







# IndiaSkills National Competition 2021

# **Table of Contents**

- 1. Background and Overview
- 2. Scope, Conduct of Competitions & Code of Ethics
- 3. Roles & Responsibilities
- 4. Competition Rules & Regulations
  - 4.1. Test Project
  - 4.2. Infrastructure
  - 4.3.Competition Rules
  - 4.4. Health and Safety
  - 4.5. Access to the Workshops
  - 4.6. Quality Assurance
  - 4.7. Assessment and Marking
  - 4.8. Awards and Recognition
  - 4.9. Selection of Skills for WorldSkills Shanghai 2022
  - 4.10 Competitor Rights and Responsibilities
- 5. Issue and Dispute Resolution
- 6. Abilympics
- 7. Annexures

# 1. Background and Overview

National focus and importance has been accorded to Skill Development by Government of India. With several inherent benefits of skill competitions, a structured approach with active participation of States has been envisaged under the IndiaSkills State, Regional and National Skills competition program.

The participants of IndiaSkills Nationals will emerge from winners of State and subsequently Regional Level competitions. The winners of IndiaSkills will, through a process of selection, represent India at WorldSkills and other international competitions.

In 2019, Ministry of Skill Development & Entrepreneurship issued Guidelines for IndiaSkills Competitions to promote State participation. 26 States/UTs came forward and conducted district and/or state level skill competitions. This was followed by Regional competitions which were organized as shown in the table below:

Sr. No.	Zone	City	From	То
1	East + North-East	Patna	20 <sup>th</sup> Oct 2021	23 <sup>rd</sup> Oct 2021
2	West	Gandhinagar	29 <sup>th</sup> Oct 2021	1 <sup>st</sup> Nov 2021
3	North	Chandigarh	15 <sup>th</sup> Nov 2021	18 <sup>th</sup> Nov 2021
4	South	Visakhapatnam	1 <sup>st</sup> Dec 2021	4 <sup>th</sup> Dec 2021
5	National	Delhi	6 <sup>th</sup> Jan 2022	10 <sup>th</sup> Jan 2022

Contrary to the earlier adopted centralized model of the Regional Competitions, this time regional competitions were conducted in a new decentralized model. Under the de-centralized model, the competitions will be conducted at multiple Partner Institutions (skill/trade specific) in the host city.

Eligible competitors from Regional Competitions will participate in IndiaSkills 2021 National Competition to be held at Pragati Maidan, ITPO New Delhi from 06 -10 January 2022.

For few skills which require heavy equipment/ machinery, competition will be conducted at offsite locations.

Apart from 54 skills, 3 demo skills (Yoga, Garment making & shoe making) have been also included. All skills are divided into following six categories.

- 1. Construction & Building Technology
- 2. Creative Arts & Fashion
- 3. Information & Communication Technology
- 4. Manufacturing & Engineering Technology
- 5. Social & personal Services
- 6. Transportation & Logistics

#### Refer Annexure for list of List of skills.

To promote inclusion, skills competitions for 13 Abilympics trades are included in IndiaSkills 2021. National Abilympics Association of India (NAAI), which holds India's membership in Abilympics



International, is responsible for the conduct & management of the Abilympics competitions during IndiaSkills. Winners will represent the country in Abilympics International.

# 2. Scope, Conduct of Competitions & Code of Ethics

#### 2.1 Scope

This handbook encompasses framework, norms & defines basic rules & regulations for the organization and execution of the IndiaSkills Competitions.

All the stakeholders and participants must abide by the Competition Rules. This document is aligned to the competition documentation and rules used by WorldSkills International. The skill competitions will be based on core values of:

- Fairness
- Transparency
- Integrity
- Partnership
- Excellence.

