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Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated 7th January, 2016

To,

1. Secretaries/Principal Secretaries of all the State Governments/ UT Administrations dealing with Craftsmen/Vocational Training
2. Directors dealing with Craftsmen/Vocational Training of all States/ UT Administrations

Subject: Rationalization and Standardizations of ITI infrastructure

Sir/Madam

This is to inform that meeting of the "Sub-committee of NCVT on Norms and Courses" was held on 17th December, 2015 in New Delhi. Rationalization and Standardizations of ITI infrastructure was discussed vide agenda item No.5 in the meeting.

2. With a view to optimise the available infrastructure in ITIs, rationalization and standardization of ITI infrastructure for CNC Lab, Computer Lab, Class Rooms, Drawing Hall, Lathe machine for Fitter/ Turner/ Machinist trades and Diesel Generator Set for Electrician trade were proposed in the meeting. Members discussed each item in details and suggested various modification. The modified norms for Rationalisation and Standardisation of ITI infrastructure is placed at Annex-I.
3. Henceforth, above modified norms for Rationalisation and Standardisation of ITI infrastructure, shall be followed for granting accreditation by Quality Council of India/affiliation by NCVT, to ITIs.

(Handwritten signature/initials)

Yours faithfully
(Handwritten signature)
(D. Mallick)

Dy. Director General of Training

Copy to:

1. Director, ATI - Chennai / Hyderabad/ Mumbai/ Kolkata/ Kanpur/ Ludhiana, ATI(EPI) Hyderabad & Dehradun, FTI Bangalore & Jamshedpur, NIMI Chennai,
2. Director RDAT Kanpur/ Mumbai / Kolkata / Chennai / Faridabad & Hyderabad, Director-CSTAR, Kolkata.
3. Principal CTI Chennai, Principal MITI, Haldwani / Calicut / Jodhpur / Choudwar, Principal- NVTI, Noida and Principals of all RVTIs.
4. Prof. M. Ranga Rao, National Co-ordinator, Federation of All India Pvt. Association, ITI Chanakya No. 6 Camp Road, Selaiyur, East Tambaram, Chennai - 600073
5. Chief Executive Officer, NABET, Quality Council of India, 2nd Floor, Institution of Engineers Building, Bhadurshah Zaffar Marg, New Delhi. 110002.
6. All Directors and TC Section at DGT, HQ

Endt. No. C3/26185/14(1), Dated:- 01.03.2016

Copy communicated to;

- 1) The Joint Director of Training,
- 2) Inspector of Trainings of all Regions
- 3) Jr. Supdt. E Section
- 4) Principals of all Govt. & Private ITIs (through website)

for information and necessary action.

(Handwritten signature)
For Director of Training

CNC Lab						
Space and Power Requirement						
1	Space Required (in Sq. Meter):	40 (For below 16(8+8) units) 65 (For above 16(8+8) units)				
2	Power Required (in KW):	15 (For 16(8+8) & above units) 12.5 (For 8(4+4) & above units)				
CNC Lab Infrastructure						
S.N.	Name of Item	Category	Quantity		Unit	Remark
			16 (8+8) units & Above	Below 16 (8+8) units		
1	CNC turn Centre with minimum specification as: Chuck size:135mm Between centre distance: 250mm Travel in X: 100mm Travel in Z: 200mm No. of tool stations: 8 station turret Spindle power: 3.7kW (continuous rating) preferably with popular control system like Fanuc/Siemens along with motorized coolant system.	Machine	1	1	Number	Refer Instructions
2	Tool holders to suit the CNC machine for turning, threading, grooving (external & internal), parting off operation, boring, under-cutting with 20 inserts of each operation.	Tool	1 each	1 each	Number	
3	CNC Vertical Machining Centre with minimum specification as: Table size:500x250mm Travel X-axis x Y-axis x Z-axis: 300 x 250 x 250mm Auto Tool Changer: 8 nos. Spindle power: 3.7kW (continuous rating) with popular control system like Fanuc/Siemens along with motorized coolant system.	Machine	1	1	Number	Refer Instructions
4	CNC milling tools assorted such as adapter to suit above machine to accommodate face cutter, shell end mill cutter, taper shank and parallel shank drills/cutters.	Tool	1 set along with cutters & inserts.	1 set along with cutters & inserts.	set	
5	CNC hole machining tools assorted such as adapter to suit above machine to accommodate different boring bars.	Tool	1 sets along with cutters	1 set along with cutters	set	
6	Multimedia based simulator for CNC technology and interactive CNC part programming software for turning & milling with virtual machine operation and simulation using popular operation control system such as Fanuc, Siemens, etc. (Web-based or licensed based) (10 trainees + 1faculty)	Software	16	8	users	

