Skills and knowledge are the driving forces of economic growth and social development for any country. Countries with higher levels of skills adjust effectively to the challenges of the world of work. The trained manpower plays a vital role in the growth of the GDP of the country. Training and employment is the need of the hour globally, especially during this pandemic situation.

DGT is in the process of invigorating the systems, including curricula revision, through 40 Sectoral Trade Course Committee (STCC). The major thrust is also on the development of e-content for training in blended mode, and online training through Bharat Skills -the e-learning platform of DGT. The focus is also to cover most of the trades for training of instructors under the Crafts Instructor Training Scheme (CITS) and to have a standard template for the website of NSTIs, initially. It gives me immense satisfaction to announce that our NSTIs are now offering the new age courses such as Solar Technician, IOT (Technician), Technician Mechatronics, Drone Pilot, etc under Dual System of Training (DST).

In this context, for effective dissemination of the latest updates, DGT has contemplated its ‘Skill Talks’ (monthly e-newsletter) for the valuable stakeholders. Each issue will focus on the skill ecosystem in three states across India and three industrial sectors to showcase the rich training and knowledge imparted through our institutions [Central institutes and State Government managed ITIs]. Our training institutes are doing a tremendous job and such highlights would support the cause of making skill education aspirational in our country. It’s a humble endeavour to bring forth the success and fortitude stories to turn more individuals toward self-employment and entrepreneurship and contribute to the economy of our country.

Since March 2020 the World is passing through an unprecedented challenge to combat COVID 19 pandemic. DGT has been advocating to the States/UT Government to utilise infrastructure of State run Industrial Training Institutes (ITIs) and central institutes (National Skill Training Institutes (NSTIs) to combat COVID-19 spread. Many States/UTs, ITIs and NSTIs across the country have demonstrated good practices which are touched upon in the Skill Talks. The achievements of Odisha state deserve a special mention due to some of its innovative indigenous cost-effective solutions such as development humanoid Service Robot, Mobile Swab Collection Kiosk and Ultra Violet (UV) Steriliser /Sanitiser among others.

The DGT team is also making efforts to implement the Government ‘Atma Nirbhar Bharat’ initiative for the migrant laboures during this COVID-19 pandemic. Our teachers and trainers’ collaborative efforts are directed to retrain/upskill trainees, especially to support the ‘Make in India’ spirit.

This month’s Skills Talk edition covers the states of Odisha, Madhya Pradesh and Jammu & Kashmir and the 3 prolific sectors, namely, the Iron and Steel, Tourism & Hospitality, and Handicrafts and Carpet Weaving. We have analysed the current statistics and skill gap scenario in these 3 sectors and listed the courses being offered.
News & Events:

Revitalise Skill Ecosystem
STCC Covering 40 Sectors of Economy:

In April 2020, DGT constituted Sectoral Trades Course Committees (STCC) covering 40 sectors of economy with related stakeholders viz RDSDE, State Directorate, NSTI, ITI, SSC, trade experts and representatives of NIMI and CSTARI. These committees will function as a Sub-committee of Curriculum Committee with focus to standardize the processes of training, assessment and certification system of a particular sector area. One of the major focus areas of STCC is to develop a blended mode of training content for identified 6 trades - Fitter, Electrician, COPA, Cosmetology, Welder and Diesel Mechanic. Recommendations of STCC after due approval of DG, DGT shall be submitted for the approval of Curriculum Committee and NCVET.

Success Story:

Sh. Piyush Makkar a bright student from Jain ITI, Sriganganagar has always loved a good challenge. He participated & secured 3rd position at Skill Olympiad 2019. Presently he is running his own Computer Institute & is training the youth in his city in the field of computer technology.

Step towards ATAMNIRBHAR BHARAT:

With an aim of mapping the skills of the reverse migrant labourers affected by the pandemic and to prepare a comprehensive district-wise database, six nodal officers have been nominated by DGT to coordinate with the district administration in the States of Bihar, Jharkhand, Orissa, Madhya Pradesh, Uttar Pradesh and Rajasthan, under the Aatmanirbhar Bharat Abhiyan.

Admission Notice for CITS Trades 2020-21

Admissions for the CITS courses at NSTIs and ITOTs for the Academic Year 2020–21, will be done through the All India Common Entrance Test, Registration closed and for more details of the computer based test (CBT) and related information log on to www.nimionlineadmissions

BHARATSKILLS offers 2 new learning platforms from IBM

Expansion of E-learning options:

Two new Global e-learning platforms have been launched as a first in India by IBM under the DGT-IBM partnership:

The SkillsBuild Reignite provides free online coursework and mentoring support for job seekers and entrepreneurs or individuals with learning aspirations and the SkillsBuild Innovation Camp, which is a 10 week program for learners who wish to get a hands-on project to enhance their learning outputs and hence their employability.

These new options have been launched in extension to the

SkillsBuild Online learning platform which was introduced earlier in November, 2019, offering digital classrooms for ITI trainees and trainers.

More than 14000 motivated learners have completed 40,000 courses in 77,000 hours of e-learning ever since its launch despite lockdown and restrictions.

IBM Launch - DGT & IBM Chiefs
BHARATSKILLS leads the show:

The BharatSkills portal has been rated as No.1 e-learning portal out of top 10 e-learning portals during the Covid-19 as per National Skill Network online magazine.

The YouTube link is: https://youtu.be/cx3N-ikxKnc

Online / Blended learning during Covid-19 lockdown period, Stay Home Stay Safe.....

