



# NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH

(Ministry of Education, Government of India)  
Taramani, Chennai -600113



# SKILL

# DEVELOPMENT

# ACTIVITIES



## ABOUT THE INSTITUTE

National Institute of Technical Teachers Training and Research (NITTTR), Chennai was established in 1964 by the Government of India as a key catalyst Institution for ensuring Quality in Technical Education in South India comprising the states of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Telangana and Union Territory of Puducherry.

This Institute being a Resource Institute offers Educational Services for both formal and Non formal trades in the areas of Curriculum/Material Development, Instructional Methods, Media, Examination Reforms, Accreditation, Continuing Education, Online Learning, Training and Development, Educational Psychology, Educational Management and Research.

The Institute strives continuously and vigorously to achieve greater heights of Excellence by actively collaborating with National and International Agencies on projects and programmes aimed at quality improvement of Technical Education Systems. In addition, this Institute is actively involved in the training of overseas participants since 1984 and such alumni have spread across 107 countries.



**Prof. Usha Natesan**  
**Director, NITTTR, Chennai**



## ABOUT THE SKILL DEVELOPMENT INITIATIVES

India is a vast country with a population of approximately 130 crore. 75% of India's population lives in about six lac villages. There is a visible difference in rural and urban, rich and poor, highly educated and lesser educated, forward and backward areas. While resourceful people, particularly those living in urban

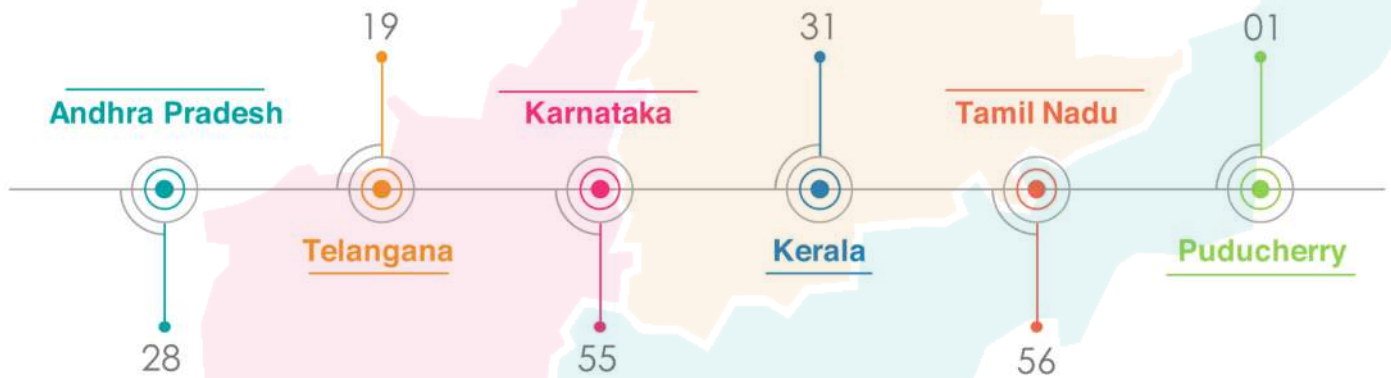
areas, have had access to better education and professional training, but vast majority of those who live in rural areas and slums are lesser educated and hardly undergo any technical, professional and vocational training. In fact, for most of such people, quality education and higher technical and professional education is unaffordable. In terms of career options, such lesser educated and not so fortunate people tend to work in low paid unorganized sector. Per person productivity of such persons works out to be a small fraction of productivity of those who work in organized sector of Indian economy. In an increasingly competitive economic environment of our country, the unorganized sector, which is so important for the country, needs to increase the productivity of its manpower for its survival and growth. Yet another paradox before the Indian informal sector is that it cannot afford employing highly educated and professionally trained manpower which usually aspires for highly challenging, rewarding and satisfying career. The only option available before the Indian informal sector is to depend upon relatively low paid manpower trained through non formal system of skill development. There is, therefore, an urgent need to train millions of persons every year through a countrywide network of non-formal skill development. Such non-formal skill training should attract beneficiaries from all cross-sections of Indian society with special emphasis on SCs/STs, OBCs, women, school dropouts, minorities, physically disabled, economically weaker sections of the society and other under-privileged persons.