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S.N.	Name of Item	Category	Quantity		Unit	Remark
			16 (8+8) units & Above	Below 16 (8+8) units		
7	Desktop Computers compatible to run simulation software with LAN facility	Machine	16	8	Number	
8	Printer - (Laser/ Inkjet)	Machine	1	1	Number	Optional
9	Air Conditioner - Split - 2.0 Ton	Machine	1	1	Number	Optional
10	UPS - 2 KVA	Machine	1	1	Number	Optional
Instructions						
a)	<p>For units less than 8(4+4), then ITI can enter into MoU with Facilitator who will provide the Training to Trainees admitted and undergoing training in above Trades.</p> <p>The Facilitator should be Government ITI, Engineering/ Polytechnic College, Recognized Training Institute, Industry, Private ITI (Facilitators are arranged in descending preference order). The Facilitator should have all the above training infrastructure. (Including CNC Machines and Multimedia software for CNC). If any of the facility is not available with facilitator then the same should be provided in the ITI. The facilities of CNC should be made available to ITI trainees at the time of examination. This clause should be part of MoU to be signed. The training provider must be within the range of 15 Km or within city whichever is less.</p>					

Class Room					
S.N.	Particular	Details			
		Optional – I		Optional – II	
1	Space Required (in Sq. Meter):	25		50	
2	Power Required (in KW):	0.5		1	
Class Room and Drawing Hall Requirements					
S.N.	Name of Item	Category	Unit	Quantity	
				Class Room – I	Class Room – II
1	Dual Desk/ Desk bench	Furniture	Number	13	26
2	Black/ White Board - 4 X 6 Feet	Furniture	Number	1	1
3	Instructor/ Office Chair	Furniture	Number	1	1
4	Instructor/ Office Table	Furniture	Number	1	1
5	Drawing Table - A2 (A3)	Furniture	Number	0	0
6	Stool	Furniture	Number	0	0
a)	Number of Class Rooms = Maximum Number of Units in a Shift for option – I and half the maximum no. of units in a shift for option – II.				

* Power requirement in classroom is inclusive of total power requirement of trade.

Fitter/ Turner/ Machinist trade:

E : General Machinery Installations –

Sl. No.	Name & Description of Machines	Quantity
*1.	SS and SC centre lathe (all geared) with minimum specification as: Centre height 150 mm and centre distance 1000 mm along with 3 & 4 jaw chucks, auto feed system, safety guard, taper turning attachment, motorized coolant system, lighting arrangement & standard accessories.	2 Nos.

Note: - (*) 1. No additional number of items are required to be provided up to four batches of trainees i.e. two batches in the first shift and two in the second shift.

(*) 2. ITI having 2(1+1) units of Turner and/or Machinist trades are not required to provide lathe machine up to 4(2+2) units Fitter trade. Proportionate nos. of units will be exempted in Fitter trade with subsequent increase in no. of units in Turner and /or Machinist trades.

(**) Only one number need be provided in each I.T.I. irrespective of No. of Units.

Electrician

Sl. No.	Name of the items	Quantity	Remarks
23 *	Diesel Generator Set with change over switch, over current breaker and water-cooled with armature, star-delta connections AC 3 phase, 5 KVA, 240 volt	1 No.	Common for 2 to 4 semesters

Note: (*) Only one number need be provided in each I.T.I. irrespective of No. of Units.

Computer Lab**Computer Lab Infrastructure**

J.	Name of Item	Category	Quantity	Unit	Remarks
	Desktop Computer with latest configuration	Machine	10	Number	Refer Instructions
	LAN Cabling	Equipment	As required	-	
	LAN Switch	Equipment	As required	-	
	Printer (Inkjet or Laser)	Machine	As required	-	
	Scanner	Machine	As required	-	
	External Hard Disk - 1 TB	Equipment	1	Number	
	Instructor/ Office Chair	Furniture	1	Number	
	Instructor/ Office Table	Furniture	1	Number	
	Computer Chair (Armless Low Back Non Revolving)	Furniture	20	Number	Refer Instructions
	Computer Table	Furniture	10	Number	Refer Instructions
	Black/ White Board - 4 X 6 Feet	Furniture	1	Number	

Space and Power Requirement

Space Required (in Sq. Meter):	25
Power Required (in KW):	3.45

Instructions

This Computer Lab shall be used for conducting practical for:

i. Employability Skills &

ii. Trade practical except trades which involves Trade practical in computer lab such as Draughtsman (Mech./Civil), Architectural Assistant., etc.

One computer lab need to be provided in each I.T.I. irrespective of No. of Units for Employability Skills & Trade practical for trades having less than 08 computers and not having computer Lab separately.