



2026

BRICS SKILLS COMPETITION

(BRICS+ FUTURE SKILLS & TECH CHALLENGE)

5G Communication Network Construction and Operation&Maintenance Application

BRICS-FS-20

Technical Description

(International Final_Offline)

June, 2026



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1. Project Introduction

1.1 Basic Information About the Competition

Event Name: 2026 BRICS Skills Competition (BRICS Future Skills & Technology Challenge)

Event Name: 5G Communication Network Construction and O&M Application

Event Number: BRICS-FS-20

Format Group (People/Participants): Student Group

Event Level: International

1.2 Item description

The 5G Communication Network Construction and O&M Applied Skills Competition is held to stimulate innovative enthusiasm and exploratory spirit of talents from BRICS countries in the fields of 5G network optimization and digital intelligent operation & maintenance. It facilitates iterative innovation and large-scale commercial deployment of 5G technologies, and continuously improves the operation quality and efficiency of communication networks. Meanwhile, the competition builds a technical exchange and collaboration platform for BRICS countries on 5G construction and operation & maintenance, deepens industrial mutual trust and industrial coordination among all nations, and jointly promotes high-quality development of the 5G technology industry.

This event also serves as a demonstration carrier for enterprises and universities to showcase technical strengths and talent training achievements. It enables participating contestants to accumulate practical operation experience, refine professional skills, discover and cultivate compound communication technical talents, and consolidate talent and technical support for the long-term development of the communication industry across BRICS countries.

1.3 Purpose of the competition

To thoroughly implement General Secretary Xi Jinping's important instructions on the development of skilled personnel, vigorously promote the spirit of model workers, labor spirit and craftsmanship across society, guide practitioners in the communications industry, especially young students, to pursue career growth through skills and serve the country with their expertise, cultivate high-quality interdisciplinary 5G communication technical talents matching the development of digital infrastructure, advance the upgrading of the information and communications industry, and fuel high-quality development of the digital economy. Meanwhile, to further materialize the spirit concerning skill development and innovation cooperation contained in the BRICS Xiamen Declaration, Johannesburg Declaration, Brasilia Declaration and Moscow Declaration, and jointly deepen BRICS cooperation in the second Golden Decade, this Competition on 5G Communication Network Construction, Operation and Maintenance Technology Application is hereby organized.

Supported by virtual simulation training platforms, the competition features two core

modules: 5G network optimization and intelligent digital operation & maintenance. It covers key practical operations including full-chain 5G network optimization and fault troubleshooting, equipment installation and deployment, service parameter configuration, low-code application development and visualized operation monitoring dashboard construction. The competition primarily assesses contestants' professional capabilities in 5G network optimization and digital intelligent O&M, as well as comprehensive professional literacy such as standardized operation, problem research & judgment, fault disposal and innovative application, teamwork. Adopting real digital communication industry scenarios as task carriers, it fully tests contestants' technical application and practical implementation capabilities amid complex scenarios, fully demonstrating the professional competence and technical proficiency of a new generation of communication skilled talents, and consolidating the talent foundation for the innovative development of the 5G industry.

2. Skill Standards

Skill standards define the knowledge, understanding and specific competencies that represent international best practices in technical and occupational performance. These standards reflect industry and corporate consensus on job roles and professions worldwide.

Skills competitions are designed to reflect the international best practices and proficiency levels outlined in the skill standards. Therefore, these standards act as guidelines for training and preparation for competition participants.

Centered on the full lifecycle of 5G communication network operation and maintenance, this competition item systematically sets requirements for contestants' theoretical foundation, engineering cognition, practical operational capabilities and professional literacy, adhering to the core philosophy: *Master Principles, Complete Configurations, Perform O&M, Collaborate Effectively, Comply with Specifications*.

