

# Introduction to International Space Science and Scientific Payload Competition (ISSSP)

## 1. Time Schedule

| Events   | Date                |
|--|---------------------|
| Opening the contest                              | April 08, 2022      |
| Deadline of the registration                     | May 31, 2022        |
| Deadline of submission form of preliminary works | June 30, 2022       |
| Announcement on the teams in the final           | July 20, 2022       |
| Shortlisted team training                        | July-November, 2022 |
| Final contest                                    | Mid November, 2022  |

## 2. Participants and Requirements

### 2.1 Participants

- Undergraduate and graduate students

### 2.2 Registration

Please register on the official website of the Contest ([issp.bit.edu.cn](http://issp.bit.edu.cn)). If there is any problem with the online registration, please send Appendix 1 for your registration to the official email address: [register@issp.org.cn](mailto:register@issp.org.cn), with the mail subject: "Registration+ School Name+ Team Name".

### 2.3 Requirements

The number of registered teams from each organization is unlimited. Each team is composed of 3-7 students, and more than 1 supervisor.

### 2.4 Contest Form

There are two phases in the contest, including preliminary contest

held online and final contest held onsite.

**Notes: Works for the final contest may be reviewed online due to the public health concern raised by the spread of the coronavirus.**

## **2.5 Finalist Teams**

The total number of teams in the final will not exceed 30.

## **2.6 Expenses**

Local expenses (accommodation, food and other related expenses) during the final in Beijing will be covered by the organizer of the event, and the participating teams will bear their own travel expenses.

**Notes: The organizer of the event will be cover no more than 3 pax each team about local expenses.**

## **2.7 Others**

The information of the registration can be modified before the Deadline of the registration. After the registration deadline, the information of the registration cannot be changed. If it is necessary to change due to special reasons, the participating team shall report to the Secretariat of the organizing committee ([secretary@issp.org.cn](mailto:secretary@issp.org.cn)), and the change can be made only after the application for change is submitted and approved by the organizing committee. The organizing committee has the right to disqualify any team that changes its registration without authorization after the Deadline of the registration.

## **3. Themes and Contents**

### **3.1 Theme 1: Creative Design of Space Experiment**

The participating teams can establish the objectives of space science experiments according to their scientific research fields of interest without referring to Technical Requirements illustrated in Appendix 5, then identify the corresponding scientific experiment requirements and formulate the design plan based on the environmental status of the space station.

### **3.2 Theme 2: Innovative Design of Space Payload Experiment**

According to the set scientific research objectives and the limited space technology platform, 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.

## 4. Participation and Scoring Rules

All entries will be selected by the evaluation committee from three aspects of science, innovation and science popularization in accordance with the principle of "justness, openness and fairness". The review process and results are publicized in the whole process, and the process materials can be verified by 5 organizers as needed. Submission requirements are as follows.

### 4.1 Submission Requirements and Scoring Rules for the Preliminary Contest

In the preliminary contest, The teams need submit Team member introduction and Work templates for the preliminary contest.

**Notes: Team member introduction is detailed in Appendix 2, Work templates for the preliminary contest is detailed in Appendix 3. The supplementary materials can submit the design scheme completed by Auto CAD, Pro-E and other software, JPG format pictures, full-text report and other supplementary introduction materials (The supplementary materials are submitted in the form of packaged folders).**

**The above documents shall be submitted in PDF format.**

#### 4.1.1 Submission Requirements

All the documents should be submitted to the mailbox: [register@isssp.org.cn](mailto:register@isssp.org.cn), with the mail subject: "Works+ School Name+ Team Name+ Name of the works".