Skill Development has been considered one of the critical aspect for job creation in India. India has a unique Demographic advantage with more 60% of the population in the young age group. As per the current statistics only 10% of fresh graduates are employable and the rest 90% lack skills required for employment. The current phase of GDP growth rate and job creation is not matching with each other. In order to enhance skill development amongst the youth, Government of India has framed Skill Development Initiatives like CDTP and PWD that are implemented through identified Polytechnic Colleges for more than two decades

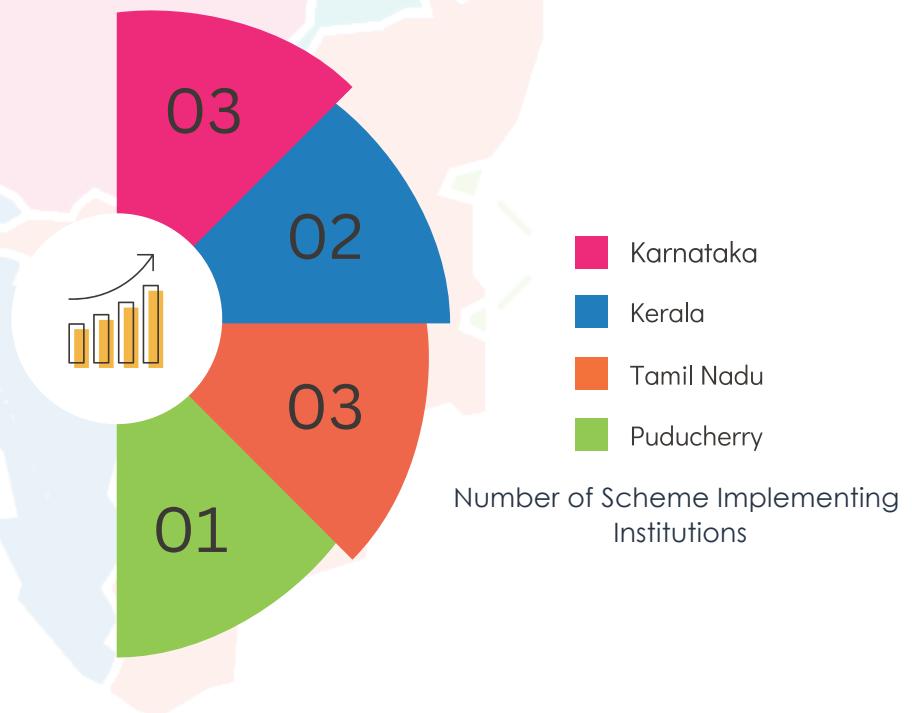
# STATE WISE SCHEME IMPLEMENTING INSTITUTION DETAILS

## COMMUNITY DEVELOPMENT THROUGH POLYTECHNICS

Number of Scheme Implementing Institutions



## SCHEME OF INTEGRATING PERSONS WITH DISABILITIES (PWD) INTO THE MAIN STREAM OF TVET





## SKILL DEVELOPMENT TRAINING



In order that the human resource is developed for gainful employment/self employment, the training must be need based, and should provide employable/self-employable skills. The purpose of the skill development is to create skilled and knowledge based manpower by empowering them technically so that they can earn their sustainable livelihood. The training programs both technical and non technical are well-designed through graded exercises, keeping in view the market requirements for various trades.

Short term non-formal, modular courses of 3-6 months duration, depending on the local needs and commensurate with the available local resources with proper structures, yet having the desired flexibility to pave the way for self paced open learning mode (OLM), are being offered. Depending upon local circumstances in some cases Multi-skill training are offered to make self employment viable in the rural economy.



In some of the trades, advance skill course for 3 to 6 months duration were designed and offered as per the interest of trainees or as per the demands of local companies/ industries/ market.

# SKILL DEVELOPMENT TRAINING - TRADES

## AGRICULTURAL TRADES

- ◆ Agro Processing
- ◆ Bee Keeping
- ◆ Dairy and Dairy Products
- ◆ Farm Implements Mechanic
- ◆ Floriculture
- ◆ Food processing and fruit preservation
- ◆ Forestry
- ◆ Gardening/Nursery Raising
- ◆ Horticulture
- ◆ Improved Agricultural Practices
- ◆ Mushroom Cultivation
- ◆ Oil Extraction
- ◆ Organic Manure/Compost Making
- ◆ Pest Control Operator
- ◆ Poultry
- ◆ Vermiculture

