

2024 ISSSP Preliminary Scoring Rules (University Students and Social Group)

PART I Preliminary Scoring Rules

I. Process for the Preliminary Contest

1. Classified submission

- All the works in Creative Design of Space Experiment and Innovative Design of Space Payload Experiment will be classified to three categories (Life Science, Medicine & Interdisciplinary Science□ Science, Materials & Others□ Engineering Technology).
- The total number of teams in the final will not exceed 45. The organizing committee determines the promotion quota of each group according to the proportion of the number of works.

2. Two-way anonymous evaluation

- According to the above three categories, There shall be establish a judges database which is composed of authoritative experts in relevant fields.
- Each work will be assigned to three-seven judges in accordance with its scientific category and judged anonymously. The judges will complete the review within the limited time, and make a preliminary evaluation and give specific scores in accordance with the scoring items listed below.

3. Total score and ranking

- The organizing committee of the competition will remove the highest score and the lowest score according to the scores given by the judges, and take the average score as the final score of each entry in the preliminary contest.
- According to the score ranking from high, the works of the preliminary contest will be ranked in the group.

4. Announcement on the teams qualify for the final

- According to the score ranking from high to low, works with the top 50 percent of final scores and within the promotion quota of each group will enter the final contest.
- The results will be announced via the official website of the contest and email on 20 Jun 2024.

II. Submission Requirements 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.

- All the documents should be submitted in the website:issp.bit.edu.cn.

III. Scoring Items for the Preliminary Contest

Scoring Rules of Preliminary Contest for Track 1

No.	Type	Standard of Review	Score
1	Demand analysis & Research objective (15 points)	A. Has a unique understanding of space resources, put forward clear and accurate scientific questions, and the design is new and creative. (11~15) B. Has a basic understanding of space resources, explain scientific problems and the solutions clearly, and the design is basically innovative. (4~10) C. Insufficient understanding of space resources, unclear explanation of scientific problems, and innovative experimental design. (0~3)	
2	Creativity & Research content (25 points)	A. The space experiment analysis is comprehensive, the process of design is reasonable, the relevant resources are available, and the experiment is feasible. (21~25) B. The space experiment analysis is basically comprehensive, the process of design is basically reasonable, the relevant resources are basically available, and the experiment is basically feasible. (6~20) C. Lack of process and resource availability analysis, lack of experimental feasibility. (0~5)	
3	Research program & Technical approach (25 points)	A. The technical indicators are reasonable and feasible, the research program and technical approach are reasonable, and the research method is appropriate. (21~25) B. The research program and technical approach are basically reasonable. (6~20) C. The research program and technical approach are unreasonable. (0~5)	
4	Teamwork (15 points)	A. The work structure is clear, the team division is clear, and the characteristics of collaboration and interaction are prominent. (11~15) B. The work structure is basically clear, the division of labor of the team is basically clear, and there has cooperation. (4~10) C. The work structure is not clear, the division of labor of the team is not clear, and there has no coordination. (0~3)	
5	Research progress & Expected result (10 points)	A. The work structure is clear, the team division is clear, and the characteristics of collaboration and interaction are prominent. (9~10) B. The work structure is basically clear, the division of labor of the team is basically clear, and there has cooperation. (4~8) C. The work structure is not clear, the division of labor of the team is not clear, and there has no coordination. (0~3)	
6	Social value (10 points)	A. The expected benefit is very good and there has great innovation. (9~10) B. The expected benefits are relatively good and there has some innovation. (4~8) C. The expected benefits are not obvious and there has no innovation. (0~3)	
Total Score			

Scoring Rules of Preliminary Contest for Track 2

No.	Type	Standard of Review	Score
1	Demand analysis (15 points)	A. The research background is clearly stated, and has a better understanding of ISSSP Technical Requirments. (11~15) B. The research background is basically clearly stated, and has a basically understanding of ISSSP Technical Requirments. (4~10) C. The research background is unclearly stated, and has little understanding of ISSSP Technical Requirments. (0~3)	
2	Comprehensiveness and rationality of the design of payload (25 points)	A. The description of experimental requirements and spatial design constraints is clearly explained, the payload design is new and creative, the engineering design scheme is reasonable, and the technical route is clear. (21~25) B. The description of experimental requirements and spatial design constraints is basically clearly explained, the payload design has some new ideas, the engineering design scheme is basically reasonable, and the technical route is basically clear. (6~20) C. The description of experimental requirements and spatial design constraints is not clear, and the payload design is not comprehensive and unreasonable. (0~5)	
3	Realizability (25 points)	A. The elements of payload design are comprehensive, the calculation/simulation verification analysis is reasonable, and the research scheme and technology are feasible; (21~25) B. The elements of payload design are basically comprehensive, the calculation/simulation verification analysis is basically reasonable, and the research scheme and technology are basically feasible. (6~20) C. The elements of payload design are not comprehensive, the calculation/simulation verification analysis is unreasonable, and the research scheme and technology are lack of feasibility evidence. (0~5)	
4	Teamwork (15 points)	A. The work structure is clear, the team division is clear, and the characteristics of collaboration and interaction are prominent. (11~15) B. The work structure is basically clear, the division of labor of the team is basically clear, and there has cooperation. (4~10) C. The work structure is not clear, the division of labor of the team is not clear, and there has no coordination. (0~3)	
5	Research progress & Expected result (10 points)	A. The description of demand is sufficient and has a certain practical application. (9~10) B. The description of demand is basically sufficient and has practical application prospect. (4~8) C. The description of demand is insufficient and has unreasonable practical application. (0~3)	
6	Social value (10 points)	A. The expected benefit is very good and there has great innovation. (9~10) B. The expected benefits are relatively good and there has some innovation. (4~8) C. The expected benefits are not obvious and there has no innovation. (0~3)	
Total Score			