(I) Professional Knowledge Requirements

Contestants shall master fundamental theories and specialized knowledge related to 5G communication network operation and maintenance, mainly including:

1. Fundamental Theories of 5G Mobile Communication & Networks
 - (1) Evolution history of mobile communication and technical characteristics of each generation;
 - (2) Major international standardization organizations for mobile communications (ITU, 3GPP, etc.) and their functions and mandates;
 - (3) Development history of 5G standards (core contents and evolution directions of Release 15, Release 16 and Release 17);
 - (4) Propagation characteristics of electromagnetic waves and their impacts on 5G network coverage and planning;
 - (5) Key performance requirements of 5G (high data rate, low latency, massive connectivity, high energy efficiency) and three major application scenarios;
 - (6) Specifications of 5G frequency bands (FR1/FR2 frequency band classification,

configuration principles of channel bandwidth and guard bandwidth).

2. Network Security Management & Specification Knowledge

(1) Quality control key points and common types of network faults during 5G network operation and maintenance;

(2) Relevant laws, regulations and standards of the information and communication industry, as well as basic awareness of network security specifications;

(3) Safe operation specifications for communication equipment and occupational health protection requirements;

(4) Business knowledge of information and communication services and specialized knowledge of information and communication networks.

3. Knowledge of Emerging Technology Integration & Green Intelligent O&M

(1) Fundamentals of virtualization technology and principles & applications of NFV architecture;

(2) Overview of 5G network architecture (SA/NSA deployment modes, 5GC core network, CU/DU separated access network architecture);

(3) Overview of 5G NR air interface (frame structure, Numerology parameters, channel and signal design);

(4) Principles of IoT technology and 5G IoT application scenarios;

(5) Fundamentals of Python programming and its applications in automated network operation and maintenance;

(6) Technical principles and implementation methods of intelligent operation and maintenance systems;

(7) Energy consumption characteristics of 5G networks and basic concepts of green energy-saving operation and maintenance.

(II) Professional Competency Requirements

Contestants shall possess practical operation capabilities and comprehensive technical application competencies highly aligned with 5G communication network operation and maintenance posts, including but not limited to:

1. Network Configuration & Parameter Tuning Capabilities

(1) Complete frequency configuration and parameter setting in compliance with 5G frequency band specifications;

(2) Finish 5G network parameter configuration and service deployment tasks in a simulation environment;

(3) Select appropriate SA/NSA deployment schemes and BWP configurations according to business scenario demands.

2. Equipment O&M & Fault Handling Capabilities

(1) Conduct parameter configuration and tuning for 5G base station equipment and simulation systems in a standardized manner;

(2) Identify abnormal operation status of network equipment and implement reasonable fault disposal measures;

(3) Skilfully operate computers and relevant IT tools to complete O&M tasks;

(4) Locate and analyze network issues based on the OSI 7-layer model and TCP/IP protocol knowledge.

3. Data Analysis & Intelligent O&M Capabilities

- (1) Organize and analyze network operation data collected during the competition;
- (2) Utilize Python programming tools to process O&M data and develop automated scripts;
- (3) Leverage intelligent O&M systems to monitor network performance, issue fault early warnings and output optimization suggestions;
- (4) Accurately express technical conclusions with professional terminology and complete required technical records.

4. Teamwork & Professional Literacy

- (1) Reasonably divide labor and cooperate closely within teams;
- (2) Develop rigorous, standardized, safe and efficient professional work habits;
- (3) Possess strong awareness of responsibility, quality and network security.

3. Competition Content

Closely aligned with multi-industry 5G application scenarios and real industrial operation workflows, this competition item conducts full-process practical assessments covering 5G network optimization and digital intelligent operation & maintenance. As a critical infrastructure underpinning the digital economy, 5G network infrastructure requires contestants to match diverse business scenario demands and complete sequential tasks: network planning, on-site data collection, network performance testing, signaling analysis, end-to-end service tuning and comprehensive full-network performance optimization.

Contestants shall build O&M process models based on big data and basic algorithms, conduct data processing and in-depth mining, develop low-code applications and build O&M visualization dashboards. They shall implement refined troubleshooting and parameter tuning for various existing network issues, and deliver full-dimensional network optimization solutions aligned with business requirements. Through practical tasks, contestants simulate complete end-to-end workflows of 5G network optimization and digital intelligent O&M across multiple scenarios. The competition consists of two core practical task modules.

