Prices in US Dollars

#	Group Code	Prod.Code	Description	Q.ty
			STUDENT'S STATION	
8.1		914708	Support table 150 type - "Bridge" carrier frame made of metal - Rolled surface - Dimensions: L.150 x P.75 x H.76 cm Complete of electric systems, taps and switch	6
8.2			Stool	12
9.1	PC166Z	917535	Personal Computer Intel 166 Z Composed of: - Processor: Intel Pentium 166 MHz - RAM memory: 16 MB exp. 128 MB - Cache Memory II level: 256 KB - Graphic controller: PCI with 2MB DRAM - Floppy Disk: 3.5" 1.44 MB - Hard Disk: 1,7 GB - CD ROM Reader 8X - Slots: 4 PCI + 3 ISA - 2 Serial Ports, 1 Parallel Port - English Keyboard: 102 keys - Serial Mouse - 14" Colour monitor 1024x768 0.28 dpi - Microsoft Windows 95 English version	6
10.1	PRT80BN	914734	Ink-Jet Black and White Graphic Printer Resolution 720x360 dpi, speed 2.5 ppm. page size A4	6
	DINET		Digital Multimedia Educational Network	
11.1		919102	Student's Multifunction Station (1 each student's station)	6
11.2		919106	Headphone with Microphone (1 each student's station)	6
			CAD-CAM Application Software (for student)	6
	AI100D		Axis Control Unit	
13.1		914100	Electrical equipment for power supply, command and control.	3
13.2		914102	X-axis linear assembly	3
13.3		914103	A-axis rotary assembly	3
13.4		914104	Programming software for IBM or compatible Personal Computer	3

AIR COMPRESS EQUIPMENT: 2 SETS

Items	Code	Amount	Description
01	158136	01	TEACHING EQUIPMENT SET, COMPOSING
	159271	01	OPERATING TABLE WITH TWO WORKING SIDES
	080240	02	MOVABLE AIR COMPONENTS
			BASIC LEVEL TP 101
		10	Quick distributors
		01	Equipment tray
		02	Air driving pipes of 10 meters
		03	Valves 3/2 with block and button
		01	Valve 3/2 with block and button
		01	Valve 5/2 with block and button
		02	Pressure meters
		03	Driving valve 3/2, clock in the middle
		01	Driving valve 3/2 with direct roller, clock in the middle
		01	Movable air valve 5/2, single infection by movable air
		03	Movable air valves 5/2, double infection by compressed air
		01	OR valve
		01	AND valve
		01	Phase-setting unit, 0 - 5 seconds
		01	Quick discharging valve
		02	Direct controlling valve
		01	Pressure adjusting valve
		01	Single infection cylinder
		02	Double infection cylinders
		01	Filter
		01	Pressure adjusting valve with indicator
		01	Set of distributors
		01	Connector
	159278	01	FORM-SHAPING FRAME TO INSTAL THE WORKING TABLE
02	152939	02	ELECTRIC-AIR EQUIPMENT TP201/101-CE
		01	Electric signal receiver
		02	Magnetic transformers
		02	Limit switches
		01	Air-electric signal changing equipment
		01	Single electric valve 3/2 with indicator
		02	Single electric Valves 5/2 with indicator
		01	Double electric valve 5/2 with indicator
		01	Relay card, 3 relay
		02	Signal connecting and transmitting stations
03	091030	01	AIR COMPRESSING MACHINE
04	102727	01	SPAREPARTS OF AIR COMPRESSING MACHINE
05	030332	01	MULTIFUNCTIONAL CONNECTING LINE

06	151503	01	CURRENT SOURCE TRANSFORMER
07	093131	01	BOOK - TP 101
08	094001	01	EXERCISE BOOK - TP 101
09	094005	01	EXERCISE BOOK - TP 201
10	090120	01	MOVABLE AIR MAGNETIC TEACHING TOOLS' SIGNAL SET
11	092270	01	MOVABLE AIR ELECTRIC-MAGNETIC TEACHING TOOLS' SIGNAL SET
12	095010	01	FILM USING MOVABLE AIR PROJECTOR
13	095101	01	TEACHING VIDEO SET
		Price:	**26.000 USD/set**

NO.	COMMODITY & SPECIFICATION	QUANTITY	UNIT PRICE	AMOUNT (USD)
	1. ELECTRONIC EQUIPMENTS			
1.	Two Channel Oscilloscope OS-9020A 1. Vertical Band Width: DC to 20Mhz/2ch Sesitivity: mV/Div-5V/div 10step, x5 MAG 2. Sweep time: 0.2uS/-0.5s/div 20 range Sweep MAG: x10, sweep rate to 20ns/div. 3. Trigger Coupling: Auto/ Norm/Sing 4. Horizontal Sesitivity: 5mv/div-5v/div. 5. Accessories: 1:1/10:1 probe 2ea/Power Cord 1ea/ Manual 1 copy.	30pcs		
2.	Two Channel Oscilloscope OS-9060D 1. Vertical Band Width: DC to 50Mhz/2ch Sesitivity: mV/Div-5V/div 10step, x5 MAG 2. Sweep time: 0.1us/-0.2s/div 20 steps delaySweep: 0.2us-0.2s/div 20 steps 3. Trigger Coupling: Auto/ Norm/Sing 4. Horizontal Sensitivity: 5. Accessories: 1:1/10:1 probe 2ea/Power Cord 1ea/ Manual 1copy	2pcs		
3.	Digital Oscilloscope OS-3020 1. Vertical Response: DC to 20Mhz/2ch Sesitivity: 1mV/Div-5V/div 10step, x5 MAG 2. Sweep Speed: 0.1uS-0.5s/div 20 steps 3. Memory: 2k words(2x2048x3bit) 4. Sampling Rate: 10M/ sample/s DSO Timebase: 0.1us-0.5s/div 20steps Slow: x100, 100ms-0.5s/div. Roll mode: 0.5s-10ms/div. 5. Power: 110/220V, 50/60Hz 6. Accessories: 10:1/1:1 probe 2ea/Power Cord 1ea/ Manual 1copy Manual(E)	1pc		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
4.	Multimeter	1. DC V:0-1000V 5 range AC V:0-1000V 4 range 2. DC A:0-10A 4range, ±3% 3. OHMS:0-20Mohms 4 range, ±3% 4. DBM:-10dB-62dB 5. TR Test 6. Accessories:Test lead 1set Manual 1copy	30pcs		
5.	Digital Multimeter	1. DC V:0-1000V 5range Auto 2. AC V:0-750V 4 range 3. AC A:0-10A 4. DC A:0-10A 5. OHMS:0-20Mohms 6 range 6. Display:3 1/2dlg.. 7. Battery:1.5Vx2=3V 8. Accessories:Test Cord 1set manual 1 copy	30pcs		
6.	DC Ampere Meter	Range:0-5, 15, 30A 3-range Accuracy : ±0.5% Principle:Moving Coil Type Scale Length:Approx 135mm Scale Division:100:150 Accessories:Test lead 1set Manual 1 copy	10pcs		
7.	AC Ampere Meter	Range:0.5, 15, 30 3-ranges Accuracy : ±0.5% Scale Length:Aprrox. 135mm Scale Devisions:100:150 Accessories:Test lead 1set Manual 1 copy	5pcs		
8.	AC Voltmeter	AC : 0-1500V 7 ranges DC : 0-1500V 7-ranges Ohm : 0-1,000Mohms Accuracy : ±3% F.S. Power:110/220V, 50/60Hz Accessories:Test lead 1set Manual 1 copy	10pcs		
9.	TR, Diode, FET Tester	1. TR, FET, DIODE, SCR Tester 2. hfe:0-10000 3 range V_{GS} & V_P : 0-3V DC 1 range I_{CEO}&I_{DSS}:0-10000uA 3range 3. Accessories:Test lead 1set Manual 1 copy	2pcs		
10.	Digital IC Tester	Test voltage(VCC):2.5-20V, Kinds:TTL/CMOS 1600 types Pins:14-28 pins Display:16C/dot matrix-LCD Power:110/220V,50/60hz Accessories:Test lead 1set Manual 1 copy	1pc		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
11.	Frequency Counter	Display : 8-Digit Frequency: 10hz-1,300Mhz Sensitivity: 50mVrms Resolution: 1hz Power: 110/220, 50/60hz Accessories: Test lead 1set manual 1 copy	1pc		
12.	Universal Counter	Frequency: 0.001Hz-160Mhz Period : 50ns-100ns Duty Cycle : 0-100% Display : 8 digit LED Control: GP-IB Frequency RPM: 0.06×10^7 rpm Power : 110/220V, 50/60Hz Accessories: Manual(E) Test leasd 1set	1pc		
13.	Logic Circuit Trainer	1. Data switch: 5 slide, 2-toggle 2. Clock pulse: 1Hz, 10Hz, 100khz 3. Bread Board: 1pc 4. DC Output: +5V, -5V, 0.5A. 5. LED Display: 2 digit 6. Power: 110/220v, 50/60hz 7. Accessories: Manual 1 copy Jumper wire 1set	20pcs		
14.	Bread Board	Total Hole: 1680 points Binding Post : 3 5 connected term: 256 25 connected Bus: 16 Binding post: 3 IC Capacity 14 pins: 18	30pcs		
15.	OP Amp Trainer	Main Board - DC Output: 5, 6, 9, 12, 15V - Capacitor: 0.001-0.1uF. - Resistor: 1Kohm-1.5Mohm - AF Gen. : 10Hz-100khz 24 Experimental Modules Power: 110/220, 50/60hz Accessories: Manual(E) cable 1set	5pcs		
16.	Micro Computer Trainer	CPU : 8086 16bits RAM : 64KB(max. 256kb, 4164x8) ROM : 16KB(max. 64kb) Display : LCD(16x2 Lines) Accessories: Manual(E), Test Cables.	10pcs		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
17.	Universal Bridge	R : 0.001ohm - 11Mohm Resolution:1mohm C : 1pf - 11,000uf Resolution:1pf L : 0.1ull - 1100H Power:AC 110/220V adapter & Battery Accessories: AC adapter 1ea Manual 1ea	1pc		
18.	Wheatstone Bridge	Range:1ohm - 10Mohms Multiplier: x0.001, x0.01, 0.1, x1, x10, x100, x1000 Accuracy:±0.1 - ± 0.6% Power: Battery 6V Accessories:Test lead 1set Manual 1 copy	1pc		
19.	Audio Amp	Stereo 4CH 200W Amp 2 speakers/micophone Pre Amp/Double Cassette/Main amp system	2pcs		
20.	Regulated DC Power Supply	Output:0-30V, 0-3A Ripple:Less than 3mVp-p Power:110/220V, 50/60Hz Accessories:Manual(E) 1 copy Cable 1set	30pcs		
21.	Regulated DC Power Supply	Output:0-50V, 0-2A Ripple:Less than 4mVp-p Power:110/220V,50/60hz Accessories:Manual(E) 1copy Cable 1set	2pcs		
22.	AM/FM Stereo Standard Signal Generator	Frequency:10khz-110Mhz -Resolution:±(5 x 10^{-5}) Output:-19db-99dbm, ±1.5db Modulations Frequency: 400hz or 1khz ±5% Stereo Pilot signal: 19khz±2hz -Sepraration:40db more AM Modulation:0-60%, ±5% Memory:100 points memory Power: 110/220V, 50/60hz Accessories: test lead 1set Manual 1 copy	10pcs		
23.	Digital RF Signal Generator	Frequency:100khz-450Mhz Accuracy:0.01% ±1 dgt Output:0.1V rms Int. Mod.:AM 400Hz Ext. Mod.:50hz-20khz Freqiency display : 4 digit Power:110/220V, 50/60Hz Accessories:Manual(M) 1ea Test lead 1set	10pcs		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
24.	TV Field Strength Meter	PAL System Frequency:40Mhz-230Mhz, 1-12ch Accuracy: ±3db Level:20-120dB Attenuator:80db Power:Battery 1.5x9 Accessories:Manual(E) 1ea Test lead 1set	1pc		
25.	Color Pattern Generator	PAL Standard System Range:UHF/VHF Patterns:Color Bars,Dots; Cross Hatch,color rasters. Power:Battery or AC adapter. Accessories:Manual 1 copy Test Lead 1set	5pcs		
26.	TV FM Sweep Marker Generator	Sweep Section: - Frequency:2-310Mhz - Sweep : 20Mhz - Output:100mV rms Marker:A,B,C,D-band/2-260Mhz - Accuracy:±0.01% ±1 count Power:110/220V,50/60Hz Accessories:Manual(E) 1 copy Test lead 1set	2pcs		
27.	Resistance Attenuator	Range :0-121db Frequency:0-700khz±0.5db Impedance:600ohm±10% Max Input power: 0.5W Accessories:Manual(E) 1 copy Test lead 1set	10pcs		
28.	Level Meter	Range:1mV-300V FS Input impedance:10M ohm Level : -80db - 50db Stability:±0.5% Power:110/220V,50/60hz Manual(E),Test Cables	2pcs		
29.	Color TV CF-14B70Y	14" Multi System VHF/UHF Power:110/220V,50/60hz	4PCS		
	Color TV CF-14A90B	14" Multi System VHF/UHF Power:110/220V,50/60hz	11PCS		
30.	Color TV CF-21D10B	21" Multi System VHF/UHF Power:110/220V,50/60Hz	15PCS		
31.	AM/FM/CD Cassette Recorder	AM/FM/CD Output : 10W 3-band equalizer High speed copy Power:110/220V,50/60hz	15pcs		
32.	PC Computer	CPU:486DX2 50Mhz Memory:4MB HDD:250MB FDD:3.5" 5.25" Monitor:14" color/VGA	30pcs		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
33.	Diskette	5.25" 1.2MB(10pcs/box) 3.5" 1.4MB)10pcs/box)	10boxes 10boxes		
34.	Printer (Laser)	Speed : 5ppm Non impact LED type Resolution:300DPI Memory:RAM1.5MB,ROM3MB Power:110/220V,50/60hz Standard Accessories	2pcs		
35.	Software	Word Star Word Perfect Windows 3.1 Foxpro 2.5 HOREA 2.5	1pc 1pc 1pc 1pc 1pc		
36.	Video Tape	Standard	20pcs		
37.	Oscilating Fan	Size:14" Speed:3 step Micom control Power:110/220V,50/60hz	10pcs		
38.	Oscilating Fan	Size:16" Speed:3 step Power:110/220V,50/60hz	10pcs		
39.	OHP	Power:110/220V,50/60hz Light Source:24V 275W Air Cooling System. Focus distance:320mm Data size:260x260mm	2pcs		
40.	Screen	Size:1800x1800mm Type : stand	2pcs		
41.	Audio Generator	Frequency:10Hz-1Mhz in 5-ranges Output:3V rms(600ohm) 6V(No load) Distortion:0.5% Power:110/220V,50/60hz Manual(M), Cables	1pc		
42.	Distortion Meter	1.Distotion Measurement: - Frequency range:20hz-20khz - Distortion range:0-100% - Accuracy:±5% 2.Level Measurement: - Frequency range:20Hz-200khz - Measuring range:0.3-100V 3.Noise Measurement: - Range:0 - -70db - Input range:1,3,10,30V 4.Power:110/220V,50/60hz 5.Manual(E),Cables	1pc		

NO.	COMMODITY & SPECIFICATION		QUANTITY	UNIT PRICE	AMOUNT (USD)
43.	AC/DC Adapter	Input:110/220V Output:6V,9V,12V 3 ranges Output Current :1000mA	30pcs		
44.	VTR	VHS Multisystem World wide TV tuner(except SECAM)	1pc		
45.	Sensor Application Trainer	Sensor: Temperature,Photo,Rotation, Hall,Proximity,Pressure Applications: - OP Amp Comparator - A/D, D/A Converter 28pcs accessories Power:110/220V,50/60hz Manual(E), cable 1set	2pcs		
46.	S/N Noise Meter	Frequency:20hz-20khz S/N Rate:0- -80db Input:1V,3V,10V,30V Distortion Rate:0-100% Power:110/220V,50/60hz	2pcs		
47.	Lux Meter	Range:0-300/1000/3000 Output:10mV, 5% Power:110/220V,50/60hz	2pcs		
48.	Digital LCR Meter	L : 0-1uH-9999.9H C : 0.1pF-9999.9uF R : 1mΩ-99.999mΩ D(C),Q(L) test Frequency :1khz, 1.2khz Power:110/220V,50/60hz	2pcs		
	SUB-TOTAL	≈ 320,000.00	USD		

ANNEX
LIST OF EQUIPMENT AND APPARATUSES
(FOR REFERENCE)

1) EQUIPMENT AND APPARATUSES FOR MECHANICAL REPARATION

Necessary equipment	Quantity	
	1997	1998
1. CNC lathe		
2. Multiaxles drilling machine (vertical one)	1	
3. Hand-held tool kit	60 sets	
4. Measuring devi :	5 sets	
5. Testing machine		1
6. Hoisting and putting-down machine	1 (kind of 2 tones)	1 (kind of 5 tones)
7. Various sewing machine	4	4
8. Metal spraying machine		1 set
9. Welding machine		1 set
10. Metal plating and reparation technology		1 set
11. Belt grinding machine		1
12. Compressed-air cleaning machine		
Estimated total		500,000 USD

2) EQUIPMENT AND APPARATUSES FOR MOTOR AND MOTORBIKE SERVICE

Necessary equipment	Quantity	
	1997	1998
1. Motorbike made in Japan, 50, 70, 100cm^3		3 units
2. Installed motorbike made in Japan		4 units
None-installed motorbike made in Japan		6 units
3. Electric and petrol using diagram for motorbike		4 units
4. Tool kits for motorbike service		40 sets
5. Equipment for motorbike service workshop		1
6. Equipment for motorbike test (see detailed annex)		Whole
7. Cutting equipment for automobile service (see detailed annex)		x
8. Teaching and production facilities (see detailed annex)		x
9. Equipment for Japanese automobile service		x
Estimated total		500,000 USD