#### 2.2 Conduct of Competitions

While NSDC will organize competitions, conduct and management of IndiaSkills competitions requires active support and involvement of Sector Skill Councils, Corporates, Academic Institutions, Subject Matter Experts & other stakeholders. Competition arena will be prepared in accordance with the Test project and infrastructure list. For management of competition & Issue and dispute resolution, there will also be a framework and hierarchy to address issues and disputes as under:

#### 2.3 Code of Ethics

The Code of Ethics acts as a guide to behavior and decision making for Skill Competitions. The core values are diversity, excellence, fairness, innovation, integrity, partnership, and transparency. All stakeholders must be acquainted with and act in accordance with the Code of Ethics

# 3. Roles & Responsibilities

#### 3.1 Skill Competition Committee (SCC)

IndiaSkills National Competition 2021 will have a SCC comprising of:

- 1. Mr. K V Venugopal: Honorary Member, WorldSkills International, NTTF Advisory Council Member, Former Technical Delegate WorldSkills India.
- 2. Mr. Mallinathan: Honorary Member, WorldSkills International & Skill Competition Manager Plastic Die Engineering



- 3. Mr. Ravi Kharbanda: Honorary Member, WorldSkills International & Ex Technical Delegate Assistant, WorldSkills India
- 4. Mr. Shashidhar Hirematada Currently working as DGM Strategy and Sustainability at Schneider Electric Education. 32 years of exp. in Vocational Training & development. Has also worked at NTTF as an expert in Electronics.

Roles and Responsibilities of Skill Competition Committee:

- Overseeing the Conduct of Skill Competition.
- Issue & Dispute Resolution.
- Tabulation and checking of Results.
- Recommendation to National Executive Committee for improvement in conduct of Competitions.
- The Competitions Committee can make decisions arising from any matter relating to the conduct of the skill competitions which is not covered in the Competition Rules.

#### 3.2 Skill Managers

Six Skill Managers and one for Abilympics will, act as extended arms of SCC to oversee the competitions for better oversight and management. Skill manager's responsibilities will be oversight of competition in 8-10 trades in terms of timing, conduct, documentation, issue & dispute resolution. Skill Managers will be appointed by NSDC. Skill Managers will report to Skill Competition Committee

#### **3.3 JURY**

A group of Experts who are responsible for assessing Test Projects within a respective skill competition. The Jury is responsible for the proper conduct of the competition in compliance with Competition Rules. Jury will be nominated by the Sector Skill Councils based on the following:

**Essential Criteria**: Have a formal recognized qualification with proven industrial and/or practical experience in the skill in which they are accredited.

**Preferred Criteria:** Prior experience as a WorldSkills Chief Expert / WS Deputy Chief Expert / WS Expert/International skill competitions / IndiaSkills.

#### 3.4 Skill Management Team (SMT)

Each skill will have a Skill Management Team (SMT) which is responsible for the proper conduct of the competition in compliance with Competition Rules. The SMT will comprise of:

- Expert
- Jury Members
- SSC Representative



• Workshop Manager

#### 3.4.1 Expert

An Expert is a neutral person with experience in a skill, trade, or technology who is representing India at Regional National & International Competitions, in the skill competition related to their expertise.

Experts along with SSC are responsible for planning and running their skill competitions in accordance with the key sustainability principles and initiatives, including in the development of the skill competition, Test Project design and required infrastructure.

An Expert is required to conduct with the highest levels of integrity, honesty, and fairness. One of the most important requirements in this regard is to ensure that no unfair advantage accrues to any Competitor or group of Competitors through receiving advance information about the Test Project that other Competitors do not receive.

Experts may also take part in the assessment process only when the Competitor(s) is not related to them/ from the same institution.

#### 3.4.2 Jury Member

A person with experience in a skill, trade, or technology who is representing in the skill competition related to their expertise.

- Must have a formal and/or recognized qualification with proven industrial and/or practical experience in the skill in which they are accredited.
- They should also know and abide by the Competition Rules, the Technical Description and other official Competition documentation
- Possess the expertise mandated by the India Skills framework.
- Must be of the highest integrity, honest, objective and fair, and prepared to cooperate with others as required.
- Familiar with TP and infrastructure facilities.
- Understand & abide by competition rules and documentation.
- Interact with Experts and Workshop Instructors and delegate duties for successful completion of test and marking.
- Maintain the confidentiality of Test Projects

All Jury Members need to certify that no Competitor is related to them/from the same. In case of exception, SCC will authorize the same, but such Jury Member will refrain from assessing compatriot competitor.

#### 3.4.3 SSC Representative

SSCs are primary stakeholders, and a representative will form part of the SMT. Such SSC representative will play a crucial role in conduct, observance of rules and ensuring impartiality.