3.1 Competition module

The competition consists of two task modules. Task 1 focuses on practical operation of 5G network optimization, while Task 2 covers practical operation of 5G digital intelligent operation and maintenance. The practical sub-modules contained in the two tasks are shown in the table below:

Task	Sub-module
Task 1: Practical Module of 5G Network Optimization	5G Network Planning
	Data Collection

	DT/CQT Testing
	Signaling Analysis
	End-to-End Service Optimization
	Whole Network Performance Tuning
Task 2: Practical Module of 5G Digital Intelligent O&M	Hardware Equipment Installation
	Cable Connection & Deployment
	Background Service Data Configuration
	Equipment Alarm Monitoring
	Operation & Maintenance Process Deployment
	Low-Code Application Development for 5G Data
	Construction of Visual Large Screen for Digital Intelligent O&M

3.2 Competition description

Task 1: 5G Network Optimization Practical Module

This module adopts a virtual simulation training system for 5G network optimization, covering the full industrial chain of 5G network optimization: network planning, data collection, DT/CQT testing, signaling analysis, end-to-end service optimization, full-network performance tuning and existing network fault troubleshooting.

Contestants shall complete network planning for different scenarios, data collection, DT/CQT testing, signaling parsing, analysis of poor-quality cells and full-network performance improvement optimization as required by tasks. All operations must be performed in standard procedures, and optimized deliverables shall be saved and submitted on the competition platform as required.

Task 2: 5G Digital Intelligent O&M Practical Module

This module is equipped with a virtual simulation training system for 5G digital intelligent O&M, covering the full industrial chain of digital intelligent O&M: hardware equipment installation, cable wiring deployment, background service data configuration, equipment alarm monitoring, O&M process deployment, low-code development of 5G data applications and construction of digital O&M visualization dashboards.

Following official task work orders, contestants shall complete hardware installation, cable wiring connection, service parameter configuration, alarm monitoring & disposal, O&M process construction, low-code application development and O&M visualization

dashboard production for multiple scenarios. All practical deliverables shall be retained in standard formats on the platform, and response files shall be submitted as required.

3.3 Competition method

No separate age groups are set for each competition sub-event of this event. Full-time enrolled students aged between 16 (born on or before January 1, 2010) and 22 (born on or after January 1, 2004) are eligible to register, including teachers and students from higher vocational colleges (vocational and technical colleges), technical schools and undergraduate universities.

Each competing team consists of 2 contestants, who must be full-time students from the same institution, with one appointed as the team captain. There are no restrictions on gender or grade level. Each team may be assigned 1 to 2 instructors.

Winners of the first prize in the national finals of any event in previous competitions are not allowed to register for the same event in 2026.

Each competing team is composed of contestants, technical instructors and team logistics staff (team leaders), among which contestants and technical instructors are mandatory members. For individual events, each team may only declare 1 technical instructor at most; for team events, each team may declare up to 2 technical instructors. Within the same team, the technical instructor and the contestant cannot be the same person.

3.4 Competition process

Competition Date	Time	Agenda	Participants	Venue
Day 1	8:00–12:00	Participant Registration	Relevant staff of participating teams, instructors, referees and experts	Hotel Lounge
	13:30–15:00	Referee Training & Technical Briefing	All referee panel members responsible for competition arbitration and supervision	Conference Hall
	15:00–16:30	Team Leader Meeting & Competition Draw	All participating teams, chief referee and supervision group	Conference Hall
	16:30–17:00	Venue Familiarization	Contestants and team leaders	Competition Arena
	8:00–8:30	Equipment Inspection & Encryption	Referees and contestants for inspection and encryption procedures	Competition Arena
	8:30–10:30	Official Competition (Session 1)	Referees, participating teams, technical personnel and staff	Competition Arena
	10:30–12:00	Round 1 Scoring	Judges and contestants	Competition Arena
	12:00–12:30	Lunch Break	Judges and contestants	Competition

Competition Date	Time	Agenda	Participants	Venue
				Arena
	12:30–16:30	Official Competition (Session 2)	Referees, participating teams, technical personnel and staff	Competition Arena
	16:30–18:30	Round 2 Scoring	Judges and contestants	Competition Arena
Day 2	9:00–10:00	Closing Ceremony	All attendees	Lecture Hall
Note: The actual competition arrangement is subject to on-site adjustment by the competition organizing committee.				