Online training of DGT crossed 2.27 million during the lockdown period (details as below)

Exploring more and more possibilities for developing the Blended Learning Model for the trainees of NSTI and ITI ecosystem during the challenging period of lockdowns and social distancing, DGT was able to accomplish online classes through digital learning:

- The faculty of NSTIs and ITIs conducted 2714 online classes for different trades and topics for CTS and CITS courses (till date), with technical support of its knowledge partner - NIMI, Chennai- accessed by almost 15 Lakh trainees through zoom virtual conference classroom on NIMI portal.

- About 1.32 lakh trainees utilized the self-learning BharatSkills mobile app for updating their knowledge and skills. About 7.08 Lakh ITI trainees also attended online classes through the BharatSkills LMS portal since 23rd March, 2020 onwards.

- IBM’s SkillsBuild Learning Platform under DGT-IBM MoU was accessed by more than 16000 students/users through 741 online classes conducted, covering advanced topics like Data Science, Cloud Computing, AI, etc. including other professional skills.

Quest Alliance

- 744 Virtual Employability Skills classes under the Quest Alliance- DGT Engagement covering Women NSTIs were conducted through 17 Web Courses in modern Employment skills. Almost 55,000 students have attended through their smart phones/laptops etc.

- DGT - MicroSoft – NASSCOM Foundation Connect:
  - 29500 trainees have been trained on 65 online Microsoft courses, interacting with mentors through the Microsoft Kaizala App.
  - 749 women trainees of COPA trade, undergoing online learning for the Microsoft Office Specialist (MOS) certification and 176 trainees of Computer Software Application (CSA) trade for Microsoft Technical Associate (MTA) certification.

- Futuristic courses like Networking and Cyber Security are being offered through the CISCO NetWorking Academy (NetAcad) on the BharatSkills portal. As on date, 16255 persons/trainees have registered for these courses and 2820 have already been certified during the lockdown period.
Several ITIs and NSTIs are effortlessly supporting and confront the challenges due to the unique situation. Funds to the tune of Rs. 2.00 Crore have been collectively donated to the PM Care fund. Many hostel and institute buildings of NSTIs / ITIS have been handed over to the local administration converted to isolation centers, quarantine centers and shelters for migrant workers. Awareness programs have been conducted and food supplies distributed to poor communities.

About 22 Lakh masks were prepared by ITI and NSTI students and handed over to local administrations and police stations for distribution.

Several institutes have actively prepared and distributed hand sanitizers, PPE Kits, head-covers and gowns for the medical staff. Many other have innovated in designing Aero-blaster machines, aerosol boxes, Corona disinfection chambers and tunnels, hands-free sanitizing dispensers, UVC sanitzers and walk-in-kiosks for sample collection without direct contact.

Tourism and Hospitality Sector – a perspective on skill ecosystem in Indian context

National Scenario – Incredible India:

India has rich cultural and historical heritage, variety in ecology, terrains and places of natural beauty spread across the country. There is significant potential in Tourism sector with India also emerging as a preferred medical tourism destination due to availability of medical experts offering speciality treatment at a lower cost. India has a diverse portfolio of niche tourism products such as adventure, wellness, sports such as Golf and Polo, MICE (meetings, incentives, conferencing, exhibitions), eco-tourism, film, rural and religious tourism. Many promotional activities have been undertaken by the government such as Incredible India 2.0 campaign and India Tourism Mart in 2018 to boost tourism in the country. E-Visa facility extended to 166 countries for visit to India through 28 international airports and 5 sea airports.

As per the World Travel and Tourism Council, tourism generated 9.2% of India's GDP in 2018 and supported nearly 8.1% of its total employment.

Madhya Pradesh – Heart of Incredible India:

While India has a variety of tourist destinations across the country with Taj Mahal in Agra as the most visited tourist destination and Maharashtra State attracting maximum numbers of tourists. However, 'The Heart of Incredible India' i.e. Madhya Pradesh has more to do with the fact that it houses facets of the whole of India into this one state. From the historical monuments to modern amenities, culture, food and people - this state gives a taste of entire India packed within its geographical boundaries. MP State has a wide variety of tourists places including wildlife sanctuaries, historical and religious places.
There is a large chunk of manpower employed in all segments / categories of hospitality establishments which are trained on the job or are untrained and use basic skill to perform their responsibilities. Against 78 lakhs employment in the sector, annual demand is 27 lakhs and trained manpower per year is around 66 thousands. Hence, there is huge demand-supply gap as per study on ‘Employment Level and Skill Gap analysis in Hospitality and allied sector’ by Ministry of Tourism in November 2019.

### Long Term Training in T&H Sector – Skill Ecosystem:

Under DGT Skill ecosystem, to cater to Tourism and Hospitality sector, training is offered in 20 trades under the Craftsmen Training Scheme (CTS) in Government and Private ITIs which are long term courses of duration 1-2 years. The intake capacity of these courses is about 37 K seats. These courses are listed below that have scope either only in Tourism & Hospitality (T&H) sector or across various sectors including Food & Production Sector, Beauty & Wellness sector among others. The CTS courses catering to tourism sector viz. Tourist Guide, Travel and Tour Assistant, and other CTS trades viz. Digital Photography and Photography have little presence in the ITI ecosystem. There are about 37 units in 15 States/UTs with 700 seats across the country (source: NCVT MIS portal – June 2020).

### Apprenticeship training – popular trades under the T&H sector:

Apprentices training scheme is one of flagship program of DGT ecosystem under which on the job training is imparted by the establishment under Apprentices Act 1961. ATS offers training in about 263 designated trades of duration 6 months to 3 years.