## CIVIL TRADES

- ◆ Aluminum Fabrication
- ◆ Bar Bending, Centering/Scaffolding
- ◆ Bio Gas Plant Mechanic
- ◆ Biogas Mason
- ◆ Boring/Drilling Mechanic
- ◆ Carpentry and Furniture making
- ◆ Draftsman
- ◆ Ferro Cement work
- ◆ Hand pump Mechanic
- ◆ Hollow Block Making
- ◆ Mason Work
- ◆ Painting and Polishing
- ◆ Plumbing and Sanitary Work
- ◆ POP Work

- ◆ Rural Latrine and Soak Pits
- ◆ Soil Testing
- ◆ Tile Making

## COMPUTER & INFORMATION TECHNOLOGY TRADES

- ◆ Computer based Accounting
- ◆ Computer Hardware and Networking
- ◆ Computer Maintenance
- ◆ Computer Operator / Data entry operator
- ◆ Computer Programming and Application
- ◆ Database programming

## ELECTRICAL & ELECTRONICS TRADES

- ◆ Battery charging and repair
- ◆ Domestic home appliances repairing
- ◆ Electrical Appliance Repair
- ◆ Electrical Pump Repair
- ◆ Electrician
- ◆ House wiring
- ◆ Motor winding
- ◆ Office equipment repairing
- ◆ Phone and Mobile Repair
- ◆ Photography/videography equipment repair
- ◆ Solar Equipment Mechanic
- ◆ Stabilizer, Inverter, UPS making and repair
- ◆ TV/VCR/VCD/Tape Recorder repair
- ◆ Wireman

## MECHANICAL TRADES

- ◆ Auto Cad
- ◆ Auto Mechanic (Heavy Vehicle – Four Wheelers)
- ◆ Automobile repairing/Diesel Mechanic
- ◆ Black Smithy
- ◆ Construction Equipment Mechanic
- ◆ Cycle repairing / Cart Mechanic

# SKILL DEVELOPMENT TRAINING - TRADES

## MECHANICAL TRADES

- ◆ Denting and painting
- ◆ Die Making
- ◆ Diesel Pump Mechanic
- ◆ Electroplating
- ◆ Farm Equipments Mechanic
- ◆ Fitter
- ◆ Foundry and Turning
- ◆ Gas welding, brazing, soldering
- ◆ Hand pump boring and repairing
- ◆ Machinist
- ◆ Metal Casting
- ◆ Motor Boat Repair
- ◆ Motor Engine Repair
- ◆ Plastic Moulding (including Injection Moulding)
- ◆ Refrigerator and A/C Mechanic
- ◆ Scooter Mechanic
- ◆ Sewing machine repair
- ◆ Sheet metal and welding
- ◆ Tractor Mechanic
- ◆ Turner
- ◆ Vulcanizing
- ◆ Watch Repair
- ◆ Welding and fabrication

## NON ENGINEERING TRADES

- ◆ Accountancy
- ◆ Acrylic Fabrication
- ◆ Aggarbati making
- ◆ Ammonia Making
- ◆ Artificial flower making
- ◆ Macrome
- ◆ Match Box Making

- ◆ Modern office management
- ◆ Motor Driving
- ◆ Mukesh Fardi Kadhai
- ◆ Nylon Rope Making
- ◆ Office Automation
- ◆ Packaging
- ◆ Pain Balm Making
- ◆ Papad/Potato Chips making/Mangori making
- ◆ Paper Machie Work
- ◆ Pashmina Work
- ◆ Pathology Technician/Helper
- ◆ Phenyl making
- ◆ Photography and Videography
- ◆ Pickle/Murraba making
- ◆ Plastic wire bag making
- ◆ Pottery/ceramic work
- ◆ Proof Reading
- ◆ Punjabi Typing
- ◆ Puppet Making
- ◆ Purse Making
- ◆ PVC Product Making
- ◆ Quilt Making
- ◆ Readymade Garments/ Carry bag making.
- ◆ Rubber and Plastic Product Making
- ◆ Screen Printing
- ◆ Sealing Wax Making
- ◆ Sericulture
- ◆ Shawl/Sozni Work
- ◆ Soft baggage making
- ◆ Soft toys making
- ◆ Soya Products making
- ◆ Stationery and Envelop Making
- ◆ Stenography

