exterior, afirmó **MARCELYN MADRUGAL**, de 19 años, como ingeniera Mecatrónica.

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### How has participating in DropTES changed the environment around us?

- Progress in our scientific knowledge
- New connections
- SPIE Optics and Photonics Education Scholarship
- Best Student Presentation at ISCP-INDLAS 2018 international conference (Alba Iulia, RO)
- New project opportunities: Long-term microgravity studies



## Aerospace, AI and Digital Centre

ESPITA was able to grow, to expand by inauguration **AEROSPACE, AI AND DIGITAL CENTER** on July 2022



### Exposure and Engagement

**LAUNCH AND DEPLOYMENT EVENT FROM MAINSTREAM MEDIA**

> 1,000,000 views  
> 2300 comments

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### HyperGES and community impacts in Thailand



- Students stepping out of comfort zone
- Expand space biology research opportunity and awareness
- Collaboration with top organizations
- Government research grant opportunity
- Preparation for space economy through space ecosystem development in Thailand



New enrollment in Mechanical Engineering at UVG grew **176%** in 2020

Now these new students ask when are they going to send to space **Quetzal-2?**

**3. How has participating in DropTES changed the environment around you?**

**SCIN Faculty of Science Mahidol University, TH**

**CIDIMEC**  
State-of-the-Art Research  
RESEARCH CENTER  
MECHATRONICS DEPARTMENT

## Guatemalan team launches nation's 1st CubeSat, wins Interplanetary Initiative prize

International student team recognized for its success through adversity



June 6, 2022  
When members of the team that built the Quetzal-1 CubeSat watched their satellite take off on a SpaceX Falcon 9 rocket in 2020, it was the culmination of six years of hard work, overcoming financial and personnel hurdles, and challenging cultural barriers.

## The Aerospace Laboratory at UVG

- New generation of students continue working on developing technologies for CubeSats in the aerospace laboratory at UVG
- The laboratory receives continuous visits from schools
- Other space missions:
  - DSRG: pieces manufactured for this experiment launched in Artemis I
  - Space Biofilms



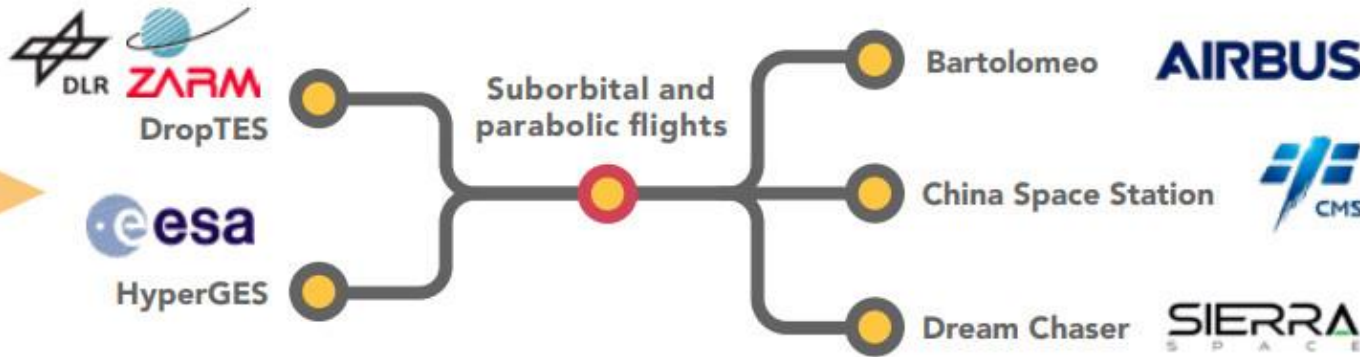




# Access to Space for All Opportunities



HYPERGRAVITY/  
MICROGRAVITY



SATELLITE  
DEVELOPMENT



SPACE  
EXPLORATION



- Systems Engineering Webinar Series (NASA)

- Kibo-RPC (JAXA)

- PNST (MEXT, Ministry of Education, Culture, Sports, Science and Technology-Japan, Kyutech - Kyushu Institute of Technology)

- KiboCUBE Academy (JAXA, UNISEC - University Space Engineering Consortium)





# Access to Space for All Satellite Development Track



## Payload Hosting Initiative (PHI)



- Partner: Mohammed Bin Rashid Space Centre (MBRSC)
- Established: 2021
- Aim to provide opportunities for **hosting a payload (up to 5U) on a 12U PHI modular satellite platform** developed by MBRSC.
- Opportunity in the 2<sup>nd</sup> round: **up to Two awardees** each provide a payload with a **maximum size of 3U**. The maximum combined size of the two payloads to be selected will be **5U**.