#### 3.4.4 Workshop Manager

The Workshop Manager is responsible for workshop installations, preparation of materials, workshop security, Health, Safety, and Environment and the general tidiness and neatness of the workshop area.

#### 3.5 Team Leader (TL)

Team Leaders are persons selected by the States to look after the comfort and welfare of competitors during the Competition.

As a Team Leader one must have a high degree of responsibility towards his/her competitors. Additionally, a Team Leader will act as a mentor and shall be responsible for care of the competitor during IndiaSkills. Responsibilities include, but not limited to:

- Support to Competitors before, during, and after the Competition.
- Make the Competition a positive experience for the Competitors.
- Prepare Competitors in non-technical aspects of the Competition.
- Ensure that all Competitors are properly briefed regarding all aspects of the Competition like stay arrangements, transportation arrangements, timings of competition, food, other events.
- Be a spokesperson for the Competitors to the Competition stakeholders, i.e. SMT, SCC etc
- Be responsible for the conduct of their team from arrival at the Competition until their departure.
- Team Leaders are always available to the competitors.
- Protect Competitors against unnecessary media attention. Journalists should make an appointment with Competitors, through Team Leaders, in order not to disturb the Competitors during the Competition.
- Ensure competitors adhere to the safety norms & wear PPEs during the competition.
- Ensure competitors adhere to Competition timings.
- Make the competitors aware of the Closest emergency exit and highlight and assist in case of any medical contingency.

### 4. Competition Rules & Regulations

#### 4.1 Test Project

Test Project is an assessment vehicle. Each skill has a Test Project for the competition to attempt where Competitors demonstrate their mastery of Skill.

The Test Project for India Skills Nationals are designed for 12-22 hours which competitors are made to complete within 3 days, however Extension of competition time can be given with the approval of Skill Management Team (SMT) and lost hours due to malfunction (breakdown of equipment) can be made-up with the permission of SMT.

• The Test Project could be modular or subdivided into modules and marking is done accordingly known as Criteria and Sub Criteria's. Each Criteria and Sub Criteria has aspects which are allotted points for assessment.



#### 4.2 Infrastructure

**Infrastructure List** is the list of material and equipment to be provided by the Competition Organizers for the conduct of Skill Competition.

**Tool Kit** The equipment and tools allowed by the Organizers to competitors to bring for the competition.

#### 4.3 Competition Rules

For successful conduct of India Skill Nationals Competitions, the following rules are followed; namely:

- Team leaders, Skill managers and SMT are only permitted to enter the workshop of their skill area. No visitor nor observers are permitted inside the workstation without the prior permission of the Mentor / Chief Expert.
- Competitors must carry a valid government issued photo id in original on 1<sup>st</sup> day of competition for identification
- Stakeholders shall ensure that the above principles of honesty, fairness and transparency are observed always
- In case a competitor needs to withdraw due to illness or accident; marks will be awarded for the work completed.
- In the event of Competitor falls ill or has an accident, it must be informed to Skill Manager/SMT).
- All personnel in each skill-specific workshop will receive a health and safety orientation before the Competition starts. This orientation will be the responsibility of the Workshop Manager (WM) within each workshop.
- Skill Specific Competition Organizers must ensure Workstation are checked for equipment safety and functionality prior to commencement of Competition on all days or before commencement of second shift of Competitions.

#### 4.4 Health and Safety

- All incidents can be prevented, and every effort shall be made to identify hazard and inform the management accordingly
- All participants will assume liability for all risks of injury and damage to property, loss of property, which might be associated with or result from participation in the event. The organizers will not be liable for any damage, however, in case of Injury the competitor will immediately inform the immediate organizer for medical attention. Sates to submit undertaking as attached as Appendix
- The Skill Specific Personnel Protective Clothing must be worn during the conduct of Competition.
- All accredited participants and supporting volunteers will abide by rules and regulations with regards to Health, Safety, and Environment of the Competition venue.



• Competitors and accredited participants must familiarize themselves with the Occupational Health and Safety Regulations prior to attending the Competition.

#### 4.5 Access to the Workshops

Only people with official accreditation shall have access to workshops. Experts, Workshop Managers, Workshop Manager Assistants are required to be accredited for access to the skill competition they are registered for.