3) EQUIPMENT FOR ELECTRICAL AND MECHANICAL SERVICE

Necessary equipment	Quantity	
	1997	1998
1. Hoisting equipment : Movable electric pulley block		1
2. Ejector pumping machine 4.5 and 7KW		3
3. Measuring device		2 sets
4. Tool kits		10 boxes
5. Group of hand-drilling and concrete drilling machines		3
6. Three phase transformer		
7. Hoisting machine operated by battery		1
8. Arclamp welding machine		1
9. Plasma cutting machine		1
10. Machine for ejecting metal to equipment		1
11. Plating machine		
12. Cleaning equipment		
- By hydropower		1
- By compressed-air		1
13. Equipment for grinding machine belt		1
14. Service center for metal cutting machine		1 set
15. CNC lathe		1
Estimated total		200,000 USD

4) TEACHING FACILITIES FOR PROFESSIONALLY TECHNICAL BOARD

Necessary equipment	Quantity	
	1997	1998
1. Mechanical measuring instrument		
- Rulers	5 sets	
- Gauges	5 sets	
- Thread measuring equipment	5 sets	
- Angle measuring equipment	5 sets	
- Measuring devices		6 units
- Model forming sets		6 sets
- Synthetic measuring equipment		Room
2. Room for metal and mechanical materials practice		Room
- Various kinds of microscope		
- Attached fixings		
3. Robot mechanical machinery		Lathe CNC
- By hydropower and compressed-air		Milling machine
4. Teaching facilities (television, video, camera, computer, Laser printer, projector)		1 set
Estimated total		200,000 USD

5. TEACHING FACILITIES FOR BASIC TECHNICAL BOARD

Necessary equipment	Quantity	
	1997	1998
1. Instruction room for technical drawings - Projector, television, video, computer, laser printer - Drawing instruments, schooling facilities - Drawing table system - Drawing machine - Colour printer		5 sets 60 sets 2 sets 2
2. Instrument room for mechanics and technique (see the detailed annex)		1
3. Equipment for electric technical subject practice (see the detailed annex)		1 set
Estimated total		60,000 USD

6. Equipment and apparatuses for Mechanical Board

Necessary equipment	Quantity	
	1997	1998
1. Digital control machine - Lathe (CNC) - Milling machine (CNC) - Boring machine (CNC) - Machine for grinding smoothly (CNC) - Machine for grinding round surface (CNC) - Bore grinding machine	2 2 2	2 2 1 1 1
2. Air-pressing equipment (operated for cleaning)		2 sets
3. Toolkits		10 sets
4. Measuring instruments		for 1 measuring room
5. Multifunction cutting machinery (milling, lathcing, grinding, boring, drilling and so forth)		20
6. Gasket processing machine		2
7. Thread processing special-purpose machine		2
8. Teaching facilities (Computer, television, video, laser printer, camera, etc.)		1 set
9. Other equipment (fully automatic digital control machine for manufacturing moulds and other details)		2
Estimated total		1,100,000 USD

7) EQUIPMENT AND APPARATUSES FOR HEAT PROCESSING BOARD

Necessary equipment	Quantity	
	1997	1998
1. Vertical tempering kiln	1	1
2. Tempering kiln	1	
3. Salt kiln		1
4. Carbon sucking kiln		1
5. Brinen and Rocwen hardness testing machine		1
6. Alternative welding machine 10KVA		20
7: One-way welding machine (rectifying)		2
- Automatic one		2
8. Point welding machine		1
9. Oxyacetylene welding equipment		1
10. Welding cabinet		15
11. Plasma cutting and welding machine		1
12. Teaching facilities (Computer, television, video, laser printer, projector, etc.)		1 set
13. Toolkits (Welding glasses, soldering-iron, welding wire, welding mask, etc.)		40 sets
14. Manual grinding, soft grinding machines, manual drilling machine, etc.		5 sets
Estimated total		600,000 USD

8) EQUIPMENT AND APPARATUSES FOR OFFICES :

Necessary equipment	Quantity	
	1997	1998
1. Assistance-to-the principal office - Computer with 486 CPU, Laser printer, television, camera, photography camera, projector, ect. - Multifunctional teaching facilities (Multi media)		40 in complete 1 set
2. Office information processing (computer with 486CPU, laser printer) (Production practical dept., Teaching and studying management dept., Financial and accounting dept., Personnel dept., Management and Administration dept.) 3. Data processing center Library - Computer, laser printer - Administering machine for library automatization		5 sets 100,000 USD
Estimated total		600,000 USD

DETAILED ANNEX
ON THE LIST OF MOTOR REPARATION EQUIPMENT

NO.	DESCRIPTION OF EQUIPMENT (SPECIFICATION)	QUANTITY
Testing equipment (for automobile needed to be serviced)		
1	Synthetic testing platform	2 sets
	- Max. load on a wheel : 3 tones	
	- Brake-force measuring bar : 5kgs	
2	Engine's capacity testing equipment	2 sets
	- Max. testing capacity : 250HP	
	- Max. turn : 6,000 turns/minute	
3	Headlight testing equipment	2 sets
	- Tested distance : 3 meters	
4	Slip testing device	2 sets
	- Allowable load on axles : 3 tones	
	- Dimension of slipping table : 600 x 1200 (mm)	
	- Indication method : From far distance	
	- Indication scale : -100 + 10m/km	
5	Wheels balance	2 sets
	- Max. weight of the wheel : 60kgs	
	- The wheel's diameter : 10" - 17"	
	- The wheel's width : 2" - 8"	
	- Brake method : Automatic	
	- Indication : By digits	
	- Automatic data entry	

6	Wheel replacing machine	2 sets
	- Size of the wheel : 10" - 17"	
	- Max. width : 8"	
	- Max. air pressure : 9kg/cm2	
7	Equipment for testing high pressure pump	2 sets
	- Speed limit 4,000 turns/minute	
	- Kind of turning Multipurpose	
	- Route counting device : Numerous number	
	- 6 xyclines	
8	Equipment for testing spout	3 sets
	- Complete pressure : up to 500kgs	
9	Emission analyzing device	2 sets
	- For petrol-use engine	
	- Digital indication	
	- Analyzing gases : CO, HC	
10	Diesel smoke testing device	2 sets
	- Indicated by digit or hand indicator	
11	Equipment for analyzing multifunction testing engine	2 sets
	- Electric tension, current and resistance	
	- Angle of cam retard of electric divider, speed of engine	
	- Attaching cylinder pressure gauge, vacuum gauge of carburetor and vacuum regulating device of electric divider	
12	4-pole hoisting machine	1 set
	- Capacity : 4 tones	

	- Category : Hydropower	
	- Attaching : Turning platform, slipping table, toolkits for wheel angle, adjuster of wheel buddling device, compressed-air jack	
13	Vacuum gauge from 0-760mmHg and pressure from 0-25kg/cm^2	2 sets
14	Charging and air-conditioning testing instrument	2 sets
	- Vacuum pumping and inhaling machine	
	- Gas charging instrument R134a, 760mmHg	
	- Gas charging instrument R12, 760mmHg	
	- Gas leakage gauge	
15	Battery testing equipment	2 sets
16	Rapid battery charging equipment 12V-24V	3 sets
17	Multipurpose gauge	15 sets
18	Gun for testing spark point	5
19	Instrument for cleaning spark-plug	4 sets
20	Noise measuring instrument	2 sets
	- Limit scale 30dB ÷ 130 dB	
	- Attaching with measuring apparatus	
Cutting machine (in service of reparation)		
21	Re-processing valve's surface	1 set
	- Max. diameter of valve body : 12mm	
	- Grinding turn : 350 turns/minute	
	- Grinding angle : 0°, 30°, 45°, 60°, 75°, 90°	
22	Valve bottom grinding machine	1 set
	- Diameter of valve bottom : 28mm-60mm	

	- Diameter of valve body : 6mm-12mm	
23	Set of valve bottom cutting blade	4 sets
24	Drum brake turning machine	2 sets
	- Max. diameter of turning : 400mm	
25	Point welding machine	2 sets
	- Removable	
	- Welding transformer : 125KVA	
	- Attaching with special-purpose instrument	
Equipment for training in combination with production		
26	Air-presser	2
	- High capacity : 10HP	
27	Hydropower crane	2
	- Removable	
	- Load of 2 tones	
28	2-pole hoisting machine	2
	- Load of 3 tones	
29	Hydropower jack	4
	- Load of 5 tones	
30	Various removing valves	10 sets
	- Specific and special-purpose removing valves	
	- Multipurpose removing valves	
31	Projector	1 set
32	Projector for video	2 sets
33	Color TV	2
	- Category : 29 inch	

34	Video camera recorder	1 set
	- Multisystem, stereo, attaching with its auxiliaries	
35	Computer	1 set
	- CPU : 586	
	- Laser printer, table, shelf	
36	Pictures and drawings	10 sets
37	Force scale	4 sets
	- Category : 1/2" and 3/8"	
	- From 0-1400kg-cm	
38	Tool kit	80 sets
	Pincer, hammer, flat wrench, lug wrench, all kinds of various level refill, vise, fixings, etc.	
39	Compressed-air screwing instrument	10 sets
	Category : 1/2" and 3/8" attaching necessary auxiliaries	
40	Motor engine made in Japan	4
	- 4 cylinder petrol engine, top cam axle	
41	Motor engine made in Japan	2
	- 4 cylinder diesel engine	
42	Motor (with 4, 5 , 12 or 24 seats)	8
43	Vertical engine	5
44	Motor painting equipment	2 sets
	Painting cabinet equipped fully with :	
	- Smoothing machine, paint ejecting gun, wire roll	
	- Dry air filter, air-presser, drier	
	- Paint mixer	

DETAILED ANNEX FOR "TECHNICAL MECHANISM"

Description of instruments	Quantity
Instrument for electric dynamics experimental on the machinery (AT WOOD)	2
Instrument for moment of wheel inertia and inertia force at pillow-block	2
Compressive strength machine	2
Torsional strength testing machine	2
Flexural strength testing machine	2
Studying facilities for technical mechanism	4
(reducer, gear, structures)	

ANNEX
FOR TECHNICAL ELECTRICITY GENERATOR AND MOTOR

Including :

1. Basic experimental instrument consist of the followings **Quantity : 2**

Stator

Rotor

Magnic yoke in type of brush

Sensible roll

Diode IN 4007

Transistor BD 137 E.B

Lamp fixture B10

Set of 10 tube lamps 4V/0.16w

500 circle wire roll

1000 circle wire roll

Suspensible and fixable transformer core

Experimental manual : All kinds of motor and generator

2. Necessary auxiliaries : **Quantity : 2**

Electric panel for DIN A4 fixing

Non level transformer with low tension electricity for experimentation

Adjuster for direct and alternative currents

Impulsive creator 200KHz/220V

Multipurpose meter METRAMAX2

Plug axle 6cm, dia. 4mm

Rubber gaskets

Wire joining clip, 50cm red or green plug

Puli, dia. 100mm

	ELECTRO-CRYOGENIC	Unit	
1	Frequent adjuster for operating 3 phase (50Hz-100Hz) motor and chain angle by digital method on the computer (FEEDBACK)	set	
2	Central air-conditioner (15HP) made in Taiwan	unit	
3	Scheme of ice water plant. control system operated by contactor, switch	set	
4	Digital speedometer	unit	
5	Digital thermometer	unit	
6	Moisture meter	unit	
7	Condenser with water	set	
8	MLCN condenser with water and air	set	
9	MLCN condenser with air	set	
10	MLCN evaporator to cool the air	set	
11	MLCN oil splitter	set	
12	MNLC non condensation gas splitter	set	
	INDUSTRIAL ELECTRICITY		
1	VOM Digital meter	unit	
2	Digital speedometer	unit	
3	Palmer Digital	unit	
4	Digital clipping rule	unit	
5	Scheme for integrating the generator used clock pole into turning light (2 x 10KVA)	set	
6	Scheme for motor electric system	set	
7	Scheme for lift electric pulse	set	

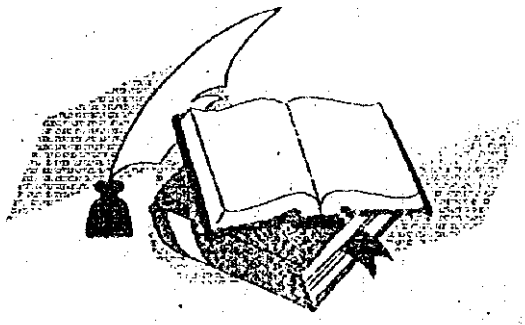
8	1 phase generator AC-5KVA	unit	
9	Electric storage 1KVA	set	
10	AD system CK 342 (Analog/Digital)	set	
11	2 lag-ray wavemeter with monitor	unit	
12	Digital clipping ampere	unit	
13	Megom meter	unit	
14	Consortium and magnetic multipurpose board	unit	
15	Document on complete generator and pulse (made in Germany)	set	
16	Document on capacity adjusting station (made in Germany)	set	
17	Electric experimental instrument consists of complete generator, pulse, automatic pulse (made in Germany)	set	
18	3 phase frequent adjuster (made in Germany)	set	
19	3 phase motor controller by Thyristor (made in Germany)	set	
20	3 phase current motor controller	set	
	PRECISE MECHANISM		
1	CNC table electric : STARTURN P.C (X=150, Z=225mm)	unit	
2	CNC table lathe : MIRAC P.C (X-85, Z=200mm)	unit	
3	Lubricant, heat-relieving and CNC transmission oil		
4	Smoothing magnetic and table machine	unit	
5	Elbow-axle grinding machine	unit	

Minstry of Industry

THE TECHNICAL WORKERS' SCHOOL NO1

*****

PROJECT PROPOSAL FOR JAPAN'S ODA



Minstry of Industry
THE TECHNICAL WORKERS' SCHOOL NO 1
****

PROJECT PROPOSAL FOR JAPAN'S ODA

MINISTRY OF INDUSTRY
THE TECHNICAL WORKERS' SCHOOL No.1

THE SOCIALIST REPUBLIC OF VIETNAM
Independence - Liberty - Happiness

PROJECT PROPOSAL FOR JAPAN ODA APPLICATION

Project type : TECHNICAL CO-OPERATION

Project name : **Improvement of training conditions and supplying equipment of technical worker's School No. 1**

Project Manager : Ministry of Education & Training

Executing agency : Technical worker's School No. 1
Minh Khai Commune, Tu Liem District - Hanoi.

Responsible Ministry : Ministry of Industry

Estimated total Project cost for equipment: 11 Million USD (Japan's ODA)

Total construction cost : 6.5 Billion VND

Execution time :

- Survey, design time & time for procedures to sign documents: From Dec. 1995 to Jun, 1996
- Implementation time: Jun, 1996 to May, 1999

1. GENERAL INTRODUCTION OF THE TECHNICAL WORKER'S SCHOOL No.1

The Technical Worker's School N°.1 - following called TWS N°.1 - has been established 1956 in Hai phong and evacuated to Habac Province during the war the School has moved to Tu Liem District, Hanoi from 1986 to 1991. Until now TWS N°.1 is implementing not only the training courses but also building the new facilities. Its total area is 26,000m2; building area is 3,500m2; domitory area for students is 1,300m2; teacher's residence area is 360m2 ; dining hall area is 250m2 and auxiliary area 2,800m2 for main studying buildings & labs.

During 39 years of its existence, the TWS N°.1 has trained and dispatched to the production Enterprises of Ministries and of local authorities, to Laos and Cambodia as well as to the other economic sectors more than 15,000 technical workers. The Capacity of training of TWS N°.1 is 900 trainees per year (300 - 350 new comers per year).

The TWS N°.1 is training technical workers of 3.7 grade of classification according to the following specialities:

- Turning
- Milling - Planing
- Forging and Pressing
- Electric and gas welding, sheetmetalwork
- Pig iron and nonferrous casting
- Wood pattern and civil wood making
- Industrial and civil electric installation
- Automobil and motorcycle repair
- Losksmithery
- Losksmithery for repair of machinetools.

Students intake regime:

The period of training courses for the students, who have finished upper secondary school is 2 years; For the students who have finished lower secondary school is 2.5 years and for the upper secondary school with professional training courses, it lasts 3.5 years. At present time the TWS N°.1 is preparing the facilities for industrial and civil electronic ; infonmatic.

The TWS N°.1 continuosly has given the name " THE EXCELIENT SCHOOL OF TRAINING". Its leadership is potential with dynamic and creative and good charaters. Its teachers have a good professional knowledge and skill and pedagogical experiences. The TWS N°.1 has been considered by producers, who received the graduates of this school as one of the training schools, which have the best - quality of training.

+ The teacher staff:
As for Qualification:

- Management Board & Functional Dept.
College and University grade: 45%
High - school and High - grade techinal Industry: 55%

- Theoretical and practical teachers:
College and University grade: 60%
High - school and High - grade techinal Industry: 40%
Average teaching experience : 18 years

The School Organization Chart (See Annex 1) The Existing facilities / equipment of the practical worshop (See Annex 2).

2. PROJECT NECESSITY

During the last years, based on the open - door Policy of Vietnamese Government and attracting foreign investment to Vietnam, many new enterprises as well as the old - built factories and plants have been equiped by high - technology and facilities in order to win in market competition. For the next years, the foreign investment will be more increased: parallely with the investment rate, the change of equipment and technology will be increasing too. So the demand of training technical workers with skill in operating, maintaining and repairing the up date equipment must be met.

At present time, the TWS N°.1 the pedagogical instrument, labolatories and other facilities for the theory and training are so poor out of date and short in quantity. The training equipment is not completed and very old. Most of them was made in the years before 1970 and some of them were made from 1980. The equipment quality id very low becouse of its long-time use and over - use.

Such situation required the new equipment and facilities for improving the quality of training as soon as possible.

3. PROJECT OBJECTIVES AND CONTENTS

3.1. Project Objectives

3.1.1. Short - term objectives:

- To improve and modernize the training conditions and equipment and facilities of TWS No.1 such as labolatory equipment, training equipment etc. accopaning with the new machines, new equipment and technology of the Enterprises to be invested in the years to come.

- To upprage the knowledge and capability of management for leaders, staff members, to re-train and educate the teachers in order to deeply understand the new equipment and technology, to work out the training programmes relevant to the new equipment and technology.

3.1.2. Long - term objectives:

- To supply to TWS No.1 the new equipment and high - tecnology, which have not been supplied yet or have been supplied with the small number to prepare technical labor force for early XXI century (since it will take several years to train students and dispatch graduates to production sector after the school can acummulate sufficient facilities.