Apprentices are engaged by establishments in Tourism and Hospitality sector in about 16 designated trade courses Steward, Receptionist/ Hotel Clerk/ Front Office Assistant, Assistant Front Office Manager, House Keepers (corporate, Hotel, domestic etc), and these establishments also engage trainees in relevant trades from Food and Production Sector viz. Food Production(General), Baker & Confectioner, Apprenticeship Food & Beverage Services, Electrician etc. under Apprenticeship Training Scheme (ATS). Branded Hotel industries viz. Taj Mahal Hotel, ITDC group etc. and fast food restaurants chains viz. Devyani International Ltd, (Burger King, KFC, Costa Coffee etc.) are on-board on the portal under apprenticeship training.

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**APPRENTICE REGISTERED**

- House Keeper (Corporate) 8%
- House Keeper (Hospital) 12%
- House Keeper (Hotel) 19%
- Steward 28%
- Assistant Office Manager 4%
- Receptionist/ Hotel clerk/ Front Office Assistant...

**Year : 2019 (source : IT section www.apprenticeship.gov.in)**
Tourism and Hospitality Job Roles for National Apprenticeship Promotion Scheme (NAPS) by Tourism and Hospitality Sector Skill Council (THSSC). In addition to this there are few courses offered at NSQF level 6 under PMKVY such as CHEF –DE-PARTIE, Food & Beverage Captain among others.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Apprenticeship Recommended Job Role/QP Name</th>
<th>Recommended Apprenticeship Duration (6 months to 2 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>House Keeping Attendant (Manual Cleaning)</td>
<td>290 Hrs</td>
</tr>
<tr>
<td>2</td>
<td>Room Attendant</td>
<td>9 Months</td>
</tr>
<tr>
<td>3</td>
<td>Home delivery boy</td>
<td>240 Hrs</td>
</tr>
<tr>
<td>4</td>
<td>F &amp; B Service Steward</td>
<td>9 Months</td>
</tr>
<tr>
<td>5</td>
<td>Counter Sales Executive</td>
<td>9 Months</td>
</tr>
<tr>
<td>6</td>
<td>Travel Consultant</td>
<td>270 Hrs</td>
</tr>
<tr>
<td>7</td>
<td>Ticketing Consultant</td>
<td>6 Months</td>
</tr>
<tr>
<td>8</td>
<td>Meeting Conference and Events Planner</td>
<td>6 Months</td>
</tr>
<tr>
<td>9</td>
<td>Multi Cuisine Cook</td>
<td>540 Hrs</td>
</tr>
<tr>
<td>10</td>
<td>Commis Chef</td>
<td>540 Hrs</td>
</tr>
<tr>
<td>11</td>
<td>Commi 1</td>
<td>1 Year</td>
</tr>
</tbody>
</table>

NSTI (W) Indore, Madhya Pradesh

National Skill Training Institute for Women (NSTI(W)) at Indore conducts training for Women under Craftsman Training Scheme (CTS) and Crafts Instructor Training Scheme (CITS). The institute also offers demand based Short Term Skill Training Programme for women with an aim to promote self-employment. The institute, earlier known as Regional Vocational Training Institute (RVTI) for Women, Indore was set up in 1992 initially at Govt ITI, Indore campus. The NSTI(W) Indore has now its own campus at Sulkiya Road, Nand Nagar, Indore (MP), prime location of Indore City, since last five years. The institute has its own website - http://nstiwindore.dgt.gov.in/

The institute has earned many laurels during the tenure of existing Principal, NSTI(W) Indore Sh. V. Babu, Deputy Director of Training under supervision of Sh. R. K. Pathak, R.D, Regional Directorate of Skill Development & Entrepreneurship (RDSDE), Madhya Pradesh. The institute has qualified and experienced trainers for all the trades and have excellent lab and other infrastructural facilities.

NSTI W Indore has started new age course - ‘Internet of Things (IoT) Smart City’ under CTS in Dual System of Training (DST) mode from the academic session 2019-20. In addition, the institute also offers courses under trades - Architectural Draughtsmanship, Cosmetology, Computer Operator and Programming Assistant (COPA), Dress Making, Secretarial Practice (English), and Stenographer & Secretarial Assistant (Hindi). These courses are also being offered under DST mode during current session.

The institute has signed 22 Memorandum of Understandings (MoUs) under Dual System of Training (DST) in all CTS trades with leading industries in the vicinity namely.
Training session by Microsoft

During academic session 2019, the institute has started a course on IBM Advance Diploma (Vocational) in IT, Networking & Cloud with seating capacity of 30 trainees. This course will benefit the trainees with sound employment prospects in organization such as M/S IBM. The classes on this Advanced Diploma are conducted by the faculty from IBM.

Quest Alliance is conducting training on Employability Skills for all CTS courses. Microsoft/ NASSCOM is conducting courses in Computer Software Assistant (CSA) and Computer Operator and Programming Assistant (COPA).

The institute has maintained hostel of 28 rooms with excellent mess facility at nominal charges, Cloth Washing machines and Geysers etc. The institute could well boast about well-maintained green lawns with a rose garden The hostel has fool proof security set up for the Girls safety. There are excellent facilities for out-door games including Volleyball and Badminton courts as well indoor sports/games for girls like Carom board and chess etc. The girls do take part in extra curricular activities with high spirits. The institute also conducted Apprenticeship job fair and invited 23 industries. 300 trainees participated in this fair. To make environment friendly infrastructure, the institute has constructed pits for rain-water harvesting through Municipality Corporation.

The courses offered under CITS are - Dress Making, Fashion Designing and Technology, Computer Software Application (CSA) with the seating capacity of about 75 trainees. The admission is taken through on-line competitive examination at all India level through NIMI portal. During COVID-19 Pandemic, the trainees prepared face masks and donated to Government Hospital Indore, DIG office, Old age home etc. The Principal and instructors of the institutes are, on regular basis, offering online classes to the trainees during lock down period.