PART II Finals Scoring Rules

I. Process for Finals

- The whole process points will be taken in the final contest. A participating team that advances to the finals will receive a dedicated community page and expert training. In the Community, The teams should feature content related to promoting the competition's concept, facilitating team collaboration and communication, showcasing social service and societal applications, and presenting project plans.
- Teams in the final list shall submit all files including posters in English, 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.

II. Submission Requirements for Finals

1. Requirments of Community Building

- The teams should complete the content to be displayed on the social media website before 31st Jul (check the final scoring details); In order to better promote international communication within the community, the unified use of English to publish news in the community.

2. Poster

(1) Submission Format

- Amount: One
- Size: 60CM wide * 90CM high
- File size: For JPG formats **larger than 72dpi**, if your poster has a picture inserted, make sure the picture is more accurate than 72dpi and the file size does **not exceed 10M**.

(2) Content Guidelines

- The content of the Poster should be clear and logical, the font is not limited, the layout should be concise and clear, both black and white and color are available.
- Poster needs to be rich in pictures and texts. It fully displays the theme of space science creativity with rich content, clear diagrams and concise language, and summarizes research results, main understandings and academic innovations. Including but not limited to: work name, team information, background introduction of work, research content and method, results presentation method and acknowledgement, etc. Encourage the use of 1-3 images and tables in the poster design.
- The title of the work, team information, and track category should be marked on the top of the Poster.

(3) Submission time

- Submit before 31st Jul.

Submit Email: register@issssp.org.cn

Subject: "2024Poster+ Theme 1/Theme 2+ Team name"

3. Presentation

(1) Format Requirement

- File type: PowerPoint slides or Prezi presentations; if the video needs to be played, please submit it in the form of a compressed package.
- Font: Arial
- Reference font size: Title 36-44; Subtitle 28-36; **Text not smaller than 22.**
- PPT slide size: 16:9

(2) Content Guidelines

- Adjust the display method according to the design work, so that the whole display process is logically clear and focused. The focus of this item is to show your work to Juries, which is an important way for Juries to understand the work.
- The content includes but is not limited to the title, team name, author and affiliation, research background, research content and program/technical approach, result presentation, social application, future direction, etc.

(3) Other Requirements

- On-site presentation time should not exceed 15 minutes.

(4) Submission Time

- The participating teams will submit PPT/Prezi, and Work Report to the Organizing Committee before 31st Jul(all submitted materials will not be returned), and display the work display/real objects/principle prototype/simulation design on their own at the competition site.

Submit Email: register@isssp.org.cn

Subject: "2024PPT+ Theme 1/Theme 2+ Team name"

III. Scoring Rules

Theme 1: Creative Design of a Space Experiment

No.	Judging Items	Standard of Evaluation	Points
Part I: Community			
1	Contest propaganda (3 points)	<p>i. Within the "Works District" community, the team should post contest related content, including contest promotion, daily updates, and project showcases.</p> <p>ii. Post screenshots of content shared in the community that has been reposted on other social media platforms (WeChat, QQ, Weibo, Twitter, Facebook, etc.).</p> <p>【Scoring point】</p> <p>i. Posting at least 2 updates according to the first requirement get 1 point.</p> <p>ii. Posting at least 2 updates according to the second requirement get 2 points.</p>	
2	Exchange and cooperation among teams (3 points)	<p>Within the "Works District" community, the team should post updates showcasing photos of collaborative interactions related to the competition, whether internal or external. This may include visits to other teams or internal team communication and collaboration.</p> <p>【Scoring point】</p> <p>A. Posting at least 2 updates will earn the team 3 points.</p> <p>B. Posting 1 update or less will earn the team 1 point.</p>	