4. Scoring Criteria

This section elaborates scoring standards and requirements for each module of the competition item, clarifying scoring methodologies and ranking rules.

4.1 Principles of scoring criteria formulation

The scoring design of this competition event strictly follows the principles of vocational education characteristics, engineering application orientation, and job competency as the core. It adopts a systematic, modularized, and quantifiable scoring framework centered on the full lifecycle of 5G communication network O&M. The design highlights core competencies including rational network planning, precise data analysis, in-depth signaling interpretation, effective optimization solutions, standardized process deployment, and practical low-code application, while deemphasizing pure theoretical derivation and complex programming. The assessment focuses on contestants' ability to execute tasks with rigor, systematic thinking, and engineering professionalism. The scoring design adheres to the principles of fairness, impartiality, transparency, operability, and reproducibility, with all module weightings closely aligned with the core competencies required by industry job roles.

4.2 Scoring method

- ① Total Score = Module 1 + Module 2 + Module 3 + Module 4 + Module 5 + Module 6 + Module 7 (maximum 100 points). The total score is rounded to two decimal places (the third decimal place is rounded off).
- ② Rankings are determined by total score in descending order.
- ③ Tie-breaking priority rules in case of equal total scores: Priority 1: The contestant with shorter practical operation time ranks higher; Priority 2: The contestant with a higher score in Module 6 (5G Data Low-Code Application and Digital Intelligent O&M Dashboard) ranks higher; Priority 3: The contestant with a higher score in Module 5 (5G Network Process Deployment and Case Analysis) ranks higher; Priority 4: The contestant with a higher score in Module 4 (End-to-End Optimization and Network-Wide Performance Optimization) ranks higher.

The scoring details for each module are as follows:

Module 1: 5G Network Planning (10 points) — The planning scheme aligns with scenario requirements; frequency band configuration is rational; coverage prediction is accurate; parameter settings comply with specifications.

Module 2: Data Collection and Network Testing (10 points) — Data collection is complete without loss; testing procedures are standardized; test data is authentic and valid; data formats are standardized and traceable.

Module 3: Signaling Analysis (15 points) — Signaling flow interpretation is complete and correct; key signaling nodes are identified accurately; abnormal signaling is pinpointed precisely; analytical conclusions are evidence-based.

Module 4: End-to-End Optimization and Network-Wide Performance Optimization (15 points) — Optimization solutions are targeted and effective; parameter adjustments are rational and valid; end-to-end metric improvements are verifiable; network-wide performance gains are supported by data.

Module 5: 5G Network Process Deployment and Case Analysis (20 points) — Process deployment steps are complete and standardized; case analysis logic is clear; configuration parameters are accurate without errors; deployment results are reproducible.

Module 6: 5G Data Low-Code Application and Digital Intelligent O&M Dashboard (25 points) — Low-code application functions are fully implemented; logic orchestration is correct and efficient; the O&M dashboard layout is well-structured; data presentation is clear and intuitive; monitoring alerts are timely and effective.

Module 7: Professional Conduct (5 points) — Compliance with competition discipline; standardized and safe operations; standard file naming conventions; adherence to prescribed procedures; courteous and orderly participation.

4.3 Scoring rules

Total competition score: 100 points, divided into 6 core task modules and 1 professional literacy module. Point values, scoring types and core assessment orientations are listed below:

Module No.	Module Name	Points	Scoring Type	Core Assessment Orientation
1	5G Network Planning	10	Engineering Rationality Assessment	Planning Competency
2	Data Collection & Network Testing	10	Accuracy Assessment	Collection & Testing Competency
3	Signaling Analysis	15	Analytical Assessment	Analytical Competency
4	End-to-End Optimization & Full-Network	15	Comprehensive Application	Core Optimization Competency

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	Performance Optimization		Assessment	
5	5G Network Process Deployment & Case Analysis	20	Standardization Assessment	Deployment Competency
6	Low-Code Development of 5G Data Applications & Digital Intelligent O&M Dashboard	25	Practicality Assessment	Application Development Competency
7	Professional Literacy	5	Standardization Assessment	Professional Work Habits
Total	—	100	—	Comprehensive Job Competency

This competition event adopts computer-based scoring, with the competition results submitted by each participating team in the competition system as the basis for assessment. A combination of automatic system scoring and expert evaluation is employed: objective operational tasks are scored automatically by the system, while subjective analysis tasks are scored by key point allocation. All evaluation materials are uniformly encrypted and anonymized, and blind review is implemented throughout.

