



2026

BRICS SKILLS COMPETITION **(BRICS+ FUTURE SKILLS & TECH CHALLENGE)**

Industrial Robot Digital Twin Technology **Application** **BRICS-FS-40**

Technical Description **(Offline_International Final)**

June, 2026



Content

1. Project Introduction	2
1.1 Basic Information About the Competition	2
1.2 item description	2
1.3 Purpose of the competition	3
2. Competitors need to have the ability	4
2.1 Basic knowledge to be mastered	4
2.2 Basic skills to be mastered	4
3. Competition items	5
3.1 Competition module	5
3.2 Competition description	6
3.3 Competition method	6
3.4 Competition process	7
4. Assessment of achievements	8
4.1 Principles of scoring criteria formulation	8
4.2 Scoring method	8
4.3 Scoring rules	9
5. Skill Management and Communication	12
5.1 panel	12
5.2 jury	12
5.3 Arbitration Panel	13
5.4 Technical Support Team	13
5.5 Event Implementation Working Group	13
5.6 Official Communication	13
6. Competition environment, facilities and venues	14
6.1 Overall environmental requirements	14
6.2 Competition station requirements	15
6.3 Technology Platform	16
6.4 Technical platform requirements	16
6.5 Main equipment parameters	17
7. Competition papers	20
8. Complaints and arbitration	20
8.1 Complaints and Arbitration	20
8.2 Procedure for appeal and arbitration	20
9. Competition Guidelines	22
10. Competition Recognition Award	24
11. Provisions for Handling Violations	26

1. Project Introduction

1.1 Basic Information About the Competition

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

Event Name: Industrial Robot Digital Twin Technology Application

Event Number: BRICS-FS-40

Format (People/Participants): 2 participants

Event Type: China Regional International Competition

1.2 item description

The competition focuses on the digital twin of industrial robots, with the production process of automotive wheel hubs as the main task. It evaluates contestants' ability to use industrial robots to perform a series of processes, including quick tool installation, hub picking, hub grinding, CNC machining, hub inspection, RFID information reading and writing, and hub sorting. The competition covers areas such as virtual debugging of industrial robot systems, software and hardware installation and debugging, and integrated application. It assesses the comprehensive professional qualities of the participating teams, including planning, organization, and teamwork, emphasizing innovation and practical operational skills, thereby enhancing students' professional abilities and employment quality.

1.3 Purpose of the competition

To implement President Xi Jinping's important instructions on skilled talent development, and to better promote the spirit of model workers, labor, and craftsmanship throughout society, we aim to inspire more workers, especially the younger generation, to pursue a path of skill development and serve the country through their skills. This initiative also seeks to cultivate more highly skilled, versatile talents and master craftsmen, thereby promoting employment, entrepreneurship, and high-quality development in our country. Additionally, to further implement the spirit of the BRICS countries' 'Xiamen Declaration,' 'Johannesburg Declaration,' 'Brasilia Declaration,' and 'Moscow Declaration' regarding skill development and innovation, and to jointly advance the cooperation of the second golden decade of BRICS countries, this competition is organized.

The competition aims to assess the contestants' professional skills in industrial robot system layout, script programming, debugging, and virtual simulation debugging, as well as their professional qualities such as teamwork, quality control, and safety awareness. It also evaluates the contestants' technical application in system integration product operation and maintenance services. Using real industrial application scenarios as task carriers, the competition thoroughly tests the contestants' problem analysis, handling, and implementation capabilities when facing complex work tasks, showcasing their comprehensive professional qualities and skill application levels.