Team Leaders may have access to all workshops where their competitors are participating at any time and may contact their Competitors but only if there is a genuine reason. They must introduce themselves to a member of the Skill Management Team and take permission before entering and interacting.

#### 4.6 Quality Assurance

Quality Assurance of skill competitions is important from point of view of maintaining standards, adherence to process, proper evaluation and transparency.

#### 4.7 Assessment & Marking

Assessment & Marking will be based on the modules to be performed as under:

- Main criteria
- Sub criteria
- Aspects
- Descriptions

#### 4.7.1 Assessment Norms

Assessment at India Skills Competitions falls under 2 types, for which use of explicit benchmark is essential for each aspect, namely;

- Measurement
- Judgment

#### 4.7.2 Marking Scheme

Marking Scheme describes how the Jury team assesses the competitors work. It is designed to allocate marks for each aspect of performance.

#### 4.7.3 Assessment & Marking

As followed in WorldSkills, there will be no compatriot Expert marking.



#### 4.7.4 Measurement (previously known as Objective)

- Used to assess accuracy, precision and other performance that can be measured in an robust manner.
- It is marked as Binary- YES or NO. OR against a pre-determined scale of conformity to a given bench mark.

#### 4.7.5 Judgement (previously known as Subjective)

- Used to assess the quality of performance. There might be small difference of view when applying external benchmarks.
- It is marked independently by 3 experts and then collated by Show of cards.

The design and use of either of these methods must relate to best practice in industry and business

For Judgement, the scores from 0 to 3 shall relate to industry and business as follows:

- 0: performance below industry standard to any extent, including a non-attempt
- 1: performance meets industry standard
- 2: performance meets industry standard and surpasses that standard to some extent
- 3: excellent or outstanding performance relative to industry's expectations.

#### 4.7.6 Teams for Assessment and Marking

3 Experts form a team for assessment and a minimum of 3 for to be nominated for assessment, these can be supplemented by others to coordinate the scores for JUDGMENT

- To replace expert to prevent Compatriot marking
- For observation and training purpose

#### 4.8 Award and Progression

- Top 3 performers will be announced as awardees at the Competition.
- Marks scored (out of 100) will be converted to WorldSkills 700 scale.
- If the difference between two or more Competitors is no more than two points on the WorldSkills Scale, then equally placed medals are awarded as per WorldSkills guidelines
- Only top two Competitors/teams will move for training in preparation for WSC Shanghai Competitions.

There will be a further selection based on performance of one or more selection tests in March-July 2022 for each trade for selection of Indian squad for Shanghai. There would also be medical tests, psychometric profiling etc.

#### 4.9 Selection of Skills for WorldSkills Shanghai 2022



Selection committee appointed by the National Executive Committee (NEC) will decide on the selection of skills for WorldSkills Shanghai 2022. NEC to take the final call.

Selection process will happen after the completion of IndiaSkills National Competition.

All trades in which India has not participated in WorldSkills in the past may not be taken forward to Shanghai. The decision will principally be based on evaluation of each trade in terms of available infrastructure, trainers, performance in Nationals, prior performance in international competitions (if any), support available from Industry/Academia for the trade

#### 4.10 Competitor Rights & Responsibilities

#### 4.10.1 Eligibility Criteria

For IndiaSkills 2021 and WorldSkills 2022 the only eligibility criteria is age. For most of the trades Competitor must be born on or after 1 January 1999. While in few trades, the competitors should be born on or after 1 January 1996. Refer annexure for details

#### 4.10.2 Familiarization

The SMT is responsible for ensuring that all Competitors are provided with the following information:

- Competition Rules
- Code of Ethics and Conduct
- Health, Safety, and Environment documentation
- Test Projects
- Briefing on any additional tools and/or any equipment or material(s) that may be required
- Competitors have time to prepare their workplaces and to check and prepare tools, materials and measuring equipment
- All Competitors are provided with a Communication Card with one red side and one green side with symbols to facilitate visual communication
- Failure by a Competitor to comply with safety directions or instructions may result in the deduction of marks. Continuous or repeated unsafe practice may result in Competitors being temporarily or permanently removed from the Competition.
- Information of their being able to access to their Team Leader in case of any issue.
- Be aware of the medical facilities available and report medical issues, if any.
- Dishonesty and indiscipline will invite penalty as decided by the SMT/SCC.
- Competitors have the right to expect fairness, honesty, and transparency during the Competition in terms of the following:
  - Right to expect that no other Competitor will receive unfair assistance or
  - Any intervention that may provide an advantage of any sort.