3.2. The contents of Project:

3.2.1 Training Scale:

- (Capacity of training: 900 trainees, 300 - 350 new comers per year)
  Specialities (for 1 course):
  3/7 Grade of Skillful Classification
  - Turning ,,, 45 trainees
  - Milling and planing ... 30 trainees
  - Forging and pressing ... 15 trainees
  - Electrical and gas welding and Sheetmetawork ... 75 trainees
  - Pig iron and nonferrous casting ... 20 trainees
  - Wood pattern and wood civil marking ... 10 trainees
  - Industrial and civil electric installation ... 75 trainees
  - Automobile and motorcycle ... 75 trainees
  - Locksmithery, jig and die production ... 25trainees
  - Locksmithery, repairing ... 50 trainees
  - Electronics ... 40 trainees
  - Infonmatic ... 40 trainees
- Giving training courses to upgrade workers' skillfulness ...50-100 workers/year

3.2.2. Contents of investment.

Provision of Equipment and facilities for teaching, leaming and training:
- Equipment for 16 class - rooms sufficient for from 30 to 35 trainees attending the lessons of basic and professional theory
- Equipment for 5 Labolatories:

- Technical Electric Electronic Labolatory
- Physical Labolatory
- Chemical Labolatory
- Mechanical Measuring Labolatory
- Informatic Labolatory
- Equipment for pratical Workshops:
- Turning workshop
- Milling and planing workshop
- Forging and pressing workshop
- Electric and gas welding, sheet metalwork workshop
- Pig iron and nonferrous casting workshop
- Wood pattern and wood civil making workshop
- Industrial and Civil Electric installation workshop
- Automobil and motorcycle repair workshop
- Locksmithery, Jig and Die workshop
- Licksmithery, repairing machine tools workshop
- Electronics and informatics workshop
- Surface processing workshop

(Main equipment is listed in Annex 3)

- Office equipment, equipment for teaching foreign languages, Equipment for sport and culture activities including picnic (Please see Annexs)

-Upgrading the knowledge of managers and teachers in Vietnam and organizing training course for them in Japan.

3.2.3 Funds:

- Construction (Vietnamese fund)

Vietnamese Side will contribute fund for contruction and erection of workshops, class - rooms, water - system of which value is the equivalents to 6.5 bil VND (out of which 4.5 bil VND has been expended and 2.0 bil VND is under expenditure.

Equipment supply (Apply for Japan's ODA)

Total	11 millions USD devided to	
Phase	1 6.5 mil	USD (1996 - 1998)
Phase	2 4.5 mil	USD (1998 - 1999)

The above fund is estimated to cover

- Equipment procurement
- Staff & teachers training
- Management staff training, site survey in Japan and abroad
- Sending Japanese experts to Vietnam (For Equipment installation, teaching and assisting curriculum writing, etc.)
- Printing documents /Curriculum, instruments essential for the teaching electric system, other auxiliary facilities for training

4. EFFECTS OF PROJECT

a. Direct effects:

If this project is realized, from period 1996, 1997 and later on, TWS No.1 will despatch 400 to 500 educated technical workers to production establishments every year. They will be capable of operating, repairing the new equipment in production enterprises with high technology. TWS No1 can train skillful workers with knowledge, who can participate in labor export program, in projects with foreign investment (including Japanese invested projects), or can serve the 5 economic sectors of Vietnam. Somehow, it can boost the Economic/Social development.

On the other hand, the school can also train "job orientation teacher staff" for upper secondary schools, vocational schools with a view to raise teaching capability of this staff and to orient pupils before their attending universities /colleges/ technical vocational schools. At the same time, it should improve knowledge and skill of hundreds of formerly trained workes of other schools and workers through out the country by making use of the teachers and machines equiped by this project.

b. In - direct effects:

400 or 500 newly educated technical workers and hundred of the re-trained technical trainees every year will be not only the key employees, but also the direct instructors for other employees in production sector to improve their skill and knowledge of operation of new machnines and technology. It is also a big effect, which TWS No, will contribute to the national economy.

- Without the educated technical workers, the new and advanced/and skillful equipment might be easily in failure which can cause great damages. The well educated graduates, will be an important factor to bring about high economic effect for enterprises

5. FEASIBILITY OF PROJECT

This project will be realized in the School, whose reputation of teaching. learning and training is very famous, whose leadership and managers have good experiences, dynamic and creative characters, whose teachers have a good pedagogical experiences in teaching and instructing trainees and other facilities will decrease the investment. These are assurances for implementation of this project.

Moreover, the school has been newly constricted /Renovated with available workshops, theoretical class - rooms, which can reduce the new construction requirements

TWS No. 1 is located in Hanoi, where is the one of big industrial centers in Vietnam with very big labour market. It is a convenient condition for conecting TWS No.1 with the big Science - Technology Institutes, production Enterprises, Ministry of Industry, Ministry of Education and training. In addition the convenient location gives the School many chances to contact foreign expert delegations .

CONCLUSION:

The Technical Worker's School No,1 has been given the task of educating and training the technical workers of Mechanical Engineering electronics and informatics with the big number of trainees, who have skill and high quality of their job for the purpose of covering the demand of development those branches.

Therefore, TWS No.1 requires the modern equipment, technical facilities which can only be supplied by foreign grant aid and the State budget

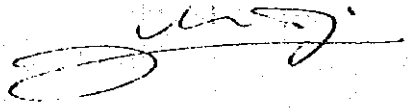
We would like to propose the

Planning, Ministry of Foreign Affairs submitting this Project proposal to the Prime Minister for approval allowing TWS No.1 to receive Japan's Grant aid.

Hanoi....5.....Jan, 1996

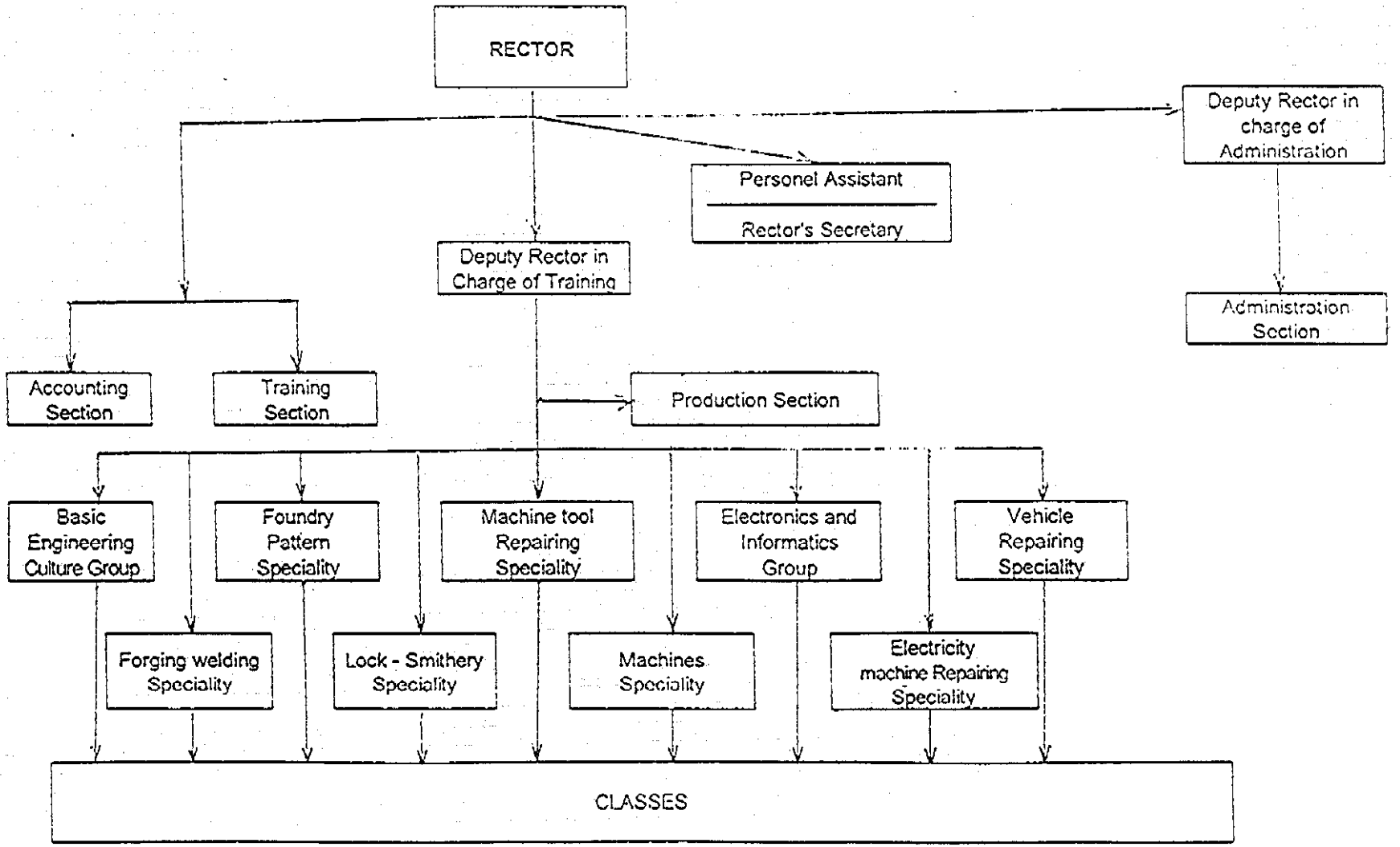
O/B EDUCATION AND TRAINING MINISTER

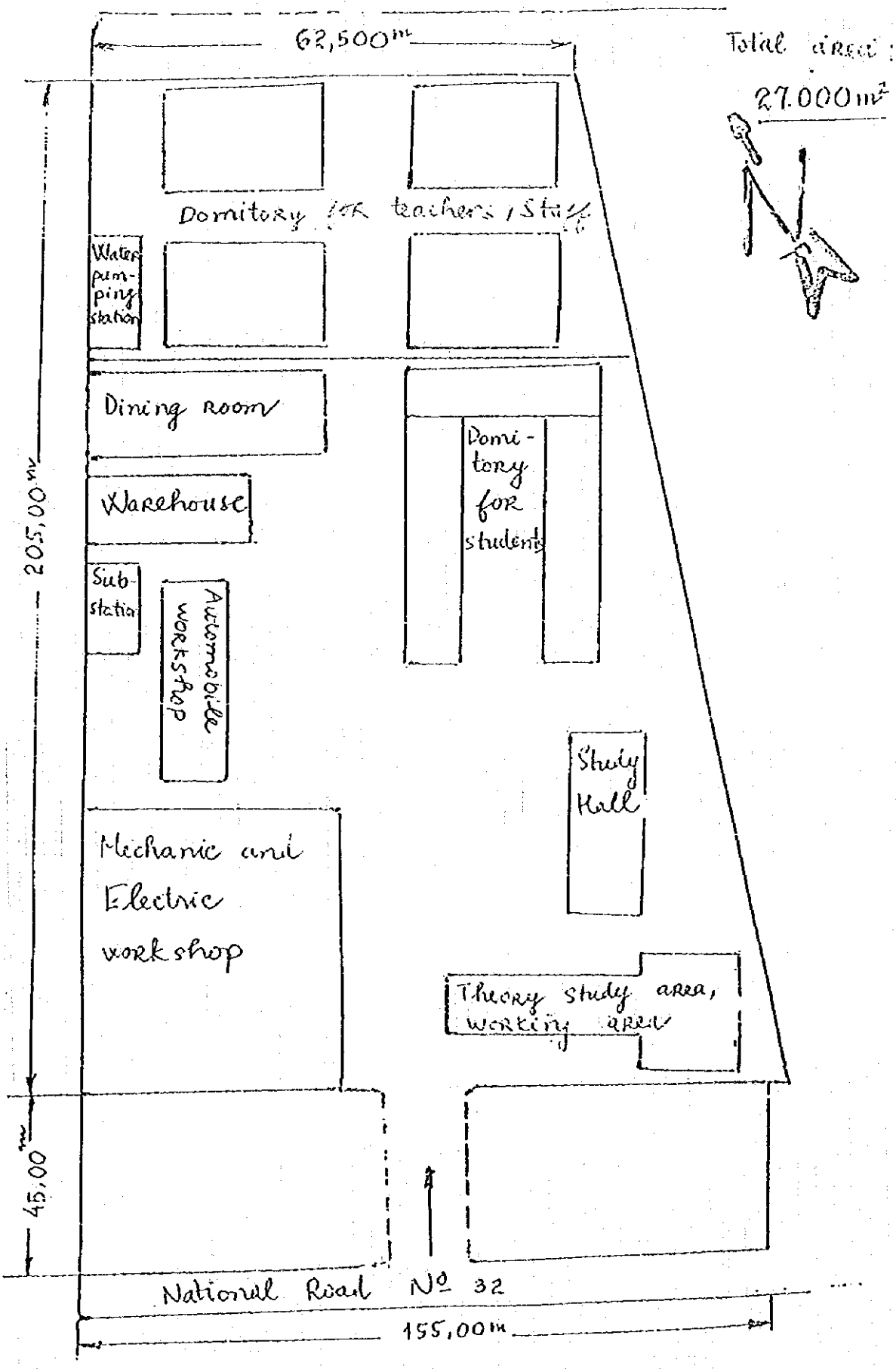
DIRECTOR OF THE INTERNATIONAL RELATIONS DEPT



ORGANIZATION CHART OF THE TECHNICAL WOKER'S SCHOOL NO.1

Total fulltime staff : 150 people
Out of which - Teacher : 80
- Other staff : 70




62,500m
Total area:
27.000m²
Dormitory for teachers / Staff
Water pumping station
Dining room
Warehouse
Sub-station
Automobile workshop
Dormitory for students
Study Hall
Mechanic and Electric workshop
Theory study area, working area
205,00m
45,00m
National Road № 32
155,00m

ANNEX I: EXISTING EQUIPMENT OF THE TWS NO1

Order	Equipment rame	Quantity	Making year	Country of origin		Function
1	2	3	4	5	6	7
1	Lathe T6P16	01	1988	Vietnam	60	All lathing, drilling, boring, threading works in m, modul, U.K measurement systems
2	Lathe T6M16	4	1976	Vietnam	50	All lathing, drilling, boring, threading works in m, modul, U.K measurement systems
3	Lathe Z616	5	1959	Vietnam	35	All lathing, drilling, boring, threading works in m, modul, U.K measurement systems
4	Lathe 1K36	1	1956	China	40	All, lathing, drilling, boring works
5	Lathe T630	1	1981	Vietnam	50	All lathing works in m, modul, U.K measurement systems
6	Lathe PUD	1	1976	Polland	50	All lathing works in m, modul, U.K measurement systems
7	Lathe TGU12	1	1976	Vietnam	35	All lathing, drilling, boring, threading works in m, modul, U.K measurement systems
8	Lathe 06127	1	1975	China	35	All lathing, drilling, boring, threading works in m, U.K measurement systems
9	Lathe C28	2	1955	Former (Chezk& Slovak)	30	All lathing, drilling, boring, threading works in m, U.K measurement systems
10	Lathe T615	1	1976	Vietnam	35	All lathing, boring, drilling, threading in m, modul measurement systems
11	Lathe Tat62	1	1956		35	All lathing, boring, drilling threading in m, modul and U.K measurement systems
12	Lathe C45	1	1955	Chezk	40	All lathing, boring, drilling threading in m, modul and U.K measurement systems

1	2	3	4	5	6	7
1	UPright Drilling Machine I125	4	1959	Vietnam	40	Drilling, boring
2	Radial Drilling Machine 2A592	4	1960	Vietnam	35	Drilling, boring
3	Radial Drilling Machine VR5012	1	1958	Polland	40	Drilling, boring
4	A.C Welding Machine	6	1966	Vietnam	40	Welding, hole making
5	Welder engine	1	1970	Russia	50	Welding, hole making
6	Gas welding bottle	1	1968	Polland	40	Welding, hole making
7	Cutting machine	1	1957	China	40	Cutting plain sheets, making round/square corners, making holes.
8	Hammer machine 150kg	1	1970	Russia	50	Making smooth, plain surface, making forging holes.
9	Hammer machine 250kg	1	1956	China	50	Making smooth, plain surface, making forging holes.
10	Resistance quenching Furnace	2	1956	Vietnam	30	Quenching minor parts
11	Resistance tempering Furnace	1	1980	France	30	Quenching minor parts
12	Grinding machine two head	8	1960	France	50	Boring
13	Wood lathe	1	1956	France	30	Lathing, drilling
14	Wood planing machine	1	1956	France	30	Smooth planing
15	Disk - saw	1	1956	France	30	Cutting, Sawing wood
16	Cutter grinder 1SAB	1	1957	Polland	40	Boring, repairing cutting tools
17	Furnace Φ500	1	1990	Vietnam	75	Melting iron-pig
18	Iron Saw	1	1976	Vietnam	35	Sawing steel
19	Car	3	1987	Russia	60	Transportation
20	Pump	1	1986	Vietnam	60	Pumping water
21	Transformer 320KVA	1	1990	Vietnam	70	Lowing high voltage from 6KW to 380V

1	2	3	4	5	6	7
1	Milling machine 6P13	1	1963	Russia	60	Milling internal/external flat surface, profin surface, cutting gear spiral groove
2	Milling machine UP222	1	1962		60	Milling internal/external flat surface, profin surface, cutting gear spiral groove
3	German Milling machine	1	1966	For mer East Germany	40	Milling internal/external flat surface, profin surface, cutting gear spiral groove
4	Milling machine P623	2	1963	Vietnam	40	Milling internal/external flat surface, profin surface, cutting gear spiral groove
5	Milling machine P1000	1	1955	Hungaria	30	Milling internal/external flatr surface, profin surface, cutting gear spiral groove
6	Milling Machine PA24	2	1955	Chekz	30	Milling internal/external flat surface, profin surface, cutting gear spiral groove
7	Planing Machine 650	1	1957	Chine	35	Milling internal/external flat surface, profin surface, cutting gear spiral groove
8	Planing machine 650	2	1977	Vietnam	40	Milling internal/external flat surface, profin surface, cutting gear spiral groove
9	Planing machine 7M37	1	1960	Russia	50	Milling internal/external flat surface, profin surface, cutting gear spiral groove
10	Rebating machine	1	1955	Chekz	40	Rebating, processing flat. surface, un-fixed surface