2. Competitors need to have the ability

2.1 Basic knowledge to be mastered

- 1) Industrial robot technology knowledge;
- 2) Knowledge of mechanical installation and debugging;
- 3) Electrical installation and commissioning knowledge;
- 4) Knowledge of pneumatic control technology;
- 5) Sensor technology knowledge;
- 6) PLC control and application knowledge;
- 7) Knowledge of intelligent vision detection technology;
- 8) HMI human-machine state technical knowledge;
- 9) Knowledge of structured programming and virtual simulation technology;
- 10) CNC system (CNC) application knowledge;
- 11) Knowledge of industrial network technology application;
- 12) Safety operation procedures and professional code of conduct.

2.2 Basic skills to be mastered

- 1) Skills in digital twin and virtual debugging software, including methods of virtual debugging;
- 2) The use method of industrial robot system, including parameter setting, system calibration, typical program design;
- 3) The use of vision, including communication setting, typical programming, etc.;
- 4) The use method of PLC system, including input and output connection,

communication method, typical program design;

5) Application of industrial network technology, including network basic architecture, networking method, communication protocol, data acquisition and processing;

6) Application of industrial network technology, including network basic architecture, networking method, communication protocol, data acquisition and processing;

7) Installation, commissioning, maintenance and maintenance of general mechanical and electrical equipment.

3 Competition items

3.1 Competition module

The competition is conducted in a team of two people, and the competition tasks are completed through teamwork. The competition is divided into two sessions: session A, which lasts for 2 hours, and session B, which lasts for 4 hours. The scoring method is based on the results.

module	assignment
module A	Simulation environment construction
	Manual debugging of integrated system
	Integrated system virtual joint debugging
module B	Hardware construction and electrical wiring
	Robot and peripheral system unit debugging
	Industrial robot system integration and commissioning

3.2 Competition description

Module A: virtual debugging of industrial robot system

Module A-1 Simulation environment construction (model scene construction, part definition, address matching and other tasks in the virtual simulation software)

Module A-2 Manual debugging of integrated system (manual debugging of hardware buttons and virtual environment through PLC training box)

Module A-3 integrated system virtual joint debugging (by writing PLC and touch screen programs, the industrial robot program simulation is completed in the virtual simulation software, and finally the overall joint debugging is completed to complete the tasks of hub production storage, grinding, logo installation, processing, testing and sorting)

Module B: Industrial robot system integration application

Module B-1 hardware construction and electrical wiring (install each unit, circuit, network cable connection and debugging according to requirements)

Module B-2 robot and peripheral system unit debugging (complete the integration and debugging of CNC, vision and other peripheral units as required)

Module B-3 Industrial robot system integration and debugging (complete the comprehensive system integration and debugging, including starting the system, warehousing, grinding, assembly, vision detection, RFID reading and writing, CNC machining, sorting and other process tasks, and realize part of the digital twin function verification)

3.3 Competition method

The 2026 BRICS Skills Competition(BRICS+ Future Skills & Tech Challenge)

BRICS-FS-40-Application of Digital Twin Technology for Industrial Robots -TD

does not establish separate age categories for individual events. All participants aged between 16 (born before January 1, 2010) and 35 (born after January 1, 1991)—including students and faculty members from vocational colleges (including higher vocational institutions and technical schools), undergraduate universities, as well as employees of enterprises and public institutions—are eligible to register. Candidates who have previously won first place in the finals of any event at previous editions of the competition are prohibited from registering as competitors for the same event in 2026.

Each participating team consists of competitors, coaching experts, and team support personnel (team leader), with competitors and coaching experts being mandatory members. For single-person events, each team may register only one coaching expert; for multi-person events, the limit is two coaching experts per team. Within the same team, a coaching expert and a competitor cannot be the same individual.