Heritage Art in Jammu & Kashmir

Skill Ecosystem for the Handicrafts and Carpet Weaving

Handicrafts in the State for their livelihood and there is gThe handicrafts sector is important for the Indian economy as it is one of the largest employment generators and accounts for a significant share in the country’s exports. The regional clusters in States contribute significantly to handicrafts export. About 7 Million regional artisans and 67,000 exporters/export houses promote regional art and craftsmanship in the domestic and global markets. Presently, our handicrafts earn close to Rs.1700 crores as foreign exchange every year. The Handicrafts of Jammu & Kashmir have acquired worldwide fame for their exquisite refinement and aesthetic elegance. These crafts have great diversity and demand. There are nearly 2.50 lakh artisans directly dependent upon and handicrafts in the state and there is great potential for more employment to be generated.
State Initiatives for Recognition of Local Heritage Skills:

- 8 heritage craft courses introduced by the Skill Development Department of J & K in academic year 2016-17 under SCVT
- 5 of these courses introduced in Kashmir skill development division and 3 in Jammu Division-
total seating capacity- 550 trainees.
- Monthly stipend @ Rs. 2000/- per trainee to encourage the youth.
- ‘Shawl Weaving’ and ‘Basohli Paintings’ aligned at NSQF Level 4 under the Sector-Handicrafts & Carpets.
- Local artisans are engaged as Guest Faculty for imparting skill training.

Figures at a glance

<table>
<thead>
<tr>
<th>S.no</th>
<th>Heritage Trades</th>
<th>Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basohli Paintings</td>
<td>63</td>
</tr>
<tr>
<td>2</td>
<td>Traditional Phulkari Arts</td>
<td>104</td>
</tr>
<tr>
<td>3</td>
<td>Basohli Shawl Weaving</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>Wood Carving Skills (Heritage craft)</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Paper Machie (Heritage craft)</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>Shawl Weaving</td>
<td>110</td>
</tr>
<tr>
<td>7</td>
<td>Embroidery</td>
<td>126</td>
</tr>
<tr>
<td>8</td>
<td>Carpet weaving technology</td>
<td>42</td>
</tr>
<tr>
<td>9</td>
<td>Wood carving Skills (Heritage craft)</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td><strong>550</strong></td>
</tr>
</tbody>
</table>

Self-employment To Individual Artisans –

Majority of craftsmen, artisans & weavers belong to socio-economically backward classes and are below the poverty line. The Government of India implements a Credit Plan Schemes that aims at providing easy and soft credit to the Artisans, Weavers, Members of cooperative societies, society wise and crafts men engaged in different Handicrafts activities, to start their independent ventures. The impact of the scheme is to provide considerable employment opportunities in the Handicraft sector & also to uplift the economic empowerment to the artisan fraternity of the state.

Conventional Courses in ITIs:

The State has about 26 Government ITIs in Kashmir Division and 26 Government ITIs in Jammu Division. Also, there are 34 functional Private ITIs in the State. Women participation is ensured through 11 Women ITIs and Women Wings in 17 ITIs. All these ITIs, put together, offers courses in 80 designated trades with total seating capacity of 18,600. The top 10 popular trades in the Government ITIs, as per NCVT MIS portal, contribute to 70% of the seats.
Key achievements of ITI Skill Ecosystem:

- 141 trade units have been affiliated to NCVT after conversion of SCVT trades in 46 Govt ITIs in 2019 after a gap of two decades.

- Online portal based admission to ITIs from July 2019 Session with features as automatic selection list, on-line counselling and automatic upgradation of trades.

- OMR based examination for NCVT affiliated trades from February 2014 and on-line examination /certification since July 2014 session

- NSQF syllabus implemented in SCVT scheme. On-line admission process being followed for registration and verification of trainees under SCVT. To have transparency in conducting examination, password protected online question papers are used for examination from February 2015 onwards. In-house software developed for online admissions and result processing of OMR based examination, digitally signed SCVT certification etc. This has reduced the result declaration time.

Regional Directorate for Skill Development and Entrepreneurship (RDSED), J&k and National Skill Training Institute (NSTI) for Women at Jammu

The GoI has set up 22 RDSDEs across the country covering most of the States including RDSDE- J&K at Jammu vide Gazette notifications dated 8.01.2019 and 18.11.2019. RDSDE Jammu was inaugurated on 28-September-2019 by Dr. K.P. Krishnan, Secretary, MSDE. Apart from functions entrusted on RDSDEs, it includes supervision of NSTI Extension Centres / Apprenticeship Cell etc. in the UT of J& K and Ladakh. The RDSDE J& K has trained 60 instructors in 2 batches on NSQF during Year 2019. RDSDE /NSTI(W) Jammu also organized the TOT programme for the 31 instructors of ITI of UT of J&K in Nov. 2019 by NIESBUD Noida. Course on Travel & Tour Assistant (NSQF 4) is planned for implementation in August 2020 session.
News Event –

INITIATIVE TECHNICAL EDUCATION J&K TO COMBAT COVID-19

In-spite of limitation on access to 2G, online virtual classes conducted during COVID-19 pandemic through various platforms Google classes, Zoom Classes, Webinars, whatsapp with 80-85% participation.

The Director Technical Education Sh. Sajad Hussain and Principal Government ITI Kulgam handed over 50,000 Masks and 300 Personal Protective(PP) Kits to the Deputy Commissioner, Kulgam for further distribution in the district. These masks and PP kits were prepared by ITI Kulgam and will be utilised in containment of COVID-19.

