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2024 TAIWAN INTERNATIONAL MISSION IDEA CONTEST ON CUBESAT (TIMICC 2024)

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OUTLINE

- Purpose and goal
- Important dates
- How to participate in the contest
- Rules on generative AI
- Benefits of participants
- Q & A

PURPOSE AND GOAL

The contest aims to inspire creativity by designing innovative and noteworthy space programs/missions using CubeSats. The CubeSats designed by the participants must be both innovative and feasible to a certain extent.

RULES OF CONTEST

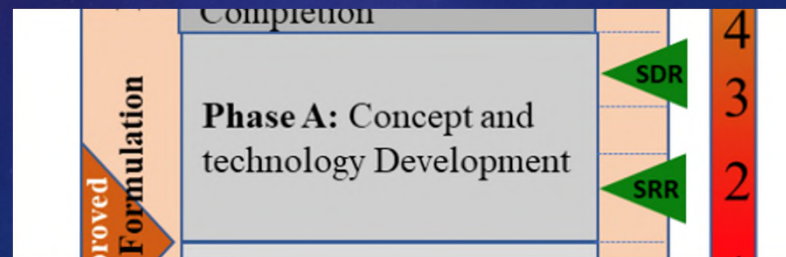
- The designed space program/mission must utilize CubeSats no larger than 6U.
- Participants may use a single satellite or multiple satellites to form a constellation or even a formation. There is no limit to the number of satellites in the constellation, but the design must showcase the benefits and features of the satellite constellation.
- The program/mission can be of a constellation type (satellites not communicating with each other) or a networked type (satellites communicating with each other).
- This contest focuses on concept design, and the satellite design must reach at least "Technical Readiness Level (TRL) 3" or meet the standards of a "System Design Review (SDR)."
- To align with Taiwan's new "Phase III Space Program," the satellite design content is encouraged—but not limited to—the following three main themes:
(a) B5G communication constellations; (b) Deep space exploration programs; (c) Applications of artificial intelligence in space technology.
- The judges will be informed of this plan, but there will be no specific rewards or penalties; the evaluation will be left to the judges' discretion.

RULES OF CONTEST

- All shortlisted teams should deliver an on-site oral presentation.
- The full paper and oral presentation are required to be in English, but the Q&A session can be conducted in either Chinese or English.
- In order to promote the internationalization of this contest, the finalist from international student team will receive subsidy of NTD 40,000 (around 1,300 USD) per team for attendance this year. A maximum of three international teams will be funded, selected based on the ranking of their qualifying scores.
- An international team is defined as a team where all participating students are enrolled in schools that are not governed by the Ministry of Education of the Republic of China (Taiwan).
- Any unresolved matters will be supplemented and announced on the official website of TIMICC 2024. There will be no further individual notifications, so please stay tuned to the contest website.
- Contact email: timicc2024@gmail.com

TRL 3 與 SDR

- Reference: Technology Readiness Level as the Foundation of Human Readiness Level
- TRL 3: Proof-of-concept demonstrated, analytically and/or experimentally
- SDR (system definition/design review): The system requirements have been allocated to configuration items, manufacturing considerations, next phase planning, and so on.
 - Briefly speaking, to meet mission requirements, the satellite must be concretely designed, not just described in a general way.



IMPORTANT DATES

- 7/31 **Online briefing (Chinese)**
- 8/31 Deadline for extended abstract submission
- 9/21 Announcement of the shortlisted teams.
- 11/01 Deadline for full paper submission. (Only applicable to shortlisted teams)
- 12/02 Shortlisted teams on-site oral presentations
 - Morning: Sign-in and open ceremony
 - 13:30-17:00: Presentations and award ceremony

EXTENDED ABSTRACT AND FULL PAPER

- Extended Abstract
 - A short abstract of approximately 200 words
 - Shortlist and selected results of your design
 - A4 size; no more than 4 pages
 - Refer to the website for examples.
- Full paper
 - Describe detailed design of the CubeSat
 - The paper should adhere to the specified format.
 - Refer to the website for the template.

REGULATIONS FOR GENERATIVE AI

- These regulations apply to generative AIs, such as ChatGPT, Gemini, and so on.
- The usage of generative AI is **NOT** prohibited in this contest. Please indicate how this tool is used in acknowledgement.
- For example, you may state in Acknowledgement:
“This paper is written in Chinese and translated by ChatGPT.”, or
“The English in the paper is refined by ChatGPT.”, etc.
- Some may seek for advices on the design of CubeSats from generative AIs. Just be careful, because a report indicates that up to 20% of generated content is inaccurate or misleading.

BENEFITS AND AWARD

- Lunch is included on the day of oral presentation for all members of the shortlisted teams.
- All participating teams will receive a certificate of participation, and the top three teams will be awarded a certificate of merit.
- The winning teams will receive certificates and corresponding cash prizes.
- 1st Prize: 60,000 NTD (Approximately \$2,000 USD).
- 2nd Prize: 30,000 NTD (Approximately \$1,000 USD).
- 3rd Prize: 15,000 NTD (Approximately \$500 USD).
- Remarks
 - Official certificate will be shipped via post mail after the contest.
 - For international teams, the prize will be paid in cash in New Taiwan Dollars after the contest.
 - If two teams have the same score, they will share the prize money. For example, if two teams tie for first place, they will split the first and second place prizes, with each team receiving NT\$45,000.
$$((60,000+30,000)/2 = 45,000)$$

- Contact email:
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- QA