3.4 Competition process

Table 1 Competition workflow schedule

Competition Day	time	item	participant	place
first day	8:00-12:00	Participants report	Related staff of the team, instructors, referees and experts	hotel wineshop
	13:30-15:00	Judging training and technical briefing	The judging panel shall supervise the arbitration	assembly room
	15:00-16:30	Team leader meeting, draw of matches	Team, chief referee and supervision group	assembly room
	16:30-17:00	Familiarize yourself with the venue	Team members and team leaders	Field of Play

the next day	8:00-8:30	Check and encrypt	Check and encrypt the referee and the contestants	Field of Play
	8:30-10:30	Official competition (Schedule 1)	Referees, teams, technicians and staff	Field of Play
	10:30-12:00	Score the schedule	Judges, players	Field of Play
	12:00-12:30	have a rest	Judges, players	Field of Play
	12:30-16:30	Official competition (Schedule II)	Referees, teams, technicians and staff	Field of Play
	16:30-18:30	Score for round two	Judges, players	Field of Play
dieb tert	The next day			
the fourth day	9:00-10:00	closing ceremony	lecture hall	personnel
Note: The actual schedule of the competition guide is subject to change				

4. Assessment of achievements

4.1 Principles of scoring criteria formulation

The competition questions and scoring criteria are jointly designed by experts from the BRICS Skills Development and Technological Innovation Competition Executive Committee, relevant enterprises and industries, and educational institutions. The evaluation standards, scoring methods, and detailed scoring rules are formulated based on the principles of scientific rigor, fairness, and practicality. These standards also integrate the assessment of professional skills with professional ethics, with a total score of 100 points.

4.2 Scoring method

1. The competition referee group is responsible for the evaluation of the BRICS-FS-40-Application of Digital Twin Technology for Industrial Robots -TD

competition results, and there is a chief referee who is fully responsible for the referee and management of the competition.

2. The contestants shall operate according to the requirements of the task book, and the contents that need to be confirmed by the judges must be raised and confirmed by the judges, otherwise no points will be awarded.

3. The judging group shall evaluate the results in accordance with the principles of "fairness, impartiality, openness, science, standardization, transparency and no objection", based on the on-site records of the judges, the task book of the participants and the scoring standards.

4. There are two types of scoring methods: process scoring and result scoring. The results shall be evaluated according to the on-site records of the judges, the task book of the competition for the participants and the scoring standards. All scoring materials shall be signed by the corresponding judges and players and confirmed by the chief referee.

5. The division of judges shall be responsible for the chief referee. Judges without corresponding enforcement tasks shall not enter the player's workstation. Players shall display the functions described in the scoring items according to the instructions of the judges.

4.3 Scoring rules

The competition score will adopt a combination of qualitative and quantitative methods to objectively and fairly evaluate the scores of each task. In order to ensure the objectivity of the competition evaluation, for each set of competition questions, the scoring standards will be customized, and the scoring items will be detailed as

much as possible to every detail, reducing the proportion of subjective judgment, so as to ensure the objectivity and fairness of the competition.

Table 2 Competition module distribution table

module	Evaluation items	Scored points	proportion
A	Simulation environment construction	1、The virtual environment is built and placed in the same way as the real environment 2、Correctly set the initial state of the software 3、Correctly define the state machine for the cylinder 4、Correctly define the sensor 5、Correctly define the indicator light 6、Correctly complete the signal address match 7、Establish communication correctly	10%
	Manual debugging of integrated system	1、The virtual debugging scene cylinder action is controlled by an external button 2、Control the virtual debugging scene indicator light by external button 3、Alarm such as safety grating and buzzer is realized	5%
	Integrated system virtual joint debugging	1. Complete the virtual simulation and joint debugging task of one or more hub production and processing process	20%
B	Hardware construction and electrical wiring	1、Complete the hardware construction of each module 2、Complete the circuit connection of each unit 3、Complete the pneumatic	6%

