

Promenade of Data Science 2026

Competition Guidelines and Regulations

1. Registration

(1) Eligibility: Participants must be **currently enrolled students**.

(2) Team Formation Rules: The competition is team-based, with each team consisting of **2 to 5 students** and electing one member to serve as its representative for completing the registration process. Each team will receive a unique account and password after registration for uploading and managing project submissions. Cross-university teams are allowed.

(3) Registration Period: The competition shall commence on the announced date, with submissions closing on **19 October 2026 at 11:59:59 a.m.**

2. Data Download and Project Submission

(1) Participants must first register as [a “General Member” of SRDA](#) to download the competition datasets.

(2) Each team shall select **one dataset from the six databases** provided on the websites. The submitted narrative report shall present a self-selected research topic and its corresponding data analysis, clearly and informatively. Please refer to the provided template.

(3) Project submission requirements are as follows:

- **File length:** A total of **3 to 5 pages**, including the cover page.
- **File format:** PDF format.
- **File naming format:** “Account Name_Research Topic Title.pdf”

(4) Submission Deadline and Modification Policy: The submission deadline is **19 October 2026 at 11:59:59 a.m.** Before the deadline, participants may revise and re-upload the following information: Team member list, Research topic title, Selected database name, Project file. After the deadline, no further modifications will be accepted.

Project Template

Project Title

Authors

Name: Student A / Student B / Student C / Student D

Abstract

The abstract should provide a concise overview of the entire research project, including the **research objectives, methodology, results, and conclusions**. The abstract should be limited to **100–200 words**.

Example:

This study aims to explore the behavioral patterns influencing transportation choices among urban residents in Taiwan and identify key factors through data analysis techniques. We collected 1,000 survey responses and applied regression analysis and machine learning approaches for data modeling. The results indicate that age, income, and distance are major factors affecting transportation choices. Based on these findings, we propose a model to optimize transportation resource allocation and provide recommendations for urban transportation policies.

1. Research Objectives and Motivation

This section should describe the **research question, background, and significance** of the study. Explain why this topic was selected and what problems the research aims to address.

Example:

Research Question: *What factors influence transportation choices among urban residents in Taiwan?*

Research Motivation: *With the rapid growth of urbanization, traffic congestion has become an increasingly serious issue. Understanding the behavioral patterns behind transportation choices is valuable for improving transportation resource allocation and reducing congestion. Through data analysis methods, this study aims to develop a model that can serve as a reference for transportation policy planning in other cities.*

2. Scientific Methods and Tools Used

This section should describe the **data science methods and tools** used in the research. It should include the research design, data sources, analytical tools (such as programming languages, software, or algorithms), and other relevant techniques.

Example:

We selected questionnaire surveys as the data collection method and obtained 1,000 valid responses. For data analysis, we used Python libraries, including Pandas and NumPy, for data cleaning and processing. Regression analysis and decision tree models were applied for data modeling. In addition, data visualization techniques were used to present the research findings.

3. Presentation of Results and Report Writing

This section should clearly present the research findings through **data visualizations, charts, and figures**, and provide a structured report describing the research process.

Example:

The figure below illustrates transportation preferences across different age groups and their relationship with income levels. The analysis shows that individuals aged over 40 demonstrate a stronger preference for private vehicles (Figure 1), while groups with monthly incomes below NT\$30,000 primarily rely on public transportation (Figure 2).

- *Figure 1: Relationship between Age and Transportation Choice*
 - *Figure 2: Relationship between Income and Transportation Choice*
-

4. Inference and Discussion

This section should interpret and discuss the research results, explaining the significance of the findings and their potential applications.

Example:

Our study shows that age, income, residential area, and distance significantly influence transportation choices. In particular, middle-aged groups tend to prefer private vehicles, while lower-income groups are more likely to use public transportation. These findings are consistent with previous studies and further highlight specific factors that should be considered in transportation policy development.

We also discuss several interesting patterns observed in the data. For example, some high-income individuals still choose public transportation, which may be related to environmental awareness or employer-provided benefits. In addition, the prediction accuracy of our model reached 85%, indicating that the selected methodology was effective. Future studies may incorporate additional variables to further improve model performance.

