

Big Data Competition Invitation

2025 The 7th IKCEST "The Belt and Road" International Big Data Competition and the 11th Baidu & Xi'an Jiaotong University Big Data Competition

All institutions of higher learning,

In order to accelerate the training of top-notch innovative AI talents, identify top talents in big data artificial intelligence across the world through big data competitions participated by teams from countries along "The Belt and Road", and realize the goal of jointly promoting research, application and development of the big data industry by governments, enterprises and universities, the International Knowledge Centre for Engineering Sciences and Technology (IKCEST), Baidu and Xi'an Jiaotong University will jointly host the 7th IKCEST "Belt and Road" International Big Data Competition and the 11th Baidu & Xi'an Jiaotong University Big Data Competition 2025.

We sincerely invite you to participate in the competition.

I. Organization

Advisers: University Computer Course Teaching Guidance Committee of Ministry of Education
National Institute of Computer Education
Silk Road University Alliance

Sponsors: International Knowledge Centre for Engineering Sciences and Technology under the
Auspices of UNESCO (IKCEST)
Baidu
Xi'an Jiaotong University

II. Participants

1) Qualified Contestants: the contest is open to all institutes of higher learning, scientific research organizations, businesses, creative teams and individuals around the world. Each team shall have 1-5 members including at least one current student. Please register to form a team on the official

website of the contest.

2) Instructing Teacher: each team can be instructed by 0-2 teachers. Please register and form a team on the official website of the contest and register the identity as the team's "teacher".

III. Competition Topic: Photo-Based Question Recognition and Problem-Solving with AI Large Model

Currently, AI Large Model is advancing rapidly, and AI-based text and image recognition technology has permeated various aspects of our life and work. In addition to writing and reading, the recognition and solving of mathematical problems constitute a significant research direction within the field of text-image recognition. For the first time, the topic encourages participants to incorporate open-source large models into their algorithm designs, with a focus on enhancing the models' reasoning capabilities. The integration of large models will offer greater innovative potential for question recognition and problem-solving.

In this competition, participants are required to solve mathematical problems spanning from elementary school to university levels based on photos of questions taken via mobile phones. The question types include common multiple-choice questions, fill-in-the-blank questions, and short-answer/application problems. Participants may employ traditional visual algorithms or large models (text-based or multimodal, with model parameter sizes $\leq 3B$) to perform image preprocessing, text and graphic detection, OCR recognition, and problem-solving reasoning on the question photos, ultimately outputting the answers..

IV. Schedule

- 1) Application Time: June 12th, 2025– September 9th, 2025
- 2) Preliminary Round time: June 12th, 2025– September 9th, 2025
- 3) Semi-Final Round time: September 15th, 2025 - October 20th, 2025
- 4) Final Round time: November 2025 (To be determined)
- 5) Taining camp related to the competition will be held concurrently.

Note: Specific times and locations will be announced in the official notification or QQ competition communication group.

V. Evaluation Process

- 1) Time: The evaluation system will be open from June 20th. Each team is allowed 5 evaluation

opportunities per day and the ranking list will be updated in real time;

2) Evaluation method: The preliminary and semi-final algorithm scores will be automatically graded by the evaluation system, with results confirmed by the judges. The semi-final commentary scores will be graded and confirmed by the judges according to the competition rules, with details provided during the semi-finals. The final competition will involve a defense of the overall plan;

3) The final score: The semi-final score accounts for 80%, and the defense score accounts for 20%.

VI. Prize Setting (Pre-Tax) Prize money amounts to RMB 200,000

Special Prize: 1 team (RMB 100,000) and a prize certificate; the Competition Expert Committee will determine whether to award the Special Prize based on the final submissions.

First Prize: 2 teams (RMB 30,000 each) and a prize certificate.

Second Prize: 3 teams (RMB 10,000 each) and a prize certificate.

Third Prize: 10 teams (RMB 1,000 each) and a prize certificate.

Excellence Prize: The top 90% of ranking teams from the semi-final round will earn a prize certificate showing their international rankings.

Nomination Award: The remaining 10% of the ranking teams from the semi-final round will earn a digital certificate showing their international rankings.

Excellent Instructing Teacher Prize: Instructing teachers of the top 90% ranking teams from the semi-final round will earn an "Excellent Instructing Teacher" certificate.

The Green Channel of Baidu's Campus Recruitment: Players who enter the finals and semi-finals have the opportunity to obtain the Baidu school recruitment green channel.

VII. Official Contest Website (launched on June 20th)

More details please visit the official contest website : <https://www.ikcest.org/bigdata2025> (The website is expected to take effect around May 21, 2025) . After registration, please join the QQ Competition Communication Group: 910677969 (Only for registered team members; please indicate the name of your team for review and approval by the administrator); Official mailbox: ikcestbigdata@baidu.com.

Note: The Contest Organizing Committee reserves the right to adjust the contest timeline and has the final right of interpretation for the rules.



International Knowledge Centre for Engineering Sciences
and Technology under the Auspices of UNESCO
(Seal)

May 13th, 2025