2026 BRICS Skills Competition (BRICS+ Future Skills & Tech Challenge)

		connection of each unit 4. Complete the network connection and test of each unit	
	Robot and peripheral system unit debugging	1. Integrated application debugging of numerical control unit 2. Visual unit integration application debugging 3. Other peripheral unit integration application debugging	24%
	Industrial robot system integration and commissioning	Complete the system comprehensive commissioning, including MES start-up system, warehousing, grinding, assembly, visual inspection, RFID reading and writing, CNC machining, sorting and other process tasks; including digital twin function debugging	35%
	professional quality	1. Wear safety helmet, sportswear and electrician's insulating shoes; 2. Tools are neatly arranged; 3. Do not throw air tubes, zip ties and other garbage anywhere; 4. Take off the safety helmet during the competition; 5. In the process of completing work tasks, violate operating procedures or cause damage to components other than important components due to improper operation.	Subtracting points

Note: 1. The professional quality part is not specifically allocated, but in the process of work, if the relevant regulations are violated, 0-10 points will be deducted from the actual operation of the competition total score of the contestants, and serious violators will be stopped from the competition and the score of this competition

BRICS-FS-40-Application of Digital Twin Technology for Industrial Robots -TD

module will be cancelled.

2. The proportion of each indicator may be slightly adjusted during the actual competition process.

5.Skill Management and Communication

5.1 panel

The Expert Panel consists of the Chief Expert, Deputy Chief Experts, and member experts, responsible for jointly revising relevant technical documents for this competition. The institution of the Chief Expert may not send a team to participate in this event.

5.2 jury

The BRICS Vocational Skills Competition adopts a "Chief Expert Responsibility System," under which the chief expert may also serve as the presiding judge. Members of the judging panel are selected from among experts at participating institutions and enterprises nationwide who possess extensive teaching and practical experience; they participate in officiating only after undergoing unified training and passing evaluation by the expert panel, and strictly adhere to the conflict-of-interest avoidance rules. The judging panel is divided into three distinct roles—confidential judges, on-site judges, and scoring judges—each performing specific duties without overlapping responsibilities, and all operating under the supervision of the arbitration committee throughout the process.

5.3 Arbitration Panel

The arbitration panel consists of third-party supervisors who oversee the entire adjudication process, conduct random checks and reviews of results, handle written appeals from participating teams, organize reconsiderations, investigate and address violations during the competition, thereby ensuring fairness and impartiality.

5.4 Technical Support Team

Composed of technical personnel from the supporting organization and key technical staff from the platform provider, this team is fully responsible for ensuring the stable operation of the competition platform, performing equipment debugging, resolving technical issues, and providing technical support to guarantee the system's reliability, security, and smooth functioning.

5.5 Event Implementation Working Group

Composed of staff from the Chinese organizing, executive, co-organizing, and technical support units of the BRICS Vocational Skills Competition, this team is responsible for all aspects of event execution, including competition organization, training implementation, publicity promotion, results statistics, and logistical coordination, ensuring the event proceeds as planned.

5.6 Official Communication

For any questions regarding competition registration, hardware/software preparation, or exam environment setup before the event, participating organizations may join the dedicated drone operation competition discussion group for inquiries.

Training discussions, communications during and after the competition can also be conducted through the official communication group.

Official QQ Group: 654811629 (All participating organizations are advised to carefully verify the sources of information within the group and exercise caution against fraud).

6 Competition environment, facilities and venues

6.1 Overall environmental requirements

1. The competition site is flat, bright and well ventilated. The lighting of the site is good, there is no direct sunlight around, and the lighting conditions are excellent, which can ensure a stable light source environment for the competition during the competition.

2. The competition site shall be planned with independent visiting channels and experience areas, which shall not affect the normal competition.

3. Reasonable number of air conditioners shall be set up in the competition site to ensure a suitable temperature in the competition site.

4. Reasonable quantity monitoring of competition items shall be set to ensure that all competition positions and personnel activity ranges are covered without blind corners, and the monitoring video files shall be properly preserved.

5. Set up a medical station at the venue.

6. Place fire extinguishers in the stadium.

7. Set up backup power supply on the field.

6.2 Competition station requirements

1. The area of a single competition station shall not be less than 22m^2 ($4\text{m} \times 5.5\text{m}$), indicating the number of the competition station, with obvious regional division. In addition to the competition station, one standby station shall be prepared, and the area of the competition site shall not be less than 500m^2 .