# SKILL DEVELOPMENT TRAINING - TRADES

## NON ENGINEERING TRADES

- ◆ Stone Sculpture
- ◆ Talcum Powder Manufacturing
- ◆ Textile Designing
- ◆ Tie and Dye
- ◆ Tilla, Crewel, Sozni Work, Willow, Basket making
- ◆ Tourist Guide
- ◆ Toy making, Doll Making, flower making
- ◆ Umbrella Making
- ◆ Vaseline Manufacturing
- ◆ Wood Carving
- ◆ Wood work/Photo framing
- ◆ Yoga
- ◆ Zari-Zardozi

## TRAINING OF TRAINERS (TOT) PROGRAMMES



### TRAINING OF TRAINERS

NITTTTR Chennai along with Nachimuthu Polytechnic College, Pollachi conducted Training of Trainers programme (ToT) programme for various trades to the Master Trainers of Community Skills Schools of Tamil Nadu Rural Transformation Project (TNRTP) / Vaazhnthu Kaattuvom Project (VKP), an innovative Project that aims at rural transformation through strategies that look beyond poverty alleviation by building sustainability and prosperity of rural communities through rural enterprise promotion, access to finance and employment opportunities in the selected blocks of Tamil Nadu.





## TRANSFER OF TECHNOLOGY

A large number of technologies have been developed by various research institutions and laboratories in the form of appropriate technologies. But, the benefits of these technologies have failed to reach the rural population. The villagers could not adopt these modern technologies and implements to improve productivity, and, in turn, their quality of life, since the process of transfer of technologies was not undertaken in a planned manner.

NITTTTs compiled the list of appropriate technologies developed by DST, CSIR, ICAR, IITs, NITs, Technical Universities and other prominent Research Institutions of the country and identify location specific technologies and organise training programs for the staff of project implementation institutions on these technologies.

## TECHNICAL / SUPPORT SERVICES



In rural areas, a large number of equipment is being used in farm and non-farm sector. For their sustained working, proper repair and maintenance services are to be provided. The identified Polytechnic help the villagers by organizing Technical / support services. The trainees effectively carry out the said activity.

## INSTITUTE - INDUSTRY ADVISORY BOARD (IIAB)

NITTTR Chennai, a premier training Institute in the country has been offering numerous Faculty Development Programmes to the faculty members of Technical Institutions spread across India for the past six decades. The faculty members of various Centrally Funded Technical Institutions (CFTIs) and other prominent Institutions were also trained by NITTTR. This Institute has been instrumental in skilling the rural youth and differently abled through CDTP and PWD Schemes respectively.

As a part of the continuous improvement, it has been envisaged to establish Institute-Industry Advisory Board (IIAB) in 2022 at NITTTR Chennai, to ascertain the academic and research programmes offered are relevant and cater to the industries demand and also to strengthen the industry – Institute partnership. The IIAB consists of a pool of experts representing various verticals of prominent industries and disciplines. The IIAB is expected to advice on the latest trends, global challenges, and impact of technology on jobs and economy based on which the academic programmes shall be conceived and offered to the stakeholders. This relationship fosters in generating opportunities, products, and services to the stakeholders and also to bridge the gap between Institutes – Industry.



## SECTION 8 COMPANY

To promote Entrepreneurial spirit among the Diploma / Engineering Students, Trainees (formal and non- formal), faculty members of Technical Institutions and aspiring Entrepreneurs in the country, it has been envisioned to start a section 8 company at NITTTR Chennai that functions in alignment with the initiatives of NITI Aayog, AICTE and NEP 2020.

This section 8 company endeavours to enable start-ups / incubators promoted by Diploma / Engineering Students, Trainees (formal and non- formal), faculty members and aspiring Entrepreneurs to set up a base at the Institute and leverage the expertise of NITTTR Chennai. This section 8 company breaks down the traditional, artificial impediments of innovation through its connectivity and collaborative interaction.

**The guiding principles behind the section 8 company are:**

- ◆ Creating a collaborative environment between industry and academia
- ◆ Taking efforts to address challenges faced by the Entrepreneurs
- ◆ Creating a self-sustaining and technologically generative environment
- ◆ Encouraging and enabling R&D activities and Start-ups that are aligned to potential needs of the industry
- ◆ Providing state of art infrastructure for R&D activities and incubation

## COLLABORATIONS





**CONTACT**

## **THE DIRECTOR**

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