## 1<sup>st</sup> round Awardees

- National Space Science Agency, Bahrain  
[https://www.unoosa.org/oosa/en/ourwork/access2space4all/awardees/bahrain\\_nssa.html](https://www.unoosa.org/oosa/en/ourwork/access2space4all/awardees/bahrain_nssa.html)
- Antarikchya Pratisthan Nepal, Nepal  
[https://www.unoosa.org/oosa/en/ourwork/access2space4all/awardees/nepal\\_apn.html](https://www.unoosa.org/oosa/en/ourwork/access2space4all/awardees/nepal_apn.html)







# Access to Space for All Awardees

## Access to Space for All Awardees

Through the various programmes under the initiative, UNOOSA has awarded opportunities to 30 awardees from all regions. The awardees conduct various activities, not only for the development of science and technology, but also outreach, education, and other impactful actions. Learn more about the teams and their space/related activities.



ACCESS TO SPACE FOR ALL  
A joint initiative to offer access to space research facilities, infrastructure and information, and to promote international cooperation in the peaceful uses of outer space

Our awardees >

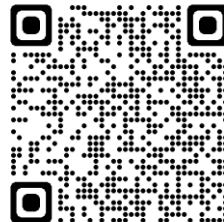
For Member States > Partnerships > Awardees > Contributions > Brochure >

Hypergravity/Microgravity Track > Satellite Development Track > Space Exploration Track >

Workshops and Expert Meetings >

### Access to Space for All Latest Information

- EVENT** Access to Space for All will hold a hybrid side event at the 66th session of COPUOS on 31 May 2023, [read more >](#) (26 May 2023)
- EVENT** KiboCUBE will hold a hybrid side event at the 66th session of COPUOS on 2 June 2023, [read more >](#) (26 May 2023)
- EVENT** 1st Access to Space for All Expert Meeting has been held on 15-17 May 2023 online, [read more >](#) (17 May 2023)
- NEWS** UNOOSA and ESA announced the 2nd round HyperGES awardees on 8 May, [watch here >](#) (8 May 2023)



### ACCESS TO SPACE FOR ALL AWARDEE PAGE

#### Access to Space for All Awardees News

- Hypergravity/microgravity track awardees
- Satellite development track awardees
- Space exploration track awardees

#### HYPERGRAVITY/MICROGRAVITY TRACK AWARDEES

- ▶ Bartolomeo Awardees
- ▶ China Space Station Awardees
- ▶ Dream Chaser Awardees
- ▶ DropTES Awardees
- ▶ HyperGES Awardees

#### SATELLITE DEVELOPMENT TRACK AWARDEES

- ▶ PHI Awardees

#### SPACE EXPLORATION TRACK AWARDEES

- ▶ KiboCUBE Awardees

#### OUR WORK

- Secretariat of COPUOS
- Programme on Space Applications
- UN-SPIDER
- International Committee on GNSS
- UN-Space
- Space Law
- Benefits of Space
- Access to Space for All
  - For Member States
  - Partnerships
  - Opportunities
  - Awardees
  - Acknowledgement
- Space Law for New Space Actors
- Space for Persons with Disabilities
- Space4Youth
- Space4Water
- Space4Women
- World Space Forum
- Worldwide Space Agencies
- Capacity Building Activities



**Any questions?**

**Contact us**

 [\*\*unoosa-access-to-space@un.org\*\*](mailto:unoosa-access-to-space@un.org)

**Help us help  
#AccSpace4All**



**For more stats and information,  
check out the brochure!**