3	Communication with experts (2 points)	Participate in the expert training lectures organized by the competition committee. 【Scoring point】 A.Attend all training sessions and achieve full attendance to get 2 points. B.Attend fewer than all training sessions (1 absence or more) to get 1 point.	
4	Video (2 points)	Publish video updates in the "Daily" community that showcase behind-the-scenes footage of event preparation, reflecting the process of event preparation and design of works. 【Scoring point】 Posting 2 or more updates get 2 points, or get 1 point. * Please note that participating teams can determine the level of technical detail to be included at their discretion.	
Part II: Final Scene			
5	Poster (10 points)	All teams are required to submit a poster to present your work, which should have the following components: authors and their Affiliated Institution(s) information, background introduction, research content, methodology, results, etc. 【Scoring point】 i. Poster. (10 points) * Voting by judges, According to ranking, the top 20% get 10 points, 21%-40% get 6 points, and the rest get 3 points.	
6	Theme (10 points)	A. Have a comprehensive understanding of the current status of space science, have a unique understanding, explain the problem scientifically, have clear research goals. (9~10) B. Basic understanding of the status quo of space science, problem elaboration is relatively scientific, research objectives are basically clear (4~8) C. Insufficient understanding of the current state of space science, scientific questions and goals are vague. (0~3)	
7	Research contents & scheme (30 points)	A. The creative content is comprehensive and detailed, has strong innovation, the research plan is reasonable and feasible, the experimental design is novel and creative, the experimental process is reasonably planned and gradually improved, the team has innovative thinking for complex problems, the team cooperates well. (25~30) B. The creative content is basically comprehensive, has a certain degree of innovation, the research plan is basically reasonable and feasible, the experimental design has a certain novelty, the experimental process planning is basically reasonable, the team has a certain innovative thinking for complex problems, the teamwork is basically good. (10~24) C. The creative content is not comprehensive, the research plan is unreasonable, the experimental design is not novel, the experimental process is chaotic, the team does not have innovative thinking to solve complex problems, there is no teamwork. (0~9)	
8	Work Display/ Principle prototype/ Simulation design (20 points)	A. The form of the results is clear, the creative content is intuitively expressed, the simulation data is reasonable and reliable, the target requirements are totally met, it is expected to produce greater social benefits. (15~20) B. The form of the results is clear, the creative content can be expressed, the simulation data is basically reasonable and reliable, the target requirements are basically met, some social benefits are expected to be generated. (6~14) C. The form of the results is not clear, the creative content cannot be expressed, the simulation data is unreasonable, the target requirements are not met, the expected social benefits are not obvious. (0~5)	
9	Presentation (15 points)	A. Within the specified time, the speech process is logically clear, the content is complete, the key points are prominent, and the creativity	

		<p>of the work can be clearly expressed, answer the questions of the judges concisely and thoroughly with some arguments. (10~15)</p> <p>B. Within the specified time, the speech process is basically logically clear, the content is relatively complete, the key points are prominent, the creativity of the work is basically clearly expressed, answer the questions of the judges concisely. (4~9)</p> <p>C. Within the specified time, the logic of the speech is confusing, the content is not complete, the key points are not prominent enough, and the creativity of the work cannot be well expressed. The answers to the questions of the judges are not clear. (0~3)</p>	
10	Artistry (5 points)	<p>A. The design of the works is highly artistic and aesthetic. (4~5)</p> <p>B. The design of the work is generally artistic and has a certain aesthetic sense. (2~3)</p> <p>C. The design of the works is less artistic and has almost no aesthetic sense. (0~1)</p>	
Total score (out of 100 points)			

Notes:

- i. The points of Part I will be statistical by the Organizing Committee. The part II will be reviewed by the judges.
- ii. Best-community prize, the one with the highest total score in the first four items.
- iii. Best-poster prize, the one with the highest number of judges votes.
- iv. Best-hardware/simulation, the one with the highest number of judges votes.
- v. Best-PPT Presentation prize, the one with the highest number of judges votes.
- vi. Best- Instructor prize, the one with the highest number of judges votes.