5. Innovation and Extensibility

This section should describe the innovative aspects of the research and potential future directions, including how the research can be extended to other fields or applied to different problems.

Example:

The proposed model is not only applicable to urban transportation planning in Taiwan but may also be extended to transportation policy development in other countries and regions with similar urban environments. In the future, we plan to integrate additional data sources, such as real-time traffic data, to improve model accuracy and expand its application scope. Furthermore, the model could be extended to optimize other urban infrastructure systems, such as healthcare resource allocation and educational resource distribution.

Acknowledgement

This section is intended to acknowledge individuals, organizations, and other forms of support that have contributed to this research or work. The content may include, but is not limited to, the following:

1. Acknowledgement of Academic, Technical, or Administrative Assistance:

Acknowledge the contributions of supervisors, co-supervisors, faculty members, researchers, and relevant organizations that provided academic, technical, or administrative assistance.

2. Funding and Institutional Support:

Specify sources of funding, grants, sponsored projects, collaborative organizations, or supporting institutions, if applicable.

3. Disclosure of Related Academic Work:

If all or part of this report is derived from a thesis, capstone project, research project, research program, or other completed or ongoing academic work conducted by a member

or members of the team, such work must be explicitly disclosed in this section. The disclosure should include, at a minimum:

- (1) The title of the thesis or research work.
- (2) The author(s) or team member(s) of the thesis or research work.
- (3) The name of the advisor.
- (4) A statement describing the relationship between this report and the thesis or research work, such as: “Part of this report is excerpted, adapted, or extended from the aforementioned thesis.”

4. Acknowledgement of Other Significant Contributions:

Individuals or organizations that made significant contributions to the research but are not listed as authors may also be acknowledged in this section.

Example:

We would like to thank Professor John Smith for providing guidance on research methodology and experimental design throughout this study. We also gratefully acknowledge the financial support provided by the Ministry of Education under the ○○ Program (Project No.: XXXXXX). Part of this report has been adapted from the master’s thesis entitled “〈Thesis Title〉” by team member Jane Doe, under the supervision of Professor John Smith. The relevant content has been disclosed in accordance with the applicable requirements, and permission for its use has been obtained.

References

List all references, literature, and data sources used in the research.

Review Process and Evaluation Criteria

(1) Review Process

1. First-Round Review: Submitted projects will be evaluated by experts based on the designated evaluation criteria and weighting system. The results of the first-round review will be announced on **30 October 2026 at 11:59:59 a.m.** Projects that successfully pass the first-round review will advance to the final round.

2. Final Judging: Projects that pass the first-round review will be invited to participate in the final judging on **November 21 2026**. Selected teams will be required to deliver either:

- an approximately 15-minute oral presentation, or
- a poster presentation (poster size: A0 portrait format).

During the final judging, peer evaluation scores from participating teams will also be incorporated into the final assessment.

If a project advances to the final round, its poster will be publicly displayed on the competition website. By participating in the final round, participants are deemed to agree to this arrangement and shall not raise any objections.

On the day of the final judging, each team representative will be required to sign a Copyright Property Rights Usage Consent Form for the poster.

(2) Evaluation Criteria: The first-round evaluation criteria are as follows: Research Objectives and Motivation (20%), Scientific Methods and Use of Analytical Tools (20%), Inference and Discussion (25%), Presentation of Results and Report Writing (25%), Innovation and Potential for Further Development (10%).

The competition requires participants to disclose their use of Generative AI in the process of creating their submissions to promote research transparency and ensure fairness in the competition. Regardless of AI use, participants remain ultimately responsible for the content, analytical results, and conclusions of their submissions (with reference to the [“Statement Regarding Artificial Intelligence \(AI\)”](#) of the Journal of Social Sciences and Philosophy, Research Center for Humanities and Social Sciences, Academia Sinica). AI use disclosures will not be included in the evaluation criteria and will only help judges understand the creative process and serve as a reference during the review process.