2. Each competition station is equipped with one competition platform, one operation table (the operation area is not less than $1000\text{mm} \times 1600\text{mm}$), two programming computers (with computer desk), and two stools.

3. Each competition station provides one power outlet for the competition platform (380V - 6kW) and four power outlets for the programming computer (220V - 2kW).

4. Programming computer configuration requirements: CPU is INTEL i5-8700 CPU (the 8th generation, the main frequency is 2.8GHz , the number of cores is 6) at the same level or above, 2G or above NVIDIA independent graphics card, 8GB memory at the same level or above, 500GB hard disk at the same level or above, and the installation of legitimate Windows 10 or above operating system.

6.3 Technology Platform



Figure 2 Schematic diagram of the competition platform

6.4 Technical platform requirements

The competition platform focuses on the wheels of the automotive industry, covering processes such as material retrieval from warehouses, manufacturing and processing, grinding and polishing, inspection and identification, and sorting and positioning. It is designed to meet the needs of future intelligent manufacturing plants. The platform uses industrial Ethernet for rapid data exchange and process control, employs PLCs for flexible on-site control structures and overall control design logic, and utilizes MES systems to collect operational information and status data from all equipment. By integrating big data, it enables the implementation and intelligent control of the production process. Additionally, the cloud network facilitates remote monitoring of the system's operational status. This platform serves not only as a skills competition venue but also meets the teaching, experimental training, and skill training needs of vocational colleges in fields such as industrial robots, automation

control, and virtual simulation.

The technical platform includes a PLC training box capable of virtual simulation verification, which supports PLC programming and touch screen interface programming. It features an operation panel, buttons, sensors, and indicator lights. The PLC training box is paired with the factory's virtual debugging simulation software, PQFactory. This setup enables the PLC control box to process real production signals and transmit them to the PQFactory system. The PQFactory system then simulates the production process based on the attributes of the control variables and passes the results back to the PLC control box.

6.5 Main equipment parameters

Table 3 Equipment configuration specifications of the competition technology platform

order number	name	Contains modules
1	Execution unit	Industrial robot x1 Industrial robot expands IO module x1 Tool quick change module flange end x1 Translation slide x1 PLC controller x1 Remote IO module x1
2	Tool unit	Rim clamping claw, hub clamping claw, rim inner ring clamping claw, suction cup tool, suction cup clamping claw, end face grinding tool, side grinding tool, tool bracket, demonstrator bracket
3	Warehouse unit	Palletized warehouse x1 Remote IO module x1 Wheel hub parts x6
4	Processing unit	CNC machine tool x1 Simulation tool chest x1 Numerical control system (Siemens 828d system) x1 Remote UO module x1
5	Polishing unit	Polishing station x1 Rotary station x1 Flip the tooling x1

		Shedding station x1 Remote IO module x1
6	detecting unit	Visual system x1 Supporting light source and display x1 RFID detection module x1 Logo library x1
7	Sorting unit	The conveyor belt x1 Sorting mechanism x3 Sorting station x3 Remote IO module x1
8	Central control unit	PLC controller x2 Switch x1 Wireless router x1 Monitor x1 Operation panel x1 Power module x1 Gas source module x1 Industrial Gateway x1
9	PLC control cabinet	1) PLC: 100KB of working memory, 4MB of load memory, CPU with 14 digital input points, 10 digital output points, and 2 analog input interfaces. The Boolean operation execution speed is $0.08 \mu s$ per instruction, the move word execution speed is $1.7 \mu s$ per instruction, and the real number mathematical operation execution speed is $2.3 \mu s$ per instruction. It has 2 PROFINET ports. 2) Human-machine interface HMI: button/touch operation, 7" TFT display, 65536 colors, PROFINET interface. 3) Operation panel: including one set of grating sensor, two photoelectric sensors, one proximity switch, one slot photoelectric, one power button and emergency stop button, one start button, one reset button, one stop button and one alarm buzzer
10	Control integrated MES system	It includes but is not limited to the following functional modules: 1) System management center 2) Produce data centers 3) Product data center 4) Process work center 5) Production execution center 6) Quality Management Center 7) Warehouse management center