EQUIPMENT OF MECHANICAL ENGINEERING WORKSHOPS

No.	Item	Quantity	Remark
1 .	Ordinary Lathe	10	
2 .	Bench drilling machine	5	
3 .	Upright drilling machine	3	
4 .	Radial drilling machine	2	
5 .	Shaping machine	2	
6 .	Vertical milling machine	1	
7 .	Horizontal milling machine	1	
8 .	Universal milling machine	1	
9 .	Facing lathe	1	
10 .	NC lathe	2	
11 .	NC milling machine	1	
12 .	Cylindrical grinding machine	1	
13 .	Surface grinding machine	1	
14 .	Universal grinder	1	
15 .	Carbide tool grinder	1	
16 .	Unuversal tool grinder	1	
17 .	NC programing training kit	5	
18 .	Surface plate	1	
19 .	Precision surface plate	1	
20 .	Cutting tools	1	
21 .	Grinding wheels	1 lot	
22 .	Jigs and fixtures	1 lot	
23 .	Hand tools	1 lot	
24 .	Tool cabinet and shelf	1 lot	
25 .	Roundness tester	1	
26 .	Measuring microscope	1	
27 .	Gauge block	6	
28 .	Hight gauge	2	
29 .	Flat gauge	2	
30 .	Cylinder gauge	3	
31 .	Micrometer	20	
32 .	Inside micrometer	20	
33 .	Indicating micrometer	5	
34 .	3 point inside micrometer	2	

35 .	Dial gauge	30	
36 .	Caliper virnier	30	
37 .	Limit gauge	3	
38 .	Depth micrometer	3	
39 .	Square master	2	
40 .	Straight edge	1	
41 .	Tooth micrometer	2	
42 .	Tooth pitch tester	1	
43 .	Hob tester	1	
44 .	Screw thread micrometer	3	
45 .	Grinding wheel balancer	2	
46 .	Handy tachometer	2	
47 .	Portable sound level meter	2	
48 .	Portable vibro meter	2	
49 .	Granite surface plate	2	
50 .	Cabinet ,shelf and working table ,etc.	1	lot

EQUIPMENT FOR FORGING ,WELDING , SHEETMETAL WORKS

iten No.	Item	Quantity	Remark
1 ,	A.C arc welding machine	15	
2.	D.C arc welding machine	3	
3.	Engine welder	2	
4.	Tig welding machine	3	
5.	Mig welding machine	5	
6.	CO_2 weld machine	1	
7.	Non-gas welding machine	1	
8.	Spot welder	2	
9.	Shearing machine	1	
10.	Friction press	1	
11.	Press brake	1	
12.	Crank press	2	
13.	Screw press	1	
14.	Hydraulic press	1	
15.	Bending roller	1	
16.	Universal bender	1	
17.	Pipe bender	1	
18.	High speed cutting machine	1	
19.	Hack sawing machine	1	
20.	Piller drilling machine	1	
2L.	Electrod dryer	2	
22.	Gas cutting machine	2	
23.	Two head grinding machine	2	
24.	Buffing machine	2	
25.	Belt grinding machine	1	
26.	Welding positioner	2	
27.	Welding booth	15	
28.	Welding torch,goggle	20	
29.	Pipe threading machine	1	
30.	Ultra red ray dryer	1	
31.	Jigs and fixtures	1	set
32.	Hand tools	1	lot
33.	Tool cabinet and shelf	1	

FOUNDRY EQUIPMENT AND PATTERN MAKING EQUIPMENT

Item No.	Item	Quantity	Remark
	Melting Process Equipment		
1.	Cupola	1	
2.	Crucible furnace	1	
3.	Ladle	5	
4.	Carbon equivalent meter	1	
5.	Pyrometer	1	
6.	Gas burner	1	
7.	Balance for molten metal	1	
8.	Mixture for refratory	1	
9.	Scales for cupola charge	2	
.	Molding process equipment		
	Green sand molding process	1 set	
1.	Mix muller	1	
2.	Molding machine	1	
3.	Dust collector	1	
4.	Hoist for molding machine	1	
5.	Easy crane for pouring	1	
6.	Flask	1	
7.	Molding tool and box	1	
8.	Flask	1	
	CO_2 molding process equipment	1 set	
1.	Sand mixer, 40kg/batch	1	
2.	CO_2 gas economizer	1	
3.	Flask	1	
4.	Tool and pattern	1	
5.	Coat mixer	1	
	Sand Testing equipment		
1.	Sand remmer	1	
2.	Permeability tester	1	
3.	Rotap sieve shaker	1	

4 .	Moisture tester	1
5 .	Universal sand strength machine	1
6 .	Rotating sand washer	1
7 .	Green sand mold hardness tester	2
8 .	Muffle furnace	1
9 .	Balance	3
10 .	Sand mill	1

Finish process Equipment :

1 .	Shot blasting	1
2 .	Dust collector	1
3 .	Grinder	2
4 .	Hand grinder, Straight type	2
5 .	Hand grinder , Disc type	2
6 .	Hand chisel	2
7 .	Surface plate	1

Pattern making equipment

1 .	Wood turning lathe	1
2 .	Hand feed planer	1
3 .	Band sawing machine	3
4 .	Disc and belt sander	3
5 .	Surface plate 1,800 x 900	1
6 .	Dust Collector	10

Others

1 .	Inspection tools	1 lot
2 .	Hand tool kit for pattern	1 lot
3 .	Gas boftles	1 set
4 .	Manual gas cutter	1 set

ELECTRIC EQUIPMENT

Item No.	Item	Quantity	Remark
1 .	Training swich board	1	
2 .	Sequence control	2	
3 .	Logic circuit trainer	2	
4 .	Dynamometer	2	
5 .	Automatic warehouse control model	2	
6 .	Generator	2	
7 .	Induction voltage regulator	2	
8 .	Rectifier	2	
9 .	Coil winding machine	2	
10 .	Transformer	2	
11 .	Load Rheostat	2	
12 .	Universal load	2	
13 .	Variable reactor	1	
14 .	Oil pressure bending	1	
15 .	Oil pressure press	1	
16 .	Oil pressure puncher	1	
17 .	Pipe threading machine	1	
18 .	Bench grinder	2	
19 .	Double head grinder	2	
20 .	House wiring trainer	5	
21 .	Small size refrigerator	3	
22 .	Refrigerator showcase	1	
23 .	Chilling unit	2	
24 .	Cooling tower	1	
25 .	Air conditioner	2	
26 .	Fan coil unit	3	
27 .	Room cooler	3	
28 .	Refrigerator equipment	1	
29 .	Air condition trainer	1	
30 .	Refrigerator equipment	1	
31 .	Vacuum pump	2	
32 .	Measuring equipment	5	
33 .	Tool	5	
34 .	Parts	5	

35 .	Motor generator	1
36 .	3-phase synchronous motor	1
37 .	Single phase synchronous	1
38 .	DC motor	1
39 .	Amplifier circuit experiment unit	2
40 .	Various type of motor	3
41 .	Cut motor model	5
42 .	Hot-air drying oven	2
43 .	Bench drill	2
44 .	Illustration ofAC motor	2
45 .	Illustration of motor principle	2
46 .	Illustration of control circuit	2

ELECTRONICS EQUIPMENT

Item No.	Item	Quantity	Remark
1.	Oscilloscope	5	
2.	Universal counter	2	
3.	X-Y recorder	2	
4.	Pulse generator	2	
5.	LCR Bridge	4	
6.	Transistor checker	2	
7.	Q- meter	2	
8.	Synchroscope	25	
9.	Variable air condenser	3	
10.	Variable filter training set	22	
11.	Colour TV training set	2	
12.	Colour television set	2	
13.	Colour bar generator	2	
14.	Standard signal generator	2	
15.	Video tape recorder	2	
16.	Wireless amplifier	2	
17.	Interphone	3	
18.	Transceiver	3	
19.	SSB equipment	1	
20.	Electronic circuit	5	
21.	Transistor circuit unit	5	
22.	DC circuit traning unit	5	
23.	Pulse circuit training unit	5	
24.	AC- DC converter	55	
25.	Micro Computor	5	
26	DC-AC inverter	5	
27.	Bench drill	2	
28.	measuring instrument	5	
29.	Pattern Generator	2	
30.	Torch cutting set	5	

31.	Synchroscope	1
32.	Electronics Alignment	2
33.	Universal grinder	2
34.	Varipus type of cassette recorder	4
35.	Various type of radio	6
36.	Air conditioner	2
37.	Generator	2

AUTOMOBILE MAINTENANCE EQUIPMENT

Item No.	Item	Quantity	Remark
	INSPECTION ROOM		
1 .	Brake tester	1	
2 .	Side slip tester	1	
3 .	Headlight tester	1	
4 .	Wheel alignment tester	1	
5 .	HC - CO Tester	1	
6 .	Diesel smoke tester	1	
	GENERAL REPAIR SHOP		
1 .	Two post lift	2	
2 .	Work bench with vise	6	
3 .	Tool stand	6	
4 .	Electric combination trolley	2	
5 .	Garage jack	3	
6 .	Transmission jack	1	
7 .	Portable oil lubricator	3	
8 .	Portable grease lubricator	1	
9 .	Oil drain pump	1	
10 .	Scoped engine analyzer	1	
11 .	Spark plug Tester	1	
12 .	Diesel timing and tachometer	1	
13 .	Compression gauge for gasoline	1	
14 .	Compression gauge for diesel	1	
15 .	Radiator gap Tester	2	
16 .	Air Filter element Tester	1	
17 .	Oil Pressure gauge	2	
18 .	Power consumption gauge	1	
19 .	Fuel consumption gauge	1	
20 .	Car cooler service set	1	with vacuum pump

21 .	Refrigerant leak detector	1
22 .	Pedestral grinder with dust collector	1
23 .	Bench drilling machine	1
24 .	Parts washing stand	2
25 .	Hydraulic press	2
26 .	Air inflator	1

MACHINE SHOP

1 .	Crankshaft grinder	1
2 .	Cylinder boring machine	1
3 .	Cylinder honing machine	1
4 .	Brake drum lathe	1
5 .	Brake shoe grinder W/stand	1
6 .	Valve refacer w/stand	1
7 .	Pedestal grinder with dust collector	1
8 .	Work bench with vice	2
9 .	Surface plate	1
10 .	Electric combination trolley	2

Component Repair Shop

1 .	Engine stand	3
2 .	Work bench with vice	3
3 .	Tool stand	3
4 .	Hydraulic press	1
5 .	Parts washing stand	2
6 .	Bench drill	1
7 .	Valve seat grinder	1
8 .	Valve spring Tester	1
9 .	Piston heater	1
10 .	Conecting rod aligner	1
11 .	Electric combination trolley	1
12 .	Portable crane	2

Tire Repair Shop

1 .	Wheel balance	1
2 .	Tire changer	1

3 .	Tube vulcanizer set	1
4 .	Tire Tire service tool set	1
5 .	Work bench with vice	1
	Body Repair Shop	
1 .	Body frame repair set	1
2 .	Spray gun and others (painting equipment)	1 lot
3 .	Gas welding and cutting set	2
4 .	Arc welder	2
5 .	Spot welder	2
	Battery Service Room	
1 .	Battery quick charger	2
2 .	Battery tester	2
3 .	Battery hydrometer set	2
4 .	Booster cable	3
	INJECTION PUMP SERVICE	—
1 .	Injection pump tester	1
2 .	Work bench with drawers	1
3 .	Diesel nozzle tester	1
4 .	Injection pump stand	1
5 .	Parts washing stand	1
	AIR COMPRESSOR	
1 .	Air compressor	1
2 .	Air dryer	1
	WASHING AREA	
1 .	Hot water car washer	1
	TOOL ROOM	
1 .	Miscellaneous Electric and Air tools	1 lot

2 .	Miscellaneous measuring instruments	1	lot
3 .	Miscellaneous hand tools	1	lot
	TRAINING AID		
1 .	Sample hydraulic system	2	
2 .	Vehicle, passenger car	10	
3 .	Engine , gasoline	2	
4 .	Engine, diesel	2	
	OTHERS		
5 .	Two stroke motocycle	5	
6 .	Four stroke motocycle	5	
7 .	Model for 2 stroke motocycle engine	1	
8 .	Model for electrical parts of motocycle	1	
9 .	Models for engine parts	1	

SURFACE TREATMENT EQUIPMENT

Item No,	Item	Quntity	Remark
	ELECTRO PLATING EQUIPENT		
1 .	Cu-Ni- Cr plating line	1	line
2 .	Zn plating line	1	line
3 .	Hard Chromium plating line	1	line
4 .	Aluminium anodic oxidation	1	line
5 .	Supersonic washing tank	1	
6 .	Grinding and polishing machines	4	
7 .	Waste water treatment line	1	set
	PAINTING EQUIPMENT		
1 .	Painting booth	5	
2 .	Painting bench	5	
3 .	Painting hanger	5	
4 .	Mist collector	3	
5 .	Airless unit	3	
6 .	Spray gun	3	
7 ,	Agitator	2	
8 .	Drying furnace	1	
9 .	Veltilator	2	
	TESTING AND INSPECTION EQUIPMENT		
1 .	pH meter	2	
2 .	Hull cell tester	1	
3 .	Film thickness tester	2	
4 .	Pin hole tester	2	
5 .	Colorimeter	1	
6 .	Chemicals and regents	1	lot
7 .	Brush plating set	1	
8 .	Chemical labo. equipment	1	

HEAT TREATMENT EQUIPMENT

Item No.	Item	Quantity	Remark
1.	Gas atmosphere furnace	1	800- 930° C
2.	Tempering furnace	1	150- 600° C
3.	Vertical cleaner	1	
4.	Salt bath furnace	1	1000 - 1 300 ° C
5.	Salt bath furnace	1	600 - 1 000 ° C
6.	Salt bath furnace	1	400 - 700 °C
7.	Quenching oil tank	1	
8.	Spark test booth	1	

TESTING AND INSPECTION EQUIPMENT

Item No.	Item	Quantity	Remark
1 .	Universal testing machine	1	
2 .	Charpy impact tester	1	
3 .	Brinnel hardness tester	1	
4 .	Vickers hardness tester	2	
5 .	Micro Vickers hardness	2	
6 .	Rockwell hardness tester	2	
7 .	Portable Brinnel hardness tester	1	
8 .	Ultrasonic flaw detector	1	
9 .	Magnetic particle flaw detector	1	
10 .	Penetrant inspection set	2	

MINISTRY OF INDUSTRY
SECONDARY INDUSTRY SCHOOL NO I

1997

Ministry of Industry
Secondary Industry School No. I

Socialist Republic of Vietnam
Independence-Freedom - Happiness

SECONDARY INDUSTRY SCHOOL NO I

1. CONSTRUCTION SITE:

- **Address:** Minh Khai Village - Tu Liem - Hanoi
- **Tel:** 8370121 - 8370645
- **Area of Sites:**
  a) School in Minh Khai Village: Total area is 2.7 ha
  b) School in Tay Tuu Village: Total area is 4.6 ha
- **Land Prossessor:** Mr. Vu Van Khao - Headmaster
  (Please refer to the attached land giving decision)
- **Ministry in charge:** Ministry of Indusrty.

2. GENERAL OUTLINE OF SCHOOL:

+ Secondary Industry School No. I, which has been named by Ministry of Industry acoording to the Decision No. 580/QD - TCCB dated 22nd April 1997 merging two schools: Hanoi Technological Practice Training school which has the foundation history of 99 years and Technological Worker Training school which has the foundation and development history of 40 years (Please refer to the enclosed history from 10th August 1898 to 10th August 1993).

The School has the 2 training units (02 former schools):

a) Unit in Minh Khai Village - Tu Liem - Hanoi (formerly Technological Worker Training school)
b) Unit in Tay Tuu Village - Tu Liem - Hanoi (formerly Hanoi Technological Practice training school)

The distance between two Units is about 3 km. Both Units have enough conditions for lecturing such as Dormitary, Practice Workshop, Classrooms system...

+ **Organization Chart :** Please refer to the attachment
+ **Staff members:**
  . Total number: 251 staffs

Of which:

. Number of teachers: 126 (Number of masters : 4; Number of graduate-degree teachers: 94; Number of specialised secondary- degree teachers: 28)

. Number of administratives: 93 (Number of graduate-degree staffs: 2; number of specialised seondary- degree staffs: 35...)

+ **Number of students:**

- Since 1994 to 1996: number of students is approximately 1,600. Number of annual enrollment is 650 students.
- In next one or two years, number of students will b expected to increase from 2,000 to 2,500 . Number of annual enrollment is 700-900 students.

+ **Jobs of Graduates:**

From 1995 up to now, graduates have got jobs in such sectors as State own companies, limited liability companies, private economic units and handicraft cooperatives.

+ **Annual budget: (Within past 3 years)**

. 1995 : VND 4,750 million provided by the State budget

. 1996: VND 5,978 million provided by the State budget

. 1997: VND 6,365 million provided by the State budget

(The State Government has fixed 3 - 3.9 million VND per student/year)

+ **Responsibility of the School:**

Training, retraining staffs of secondary degree and technical workers of mechanical studies:

- Cooperating with training units belonging to the national educational system, with scientific and technological research and development units, business and productive units at home and abroad in order to diversify the training types. The School's management, teachers as well as other staffs must coordinate training with scientific study and productive-service labour organization with a view to efficiently exploit materials - economic units of the School.
- Managing teachers, staffs, administratives and facilities of the School in accordance with the State stipulations.

+ **Contribution of the School to development of Vietnamese Industry:**

Annually, 500 - 600 technical staffs and technical workers graduating from the School are working in the productive units nationwide. This is a big contribution to development of Vietnamese industry.

+ **Relationship between School and Ministry:**

Secondary Industry School No I is directly managed and guided by the Ministry of Industry (Ministry of Industry manages the organization chart, provides budget and gives training tasks) while Ministry of Education and Training manages the content of lecturing programme and profesional activities .