Good Practices by DET Madhya Pradesh:

Dual System of Training (DST) – The objective of DST scheme is to enable industries and establishments to partner with Government and Private ITIs for conducting training programmes under high employability courses so as to fulfil their skilled manpower requirements. The DST is an amalgamation of theoretical training imparted through ITIs and practical training imparted through the Industry. DST helps enable Industry linkages and provide hands on experience to students on industries latest/updated technologies. 1 & 2 Year Duration Regular Course Training in ITIs and concerned Industries.

In Session 2018 - 26 Batches with 500 seats, In Session 2019 - 91 Batches with 1820 seats

Implementation of National Apprenticeship Promotion Scheme (NAPS):

- 6203 establishments have been registered.
- 1,20,014 candidates have been registered.
- Approx. 10,000 apprentices have been engaged under the training.
- Rs. 1.33 cr has been disbursed to establishments under NAPS.
- Energy Department, Govt of Madhya Pradesh have for the first time engaged 1844 apprentices in generation, distribution and transmission companies.
- 233 hospitals (including Govt. District Hospitals) & 196 Hotels have been registered under the apprenticeship portal.
- 2 Industry Clusters - Association of Industries Madhya Pradesh (AIMP), Indore and Association of Industries (AI), Dewas have been selected under Result Area 4 of the World Bank assisted project Skills Strengthening for Industrial Value Enhancement (STRIVE)
Iron & Steel Sector plays a vital role in the development of any modern economy. “Per capita consumption of steel” is generally accepted as a yardstick of socio-economic development and living standards of people. As such, no developing country can afford to ignore steel owing to its strategic importance in development. Steel has diverse applications but is predominantly used as structural materials.

Nearly 60% of steel produced in India is currently used in construction and remaining as automotive material, capital goods, consumer durables, packaging material and so on. Current level of steel production in the country is about 106 MTPA, projecting a dismal figure for per capita steel consumption. Therefore, as India moves ahead to become a developed nation, steel, which is essential for infra structure development (along with cement and electricity), must be available in large quantity. This necessitates setting up of new energy and emission efficient steel plants, capacity enhancement of existing mills, adoption of new technology and removal of obsolesce from existing plants and so on. From a meagre 2 MT of crude steel produced in the country during 1950-51, nearly 102.69 MT of finished steel was produced in 2019. This is expected to increase further, reaching a figure of about 300 MTPA by the year 2025. India has emerged, as the second largest steel producer in the world.
Overview of Iron & Steel sector (World)
• China is world’s largest crude steel producer (996 million tons(mt)) followed by India (111mt), Japan (99mt) and the USA (88mt)
• Per capita finished steel consumption in 2018 was 224.5 kg for the World and 590.1 kg for China and 73.3 kg for India (Source: World Steel Association).

Overview of Iron & Steel Sector (India)
• Government has released the National Steel Policy 2017, which has laid down the broad roadmap for encouraging long term growth for the Indian steel industry, both on demand and supply sides, by 2030-31.
• Steel industry contributes slightly more than 2% to the GDP of the country.
• Steel industry employs nearly 0.5 million people directly and 2.0 million people indirectly.
• Output effect of steel on Indian economy is approximately 1.4x with an employment multiplier of 6.8x. globally, for every two jobs created in the steel industry, 13 more jobs are created across the supply chain.

Parallel to such, it is imperative that high quality technical manpower is available in the country to manage and run our steel mills as efficiently as possible. Therefore, in the changing scenario of steel production in the country, it is important to take stock of the prevailing situation as far requirement and availability of technical manpower for domestic steel and allied sectors are concerned. Consequently, IIT, Kanpur has done a study to make an assessment of indicated in the study report come handy in making future plans as far as issues related to skilled technical manpower for domestic steel industry is concerned.

Sector-wise demand for steel

MAJOR IRON & STEEL SECTORS IN INDIA
There are more than 50 major iron and steel industries in India like Jindal Steel and Power Limited (JSPL) at Chhattisgarh and Odisha, Tata Steel, various plants of Steel Authority of India Limited (SAIL) at West Bengal, Chhattisgarh, Jharkhand, Tamil Nadu, Odisha, and JSW at Bellary, Karnataka and Dolvi, Maharashtra.

[Interesting Observation: Bokaro Steel Plant (BSP), Jharkhand has located 360 apprentices’ seats in 31 designated trades – NCVT apprenticeship portal]
Nearly 1,52,147 ITI trained personnel shall be required to run steel mills (primary and secondary sectors combined) in 2025 to produce 300 MTPA steel in the country. Currently about 80% of total technical manpower is associated with the steel plants (primary and secondary combined) while remaining 20% with the relevant allied sectors such as sponge iron plants, ferroalloy plants, rolling mills etc. However, there are already 50,724 number of ITI personnel employed already in steel plants and allied industries. It is estimated that per annum, per million tonne, nearly 692 ITI trained personnel holders shall be required by the steel and the relevant allied industries combined. Many of the organizations outsource jobs (viz., welding, plumbing, electrical etc.) and hence it is likely that ITI trained personnel actually serving steel industries is not truly reflected in the numbers indicated by the companies.

Iron & Steel Sector – Courses Run By DGT & Sector Skill Council

According to National Qualification Register, there are total – 52 Courses in Iron and steel sector

- 10 ATS courses being run by DGT.
- 1 CTS course (Refractory Technician) designed by DGT for ITI which has been discontinued due to high input cost.
- NSQF Levels of courses: Max. DGT courses are under NSQF Level 4
- 41 short term courses run by Sector Skill Council for Iron and steel.

(The above write-up for Skill Talks has been provided by Sh. Ashfaq Ahmed, RD, RDSDE Jharkhand, STCC Convener Iron & Steel Sector)

SUCCESS STORY

Establishment of SAMC under STRIVE in the State of Madhya Pradesh:

Apprenticeship Monitoring Cell (SAMC). SAMC is responsible for implementation of the Industry Cluster Apprenticeship Initiative (IAI) of STRIVE to ensure training of apprentices in the clusters chosen under the scheme. Under the Result Area 4, SAMC has taken on-board 2 Industry Clusters namely Association of Industries Madhya Pradesh (AIMP), Indore and Association Of Industries (AI), Dewas. Few good practices are listed below.