Spot-check and Verification: To ensure the accuracy of score assessment, the Supervisory Panel conducts a full review of the scores of all participating teams ranked in the top 30% by total score; for the remaining scores, a spot-check verification is performed with a coverage rate of 15%. The Supervisory Panel must promptly notify the Chief Judge in writing of any errors found during re-examination, and the Chief Judge shall correct the scores and confirm with a signature. If the error rate from the review or spot-check exceeds 5%, the Judges Panel shall conduct a full review of all scores.

Score Publication: After the competition scores are decrypted and signed by the Chief Judge and the Supervisory Panel, they are published in electronic form to all participating teams on the platform designated by the Competition Executive Committee. Once the scores have been published for 1 hour with no objections raised, the final results of the total competition scores are entered into the competition management system, and the Chief Judge, the Head of the Supervisory Panel, and the Head of the Arbitration Panel sign the score report exported from the system.

Score Submission: The judges enter the final results of the total competition scores into the competition management system; the Chief Judge reviews the score data, exports and prints the scores entered in the system, and signs them; the Chief Judge submits the results to the Competition Organizing Committee.

Scoring Quality Assurance:

- ① Prior to the competition, all judges receive unified training to clarify scoring standards, penalty criteria, and adjudication principles.
- ② Scores are automatically calculated by the system to avoid manual computation errors.

- ③ A full review is conducted for the scores of all contestants ranked in the top 30% by total score, while a spot-check verification of no less than 15% is applied to the remaining scores.
- ④ During the score publication period, participating organizations may submit unified verification requests to ensure fairness and impartiality.

5. Skill Management & Communication

Organizations responsible for competition score management include the Judge Panel, Supervision Panel and Arbitration Panel, all under the leadership of the Competition Executive Committee.

5.1 Judge Panel

The Judge Panel operates under the Chief Judge accountability system, consisting of 1 Chief Judge, 5 General Judges, 4 Scoring Judges and 2 Encryption Judges, totaling 12 personnel. Judges complete official competition records as required; Scoring Judges evaluate scores per scoring criteria; Encryption Judges manage anonymization and decryption of contestant accounts. The Supervision Panel oversees all judge panel activities and conducts sampling rechecks of competition scores.

5.2 Arbitration Panel

The Arbitration Panel is composed of third-party supervisors. It oversees judge operations and score rechecks throughout the competition, accepts written appeals from participating teams and organizes reviews, investigates and disposes of competition violations to safeguard fair competition.

5.3 Competition Implementation Working Group

Composed of technical backbones from the Chinese organizer, implementation contractor, co-organizers, technical support providers and platform suppliers of the BRICS Vocational Skills Competition, the group undertakes full competition implementation work, including competition platform maintenance, equipment debugging, fault resolution, technical Q&A, event organization, training delivery, promotion, score statistics and logistics coordination, ensuring stable, safe and smooth competition operations.

5.4 Official Communication Channels

For inquiries regarding registration, software & hardware preparation and competition environment deployment prior to the event, participating institutions may join the official communication QQ group for the 5G Communication Network Construction and O&M Applied Skills Competition. All pre-competition, in-competition and post-competition training and exchanges shall be conducted via the official QQ group.

Official QQ Group: 722890331 (All participating institutions shall carefully verify information sources within the group to prevent fraud).

6. Competition Materials & Equipment

6.1 Venue Facility Requirements

This is an offline competition. All venue equipment is uniformly provided by the Organizing Committee, complying with the following specifications:

1. Indoor venue with flat ground, sufficient lighting and ventilation, minimum area of 1000 m² and minimum ceiling height of 3.5 m;
2. Independent power supply for each competition workstation with minimum load of 0.5 kW; each workstation occupies 5 m² with a standard table (1500mm × 600mm × 500mm);
3. Each workstation is equipped with fully functional competition platforms, supporting tools and 2 computers pre-installed with all required competition software;
4. Central display screen for real-time competition countdown; 2 judge desks and 1 server placement table at the front of the venue. Each server supports minimum 1000W power supply; each switch supports minimum 100W power supply.