		8) Equipment management center 9) Information monitoring center 10) Development and operation tools
11	Digital twin software	1) It can freely define various devices, including robots, cylinders, sensors, etc. The basic equipment of the production line can be defined independently, and there is no dead end virtual simulation. It supports various signals of PLC, such as numerical type and Boolean type. It communicates with PLC in real time and simulates the communication of equipment; 2) In the software, it can replace real-world robots, cylinders, modules, sensors, CNC machines, and other production line equipment to perform production line programming and debugging with PLCs. It perfectly simulates the actions and signal transmission of actual equipment, saving time and money for factory production lines. Real PLC programming can be performed without the need to purchase all real equipment; 3) The underlying layer utilizes advanced OpenGL display components, enabling modular development and reducing program interference dependencies. The interface uses mature tools like Microsoft Visual Studio, offering user-friendly human-computer interaction and simple, easy-to-use operations. It features realistic simulation design and efficient, accurate equipment action simulation. This is a virtual debugging software that is easy to operate and highly functional.

Table 4 The competition site provides operation tools and consumables

order number	Tool/material type	quantity	technical specifications
1	Competitive platform	1 set	PLC control box and robot system integration workstation
2	Operation table	1 sheet	/
3	chair	Two	/
4	computer	Two	Intel i5-8700 CPU (8th generation, 2.8GHz, 6 cores) or above; 8GB or more memory, 500GB or more hard disk capacity, Windows 10 or above operating system
5	safety helmet	Two	/
6	Competition	1 set	/

	stationery		
7	parvicostellae	a surname	/
8	power line	a surname	/
9	Cleaning tools	1 set	/

7 competition papers

The sample paper is consistent with the official paper in terms of question type, distribution ratio of knowledge points and skill points covered, proportion of free creative content, and layout of the paper, with no more than 30% change.

8. Complaints and arbitration

8.1 Complaints and Arbitration

1. The competition shall establish an arbitration working group, which shall carry out its work under the leadership of the competition organizing committee and be responsible to the competition organizing committee.

2. Duties of the arbitrators

(1) Familiar with the competition rules and regulations of the event.

(2) Keep abreast of the progress of the competition.

(3) Accept written appeals from each team.

(4) Conduct in-depth investigation on the accepted appeal and make objective and fair collective arbitration.

8.2 Procedure for appeal and arbitration

1. Each team shall appeal to the arbitration working group against any
BRICS-FS-40-Application of Digital Twin Technology for Industrial Robots -TD

instrument, equipment, tooling, materials, articles, computer software and hardware, competition tools and supplies, competition enforcement, venue management, competition results, or irregular behavior of the staff that does not conform to the regulations of the competition.

2. The subject of appeal shall be the guiding expert of the participating team.

3. When the appeal is started, the guiding expert shall submit a written appeal report signed by himself to the arbitration working group. The report shall fully and truthfully describe the phenomenon, time of occurrence, personnel involved and basis for appeal of the appeal event. Non-written appeal shall not be accepted.

4. The appeal should be filed within 2 hours after the end of the competition. It will not be accepted if it exceeds 2 hours.

5. The arbitration working group of the competition shall organize a review within 2 hours after receiving the appeal report and inform the appellant in writing of the review result in time. If the appellant still has objections to the review result, the guiding expert may appeal to the arbitration committee of the competition area. The arbitration result of the arbitration committee of the competition area is the final result.