- Based on industrial density, 15 districts have been identified as priority and 37 as non-priority districts.
- District Apprenticeship Cell (DAC) formation for all districts in advance stage (15 already functional)
- Notification of District Skilling Committee (DSC) in all districts. DSCs are active in all districts with mandatory meeting once in a month and
performance monitoring of districts through DSC chaired by District Collector.

• Advisory letter issued to 4744 establishments for compliance of Apprentices Act 1961

• Registered Hospitals and Hotels in state through Directorate of Health Services (DHS) and Madhya Pradesh State Tourism Development Corporation (MPSTDC) respectively.

• Target Sector – Identified Tourism, Health, Retail, Banking, Electronics, IT-ITES, Automobile and Beauty & Wellness Sector in coordination with respective SSCs for NAPS implementation.

• Acknowledging industry partners for achieving apprenticeship targets by felicitating them.

• Conduct NAPS awareness workshop at State, Zonal & District level

• Apprenticeship related information made available on Directorate of Skill Development, Madhya Pradesh Official Website.

• For effective and real time monitoring of NAPS, the state has developed an integrated governance platform -- MP “Koushalam” Mobile App

ITI Skill ecosystem in Madhya Pradesh at a Glance

ITI Skill ecosystem for the State:

<table>
<thead>
<tr>
<th>S.no</th>
<th>Type of Institute</th>
<th>No. of Institute</th>
<th>Capacity under SCVT</th>
<th>Capacity under NCVT</th>
<th>Total Capacity (2018)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Govt. ITI</td>
<td>243</td>
<td>23533</td>
<td>20860</td>
<td>44393</td>
</tr>
<tr>
<td>2.</td>
<td>Pvt. ITI</td>
<td>912</td>
<td>1012</td>
<td>69287</td>
<td>70299</td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td>1155*</td>
<td>24545</td>
<td>90147</td>
<td>114692</td>
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Trades in Government ITIs

<table>
<thead>
<tr>
<th>S.no</th>
<th>Sector</th>
<th>Trades</th>
<th>Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Production &amp; Manufacturing</td>
<td>Fitter, Turner, Machinist, Welder, RAC, Carpenter, Sheet Metal, Foundryman</td>
<td>12600</td>
</tr>
<tr>
<td>2.</td>
<td>Automobile</td>
<td>Motor Mechanic, Diesel Mechanic, Tractor Mechanic</td>
<td>4500</td>
</tr>
<tr>
<td>3.</td>
<td>Electrical &amp; Electronics</td>
<td>Electrician, Electronics Mechanic</td>
<td>6900</td>
</tr>
<tr>
<td>4.</td>
<td>IT &amp; ITES</td>
<td>Computer Operator &amp; Programming Assistant, Computer Hardware</td>
<td>10000</td>
</tr>
<tr>
<td>5.</td>
<td>Civil</td>
<td>Draughtsman Civil, Surveyor, Plumber, Mason</td>
<td>2200</td>
</tr>
<tr>
<td>6.</td>
<td>Service/ others</td>
<td>Steno (English &amp; Hindi), Apparel etc.</td>
<td>6500</td>
</tr>
</tbody>
</table>
Central Staff Training and Research Institute - Kolkata

- Established in 1968 in collaboration with Federal Republic of Germany.
- Carryout research for the qualitative and quantitative improvement of vocational training.
- Conduct training on Pedagogy and Training of Trainers.
- Capacity building of officials engaged in vocational training.

Activities under Research Section

- Design, review and develop course curricula as per changing needs of the skill ecosystem with appropriate NSQF Levels.
- Support to industries for NSQF compliance of curriculum under Flexi – Mou.
- Continuous interaction with NCVET in standardizing the curriculum of DGT qualifications with appropriate NSQF level.

Activities under Training

Capacity building of stakeholders engaged in delivery of skill training through/by conducting following short term courses.

- Training Methodology / Pedagogy
- Trainers competency improvement
- Training Administration & Management
- Management Development Program

Ongoing activities

- Design of CITS curriculum for left over CTS trades
- NSQF compliance of Flexi-Mou courses for different industries
- Work on guide lines for training of PWD with DFID
- Preventive measures for Covid - 19 in office and residential campus as per MHA guide lines
- Most of the officers are involved in multiple activities among 40 STCC team for revamping of vocational training systems under MSDE.
- Necessary guide lines and Templates were prepared for STCC team by CSTARI for skill gap analysis and data collection of NCO and QP

Status of Curricula Development

<table>
<thead>
<tr>
<th>Scheme</th>
<th>No of Trades</th>
<th>NSQF Aligned</th>
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</thead>
<tbody>
<tr>
<td>CTS</td>
<td>137</td>
<td>137</td>
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<tr>
<td>ATS</td>
<td>205</td>
<td>200</td>
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<tr>
<td>CITS</td>
<td>41</td>
<td>41 submitted to NCVET</td>
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<tr>
<td>Diploma</td>
<td>06</td>
<td>04</td>
</tr>
<tr>
<td>Flexi-Mou</td>
<td>11</td>
<td>11 submitted to NCVET</td>
</tr>
</tbody>
</table>

- Software tools for curriculum related activities are being developed.
NATIONAL INSTRUCTIONAL MEDIA INSTITUTE (NIMI)
Ministry of Skill Development and Entrepreneurship
Government of India

- National Instructional Media Institute (NIMI) was set up in the name of Central Instructional Media Institute (CIMI) in Chennai in December 1986 by the Government of India as a Subordinate Office under Ministry of Labour and Employment, Directorate General of Employment and Training (DGE&T) with the assistance from Government of Germany through GTZ (German Agency for Technical Co-operation) as the executing agency.
- After the approval of the Cabinet for the Grant of Autonomous status to CIMI, the Institute was registered as a society on 1st April 1999 under the Tamil Nadu Societies Registration Act 1975.
- Presently it is functioning as an Autonomous Institute under the Govt. of India, Ministry of Skill Development & Entrepreneurship (MSDE), New Delhi.

