

Notice on International Space Science and Scientific Payload Competition (ISSSP)

1. About the ISSSP

The year 2022 coincides with the completion of China's space station, which is expected to operate in orbit for more than 10 years. As an important base for space science and technology research experiments at home and abroad in the future, China has been opened to global universities and research institutes to solicit space station science experiment projects.

Taking this as an important opportunity, International Space Science and Scientific Payload Competition (ISSSP), co-organized by Beijing Institute of Technology, Chinese Institute of Electronics, International Academy of Astronautics, Chinese Space Foundation and Chinese Society and Astronautics, is launched to gather and cultivate excellent space science and payload technology talents and projects around the world, and build an international academic exchange community with space science experiments and payload design as the core.

2. Competition Flow

Events	Date
Registration	April 8-May 31, 2022
Deadline for preliminary work submission	June 30, 2022
Announcement on the finalists	July 20, 2022
Online instruction and work revision	July-November, 2022
The final	Mid November, 2022

There are two rounds in ISSSP, preliminary round which is held online and final round which is held offline.

In the preliminary round, participating teams shall complete online registration before May 31, 2022 and submit preliminary work before June 30, 2022. The preliminary entries will be screened and up to 30 teams will be selected for the final round. Shortlisted teams will be announced on the ISSSP's official website on June 30, 2022.

In the final round, online instructions shall be provided by the Organizers for the shortlisted teams to revise and improve finalists' entries

between July and November 2022. The final will be held offline in Foshan city, Guangdong Province in mid-November 2022, where the winning teams of ISSSP will be selected and awarded on site.

Note: Works for the final round may be evaluated online due to the impact of the COVID-19.

3. Eligibility

Undergraduate and graduate students worldwide.

4. Registration

Registration shall be completed on the ISSSP's official website isssp.bit.edu.cn. If there is any problem with the online registration, teams can also sign up by sending Appendix 1 to the email address register@isssp.org.cn, with the mail subject in the form of "Registration+ University Name+ Team Name".

There is no limit to the number of registered teams per university. Each team shall include 3 to 7 students, and at least 1 supervisor.

5. Expenses

The organizers shall cover the local expenses (accommodation, transportation and other related expenses) of up to 3 team members during the final, while the finalist teams shall bear their own round-trip travel expenses and local expenses for more than 3 team members.

6. Themes

6.1 Theme 1: Creative Design of Space Station Experiment

Participating teams can set their own space science experiment goals according to different scientific research fields they are interested in, without having to refer to the technical requirements described in Appendix 4, and determine the corresponding scientific experiment requirements and develop a design plan according to the environmental conditions of the space station.

6.2 Theme 2: Innovative Design of Space Station Payload Experiment

According to the set scientific research objectives and the limited

space technology platforms, the teams shall propose an innovative space payload design and build the principle prototype of the payload instrument or conduct simulation of the equipment. The technical requirements should be taken as the reference.

7. Work Submission and Scoring Rules

The ISSSP Judging Committee evaluates the entries in three aspects: scientificity, innovation and science popularization in accordance with the principles of "fairness, openness and equity". The judging process and results are publicized throughout, and the process materials may be verified by five organizers as needed. The submission requirements are as follows.

7.1 Submission Requirements and Scoring Rules in the Preliminary Round

In the preliminary round, participating teams are required to submit Team Member Introductions (Appendix 2) and Preliminary Entry Templates (Appendix 3).

Note: Supplementary materials, such as design plans made with Auto CAD, Pro-E and other software, JPG format pictures, full report, etc., could be submitted in the form of a folder package.

The above materials should be submitted in PDF format in both English and Chinese.

7.1.1 Submission Requirements

All registration materials shall be submitted to the email address register@issp.org.cn, with the mail subject in the form of "Works+ University Name+ Team Name+ Name of the works".

7.1.2 Scoring Rules

- Teamwork ability
- Technological innovation and scientific rigor
- Popularization of science value and significance
- Realizability
- Social value

7.2 Submission Requirements and Scoring Rules in the Final Round

Competition scores shall be determined on a combination of performance in each of the final rounds. Each team will receive a dedicated Wiki page and expert training upon reaching the final round. Each finalist team is expected to develop, present and maintain the Wiki page in a timely

manner as required. The design and content of the Wiki page will be taken into the consideration for each team’s final score.

Finalist teams shall submit all materials including posters in English, full-text reports, work simulation diagram, work demonstrations/physical objects/principle prototype/simulation design, and other supplementary materials as necessary. Each team shall make a 15-minute presentation on their work and participate in a 10-minute Q&A session. Both the presentation and Q&A shall be in English.

7.2.1 Submission Requirements

Submission requirements for the final round shall be publicized via email and on the official website.

7.2.2 Scoring Rules

Creative design of space station experiments and innovative design of space station payload experiments will be scored separately in the final round as two themes based on different technical focus. More details are listed below.

Theme 1: Creative Design of Space Station Experiment

No.	Type	Score
1	Wiki- ISSSP Promotion Concept	5
2	Wiki-Team Cooperation and Communication	5
3	Wiki-Social Service and Application	5
4	Wiki-Project Scheme Display	10
5	Artistry	5
6	Poster	20
7	Work Display/Simulation Design	10
8	PPT Presentation	40
Total Score		100

Theme 2: Innovative Design of Space Station Payload Experiment

No.	Type	Score
1	Wiki-Publicize Contest Concept	5
2	Wiki-Team Cooperation and Communication	5
3	Wiki-Social Service and Application	5
4	Wiki-Project Scheme Display	10
5	Artistry	5
6	Poster	10
7	Physical Objects/Principle Prototype/Simulation	30

	Design	
8	PPT Presentation	30
Total Score		100

7.3 Dispute Settlement

Any team disagreeing with the score has the right to appeal to the organizing committee (secretary@isssp.org.cn) for arbitration. The arbitration result will be sent to the team by E-mail within five working days after the application.

8. Awards

The number of winners is not fixed. The awards include prizes, certificates, etc. The finalists with more than 90 points will receive a gold award and those with more than 80 points will receive a silver award. ISSSP also set special prizes for Best Wiki, Best Poster, Best Hardware/Simulation and Best Presentation. Prizes will be awarded to the winners as follows.

Gold Prize: 90 points or more (out of 100), 20,000 RMB and Certificate

Silver Prize: 80-89 points (out of 100), 10,000 RMB and Certificate

Special Award: RMB 5,000 and Certificate

The space station payload experiment innovation design team that enters the final round will receive a subsidy of RMB 10,000.

Gold Award winners will likely be selected as potential space flight experiment projects and receive focused training.

9. Special statement

- Works submitted shall not infringe others' intellectual property rights.
- Entries that have participated in other competitions or have used previously in public are not allowed to participate in;
- The intellectual property rights of the submitted entries belong to the participants. ISSSP organizing committee reserves the right to edit, publish and promote the works for non-profit purposes. All participating teams shall be deemed to acknowledge and voluntarily abide by the IPR agreement;
- After entering the final round, participating teams shall sign a written agreement with China Space Foundation, representing ISSSP's organizing committee, for the design and use of their entries of

International Space Science and Scientific Payload Competition.

- All submitted entries shall abide by the relevant laws and regulations of both China and the countries where the participants are from. Participating teams and individuals shall be responsible for the legal consequences of violations.
- If you have any questions about this notice, please contact the Organizing Committee (secretary@issp.org.cn), the final interpretation right belongs to the Organizing Committee.