IAC 2024:
AIDAA Student Teams Challenge proposal

The **75th International Astronautical Congress (IAC)** will take place in **Milan, Italy**, from **October 14** to **October 18, 2024**.

It is within the framework of this important congress that the **AIDAA Student Team Challenge** will take place, with the aim to link students with business and research sectors, providing them with an additional opportunity to gain connections and display the benefits of being part of a student team. The competition will focus on the overall theme of IAC 2024: **Responsible Space for Sustainability**.

In recent years, there has been a significant expansion in the commercial space industry, evident in the increasing number of satellites, launches, and projects. The fast growth of the space industry has resulted in a greater responsibility for sustainability in all its forms. Moreover, **sustainability and innovation** have become inseparable elements of every technological advancement, present and future.

WHO?

AIDAA is the Italian Association of Aeronautics and Astronautics and it is the local host of **IAC 2024**. AIDAA is a national non-profit cultural association recognised as the second oldest scientific aerospace society in the world.

IAC 2024 will be a crucial and prestigious international platform for everyone involved in the aerospace industry. The congress groups all the space actors together to share what has been done during the last year. Companies that are central in the space sector are highly involved in IAC, as well as space agencies.

Due to the dynamic and innovative environment that the IAC represents, the proposed challenge could be an even greater opportunity for aerospace student teams that want to exhibit their creative way of dealing with engineering issues as well as how they work together as a team.

WHAT?

The challenge is an additional opportunity for the student team all over the word to actively participate in the IAC. It wants to highlight the merit of the work done in the student team as well as the innovative thinking of young students applied to their approach to engineering problems. The competition offers an insight into the reality of the student team to the main players in the space sector.

The topic is **Responsible Space for Sustainability,** following the IAC24 central theme. Sustainability will be central in all the ways it can be analysed and in all the methods it can be incorporated into the project of the team. For sustainability, it is not considered only the pollution produced by engines. Sustainability can be declined considering the manufacturing phase in the way that the production method is chosen to reduce waste or when it is preferred the use of recycled, natural or environmentally friendly materials. In addition, the re-use of the component for the same or a different application is sustainable.

Awards: For the winners
- 3 badges for attending IAC 2024,
- T-shirt Aerospace Italy 2024 and IAC 2024 gadgets.

Furthermore, different aspects will be evaluated, and several special awards will be defined. The winners can have:
- Possibility to display your own hardware in the exhibition area of the IAC 24 in Milan, Italy.
- Possibility to make technical presentations during student conferences.

Who can apply?

The AIDAA Student Teams Challenge is open to **all student teams** from universities around the world working on **Space-related topics.**

There will be different categories to which it is possible to apply to participate. The team falls into one of these fields can apply to the challenge:
- Rocket engineering.
- CubeSat, CanSat or Satellites (hardware/software).
- Rover, robotic for Space or planetary exploration, facilities for planetary habitability (including moon exploration, moon/mars village, etc.).
- Atmospheric or suborbital aircraft (including UAVs, drones, etc., with space uses).
- Innovation for Space, technologies under development that cannot be tested (including the removal of space debris in orbit, in-orbit recharging, etc.)
- Other teams focused on space projects but not included in the previous categories.

HOW?

How to apply: All the student teams willing to participate in the challenge must follow the application procedure.

The first step is a **call for interest** in which each team has to fill out a form from the link reported on the AIDAA website (https://www.aidaa.it/aerospaceitaly2024/aidaa-student-team-challenge/). The form does not include any technical requests; there are only some questions about the team, its history and the motivation for the team to take part in the challenge. **The form must be filled in by 15th December at 12:00 p.m.**

The second step is the **sending** of the **descriptive report**, which will be done by filling in a second form that will be reported on the AIDAA website. The evaluation of the teamwork will be done only on what is presented through the descriptive report, which has to include:

- *Team presentation*. The first section of the report has to present the team. It must describe the team's history, competitions, work, etc. Furthermore, it has to highlight the team's Mission and Vision and the general approach to the analyzed projects.
- *Introduction*: explain why the presented idea is interesting in the space field and why the topic was chosen. Outline the sustainable impacts that the proposed project can achieve.
- *Methods and discussion*: illustrate and discuss your idea of sustainability, how to implement it, presenting some graphical results, tables, and proposing ideas for further work or future studies that could be done. In this contest, the reliability will be evaluated (it is not important whether or not the team has actually realised this project, but it must be feasible and cost-effective).

The deadline for the submissions of the report is not yet defined but will be published on the AIDAA website. **The deadline will be about the end of May**.

The evaluation of the project will be carried out by a select committee of AIDAA and IAF members. Different aspects of the project will be considered in addition to the integration of sustainability, such as the reliability, the introduced technological innovations, the originality and also the presented report.