6.2 Competition Equipment List

(1) Recommended Competition Hardware

Per Team Equipment: 2 computers

Minimum Configuration Specifications:

- Display: 1920×1080 resolution
- CPU: Intel Core i5 (2GHz+, quad-core, mainstream commercial PC is acceptable)
- Memory: 8GB DDR3 1600 RAM
- Hard Disk: 1TB storage
- Network: Integrated 10/100/1000 Mbps adaptive Ethernet adapter
- Operating System: Windows 10 or above
- Browser: Latest stable Chrome version
- Network Bandwidth: Minimum 8 Mbps dedicated bandwidth per computer

(2) Technical Platform: 5G Virtual Simulation Platform

Serial No.	Equipment Name	Quantity	Configuration Specifications
1	5G Virtual Simulation Platform (Software)	2 sets per team	Consistent with online competition platform specifications (Part 1, 6.2)
2	Switches	6 units	24-port Gigabit switches
3	Competition Servers (Platform Hardware)	6 units	1. CPU: 4-core 3.0GHz 2. Memory: 2×32GB RAM 3. Storage: 2TB hard disk 4. Network: 4-port Gigabit Ethernet adapter 5. 1+1 redundant power supply 6. Pre-installed 5G simulation platform server software
4	Network Environment	—	Gigabit bandwidth

Platform Configuration Specifications:

7. Competition Exam Papers

The expert panel will release sample exam papers on the official competition website (<https://www.bricsacademy.org.cn/signup/index>) approximately one month before the official competition. Sample papers share approximately 70% consistent question types and 80% consistent task logic with the official competition papers.

8. Appeal & Arbitration

If any unfair treatment or personnel violations occur during the competition, team leaders may submit a written appeal to the Supervision & Arbitration Panel within 1 hour after the conclusion of the competition session. Arbitration staff assigned by the General Competition Organizing Committee shall organize a review within 1 hour upon receiving the appeal and issue a timely arbitration result, which shall be final and binding.

9. Competition Code of Conduct

(I) Competition Rules

1. Total competition duration: 6 hours. All teams shall complete all tasks and submit deliverables as required within the time limit.

2. All competition equipment is uniformly provided by the Organizing Committee; contestants shall not use any external auxiliary tools.
3. During official competition sessions, no personnel except the Chief Judge may approach contestant workstations or initiate communication with contestants unless safety hazards arise.
4. Upon the official competition stop bell, contestants shall terminate all operations immediately. All competition materials, exam papers and scratch paper shall be submitted to on-site judges for signature confirmation.
5. No contestant may extend competition time without written approval from the Chief Judge.
6. Contestants shall not leave the venue after competition closure without judge authorization.
7. Contestants shall not damage competition equipment or disrupt preparations for subsequent competition sessions.

(II) Contestant Rules

1. All student contestants must be full-time enrolled students.
2. Confirmed registered contestants may not be arbitrarily replaced. If a contestant is unable to participate due to unforeseen circumstances, the registering institution shall submit a written explanation 10 working days before the competition start date. Upon verification and approval by the General Competition Organizing Committee Office, a replacement contestant may be added and subject to qualification review.
3. Pre-competition venue and equipment familiarization sessions are arranged for all teams.
4. Mobile phones, cameras and other recording devices are prohibited during venue familiarization; contestants may not photograph the venue or equipment.
5. Contestants shall not make unfounded or reputation-damaging remarks about the competition during venue familiarization.
6. Strict compliance with all competition regulations during venue familiarization; no crowding or loud talking to avoid safety incidents.
7. Contestants shall save progress frequently throughout the competition to ensure data integrity.
8. Upon competition deadline, contestants shall stop all operations and submit all deliverables, raw data and scratch paper per judge instructions.