6. The complainant shall not refuse to accept the arbitration result for any reason; shall not take drastic actions to disrupt the order of the court for any reason; the arbitration result shall be signed by the complainant and cannot be collected on behalf of the complainant; if the complainant leaves at the agreed time and place, it shall be deemed to have abandoned the appeal by himself.

9.Competition Guidelines

(一) Contestant Guidelines

Contestants must truthfully provide their personal information in accordance with the requirements; failure to do so will result in disqualification from the competition.

Participants must present a uniformly printed competition certificate and valid identification documents to attend the event, and participate according to the specified time, order, and venue for each event category.

All participants must thoroughly study and understand the competition-related documents, strictly adhere to event regulations, follow instructions, comply with arrangements, and participate in a civilized manner.

All participants must strictly adhere to safety operating procedures and civilized production regulations, properly maintain equipment and instruments at the competition venue, and refrain from causing any damage to such facilities. In the event of a serious safety incident, the participant's eligibility will be immediately revoked upon approval by the chief referee.

Participants are prohibited from bringing any electronic devices, communication equipment, or other materials into the competition venue.

During the competition, operations must not be initiated until the start signal is received. Each team shall complete their tasks at designated stations; cheating is strictly prohibited.

Upon completion of the competition, participants must immediately cease operations and wait in the workstation area, away from the workbench. All materials and tools shall be neatly arranged on the work platform; departure is permitted only

BRICS-FS-40-Application of Digital Twin Technology for Industrial Robots -TD

after verification by staff. No materials may be taken away upon leaving the venue.

When submitting their competition results, participants must sign the competition record form filled out by the judges to confirm.

All participating teams must attend the opening/closing ceremonies, team leader draw session, venue orientation sessions, and other scheduled events for this competition on time.

Any matters not covered herein shall be determined by the on-site judging panel.

(二) Guidance for Experts

(1) Guiding experts (teachers) should develop training programs in accordance with the professional teaching plan and competition regulations, provide meticulous guidance to participants, cultivate their comprehensive professional competencies and strong professional ethics, overcome utilitarian mindsets, and avoid learning solely for the sake of competitions or substituting competition-based learning for substantive education.

(2) Guiding experts (teachers) should promptly review the notices and content related to each competition category on the official event website, thoroughly study and master the rules, technical specifications, and venue requirements for each category, and assist participants in completing all necessary technical and competitive preparations prior to the event.

(3) Guiding experts (teachers) shall ensure proper insurance arrangements for participants in accordance with the competition regulations and actively provide safety education to them.

(4) Guiding experts (teachers) must not violate competition regulations by entering the venue or disrupting the normal conduct of the event.

(5) If a participating team has objections to the competition proceedings, the team leader shall submit a written report to the event arbitration working group within the specified timeframe.

(6) Regarding the arbitration decision appealed against, the team leader shall take the lead in complying with and implementing it, while providing proper guidance to the athletes. Participants shall not withdraw from the competition due to appeals or dissatisfaction with the handling decision; otherwise, such behavior will be deemed as withdrawal.

10.Competition Recognition Award

(1) Certificate Issuance: Participating teams will receive an award certificate jointly issued by the Indian organizers and the Chinese organizers.

(2) Reward mechanism for provincial/regional selection competitions (excluding those organized solely by provincial departments): Awards are determined based on actual competition results of participating teams, with the distribution as follows: 10% first prizes, 20% second prizes, 30% third prizes, and the remainder as excellence awards. Upon completion of the competition, the Indian organizer and the Chinese organizer jointly issue electronic international award certificates corresponding to each prize category.

(3) International Finals Reward Mechanism

1. Gold, Silver, Bronze and Excellence Medals: Based on the unified rankings of BRICS plus participating national teams, the top six domestic and international teams will receive corresponding gold, silver, or bronze medals along with certificates; offline teams that achieve outstanding results without winning medals will be

awarded an Excellence Medal and certificate (up to three teams per category).