No.	Evaluation Criteria	Evaluation Standards	Score Range
1	Research Objectives and Motivation	- A meaningful and worthwhile research question is established. - A clear narrative communicates insights derived from the data. - Findings demonstrate potential for real-world applications.	0 – 20
2	Scientific Methods and Use of Analytical Tools	- Appropriate and reliable analytical methods are employed. - Analytical tools, including traditional statistical methods and AI/machine learning techniques, are selected and applied appropriately. - Applied techniques are implemented correctly and effectively support the analysis and narrative. - Code explanations and technical details are provided to ensure the analytical process is verifiable and reproducible.	0 – 20
3	Inference and Discussion	- Data analysis results are presented clearly and systematically, with appropriate interpretation and inferences derived from the data. - A thorough understanding of the research topic is demonstrated through appropriate discussion. - Logical conclusions are drawn and well aligned with the research objectives and motivation.	0 – 25
4	Presentation of Results and Report Writing	- Project outcomes are presented effectively and clearly. - The report is well organized, clearly written, and easy to understand.	0 – 25
5	Potential for Further Development	- Innovative approaches or effective use of analytical tools are demonstrated throughout the analytical process. - Data are explored from novel perspectives, leading to unique insights or conclusions. - The analytical process or findings demonstrate potential for broader applications across different scenarios or domains.	0 – 10

Competition Awards

1. Based on the results of the first-round written review, eight teams will be selected to advance to the final judging, which will be conducted through oral presentations. **Teams participating in the oral presentation** will be ranked based on the results of the final judging. Each team will receive:

- One certificate of award
- One commemorative gift

2. **The Best Poster Award** will be awarded to five teams. Each winning team will receive:

- One certificate of award
- One commemorative gift

The award selection will be conducted through voting by experts and participants on the final judging day. Each person may cast one vote only, and the five projects receiving the highest number of votes will receive the award.

3. Teams that pass the first-round project review shall be awarded an **Honorable Mention Certificate**. However, teams that advance to the second-round and participate in the oral presentation shall not receive a separate Honorable Mention Certificate. Their awards shall be determined based on the results of the second-round oral presentation evaluation.

4. All participating teams will receive a **Certificate of Participation**. Electronic certificates will be sent via email after the final judging day.

5. **Cash prizes** have also been introduced for this year's competition.

Frequently Asked Questions (FAQ)

Question 1: Regarding the use of databases for data analysis, does the analysis need to be conducted using the data provided in the databases? Or may participants select a topic related to one of the databases, conduct their own survey to collect responses, and analyze the collected data?

Answer 1: For this competition, participants are not encouraged to refer to the topics of the provided databases and conduct independent surveys for data collection and analysis. Participants should primarily use the datasets provided through the competition databases for their research and analysis.

Question 2: Are there any regulations regarding the use of data sources? Are participants allowed to use external data to support their arguments?

Answer 2: If participants select a topic from the competition databases, conduct analysis, and obtain certain conclusions, they may use external data sources as supporting evidence to further strengthen their arguments. However, participants must clearly explain the sources of the external data and provide sufficient evidence to support their conclusions. Please note that we do not encourage participants to conduct analyses solely based on external data sources.

Question 3: I have registered as a General Member, but I am unable to download or apply for the database materials. What should I do?

Answer 3: Online registration only creates a “Web Member” account. To become a “General Member”, participants must send an email application to SRDA and provide a copy of their student ID for verification. After becoming a General Member, participants will be able to download the datasets for analysis. If you encounter any difficulties obtaining the data, please contact the SRDA membership service office. They will provide guidance and assistance in accessing the datasets. Tel: 2787-1829; Email: srda@gate.sinica.edu.tw

Question 4: Must participants be currently enrolled students? Can recent graduates participate?

Answer 4: To ensure fairness in the competition, we are sorry to inform you that recently graduated students are not eligible to participate in this competition. In the future, if a competition category for non-student participants is organized, your senior student will be welcome to participate.

Question 5: Can one person participate in two teams (with different team members) and submit two separate reports?

Answer 5: Yes. An individual may participate in up to two teams; however, they may serve as the team representative for only one team.

Question 6: We are students from [University Name]. We recently learned about this challenge and are very interested in participating. However, one of our team members will be unable to attend the final competition on the morning of the event due to a prior commitment. Would this be allowed?

Answer 6: For teams that advance to the final round, the organizing committee allows some team members to be absent on the final competition day due to unavoidable circumstances. However, each team must designate at least one representative to deliver the oral presentation or present the poster on behalf of the team.