+ Curriculam:

a) Fields of Study

Secondary Study:

- Equipment reparation and exploitation
- Auto and Motor reparation
- Mechanical spare parts manufacture
- Business account keeping
- Electronics and Informatics

Vocational Secondary Study: (The double objective is to train technological workers of technical level of 3/7 and workers of secondary educational degree)

- Electricity reparation
- Automobile reparation
- Electric welding
- Lathing

Technological Workers Study of technical level 3/7:

- Forging and Striking
- Lathing
- Hobbing
- Cooling manufacture with work bench
- Cooling machine tools reparation with work bench
- Electricity reparation
- Automobile reparation
- Heat treatment

b) Subjects

- Practice of 9 careers to train workers
- Theory on 9 careers to train workers
- Basic subjects (about 34 subjects)

3) GOVERNMENT PLAN ON DEVELOPMENT OF VOCATIONAL SCHOOLS

Decision TW 2 issued by the 8th Congress of Vietnamese Communist Party and programmes to implement Decision TW2 carried by Ministry of Education and Training and Ministry of Industry are the national plan on development of specialised and vocational secondary schools. According to the plan up to 2020, Vietnam is basically expected to become one industrial nation. The target is that 22 - 25% of total labour will undergo the training by the year 2000. A sufficient number of workers of high skills will be trained for industrial zones, export processing zones and for labour export requirement.

4) DEVELOPMENT MASTER PLAN OF THE SCHOOL

Based on the main tasks of the School and on the foundation of teachers and staffs as well as on basis of facilities of both Unit A and Unit B, the School must strive to become a training centre of Ministry of Industry in Hanoi and in Northern Part of Vietnam in the next 5 years in order to implement the Decision TW2 - The National Plan on Development of Vocational Schools. Firstly, the School still has to assure the training progress of both former schools while the School promotes the implementation of the following projects:

- Retraining and supplementing teachers and staffs.
- Concretization on appropriate usage of both Unit A and Unit B to facilitate renovation and construction of teaching and learning facilities.

5) FACULTIES OF SCHOOL

1. Faculty of Culture
2. Faculty of Basic Technique
3. Faculty of Professional Technique
4. Faculty of Economics and Informatics
5. Faculty of Politics - Military - Enthusiasm
6. Faculty of Cooling Manufacture and Mechanical Equipment Exploitation and Reparation
7. Faculty of Machinery
8. Faculty of Automobile
9. Faculty of Heat Processing
10. Faculty of Electricity

Accompanied with :

- 05 Departments are Organisation Department, Administration Department, Financial and Accounting Department and Educational Management Department.

- 03 Functional Divisions are Students Management Division, Canteen Division, Electric and Mechanical Reparation Division.

* WATER AND ELECTRICITY

- ELECTRICITY:

Both Unit A and Unit B have their own transformer station (320 KVA) using the national power source 6 KW - 220V

- WATER:

. Unit A is using water from the digging well and water treatment tank to provide the sufficient volume of water for students to study and live.

. Unit B is using water from digging well and water treatment tank. However, capacity of water treatment tank is small and provides insufficient volume of water for students to study and live. (In the near future, it is a must to improve the conditions of digging well)

6) EXISTING EQUIPMENT LIST (Please refer to the attachment)

The Mechanical and Electrical Division of the School is responsible for repairing and maintaining equipment.

7) FOREIGN AID: No assistance (except the case that in 1994, MEKONG CO donated 07 machine tools worth at 1,500 USD).

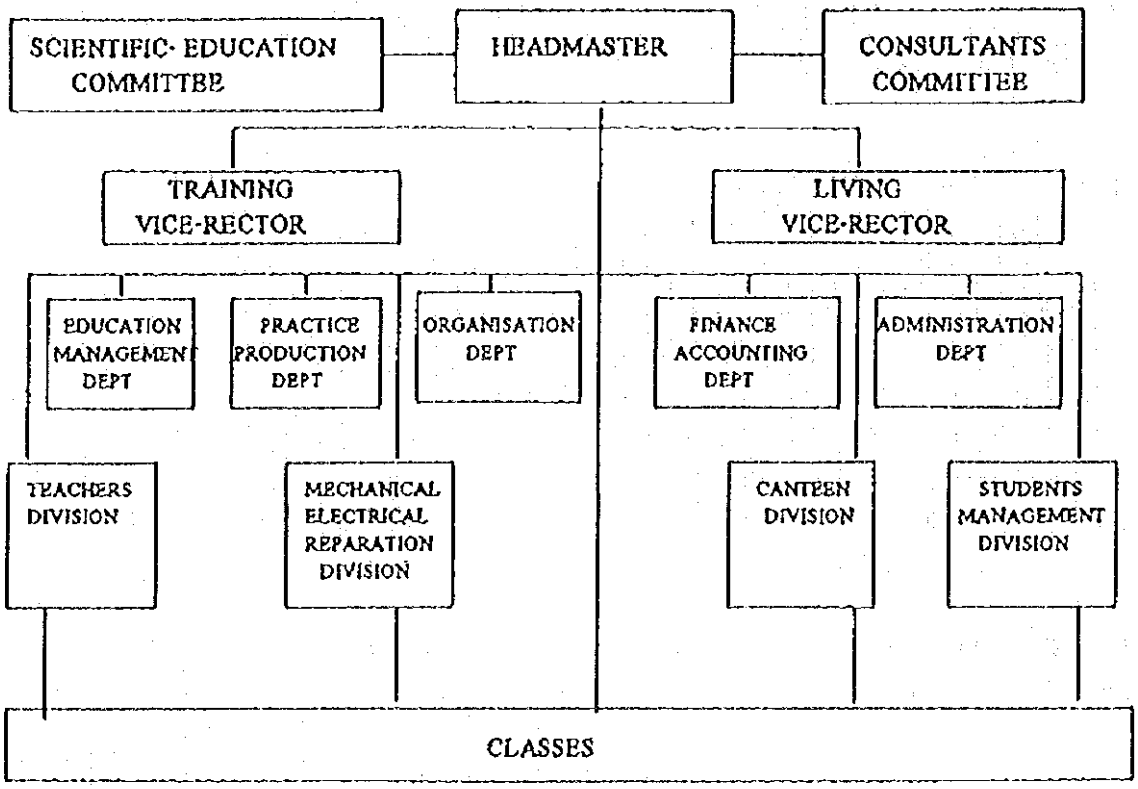
8. MINISTRY OF INDUSTRY BEARS ULTIMATE RESPONSIBILITY FOR POLICIES ON THE OPERATIONAL ISSUES OF SCHOOL.

Hanoi, 08th July 1997

HEADMASTER

VU VAN KHAO

ORGANISATION CHART OF SECONDARY INDUSTRY SCHOOL NO I



LIST OF EXISTING EQUIPMENT OF SECONDARY INDUSTRY SCHOOL NOI

No	Name and Type	Quantity	Year of Production	Country of origin	% remaining value	Status
1	Lathing machine T6 M16	7	1968	Vietnam	60%	Under use
2	Lathing machine T 630	2	1985	Vietnam	70%	-
3	Lathing machine 1K 36	2	1955	China	50%	-
4	Lathing machine T616	7	1962	Vietnam	40%	-
5	Lathing machine T6P16L	4	1996	Vietnam	90%	-
6	Lathing machine T6P16	3	1969	Vietnam	50%	-
7	Lathing machine 1A 62	3	1955	Soviet Union (2) China (1)	50%	-
8	Lathing machine T1PL -5	5	1981	South Korea	70%	-
9	Hobbing machine 6P13	1	1963	Soviet Union	50%	-
10	Hobbing machine UF22	1	1955	Hungary	40%	-
11	Hobbing machine FU 250 x 1000	1		Democratic Republic of German	30%	-
12	Hobbing machine 6H 82	1	1955	China	50%	-
13	Hobbing machine 6M 82	1	1961	Soviet Union	50%	-
14	Hobbing machine DuFOUR	1	1925	French	40%	-
15	Hobbing machine 6H 81F	2	1958	Vietnam	40%	-
16	Hobbing machine FWA - 41	1	1966	Poland	50%	-
17	Hobbing machine 2FW	1	1968	Poland	50%	-
18	Hobbing machine TMH2	2	1981	South Korea	70%	-
19	Horizontal shaving machine 650	4	1957	China	35%	-
20	Horizontal shaving machine 650	2	1977	Vietnam	40%	-
21	Horizontal shaving machine 665	3	1962	Vietnam	50%	-
22	Vertical shaving machine	1	1955	Czechoslovakia	30%	-
23	Vertical shaving machine	1	1959	Vietnam	50%	-
24	Tooth vertical shaving machine	1	1955	China	40%	-
25	Tooth sliding milling machine 5532	1	1955	China	60%	-
26	Horizontal boring machine 2 a 614	2	1967	Soviet Union	60%	-
27	Bench drilling machine	8	1961	Vietnam	50%	-
28	Upright drilling machine	4	1967	Vietnam	50%	-
29	Radial drilling machine VT 50/2	1	1961	Rumania	30%	-
30	Bench drilling machine	2	1955	Hungary	40%	-
31	Surface grinding machine SFW 315	1	1970	Democratic Republic of Germany	60%	-
32	Round grinding machine KUF 250/750	1	1957	Poland	40%	-
33	Edges grinding machine	1		Japan	60%	-
34	Striking machine 63 tons	1	1967	Rumania	60%	-
35	Striking machine 35 tons	2	1967	China	50%	-
36	Hammering machine 250 kg	1	1977	China	50%	-
37	Hammering machine 150 kg	2	1970	Soviet Union	50%	-
38	Striking machine 35 tons	2	1967	Vietnam	40%	-
39	Alternating welding machine	10		Vietnam	40%	-
40	Rigidity testing machine T M2	1	1967	Soviet Union	50%	-
41	Transformer 320 KVA	2	1988	Vietnam	60%	-

MINISTERS COUNCIL

SOCIALIST REPUBLIC OF VIETNAM
Independence-Freedom-Happiness

No. 376-CT

Hanoi, 14th November 1991

DECISION OF CHAIRMAN OF MINISTERS COUNCIL

Sub: Recovering land of Nguyen Ai Quoc Institute under Central Financial Administration Board at Tay Tuu Village, Tu Liem District, Hanoi City in order to make a grant to Technological Practice Training School under Ministry of Heavy Industry.

CHAIRMAN OF MINISTERS COUNCIL

- Based on the Law on organisation of Ministers Council dated 4th July 1981;
- Based on the decision No. 07-CT dated 7th January 1991 of Chairman of Ministers Council permitting the removal of Technological Practice Training School from Vinh Phu Province to Hanoi City ;
- Considering the request of Hanoi People Committee No. 1854- CV/UB dated 21st November 1991 requiring the recover of land from Nguyen Ai Quoc Institute to make a grant to Technological Practice Training School.

DECIDES AS FOLLOWS:

Article I: Total 45,791 m2 land which was formerly given to Nguyen Ai Quoc Institute (under Central Financial Administration Board) but was currently unused will be now recovered and granted to Technological Practice Training School (under Ministry of Heavy Industry) for this School to control and manage.

Article II: Ministry of Heavy Industry and Technological Practice Training School will work with Hanoi People Committee in order to carry out necessary procedures.

Article III: Minister of Ministry of Heavy Industry, Chairman of Hanoi People Committee, Headmaster of Technological Practice Training School and concerned authorities are responsible for execution of this Decision.

Article IV: The Decision will come into effect from the signing date.

ON BEHALF OF CHAIRMAN OF MINISTERS COUNCIL
VICE-CHAIRMAN
PHAN VAN KHAI

MINISTERS COUNCIL

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

No. 267 - CT

Hanoi, 22nd August 1985

DECISION OF CHAIRMAN OF MINISTERS COUNCIL

Sub: Permitting the removal of Technological Workers Training School No.I (under Ministry of Mechanics and Metallurgy) to Hanoi City.

CHAIRMAN OF MINISTERS COUNCIL

Based on the request of Minister of Ministry of Mechanics and Metallurgy and Chairman of General Vocational Department;

Considering opinions of concerned authorities and localities;

DECIDES AS FOLLOWS:

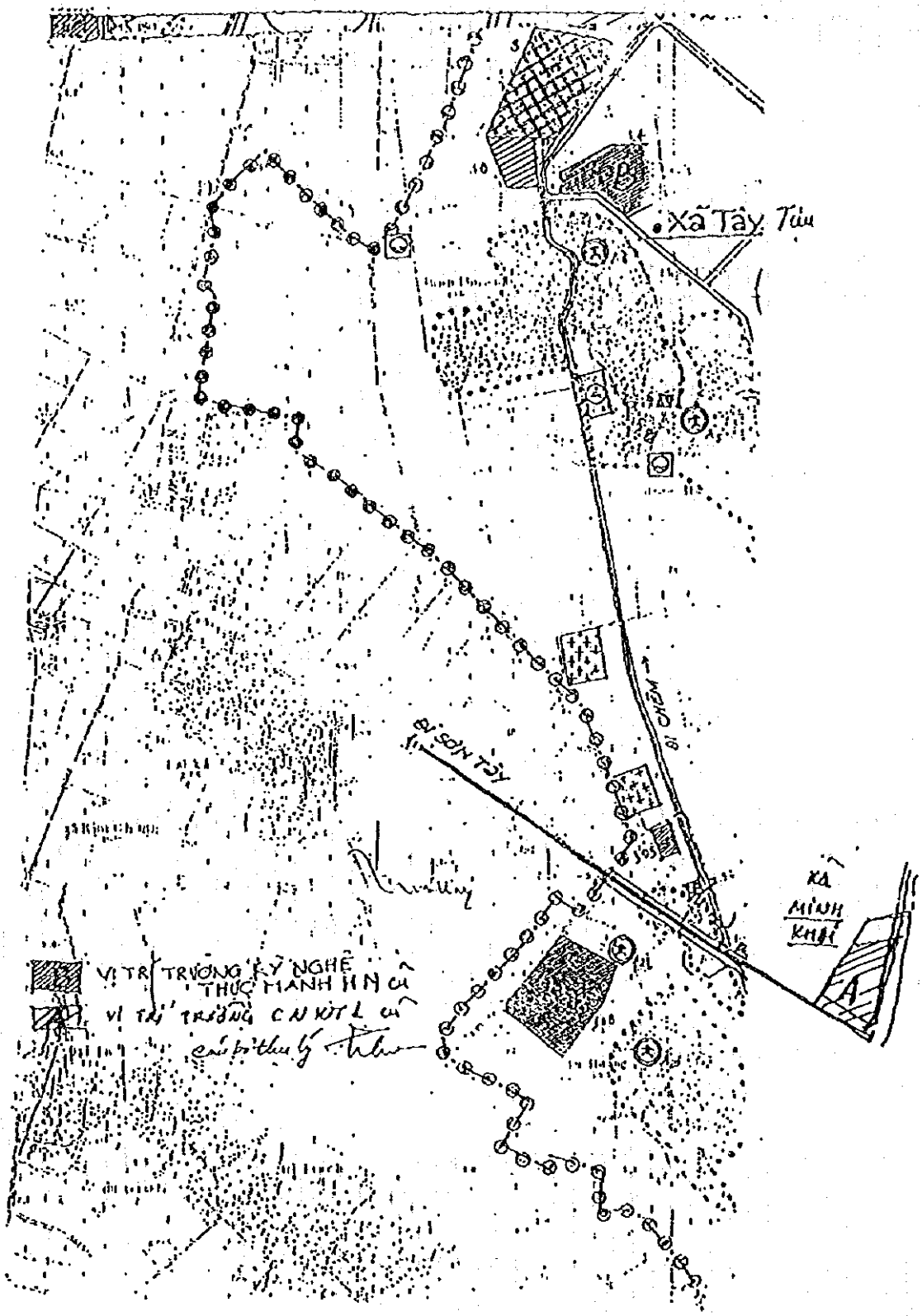
Article I: Technological Workers Training School (under Ministry of Mechanics and Metallurgy) which is now staying in Ha Bac will be permitted to remove to be re-positioned in Hanoi City.

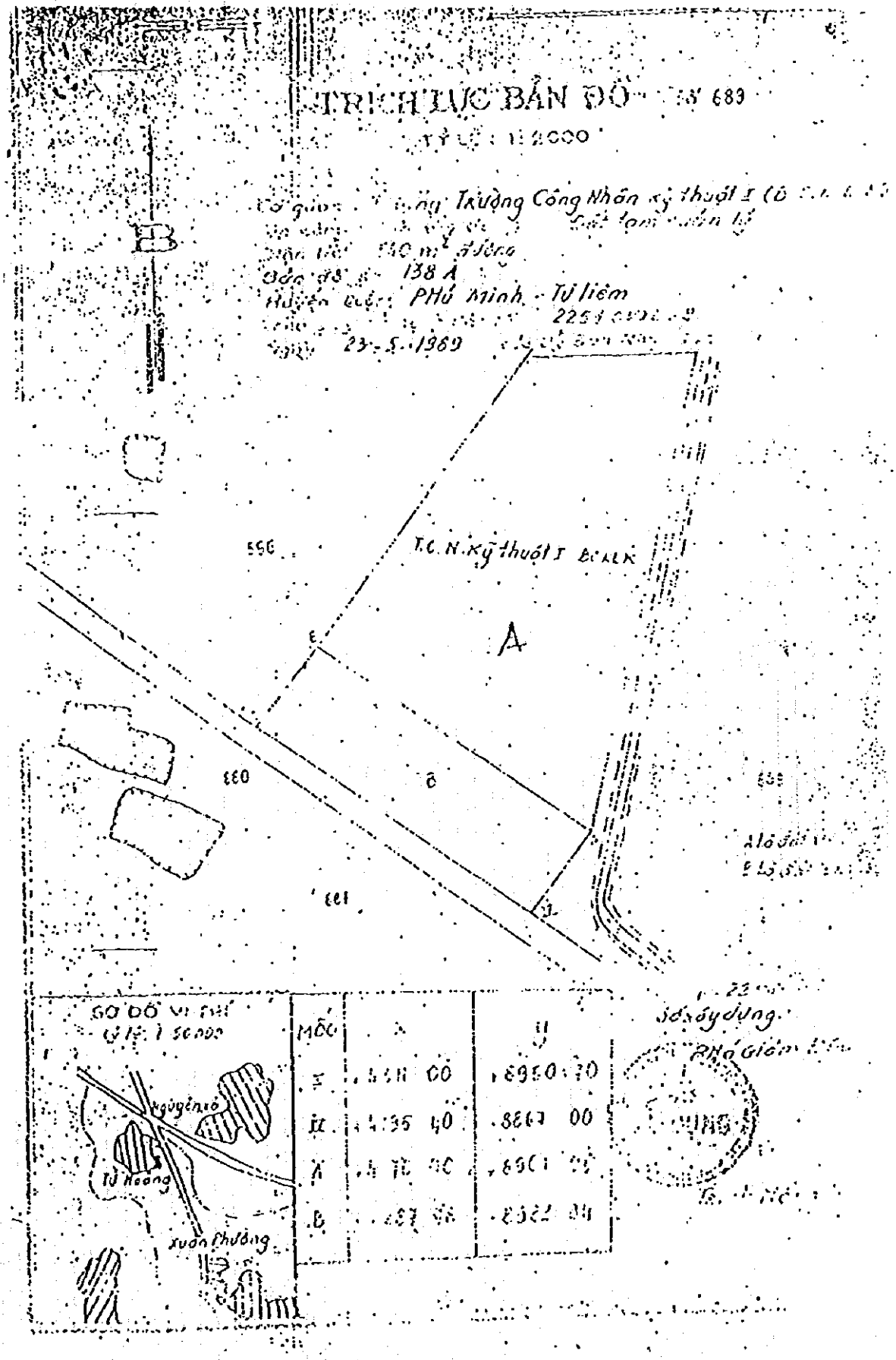
Article II: Ministry of Mechanics and Metallurgy co-ordinates with General Vocational Department guiding the School to solve the necessary procedures on removal to Hanoi in such way to make sure that this School still guarantees teaching and learning activities, maintains the facilities, equipment and all state assets effectively and carefully.