#### 4.1.2 Scoring Rules

**Table 1: Scoring Rules of Preliminary Contest for Theme 1**

| No. | Type                                 | Score |
|-----|--------------------------------------|-------|
| 1   | Demand analysis& Research objectives | 15    |
| 2   | Research contents& Novelty           | 25    |
| 3   | Research scheme& Technical approach  | 25    |
| 4   | Teamwork                             | 15    |

|                    |                                     |     |
|--------------------|-------------------------------------|-----|
| 5                  | Research progress& Expected results | 10  |
| 6                  | Social value& Significance          | 10  |
| <b>Total Score</b> |                                     | 100 |

**Table 2: Scoring Rules of Preliminary Contest for Theme 2**

| No.                | Type   | Score |
|--------------------|--|-------|
| 1                  | Requirement analysis                             | 15    |
| 2                  | Comprehensiveness& Rationality of payload design | 25    |
| 3                  | Technical Feasibility                            | 25    |
| 4                  | Teamwork   | 15    |
| 5                  | Research progress& Expected results              | 10    |
| 6                  | Social value& Significance                       | 10    |
| <b>Total Score</b> |  | 100   |

## 4.2 Submission Requirements and Scoring Rules for the Final Contest

The whole process points will be taken in the final contest. Each team will receive a dedicated Wiki page and expert training after entering final contest. Each finalist team shall develop, display and maintain the Wiki page timely according to the requirements. The design and content of the Wiki page will be taken into the consideration for the final scores of each team.

Teams in the final list shall submit all files including posters in English, full-text reports, work simulation diagram and work display/real objects/principle prototype/simulation design, and other supplementary materials if needed. Each finalist team shall make a 15-minutes presentation about its work and attend a 10-minutes Q&A session. Both the presentation and Q&A will be in English.

### 4.2.1 Submission Requirements

Submission requirements for the final contest will be announced by email and the contest website.

#### 4.2.2 Scoring Rules

Creative design of space station experiment and Innovative design of space station payload experiment will be scored as two themes separately based on different technical emphasis in the final contest. For more details are as follows.

**Table 1: Scoring Rules of Final Contest for Theme 1**

| 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                                  | 20    |
| 7                  | Work Display/Simulation Design          | 10    |
| 8                  | PPT Presentation                        | 40    |
| <b>Total Score</b> |   | 100   |

**Table 2: Scoring Rules of Final Contest for Theme 2**

| 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                  | Real Objects/Principle Prototype/Simulation Design | 30  |
| 8                  | PPT Presentation                                   | 30  |
| <b>Total Score</b> |  | 100 |

### 4.3 Dispute Settlement

If the participating team has any objection to the evaluation results, the team leader teacher authorized by administrative department in charge of the unit can make the appeal to the organizing committee ([secretary@issp.org.cn](mailto:secretary@issp.org.cn)) for arbitration. The results of the arbitration will be sent to the participating teams via E-mail within five working days after the application.

## 5. Awards

The number of winners is not fixed. Award setting includes bonus, certificate, etc. More than 90 points in the final will win the Gold prize and more than 80 points will win the Silver prize. The event also has special awards such as best wiki, best poster, best hardware/simulation and best presentation. The bonus will be given to the winners as follows:

Gold Award: above 90 points out of 100, CNY 300,000 and Certificate

Silver Award: 80-89 points out of 100, CNY 10,000 and Certificate

Bronze Award: Certificate

Special Award: Certificate

The team who choose Theme 2 will receive CNY 10,000 after entering the final contest.

Gold prize winners will possibly be selected potential space flight experiment projects, and have the key cultivation.

## **6. Special statement**

- Works submitted shall not infringe others' intellectual property rights.
- Works that have participated in other competitions or used works previously published in public are not allowed to participate in the contest;
- The intellectual property rights of the submitted works belong to the participants. The organizing committee of the contest has the right to edit, publish and promote the works for non-profit purposes. All teams participating in the contest shall be deemed to have confirmed and voluntarily abide by the agreement on intellectual property rights;
- All submitted works shall not violate the relevant laws and regulations of both China and the countries where the participants are from. And the participating teams and individuals will be responsible for the consequences of violating legal issues by themselves.
- Please contact the organizing committee for any questions arising from this notice ([secretary@issp.org.cn](mailto:secretary@issp.org.cn)), and the right to the final explanations belongs to the Organizing Committee.

### **Appendix 1: Registration Form**

### **Appendix 2: Template for Team Members Introduction**

### **Appendix 3: Work Templates for the Preliminary Contest**

### **Appendix 4: Scoring Rules of Preliminary Contest**

### **Appendix 5: Technical Requirements(Available later on the website)**