Theme 2: Innovative Design of a Space Payload Experiment

No.	Judging Items	Standard of Evaluation	Points
Part I: Community			
1	Contest propaganda (3 points)	<p>i. Within the "Works District" community, the team should post contest related content, including contest promotion, daily updates, and project showcases.</p> <p>ii. Post screenshots of content shared in the community that has been reposted on other social media platforms (WeChat, QQ, Weibo, Twitter, Facebook, etc.).</p> <p>【Scoring point】</p> <p>i. Posting at least 2 updates according to the first requirement get 1 point.</p> <p>ii. Posting at least 2 updates according to the second requirement get 2 points.</p>	
2	Exchange and cooperation among teams (3 points)	<p>Within the "Works District" community, the team should post updates showcasing photos of collaborative interactions related to the competition, whether internal or external. This may include visits to other teams or internal team communication and collaboration.</p> <p>【Scoring point】</p> <p>A. Posting at least 2 updates will earn the team 3 points.</p> <p>B. Posting 1 update or less will earn the team 1 point.</p>	
3	Communication with experts (2 points)	<p>Participate in the expert training lectures organized by the competition committee.</p> <p>【Scoring point】</p> <p>A. Attend all training sessions and achieve full attendance to get 2 points.</p> <p>B. Attend fewer than all training sessions (1 absence or more) to get 1 point.</p>	
4	Video (2 points)	<p>Publish video updates in the "Daily" community that showcase behind-the-scenes footage of event preparation, reflecting the process of event preparation and design of works.</p> <p>【Scoring point】</p> <p>Posting 2 or more updates get 2 points, or get 1 point.</p> <p>* Please note that participating teams can determine the level of technical detail to be included at their discretion.</p>	
Part II: Final Scene			
5	Poster (10 points)	<p>All teams are required to submit a poster to present your work, which should have the following components: authors and their Affiliated Institution(s) information, background introduction, research content, methodology, results, etc.</p> <p>【Scoring point】</p> <p>ii. Poster. (10 points)</p> <p>* Voting by judges, According to ranking, the top 20% get 10 points, 21%-40% get 6 points, and the rest get 3 points.</p>	
6	Theme (10 points)	<p>A. A comprehensive understanding of the research background and current situation, problem statement is scientific, research objectives is clear, and a full understanding of space load design constraints such as technical manuals. (9~10)</p> <p>B. The research background and current situation are basically understood, the problem statement is relatively scientific, the research objectives are basically clear, and the space load design constraints such as technical manuals are basically understood. (4~8)</p> <p>C. The research background and current situation are not clearly understood, and the scientific questions and objectives are vague. (0~3)</p>	
7	Research contents & scheme (30 points)	<p>A. The experimental design is comprehensive and detailed, has a clear technical route, the research plan is reasonable and feasible, the key innovative technologies are prominent, the experimental process is reasonably planned and gradually improved, the team has the</p>	

		<p>innovative thinking and comprehensive ability to solve complex problems, and the team cooperates well. (25~30)</p> <p>B. The experimental design is basically comprehensive, the technical route is basically clear, the research plan is basically reasonable, the key innovative technologies are prominent, the experimental process planning is basically reasonable, the team has certain innovative thinking and comprehensive ability to solve complex problems, and the teamwork is basically good. (10~24)</p> <p>C. The experimental design is insufficient, the technical route is not clear, the research plan is not reasonable enough, there is no key innovative technology, the experimental process is chaotic, the team does not have the innovative thinking and comprehensive ability to solve complex problems, and there is no teamwork. (0~9)</p>	
8	Work Display/ Simulation Design (25 points)	<p>A. The form of the results is clear, the structure of the load design works is clear, the simulation data is reasonable and reliable, the constraints of the technical manual are met, the functions of the target are fully realized, and it is expected to produce greater social benefits. (20~25)</p> <p>B. The form of the results is clear, the structure of the load design works is basically clear, the simulation data is basically reasonable and reliable, basically meets the constraints of the technical manual, basically meets the target requirements, and it is expected to produce some social benefits. (10~19)</p> <p>C. The form of the results is not clear, the structure of the load design work is not clear, the simulation data is unreasonable, the constraints of the technical manual are not met, the target requirements are not met, and the expected social benefits are not obvious. (0~9)</p>	
9	Presentation (10 points)	<p>A. Within the specified time, the speech process is logically clear, the content is complete, the design of the work is clearly explained, the key technology is outstanding, answer the questions of the judges concisely and thoroughly with some arguments. (9~10)</p> <p>B. Within the specified time, the speech process is basically logically clear, the content is relatively complete, the design of the work is clearly explained, the key technologies are basically clear, answer the questions of the judges concisely. (4~8)</p> <p>C. Within the specified time, the logic of the speech process is chaotic, the content is not complete, the description of the work design is not clear, the key technologies are not prominent, and the answers to the questions of the judges are not clear. (0~3)</p>	
10	Artistry (5 points)	<p>A. The design of the works is highly artistic and aesthetic. (4~5)</p> <p>B. The design of the work is generally artistic and has a certain aesthetic sense. (2~3)</p> <p>C. The design of the works is less artistic and has almost no aesthetic sense. (0~1)</p>	
Total score (out of 100 points)			

Notes:

- i. The points of Part I will be statistical by the Organizing Committee. The part II will be reviewed by the judges.
- ii. Best-community prize, the one with the highest total score in the first four items.
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- v. Best-PPT Presentation prize, the one with the highest number of judges votes.
- vi. Best- Instructor prize, the one with the highest number of judges votes.