#### IMPORTANT

Should a competitor have an issue it must be brought to the attention of SMT immediately and the TL may be called. Disputes will be referred to Skill Competition Committee.



No complaint will be accepted after the competition is over.

#### 5. Issue & Dispute Resolution

The use of the terms "issue" and "dispute" for India Skill will be as follows:

- Issues are topics or problems for discussion or debate that relate to managing and running a skill competition. All issues should be resolved within the skill competition by the Skill Management Team
- Disputes are disagreements or arguments that occur due to the escalation of:
  - o an unresolved issue beyond the Skill Management Team.
  - an alleged breach of the rules or Code of Ethics and Conduct

Dispute: All dispute must be recorded in the Complaint Management Register before the close of day. No Complaint unless unavoidable/grave will be entertained after the due period. Basic Principles

- No-one, except the compatriot Team Leader, is allowed to communicate with a Competitor involved or alleged to be involved in a dispute at any stage of the dispute.
- Competitors must be able to continue their work while the issue and dispute resolution process is being conducted Natural justice must apply, i.e. innocent until proven guilty and fair hearing is given
- The number of people present at related meetings needs to be managed and balanced
- Skill Competitions Committee must reach a decision in all cases. This decision is final. However, in those disputes dealing with alleged breaches of the rules and/or Code of Ethics and Conduct or other contentious issues - the matter may be taken to the Appeals Committee.

#### 5.1 Process Flow for Issue Resolution



#### **5.2 Process Flow for Dispute Resolution**

Issues are resolved at the SMT level, unresolved issues are labelled as disputes & are resolved at SCC level / Appeal Committee. All the disputes shall be resolved by close of the day/last day of the competition. A flowchart for dispute resolution is given below:



#### **5.4** Penalties



If there is clear evidence of action, the following penalties will apply:

- If a competitor breaches the Competition Rules or skill specific rules, the penalty should be deduction of marks as decided by SMT and/or SCC. In case, breach of rules is severe in nature, SCC & the Appeals Committee may also debar the competitor from the participation in the competition.
- If an Expert/Jury breach the Competition Rules or skill specific rules, Expert/Jury is removed from the workshop and has no further contact with their competitor & involvement in any marking.
- In situations where either there is not clear evidence showing the breach of the rules, and/or in case unambiguously documented rule, decision of the Competition Committee will be final.

# 6. Abilympics

**National Abilympics Association of India (NAAI)** jointly with **WorldSkills India** will be responsible for organizing Abilympics competitions along with the IndiaSkills.

The competitions for Persons with Disabilities (Divyangjan) will be held simultaneously as an Inclusion initiative. The competitions are aimed at selecting the PwD participants for the International Abilympics scheduled to be held in Russia.

	IT Skills				
1	Computer Prog				
2	Word				
3	Poster designing				
4	Photography Outdoor				
5	Photography Studio				
Crafts					
1	Painting				
2	Embroidery				
	Services Skills				
1	Tailoring				
2	Dress making				
3	Jewellery Making				
Hospitality Skills					
1	Restaurant Service				
2	Cooking				
3	Bakery				

The competition/demonstration will be organized in 13 skill trades under 4 categories as:



# 7. Annexures

S. No	SSC	Skill	Age Criteria	No. of Competitor(s)
1 Agriculture		Floristry	Born on or after 1st Jan 1999	1
T	Agriculture	Landscape Gardening	Born on or after 1st Jan 1999	2
2	Apparels	Fashion Technology	Born on or after 1st Jan 1999	1
		Prototype Modelling	Born on or after 1st Jan 1999	1
2	4606	Automobile Technology	Born on or after 1st Jan 1999	1
3	ASDC	Car Painting	Born on or after 1st Jan 1999	1
		Autobody Repair	Born on or after 1st Jan 1999	1
4	D.9.14/	Beauty Therapy	Born on or after 1st Jan 1999	1
4	B&W	Hairdressing	Born on or after 1st Jan 1999	1
		Welding	Born on or after 1st Jan 1999	1
		Plastic Die Engineering	Born on or after 1st Jan 1999	1
		CNC Milling	Born on or after 1st Jan 1999	1
5	Capital Goods	CNC Turning	Born on or after 1st Jan 1999	1
5		Mechanical Engineering Design CAD	Born on or after 1st Jan 1999	1
		Robot Systems Integration	Born on or after 1st Jan 1996	2
		Additive Manufacturing	Born on or after 1st Jan 1996	1
		Bricklaying	Born on or after 1st Jan 1999	1
		Wall and Floor Tiling	Born on or after 1st Jan 1999	1
6	Construction	Plastering and Drywall Systems	Born on or after 1st Jan 1999	1
		Concrete Construction Work	Born on or after 1st Jan 1999	2
		Digital Construction	Born on or after 1st Jan 1996	1
	Electronics	Electronics	Born on or after 1st Jan 1999	1
		Electrical Installations	Born on or after 1st Jan 1999	1
		Refrigeration and Air Conditioning	Born on or after 1st Jan 1999	1
7		Mobile Robotics	Born on or after 1st Jan 1999	2
,		Mechatronics	Born on or after 1st Jan 1996	2
		Industrial Control	Born on or after 1st Jan 1999	1
		IT Network system administration	Born on or after 1st Jan 1999	1
		Industry 4.0	Born on or after 1st Jan 1996	2
	Furniture & Fittings	Cabinetmaking	Born on or after 1st Jan 1999	1
8		Carpentry	Born on or after 1st Jan 1999	1
		Joinery	Born on or after 1st Jan 1999	1
9	G&J	Jewellery	Born on or after 1st Jan 1999	1
10	Green Jobs	Water Technology	Born on or after 1st Jan 1996	1
10		Renewable Energy	Born on or after 1st Jan 1999	1

Annexure 1 – List of Trades, IndiaSkills



S. No	SSC	Skill	Age Criteria	No. of Competitor(s)
11	Health	Health and Social care	Born on or after 1st Jan 1999	1
12	IT - NASSCOM	IT Software Solutions for Business	Born on or after 1st Jan 1999	1
		Web Technologies	Born on or after 1st Jan 1999	1
		Cloud Computing	Born on or after 1st Jan 1996	1
		Cyber Security	Born on or after 1st Jan 1996	2
		Mobile Applications Development	Born on or after 1st Jan 1999	1
	Media	Graphic Design Technology	Born on or after 1st Jan 1999	1
10		3D Digital Game Art	Born on or after 1st Jan 1999	1
13		Print Media Technology	Born on or after 1st Jan 1999	1
		Industrial Design Technology	Born on or after 1st Jan 1996	1
14	Painting	Painting and decorating	Born on or after 1st Jan 1999	1
15	Plumbing	Plumbing and Heating	Born on or after 1st Jan 1999	1
16	Retail	Visual Merchandising	Born on or after 1st Jan 1999	1
17	Telecom	Information Network Cabling	Born on or after 1st Jan 1996	1
	Tourism	Patisserie and Confectionery	Born on or after 1st Jan 1999	1
		Restaurant Service	Born on or after 1st Jan 1999	1
18		Cooking	Born on or after 1st Jan 1999	1
		Bakery	Born on or after 1st Jan 1999	1
		Hotel Reception	Born on or after 1st Jan 1999	1



New trades introduced for IndiaSkills 2021

Team Skill (Team of 2 competitors)

Annexure 2 – List of	Participating	States/UTs
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SI.	North zone	South zone	West zone	East zone	Northeast
1	Chandigarh	Andhra Pradesh	Goa	Bihar	Assam
2	Delhi	Karnataka	Gujarat	Odisha	Mizoram
3	Haryana	Kerala	Madhya Pradesh	West Bengal	Tripura
4	Himachal Pradesh	Tamil Nadu	Maharashtra	Andaman and Nicobar	
5	Jammu and Kashmir	Telangana	Rajasthan	Jharkhand	
6	Punjab	Puducherry			
7	Uttar Pradesh				
8	Uttarakhand				