10. Competition Awards & Recognition

(1) Certificate Issuance

All participating teams receive joint award certificates issued by the Indian Host Organizer and Chinese Organizing Committee.

(2) Regional Preliminary Competition Awards (Non-Provincial Department Led)

Awards are allocated based on team scores of regional preliminary competitions:

- First Prize: Top 10% of teams
- Second Prize: Next 20% of teams
- Third Prize: Next 30% of teams
- Remaining teams: Excellence Award

Electronic international award certificates jointly issued by the Indian Host Organizer and Chinese Organizing Committee will be distributed post-competition per award tier.

(3) International Final Awards

1. Gold, Silver, Bronze & Excellence Medals

All teams from BRICS and partner countries are ranked collectively. The top 6 international teams receive gold, silver or bronze medals and corresponding certificates. Outstanding offline teams not eligible for gold/silver/bronze medals receive Excellence Medals and certificates (maximum 3 teams).

Medal Eligibility Rules:

1. The top-ranked team from each participating country qualifies for gold medal ranking; the highest-scoring team overall wins the Gold Medal.
2. Excluding the gold medal team, the highest-scoring domestic team from each country qualifies for silver medal ranking; the top 2 highest-scoring teams win Silver Medals.
3. Excluding gold and silver medal teams, the highest-scoring domestic team from each country qualifies for bronze medal ranking; the top 3 highest-scoring teams win Bronze Medals.
4. Outstanding offline teams not awarded gold/silver/bronze receive Excellence Medals (maximum 3 teams).
5. Online international participants receive only electronic medal certificates, no physical medals.

2. First, Second & Third Prizes for Chinese Finalist Teams

For Chinese teams participating in the international finals, prizes are allocated per rounding rules:

- First Prize: Top 10%
- Second Prize: Next 20%
- Third Prize: Next 30%

- Remaining teams: Excellence Award

Corresponding international award certificates are issued for each tier.

3. Additional Honors

1. International Adjudicator Certificates for all official judges;
2. International Outstanding Instructor Certificates for instructors of First and Second Prize teams;
3. Outstanding Contribution Award plaques and certificates for organizations with outstanding competition organizing performance;
4. Excellent Organization Award certificates for regional preliminary contractors that actively organize participation, conduct pre-competition training and maintain zero violations during events.

4. Skills Passport

Contestants from teams with a total score of 60 points or above (out of 100) may voluntarily apply for Grade A International Skills Passport certificates (details released in follow-up official notices).

11. Violation Disciplinary Rules

To uphold strict competition discipline and guarantee an open, fair and impartial event, the following disciplinary measures apply for violations:

1. If contestants fail to meet registration eligibility requirements, or engage in identity impersonation or fraud, the Competition Office shall verify the case, disqualify the contestant, revoke all awards already granted, demand return of all certificates and prizes, and issue a public media notice.
2. Any contestant committing the following violations shall receive a total score of zero:
 - (1) Unauthorized access to reference books, notes or written materials during the competition;
 - (2) Cheating behavior including peeking at other contestants' screens or verbal inquiry of answers;
 - (3) Carrying or using communication devices during the competition;
 - (4) Continuing operations after the official competition stop signal issued by judges;
 - (5) Refusing to comply with judge rulings and disrupting competition procedures with severe impact;
 - (6) Other violations of competition discipline without corrective action upon judge reminder.
3. Contestants shall not launch cyberattacks against competition servers or other host devices. If server downtime is caused, the contestant's affiliated institution shall bear corresponding compensation liability based on incident severity. Contestants who intentionally damage equipment may face legal proceedings for severe

violations.

4. Non-contestant personnel from participating delegations violating discipline shall receive warnings or public criticism based on violation severity. The General Competition Organizing Committee reserves the right to notify their affiliated institutions.

5. Judges and staff violating competition discipline shall be reported to the Provincial Competition Organizing Committee by the Chief Judge, and receive warnings or complete disqualification based on violation severity.

6. Pre-competition safety inspections shall be conducted by contestants. Any unresolved safety hazards must be reported to judges immediately for official resolution. Contestants may only start operations after judge approval. Judges shall point out unaddressed safety hazards discovered on-site and deduct corresponding practical operation points at their discretion.