VISION

Nodal organization for Instructional Media Packages (IMP) and Test item development for all skill development courses in the country.

MISSION

NIMI is functioning as a service oriented registered society with facilities, infrastructure and competencies to design, develop, produce and disseminate Instructional Media for long and short term courses of Skill Development.

OBJECTIVE

To make available well prepared Instructional material for the use of the trainees and trainers for securing overall improvement in the standard of training imparted in Industrial Training Institutes (ITIs), long and short term skill development courses and also for Industries & establishments implementing the Apprenticeship training programme.

NIMI Mock Test App:

An Android-based mobile Application has been developed by NIMI which helps the ITI students to test and analyze their subject knowledge. Through this app, students can generate their own question paper and attend the test. some of the features of this app are Time-based mock test (30 / 60 minutes). Own question paper generation from the entire bank (25 or 50 questions) Test analysis at the end of the test Students can view the correct answer Five chances to re-attempt the test Consolidate test score of all the attempts

New NSQF Titles (English) Developed

Welder GMAW&GTAW / Pipe /Structural /Welding & Inspection / Fabrication & Fitting Trade Practical Volume 1

Mechanic Auto Electrical & Electronics Practica

National Instructional Media Institute (NIMI)
P.O. Box - 3142, CTI Campus, Guindy, Chennai - 600 032

Phone: 2250 0248, 2250 0657, 2250 2421
Fax: (044) 2250 0791
E-mail: chennai-nimi@nic.in, nimi_bsnl@dataone.in
Website: www.nimi.gov.in

Links

The App can be downloaded from Play store using the App link: https://play.google.com/store/apps/details?id=com.nimi.nimimocktest&hl=en

NIMI Youtube Channel https://www.youtube.com/c/NimiVirtualclassroom

NIMI Virtual Classrooms http://nimionlineadmission.in/zoom/

NIMI Content Review & Feedback System http://www.nimiprojects.in/feedback/
The ITI ecosystem in Odisha has aspired to play crucial roles:
(a) Provide quality training opportunities and career advancement avenues for the underprivileged so that they are able to get quality livelihood opportunities, either through wage employment or self-employment.
(b) Participating in sustainable development (social, economical & environmental) model by developing socially responsible skilled professionals who are needed across all economic activities.

Holistic Student’s Development approach:
Training on Life Skills has been implemented through outsourcing of Employability Skills subject to Professional Agency (Tata STRIVE). The training is imparted through Change Leaders deployed by the Agency across all ITIs. The trainees are exposed to state level events in sports and culture through annual ‘ITI Fest’. Restoration services during the time of natural disasters like the cyclone ‘Fani’ and floods in Kerala by trainees built confidence in them.

Response to COVID-19: ITI infrastructure used for quarantine / isolation centers / COVID hospitals, continuous students engagement through online classes, note distribution at homes, DD-Odia telecast of classes, production of innovative PPEs have responded this pandemic

Skilled in Odisha -Will go Global-
Strong Industry linkages, youth aspirational training environment embodied with Mission, Vision & Values have led to reduction of vacancies from 37% to 8% with improvement of girls’ enrolment from 6% to 18% over a period of 3 years. Special focus on improving girls’ enrolment by exposure visits to ITIs by school students and ‘Sudakshya’ scholarship for girls. Odisha has bagged 19 Medals in India Skill Competitions’2018 coming 2nd in the overall medal tally.

The ITI infrastructure in Odisha is conceptualized in 4 layers:

Physical: Retrofitting existing Infrastructure of 49 ITI's with uniform building color code, modernized workshops with latest equipment, Skill Museum for Design Thinking and Finishing Skill labs like Mini Tool Rooms and other Industry partnership.

Digital: Building smart classrooms in ITIs with broadband connectivity and digital contents for CTS curriculum, online admission & exams.

Intellectual: Regular & full time principals in all ITIs, qualified trainers with exposure to for leadership & pedagogy training at ITEES, Singapore. Industry Partnerships has helped in piloting German model of Dual System Training in 20 ITIs, IoT trades in 04 ITIs etc.

Emotional: The brand identity has been created by launching the "Skilled in Odisha" Logo with the Mission, Vision & Values for ITI’s. Role model engagement and Nano Unicorn programme for entrepreneurship

ESTABLISHING A HIGH PERFORMING ITI ECOSYSTEM IN 21ST CENTURY ‘INNOVATION THROUGH ITIs’ IN ODISHA

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Initiatives & Achievements

Smart Eco-Friendly Civil Infrastructure with Smart Class-Rooms & Cafeteria
Tata STRIVE’s Life Skills Training along with Technologically challenging STEM Education builds up the Intellectual Infrastructure
State-of-the-art Digital Infrastructure with dedicated Internet Connection, and Biometric & Social Media for ensuring transparency
Community Service imbibing social work participation provides insight into the Emotional Infrastructure of ITI Cuttack.