The medal awarding criteria are as follows: (1) The top-performing national team from each participating country qualifies for the gold medal ranking, with the highest-ranked team receiving the gold medal; (2) Apart from gold medalists, the best-performing national team from each country qualifies for the silver medal ranking, with the top two teams earning silver medals; (3) Beyond gold and silver medalists, the best-performing national team from each country qualifies for the bronze medal ranking, with the top three teams receiving bronze medals; (4) Offline participants who achieve outstanding results but do not win gold, silver, or bronze medals will receive a merit medal (up to three teams); (5) Online international participants will not receive physical medals but only corresponding certificate awards.

2. For Chinese teams participating in the China regional international finals, first prizes, second prizes, and third prizes will be awarded according to the rounding principle: first prizes account for 10%, second prizes for 20%, and third prizes for 30%, accompanied by corresponding international award certificates. The remaining awards are excellence awards.

3. Other Awards: (1) Issue International Referee Certificates to referees participating in officiating; (2) Award International Outstanding Guidance Expert Certificates to advisory experts of teams that won first or second prizes; (3) Present a "Outstanding Contribution Award" plaque and certificate to organizations that made outstanding contributions to organizing the competition; (4) Award an "Excellent Organization Award" certificate to organizers of provincial or regional selection competitions who actively facilitated participation, conducted pre-competition

selection training sessions, and ensured no violations or disciplinary offenses occurred during the event.

4. Participants whose team's total score in the Skills Passport competition reaches 60 points (out of 100) or higher may voluntarily apply for a Grade A "Skills Passport" certificate (see subsequent application notice for details).

11.Provisions for Handling Violations

To uphold strict competition discipline and ensure the openness, fairness, and impartiality of the event proceedings, the following measures will be taken against violators: 1. Participants found to meet ineligible registration requirements, engage in identity fraud or falsification shall have their eligibility revoked upon verification by the Competition Office; award winners shall have their awards revoked, be required to return all certificates and prizes, and this decision shall be publicly announced through media channels.

2. Participants with any of the following behaviors will receive a zero score: (1) illegally consulting books, notes, notesheets or other materials during the examination period.

(2) Cheating behaviors such as whispering, peeking, or giving hints within the examination room.

(3) The use or carrying of communication devices during the competition.

(4) After the referee announces the end of the competition in accordance with the rules, participants still forcibly attempt to answer questions or perform tasks.

(5) Refusing to comply with the referee's decision, disrupting competition order, interfering with the course of the event, and engaging in particularly egregious

conduct.

(6) Other violations of competition rules, including failure to heed advice.

3. Participants shall not operate any non-competition-related instruments or equipment. In case of damage to such equipment, the responsible institution shall bear compensation liability (depending on the severity of the incident). Participants who engage in deliberate destruction of instruments or equipment, or other serious violations, shall be referred to the competent authorities for legal action.

4. For non-participating members of representative teams who violate disciplinary rules, penalties ranging from warnings to public reprimands will be imposed depending on the severity of the offense; further, the competition organizing committee may decide whether to notify their respective institutions based on the circumstances.

5. For referees or staff members who violate competition rules, the chief referee shall, upon verification by the provincial competition organizing committee, issue a warning or revoke their qualifications depending on the severity of the violation.

6. For athletes who violate operational procedures by failing to wear protective equipment, the referee shall promptly correct such violations and deduct corresponding points from their performance score as appropriate.

7. Prior to participating in the competition, contestants shall undergo a safety inspection. Any identified issues must be addressed promptly; unresolved problems should be reported immediately to the judges, who will make appropriate determinations and coordinate solutions as needed. Only after completing all preparatory tasks and obtaining judicial approval may actual operations commence. For any safety hazards not detected by the contestants, judges shall promptly point

them out and deduct corresponding points from their operational scores at their discretion.



BRICS Skills Competition (BRICS Future Skills Challenge)