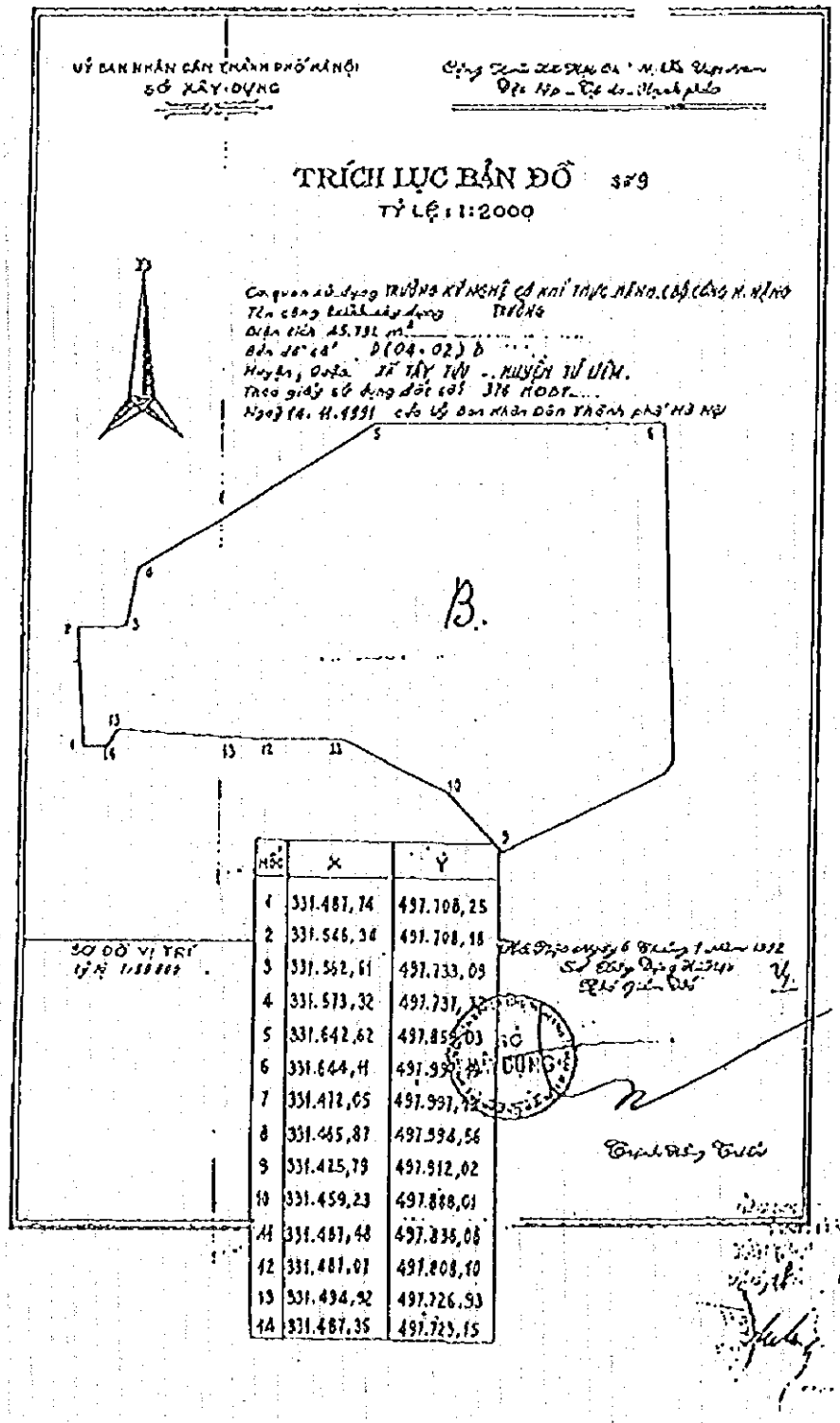
Article III: Ministers , Chairman of State Council , Heads of other departments under Minister Council, Chairman of concerned Provincial People Committees are responsible for execution of this Decision.

ON BEHALF OF CHAIRMAN OF MINISTER COUNCIL
VICE-CHAIRMAN

VO NGUYEN GIAP


Xã Tây Tựu
Đ. SƠN TÂY
XÃ MINH KHAI
VỊ TRÍ TRƯỜNG KỸ NGHỆ THỰC HÀNH HN
VỊ TRÍ TRƯỜNG CN HÓA L

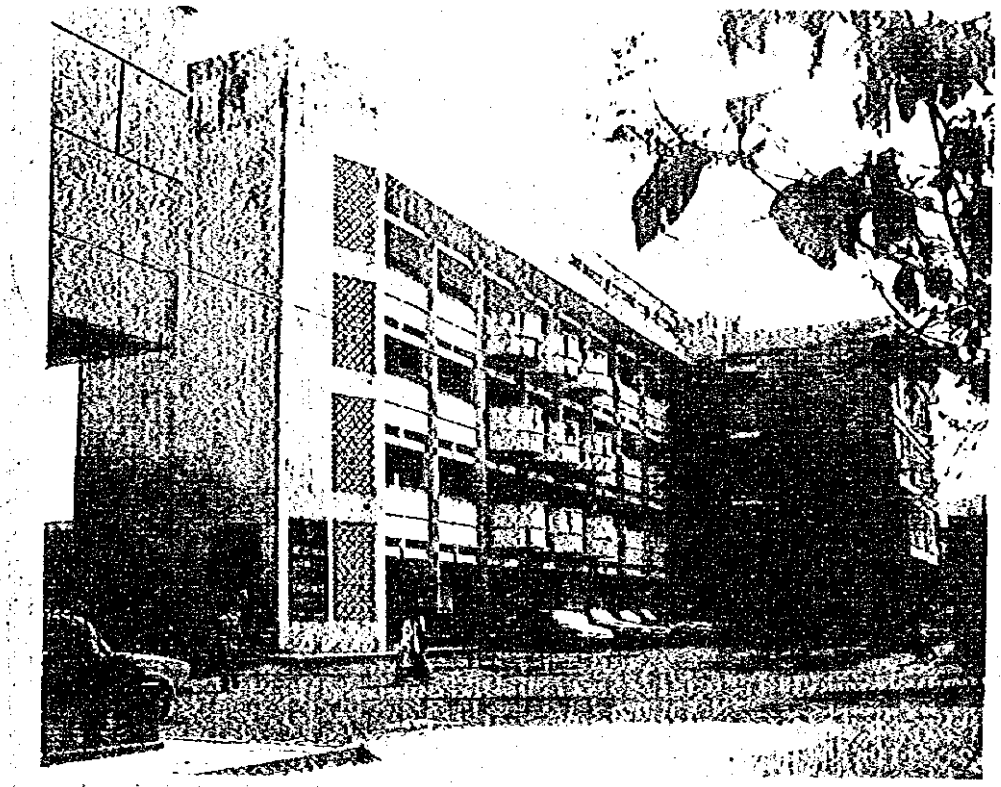

TRÍCH LỤC BẢN ĐỒ
Trường Công Nhân kỹ thuật I
PHú Minh - Từ liêm
23-5-1969
T.C.N.Kỹ thuật I
A
B
Sơ đồ vị trí
Nguyễn Trãi
Từ Hoàng
Xuân Phương
Mốc
Sở xây dựng



Mốc	X	Y
1	331.481,74	497.708,25
2	331.546,36	497.708,18
3	331.562,61	497.733,09
4	331.573,32	497.731,12
5	331.642,62	497.859,03
6	331.644,11	497.99[illegible]
7	331.412,65	497.991,12
8	331.465,87	497.896,56
9	331.425,79	497.912,02
10	331.459,23	497.888,01
11	331.481,48	497.836,08
12	331.481,01	497.808,10
13	331.494,92	497.726,93
14	331.487,35	497.725,15

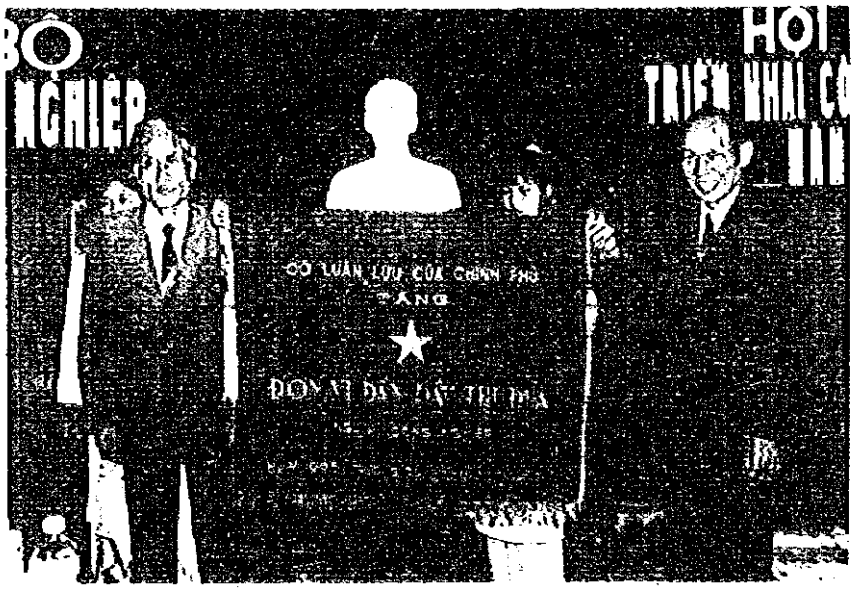
BỘ CÔNG NGHIỆP

TRƯỜNG CÔNG NHÂN KỸ THUẬT I



MINISTRY OF INDUSTRY
THE TECHNICAL WORKERS SCHOOL No1.

ĐỊA CHỈ: KM13 ĐƯỜNG HÀ NỘI - SƠN TÂY.
XÃ MINH KHAI - TỪ LIÊM - HÀ NỘI
ĐIỆN THOẠI: 8 370121.



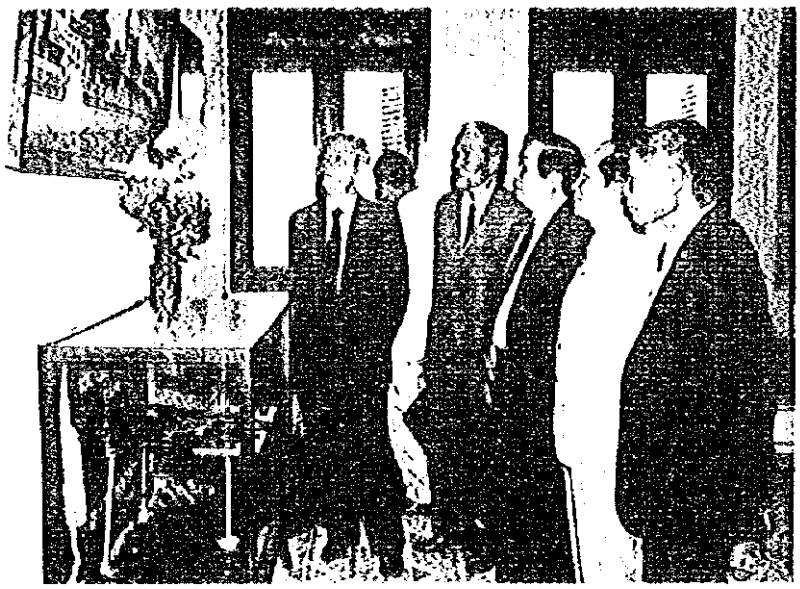
- Bộ trưởng Bộ Giáo dục - Đào tạo Trần Hồng Quân trao cờ thưởng luân lưu của Chính phủ cho trường.
- Minister of Education - Training Tran Hong Quan confers the Challenge Rewarded Standard of Government to the school.

TRƯỜNG CÔNG NHÂN KỸ THUẬT I

- **Trường Công nhân kỹ thuật I** (trước đây là Trường công nhân kỹ thuật Hải Phòng) Thành lập ngày 26-3-1956.
- **Địa điểm hiện nay:** Minh Khai - Từ Liêm - Hà Nội.
- **Cơ sở vật chất:** Có 6700m2 xưởng trường, lớp học và 1300m2 ký túc xá với hệ thống thiết bị, máy móc, đảm bảo cho việc đào tạo thường xuyên từ 900 - 1000 học sinh.
- **Đội ngũ cán bộ, giáo viên:**
  Có nhiều kinh nghiệm trong đào tạo, 64% số giáo viên có trình độ cao đẳng, đại học và trên đại học, bậc thợ bình quân của giáo viên hướng dẫn thực hành là 5,2/7.
- **Từ năm 1956 - 1995 trường đã đào tạo:**
  Hơn 15.000 công nhân kỹ thuật, giáo viên dạy nghề cho các ngành, địa phương, các thành phần kinh tế và 2 nước Lào, Cam-pu-chia.
  Nhiều học sinh cũ của trường đã trở thành những cán bộ quản lý của các cơ quan, doanh nghiệp, trường đào tạo và những công nhân kỹ thuật giỏi.
- **Trường nhận đào tạo:**
  Công nhân kỹ thuật bậc 3/7, các nghề: mộc mẫu, đúc gang, rèn-dập, gò-hàn, tiện, phay-bào, nguội sửa chữa máy công cụ, nguội chế tạo, điện xí nghiệp và dân dụng, sửa chữa ôtô - xe máy.
  Thời gian đào tạo 24 tháng (học sinh đã tốt nghiệp PTTH); 30 tháng (học sinh đã tốt nghiệp PTCS).
  + Trung học nghề: đào tạo 42 tháng (học sinh đã tốt nghiệp PTCS).
  + Đào tạo ngắn hạn, kèm cặp nâng bậc thợ theo yêu cầu của người học.
  Địa điểm tuyển sinh: Từ Hà Tĩnh trở ra các tỉnh phía Bắc.

Thành tích đạt được:

- 2 Huân chương lao động hạng 3 (1968, 1978).
- 1 Huân chương lao động hạng nhì (1981).
- 2 Huân chương lao động hạng nhất (1986, 1991).
- 1 Huân chương chiến công hạng 3 (1991).
- 6 cờ thưởng và 1 bằng khen của Chính phủ.
- 19 cờ thưởng của Bộ, Tổng liên đoàn LĐVN, Trung ương đoàn Thanh niên Cộng sản Hồ Chí Minh.



- Bộ trưởng Bộ Công nghiệp Đặng Vũ Chư thăm trường (2-1996).
- Minister of Industry Dang Vu Chu paid a visit to the school (2-1996).

TECHNHICAL WORKER TRAINING SCHOOL No. 1

- Technical Workers Training School No. 1 (formerly Hai Phong Technical Workers Training School) was established on 26th March, 1956.
- The School is situated in Minh Khai, Tu Liem, Hanoi.
- The School has 6700m2 of workshop area, class-rooms, 1300m2 of boarding houses area and a system of equipment and machinery assuring the regular training for 900 - 1000 students.
- Cadres and teachers staff is experienced in training. 64% of teachers is graduated and post-graduated. Average qualification level of tutors is 5,2/7.
- **From 1956 to 1995 the school has trained:**
  Over 15.000 technical workers, vocational teachers for different industries, localities, economic sectors and 2 countries of Laos and Cambodia.
- Many students of the school have become managers of establishments, companies, vocational schools and skillful workers.
- **The school offers training:**
  3/7 level technical worker on exemplary carpentry, pig - iron casting, forging, hammering - welding, turning, fraising - planing, metal - working for fabricating, enterprise and civil electricity, car and motorcycle reparation.
  - Course duration: 24 months (for finished secondary school pupils), 30 months (for finishs general basis school pupils).

+ **Long term course:** 42 months (for finished general basis school pupils).
+ **Short-term course:** To raise worker level according to students' request.
  The school collects students from Ha Tinh province and Northern provinces.