Key Focus Areas
- Authentic Learning Experience
- Partnerships, Placement & Installation of High-Tech labs
- Earning through Learning
- 100% Placement & Entrepreneurship
- Engagement through Nano Unicorn
- Preparing to participate in World Skills Competitions 2021
- Strong Industry linkages with DST facilities & apprenticeship
- Holistic Environment for: Career Ready – Life Ready – World Ready Graduates

INNOVATING FOR INDIA

Keeping pace with the changing technology, the institute has tried to develop into a National Standard Skill Training Institute with extra ordinary achievements on Design Thinking, Image Building, Training Programmes, Sustainability, Safety & Security Measures, Future Plans of expansion and Collaborations.

To boost Design Thinking a Skill Museum has been established which depicts changes in technology over time.

Investment in world-class infrastructure helps build image of the institute and state and creates a template for other states to replicate.

Collaborating with like minded industries & Training Organizations like Tata STRIVE, Toyota Kirloskar, Maruti Suzuki, Schneider Electric, STEM lab, Paradip Port Trust of India, etc. has strengthened the ability to produce skilled workforce with cutting edge skills. The Curriculum of ITI Cuttack is guided by Director General Employment & Training, Ministry of Skill Development and Entrepreneurship, Govt of India. Craftsman Training Center of Excellence (COE) and Dual System of Training (DST) is provided under COE model in Production & Manufacturing Sector. KEMPPI, a Finland based major in Welding Technology has recently signed an MoU with ITI Cuttack to setup Advanced Welding labs.

Sustainability is equally important for the institute for which a Hybrid Solar Power System of 20 KVA is installed by Schneider Electrical along with a 60 KVA On - Grid Solar Power System.

Success Stories:
ITI Cuttack has a versatile experience with 11 Medals in Odisha Skill 2018, 2 Medals in India Skill 2018, Best Trainees in All India Skill Competition along with successful placement numbers, with student employed in Railways and in the Entrepreneurial space through NANO UNICORN programme in their respective start-up enterprises.

ITI Cuttack emerged as a COVID Warrior with the development of Mass COVID 19 Sample collection Kiosk, which was installed at SCB Medical College Cuttack. Innovative solutions like Service Robots, Surveillance Robots, Disinfected Tunnel, Foot Operated Sanitizer Dispenser, Contactless Automated Hand Sanitizer, Thermal Gun & UVC Sanitizer developed by students and staff of ITI Cuttack helped the healthcare facilities treat and contain the spread of the virus.
Largest Scrap Sculpture Park: Education wonderland the theme park "The Heart, Mind and Hands Show" is the largest of its kind in any technical institute in the country. Large Artefacts from 7 - 70 feet are sculptured in open air called "Art from Waste" museum.

Manufacturing of Low Cost LED Bulbs by ITI Trainees: Low Cost LED Bulbs are being manufactured within 5 minutes by trainees from the Electrician Trade and most of them are Girls.

Manufacturing of Low Cost Battery Cycles by ITI Trainees: Low Cost Battery Cycles are being manufactured by trainees from the Fitter Trade within a day which is quite sustainable to use.

Short-to-Medium Term Plans:

- Best Physical & Intellectual Infrastructure in the Country
- 30% women participation in all trades
- Industry Partnerships at International Level
- Converting Students & Teachers into warriors of Sustainability
- Incubation Centre for domestic products like Low Cost LED Bulbs, PPEs & eventually be made available in the Market
- Focus on manufacturing Low-Cost Battery-operated Cycles
- Initiation of Fan Winding Training to promote NANO UNICORNS
- TCPC under World Bank assisted STRIVE Project

MULTIPLE PRODUCTS DESIGNED AND DEVELOPED BY STAFF OF ITI BERHAMPUR FOR USE IN FIGHT AGAINST COVID - 19 PANDEMIC UNDER

ATMANIRVAR BHARAT ABHIYAN

Offer letter distribution to Students

Systematic training is imparted at ITI Berhampur, as a result of which the level of skill acquired by the students is much better. This enables Govt. ITI Berhampur to have an impeccable placement record.
## Skill Talks Editorial Board

<table>
<thead>
<tr>
<th>S.no</th>
<th>Name &amp; Desgination</th>
<th>Place of Posting</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Mrs. Swati Sethi, Joint Director</td>
<td>RDSDE, NCR Faridabad</td>
<td>Editor</td>
</tr>
<tr>
<td>2.</td>
<td>Mr. Sushil Kr Agarwal, Deputy Director</td>
<td>DGT Hqr, New Delhi</td>
<td>Sub- Editor</td>
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<tr>
<td>3.</td>
<td>Mr. Rajnish Jha, Deputy Director</td>
<td>DGT Hqr, New Delhi</td>
<td>Member</td>
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<tr>
<td>4.</td>
<td>Mr. Aryan Jangra, Assistant Director</td>
<td>DGT Hqr, New Delhi</td>
<td>Member</td>
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<td>5.</td>
<td>Ms. Bharti Sawhney, Training Officer</td>
<td>DGT Hqr, New Delhi</td>
<td>Member</td>
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<td>6.</td>
<td>Mr. Eswarappa G.N., Joint Director</td>
<td>CSTRl, Kolkata</td>
<td>Member</td>
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<td>Mr. Amith Kumar Yadav, Assistant Director</td>
<td>DGT Hqr, New Delhi</td>
<td>Member</td>
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<td>8.</td>
<td>Mr. Subhankar Bhomik, Assistant Manager</td>
<td>NIMI, Chennai</td>
<td>Member</td>
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Share updates & inspiring stories with us on

media.dget-msde@gov.in

Write to us with your feedback & suggestions

Directorate General of Training (DGT), Ministry of Skill Development & Entrepreneurship,
Kaushal Bhawan, B-2, Pusa Road, Near Metro Pillar No. 95, Karol Bagh,
New Delhi-110 005

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