Attained achievements:

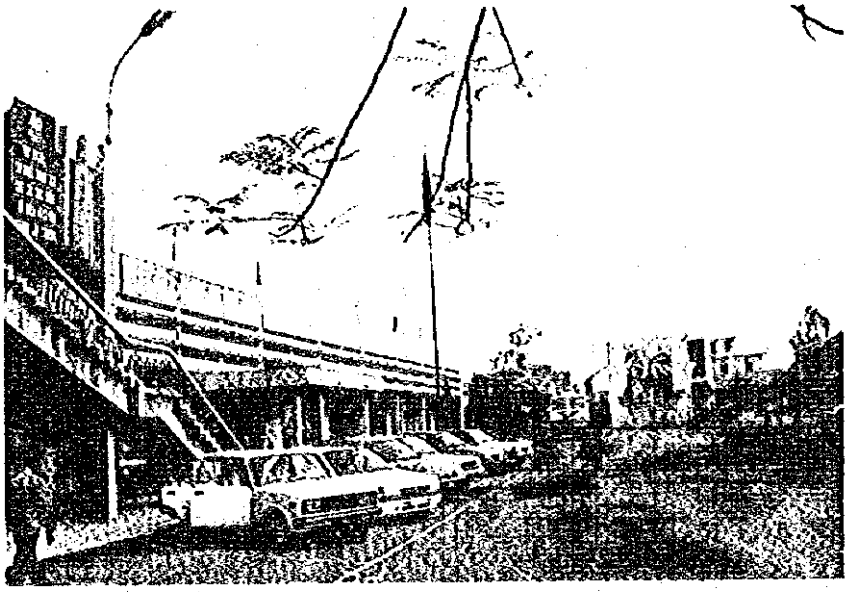
- 2 third class labour orders (1968 - 1978).
- 1 second class labour order (1981).
- 2 first class labour orders (1986 - 1991).
- 1 third class feat of arms order (1991).
- 6 rewarded standard and 1 diploma of merit of Government.
- 19 Rewarded standards of Ministry of Education and Training,Vietnam General Confederation of Labour and Ho Chi Minh Communist Central Youth Committee.

TRƯỜNG CÔNG NHÂN KỸ THUẬT I

- Đ/c Hiệu trưởng Trần Văn Tiêu hướng dẫn đ/c Hoàng Quốc Việt, các đ/c lãnh đạo Bộ và địa phương đi thăm trường (năm 1986).
- Rector of the school, Mr. Tran Van Tieu is guiding Mr. Hoang Quoc Viet and other leaders of Ministry of Education and Training and the province to visit the School (in 1986).

- Đại tướng Võ Nguyên Giáp đến thăm và dự lễ kỷ niệm 35 năm ngày thành lập trường (10-1991).
- General Vo Nguyen Giap visited the school on ceremony of 35th year of the school establishment (10-1991).

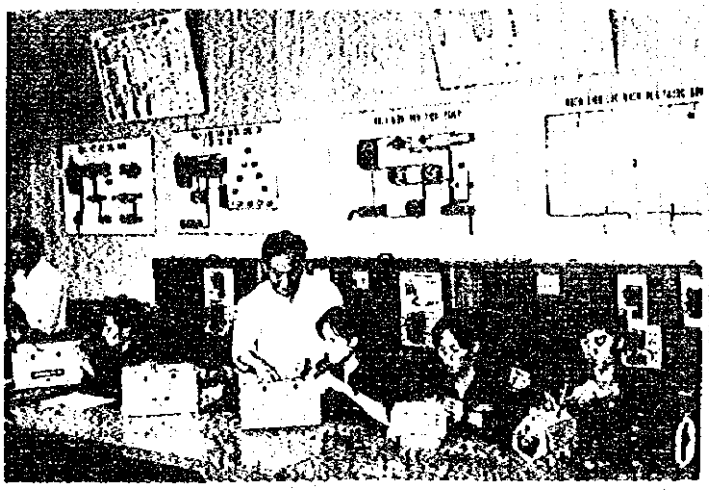
✲ BỘ CÔNG NGHIỆP ✲

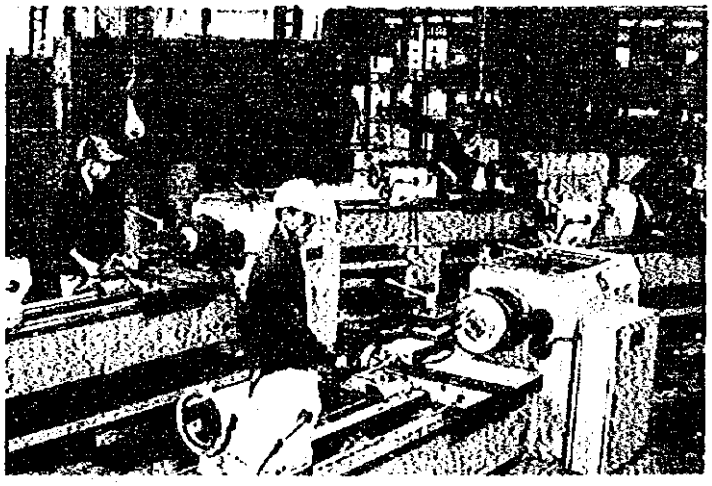


• Xưởng thực tập.

• Workshop for practice.

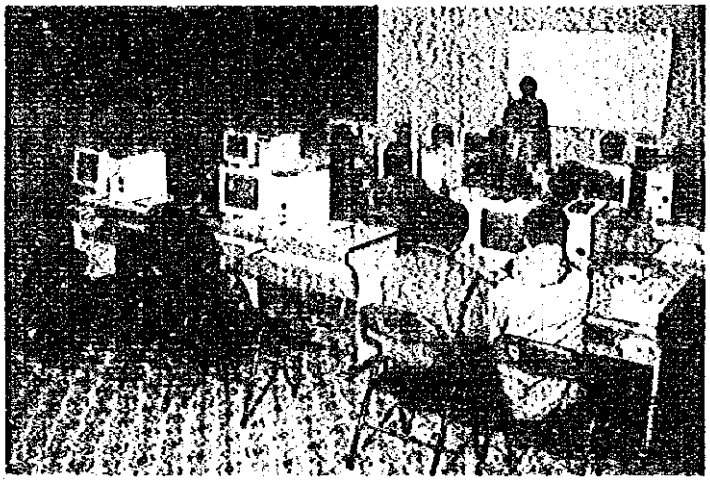
• Học sinh nghề điện.
• Trainee of electric profession.



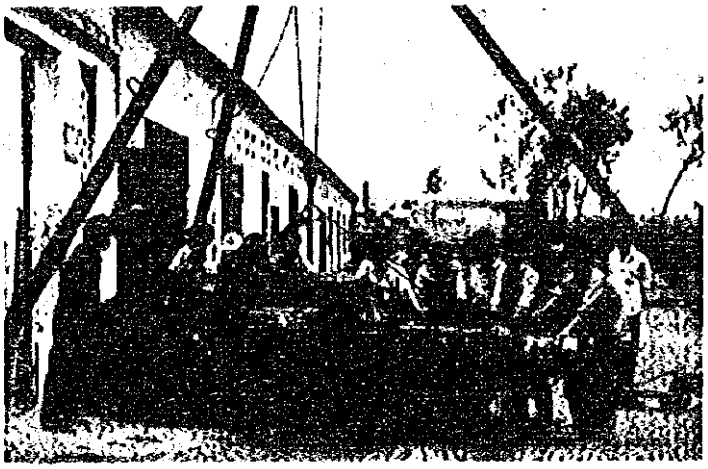


• Học sinh nghề tiện.
• Trainee of turning profession.

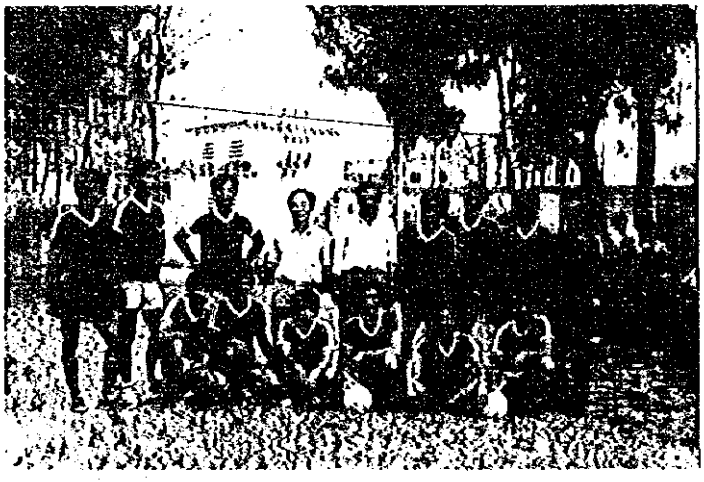
THE TECHNICAL WORKERS SCHOOL No1.



- Lớp học vi tính
- Informatics cla



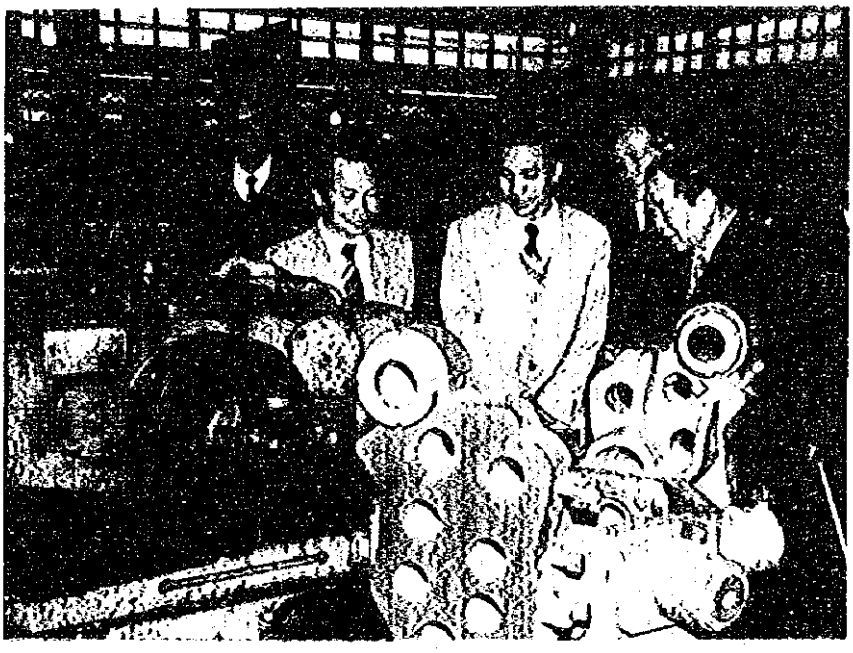
- Tháo dỡ, di chuyển trường từ nơi sơ tán ở Hà Bắc về Hà Nội.
- Disassembling, moving the school from evacuation place in Ha Bac province to Hanoi.



- Đội bóng chuyền của trường.
- The volley-ball team of the school.

☆ MINISTRY OF INDUSTRY ☆

- Đoàn đại biểu của tổ chức Bộ trưởng Giáo dục các nước Đông Nam Á đến thăm trường (1992).
- The delegation of South East Asian Ministers of Education Organization (SEAMEO - VOCTECH) paid a visit to the school (1992).



- Đ/c phó chủ tịch Tổng công hội Trung Quốc đến thăm trường (1996).
- Vice chairman of China General Trade Unions visited the school (1996).

• Phần thưởng cao quý.

• Noble reward.

• Cán bộ - giáo viên của trường được tặng huy chương "Vì sự nghiệp giáo dục" (11-1995).

• Cadres, teachers of the school were awarded the medal for the education work (11-1995).

(5) ロンタイン職業訓練校 No.2 の回答

THE ANSWER

Hanoi 22/12/1997

Project Title	Upgrading the Long thanh Machinery Erection Technicecal Worker's Training Scool No2 in Long Thanh District, Dong Nai Province
Implementing Agency	The Long thanh Machinery Erection Technical Worker's Training School No2 in Long Thanh District, Dong Nai Province
Responsible Ministry	Ministry of Construc tion
Location	Long thanh Distric, Dong Nai Province
Fourdation Date	April 7th 1986, under Decision N° 264/BXD.TCCB of Ministry of Construction
Other schools under the Ministry of Construction	1. Architecture University - Ha noi 2. Construction high School N° 1 3 . Construction high School N° 4 4. Ninh Binh Machinery Erection Technical Worker's Training school N° 1 5. Construction high School N° 6 6. Construction high School N° 7 7. Mien Tay Construction high School 8. Construction Technical teacher's training school 9. Viet Xo Construction Machinery Worker School 10. Construction Worker School - Vinh Province 11. Viet Duc Technical School - Nghe An Provinece 12. Kien An Construction Worker Shool - Hai Phong 13. Construction Worker and Handicraft School - Nam Dinh Town 14. Song Da Construction Machinery Worker School 15. Construction Technical Worker School - Da Nang 16. Construction Worker School - Thai Binh Province 17. Technical Worker and Construction Skill School No 2 - Nam Dinh Town. 18. Ha Noi Construction Technical Worker School 19. Xuan Hoa Techni cal Worker and Construction Skill School . 20. Bim Son Construction Worker School 21. An Duong Technical Worker School - Hai Phong 22. Song Hong Construction Technical Worker School Viet Tri Town 23. Uong Bi Construction Technical Worker School - Quang ninh Province . 24. Chi Linh Construction Technical and Worker School .

Annual Budget (Disburse Base)	State Budget through Vietnam Department for Development and Investment. 1995 : 930.500.000 VND 1996 : 1.100.000.000 VND 1997 : 1.025.000.000 VND
Other Revenues exept the State Budget	Capital from Vietnam Erection and others 1995 130.000.000 VND 1996 430.000.000 VND 1997 920.000.000 VND
Availability of Facilites	Land : 58.500 m^2 - Building workshop 04 x 750 m^2 = 3.000 m^2 - House of section job 08 x 72 m^2 = 576 m^2 - Practicing yard = 3.200 m^2 - Study building Area for theory = 2.200 m^2 - Working house = 400 m^2 - Domitory = 2.000 m^2 - The canteen = 750 m^2 - Old house is re-used = 1.000 m^2
Main Existing Equipments	Annex IV attacked
Organization Chart	Annex I attacked
Staft Number Annex III attached	Total of Cardres : 78 persons Director Board : 03 Training office : 02 Section I : 07 Section II : 09 Section III : 11 Producing and servicing and practicing Office : 07 persos Administration and organization office : 31 persons Acounting office : 08 persons Teachers : 35
Qualifications of Instruction	No II of Annex III attached
Qualifications of Trainees	1. News training (regular learner) : 17-25 years old (finish army : 27) . Culture : 9/12 2. Shorterm training : under 40 years - old will have test to increase worker's grade Culture : 9/12 Training circle : Graduate Basic school /higher school /Higher level

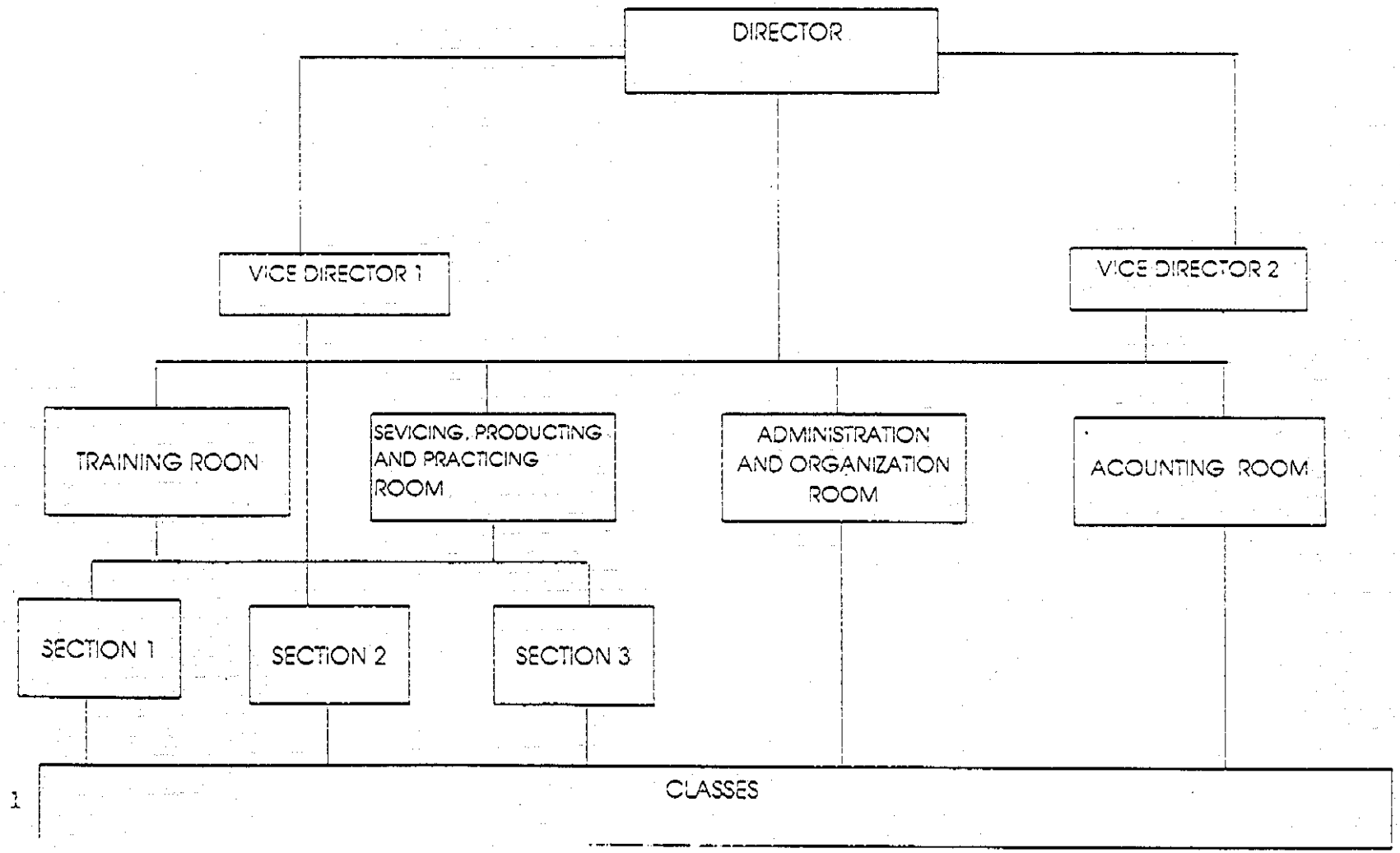
Recruitment of trainees	Regular course : oncea year in October anual Shorterm course : once 6 months The number of applicants local and other places person
Numbers of graduates and Enrolments per each training course	Depend on showing of enroll learner in school from last year and this year Annex II attacked
Fixed numbers of trainees per each training course	Number of learners per year : 1.200 Regular : Follow the showing of state through Ministry of Construction Shorterm training course and open regular : depend on equipments, teachers, accomodation, school will recruit the trainees for each term
Training subjects per Each training course	- General subjects : Law, politic, Athletics, English, Military . - Basic technical subjects : technical drawing, technical electric, technical mechanic ... . - Specificated technical subjects - Probation : Specificate profession, site probation ...
Training Period and total amount of training time per each training course	Regular training : - 18 months for 3/7 grade(have graduated high school 12/12) - 18 month for 2/7 grade (have graduated secondary school 9/12) - Short training : - from 6 months to 9 months - depend on the course works
Certification of Graduates	- Diploma for skills : for regular training and open 4 regular training . - Training Certificate : For short fraining course (Defined by Ministry of graduation and training) .
Main places of Employment	- Graduated learners are pointed to work for LILAMA . In the south : ECC 18, ECC 45-1, ECC-45-4, ECC-7 Da Nang, ECC 45-3 . - JVCs in Dongnai PosLilama, Vinaphaco, Vedan, Vietsopetro. - Local enterprises : Processing Enterprise, Bien hoa steel Laminatery Enterprise .

Ratio of Informal sector in the graduates' Employment	About 25% - 30%
Purpose of each training course	The purpose of training course : - Training technical workers in coustruction machinery field for erection, steel and equiment manufacturing working in Vietnam and may be exported - Retraining and improved training for skilled workers in order to suit with real requirement of enterprises . - Training some skills to meet the demand of applying for jobs of local youths
Level of each training course	- Regular training (and open regular training) : 2/7 grade and 3/7 grade which promulgated by Ministry of Construction . Improved training : base on contract between 2 sides (learners or enterprises which have learners and the school) . - Short training course : train in practise skill model, after a 6-9 months course and learners will have a practise skill to do a part of work in real life .
Curriculums of each training course	- Base on programe that have been approved by MOC for regular training . - Base on programe that provided by the school for instant training . - Base on the Equirement of training contract . - General operations : 16,67 % (school year beginning, ending, graduated examination, summer holiday, ...) - Study time : 83,33 % (theory and practice)
Ratio between lecture and practice	- General subjects : 12,3 % - Theory : total lecture time : 21,0 % - Practice : total practice time : 60,8 % - Other operations : - Graduated examination - School year beginning, ending - Summer holiday
Ratio of OJT OJT : on the Job Training/ Practice in the Enterprises	OJT : Skill training/practicing in enterprises - Count on manufacturing in plant/practice time : 25,31 % - Count on manufacturing project/general time minus general operation : 15,38 %

Present situation	Problems under the present situation - Second stage economic and technical data (number of 1200 learners/8,6 billion VND that invested from and need tobe given State Budget Studging and practicing equipments aren't synchronous(new equipment = 30 %) . Existing equipment are old, backward and not enough . It is necessary to innovate teaching technics (New model, programe, improving teachers skill, strengthening the practicing ability of teachers and learners and giving more practicing, manufacturing conditions in plant for learners ...
Purpose of this Request	Please read project . Improve management and teaching ablities with advanced equipment, to train 1200 technical workers per year of which 500 - 700 graduated lerners/year) with the help in financial, specialist and modern teaching equipment of Japan .
Contents of this Request	- Improving management and teaching skills with the help of Japanese Specialists. - Sending teachers to Japan to practise, study in training schools . - Strengthening equipment and teaching facilities for practice and theory .
Why did you Select this School	1. Vietnam erection corporation (VEC) have 2 training technical workers schools to satisfy Crporation and other Companies of MOC . 2. VEC propose the foreign side to ineste in Long thanh erection workers school which mainly train erection workers for projects in south . This area have alot of state big projects . 3. Long thanh erection technical wokers is the school that has a quite good base, has been invested by the Government so that has the best conditions to take project
What do you expect to the Japanese Cooperation	Finish " Upgrade the training ability for the second erection school " that assited by Japan . Training skills for Vietnam

ORGANIZATION CHART OF LONG THANH MACHINERY ERECTION AND TECHNICAL WORKER'S TRAINING SCHOOL NO 2 IN DONG NAI PROVINCE

Annex I



THE NUMBER OF RNROLL LEARNER IN SCHOOL 1997

Annex II

Caculation Unit : Person

	Long training course												Others	
	Learner scale			Enroll learners (K 11 only)										
									Erroll source					
	Learner total	state showing budget	Female	Learner total	state showing budget	Female	Minority group	Party member	Pupil graduate high school	Pupil graduate Secondary school	Staff	Others	Long training course	Short training course
Total	721	450	0	405	300	0	0	5	323	82	0	0		126
Welding : Electrical				80										
Erection - Lifting Crane				140										
Electric				72										
Structural endeavour				58										
tech nologycal tube				55										
Short - time welading														40
Driver														86

THE NUMBER OF TEACHERS IN SCHOOL 1997

Annex III

Caculation Unit : Person

	Total				Distributed follon teaching year				Distributed follonage					Staffs	
		Female	Party member	Minority group	Under 5 years	From 5 to 10 year	From 10 to 20 year	Over 20 year	From 35 to down	From 36 to 50 year	From 51 to 55 year	From 56 to 60 year	Over 60 year	Total	Female
I- Total	78	38	15		08	03	19		21	56		01			
Teachers	36	09	09		08	03	15		11	25					
Administrator	04		03				04			03		01			
Management of skill	13	10	02						06	07					
Other staffs	25	17	01						04	21					
Skill Teachers	35	08	13		10	03	22		10	24		01			
Specification Level															
Over University															
Higher School	19	03	05		08	03	08		09	10					
Secondary vocational school	10	04	01				10			10					
Other levels	01		01				01					01			
Practice supervisors	05	01	03		02		03		01	04					
2/3 grades	01						01			01					
4/7 grades	01	01			01		01		01						
5/7 grades	01		01							01					
6/7 grades	02		02		01		01			02					

LIST OF MAIN EXISTING EQUIPMENTS 1997

Annex IV

No	Name of Equipments	Capacity	Made by	Licient	Property		Quanity				Place
					School owner	School borrow	Can use	Wrong: Repaining	Wrong: Wait to repair	Wrong: Wait to sale	
1	2	3	4	5	6	7	8	9	10	11	12
1	IFa W 50	125HP	Germany	60B 4954	x		x				
2	BA3 2107	45	Russia	60B 6169	x		x				
3	MA3 5549 truck		"	60B 4380	x		x				
4	MAZA 1500	75	Japan	50A 4521	x		x				
5	Welding Machine AC - 300	24	Russia	80160	x						Workshop
6	Pump Machine C 245 :T32 -1		"	3194611	x		x				
7	Cutting machine HP 5222		"	7336	x		x				Production
8	BoMa MA3 504 AB	180	"	60B 5148	x						
9	SN B400 x 1500 Machine		Rumani	7783P172	x		x				Workshop
10	T 6 - M 16 Machine		Viet Nam	75278	x		x				
11	16E - 20 Machine		Russia	192	x		x				Production
12	Stand Drill Machine 2H 125		"	31170	x		x				
13	Desk Drill Machine 2M 112		"	77992	x		x				
14	Autmatic welding Machine 5 4 - 4Y. 8.5/T	26	"	409	x					x	Wrong
15	Hydro engine Machine 5 4 - 4 Y 8.5/11		"	652194	x			x		x	
16	Engine YAN MAR F8Y	8	Japan	66361	x					x	

1	2	3	4	5	6	7	8	9	10	11	12
17	Welding 2 chop 157		Russia	820107	x		(100 - 2015)				
18	Cutting Machine MUT		Tiệp	400 F2	x		x				
19	1 direction welding Machine B / 302 - L 402		Russia	No TOH	x					x	Workshop
20	2 direction welding Machine B / 302 - LM03		"	H	x					x	"
21	3 direction welding Machine B / 302 - LM04		"	H	x					x	Sub- product
22	Circle welding machine T 300		"	126	x					x	
23	Circle welding machine T 300		"	22	x					x	Workshop
24	1 direction welding B // 30604		"	212	x					x	"
25	Circle welding BK 300 PH		China	711335	x					x	"
26	Circle welding BK 300 PH		"	711331	x					x	"
27	Circle welding BK 300 PH		"	711334	x						
28	Electrical rolling T 200 - 52120 - 03T2		"	22188	x			x			
29	Lifting and pulling machine 3.2	3.2 T	"	16490	x					x	Workshop
30	Lifting and pulling machine 3.3	3.2 T	"	16424	x					x	
31	Hand lifting and pulling machine	5 T	"	LM 77130	x					x	
32	Lifting and pulling machine	5 T	"	LM 77144	x					x	
33	Lifting and pulling machine T 2A	2 T	"	39101	x					x	
34	Lifting and pulling machine TY 1968	3 T	"	28(85)	x					x	
35	Cutting Machine 3b - 634		"	65064	x		x				
36	Electrical Machine CF2 - 778	1.5 T	Japan	03	x			x			
37	Electrical rolling CF2 - 787	3 T	"	044031	x					x	
38	Cutting Machine BOSH		Germany	251 - 110	x					x	
39	Cutting mache TY 16		Russia	579 - 063	x						
40	Hand - Drill machine HYD-10		Japan	36984	x					x	

1	2	3	4	5	6	7	8	9	10	11	12
41	Electrical rolling LUGA - 0.5			193A	x						
42	Y M-3 Machine			6277	x					x	
43	SB - 5 Machine			690003	x					x	
44	SB - 10 Machine			69394	x					x	
45	Battery for welding W2		Ba lan	374	x		x				
46	Battery for welding SK 1.5 -1		Vietnam	527	x		x				
47	Battery for welding SK 1.5 -1		"	538	x		x				
48	Battery for welding SK 1.5 - 1		"	605	x		x				
49	Hand welding BOSCH	0.45	Germany	4502	x		x				
50	Television JVC		Japan		x		x				
51	Video SHARPS 779E		"	37006	x		x				
52	Printer EPSONE XL 050		"	0EC005S585	x		x				
53	Computer 14 in		Đài loan	0102782	x		x				
54	Computer 14 in		"	0120567	x		x				
55	Computer 14 in(E 7109004901		"	800264418	x		x				
56	Heat kitchen 5-32-1145		China	0315	x						
57	Kick 5 tones			4502	x		x				
58	Kick 5 tones			4502	x		x				
59	Pump YTALYA - 4HP			3521	x		x				
60	Welding machine 6 mỏ LX KĐM-1000			1995	x						
61	Cutting Machine PLAMA			455240/94-1	x						
62	Semi-automatic welding Machine K 200			47649	x						
63	Truck BPRLIET			30B 5193	x			x			
64	SAVIEM Car			53A 3215	x						

1	2	3	4	5	6	7	8	9	10	11	12
65	Photocopy Canoon NP 1215		Japan	PBD39539	x		x				
66	Air conditionner National		"								
67	Over head light OVHBC				x		x				
68	Welding Machine YD2-12		Russia		x		x				
69	Welding machine 6 chop KH-MHD-1000		Viet nam		x		x				
70	Honda ACooc		Japan	60L 1077							
71	Hydro kick 1/2" - 3"		Germanr								

BỘ CÂU HỎI

Tên dự án	NÂNG CẤP TRƯỜNG ĐÀO TẠO CÔNG NHÂN KỸ THUẬT LẮP MÁY NO 2 Ở TỈNH ĐỒNG NAI
Cơ quan thực hiện	TRƯỜNG ĐÀO TẠO CÔNG NHÂN KỸ THUẬT LẮP MÁY NO 2 Ở TỈNH ĐỒNG NAI
Đơn vị chịu trách nhiệm	BỘ XÂY DỰNG
Địa điểm	XÃ LONG PHƯỚC HUYỆN LONG THÀNH TỈNH ĐỒNG NAI
Ngày thành lập	07.4.1986 Quyết định số 264/BXD-TCCB của Bộ Xây dựng
Các trường thuộc Bộ Xây dựng	1. Trường đại học Kiến trúc Hà Nội 2. Trường Trung học Xây dựng số 1 3. Trường Trung học Xây dựng số 4 4. Trường đào tạo CN KT Lắp máy số 1 Ninh Bình 5. Trường Trung học Xây dựng số 6 6. Trường Trung học Xây dựng số 7 7. Trường Trung học Xây dựng Miền Tây 8. Trường Sư phạm KT xây dựng 9. Trường CN Cơ giới Xây dựng Việt xô

Các trường khác Thuộc Bộ Xây dựng	10. Trường CNXD Công ty 6 Vinh 11. Trường Kỹ nghệ Việt Đức - Nghệ An 12. TrườngCNXD Kiến an - Hải phòng 13. Trường CNXD và Mỹ nghệ Nam định 14. Trường CN Cơ giới XD Sông Đà 15. Trường Công nhân KT Xây dựng Công ty 7 - Đà nẵng 16. Trường CNXD Thái bình 17. Trường công nhân KT và Nghiệp vụ XD số 2 Nam định 18. Trường CNKT Xây dựng Hà Nội 19. Trường CNKT xây dựng và nghiệp vụ Xuân hoà 20. Trường CNXD Bỉm Sơn 21. Trường CNKT An dương - Hải Phòng 22. Trường CNKT Xây dựng Sông Hồng Việt trì . 23. Trường CNKT Xây dựng Uông bí Quảng Ninh 24. Trường CNKT Xây dựng Cơ giới và Xây dựng Chí Linh
Tài khoá ngân sách hàng năm Cơ sở giải ngân chi tiền	Ngân sách Nhà nước cấp (VN đồng) 1995 : 930.500.000 đ 1996 : 946.000.000 đ 1997 : 1.025.000.000 đ
Những thu nhập khác ngoài ngân sách Nhà nước	

Năm	Vốn đầu tư XDCB do Nhà nước cấp	TCTLắp máy cấp& cácnguồn thu khác	Tổng kinh phí
	(VNĐ)	(VNĐ)	(VNĐ)
1995	984.151.000	128.743.000	1.112.894.000
1996	893.335.000	424.354.000	1.317.689.000
1997	900.000.000	912.000.000	1.812.000.000

Khả năng trang bị	Đất : 58.500 m2 trong đó 10.500 m2 lộ giới Nhà : - Xưởng thực hành : 04 xưởng x 750 m2 = 1.800 m2 - Nhà ban nghề : 8 nhà x 72 m2 = 576 m2 - Sân bãi thực hành : 3.200 m2 - Giảng đường khu học lý thuyết : 2.200 m2 - Nhà làm việc : 400 m2 - Ký túc xá học sinh : 2000 m2 - Nhà ăn 750 m2 (600 chỗ - Chưa xây dựng) - Nhà cũ sử dụng lại : 1000 m2
Thiết bị chính hiện có	Xin Tổng công ty tham khảo thêm bảng báo cáo kiểm kê tài sản cố định (1/7/1997 - Phụ lục IV) - Thiết bị phương tiện giảng lý thuyết : 1. Máy chiếu OVH, 02 đầu Vidio + Tivi Trang bị thực hành : Hiện đang gom lại thành 3 ban cho các ban sau : Ban hàn : 02 máy hàn 6 mỏ, 01 máy hàn trị khí CO bán tự động. 01 máy cắt Plasma. một số máy biến thế hàn, 1 máy siêu âm (Liên xô) Ban gia công : 3 máy tiện, 1 máy bào, 1 máy cắt đột Liên hợp một máy khoan đứng . 01 máy khoan bàn , một máy mài. Ban Lắp máy : Nâng chuyển, tời, tó, Palăng, kích.... Ban Động lực : một số máy nổ và 3 ô tô Ban điện : một số thiết bị đóng cắt thông thường, máy đo thông dụng Ban lắp ống : Máy uốn ống thuỷ lực
Sơ đồ tổ chức	Xin xem sơ đồ tổ chức đính kèm theo Sơ đồ sẽ kèm theo (Phụ lục I)

Số cán bộ công nhân viên chức	Số lượng tổng cộng ? Bộ khung điển hình (cán bộ CNV) Hướng dẫn viên ? Giáo viên bậc mấy ? Bằng tốt nghiệp - Bậc ? Trung cấp chuyên môn - bậc ? Hành chính ? (bằng cấp, bậc ?) trung cấp chuyên môn nghiệp vụ bậc và những người khác . Xin xem biểu thống kê giáo viên giảng dạy có đến 31 tháng 12/1997 . Đính kèm theo phụ lục III Tổng số cán bộ CNV : 78 người Ban Giám hiệu : 03 người Phòng Đào tạo : 02 người; Ban I 7 người - Ban II 9 người - Ban III 11 người Phòng thực hành sản xuất và dịch vụ : 7 người Phòng Tổ chức hành chính : 31 người Phòng Kế toán Tài vụ : 8 người Trong đó giáo viên (kể cả kiêm nhiệm : 35 người)
Trình độ chuyên môn của hướng dẫn viên	Xin xem mục II biểu thống kê giáo viên giảng dạy
Trình độ của các học viên	1. Học sinh đào tạo mới : Tuổi 17 - 25 (nếu đã hoàn thành nghĩa vụ quân sự : 27) Học sinh chính quy . Văn hoá : Tốt nghiệp PTCS (9/12) trở lên 2. Hệ ngắn hạn : Bổ túc nghề, nâng cao trình độ, đổi nghề và nghề mới Tuổi dưới 40, cá biệt ở các lớp nâng bậc công nhân : Tuỳ đơn vị cử người Trình độ : Văn hoá 9/12, có tay nghề hoặc không (ngắn hạn nghề mới) Chu trình các mục thích hợp Tốt nghiệp trường cơ bản/ tốt nghiệp trường Cao đẳng trẻ (cấp thấp) tốt nghiệp cao đẳng cấp lớn tuổi (cấp cao)

Tuyển học viên (số thí sinh dự tuyển, thời gian dự tuyển)	- Hệ chính quy : Tuyển 1 năm / lần thường khai giảng vào tháng 10 hàng năm - Hệ ngắn hạn : 6 tháng tuyển 1 lần, không định kỳ và phụ thuộc vào việc kết thúc khoá học trước . Số thí sinh dự tuyển : Chủ yếu con em trong nghành và người địa phương khu vực Đông Nam bộ phổ biến là hồ sơ dự tuyển gấp 1.3 - 1.5 lần số dự định tuyển
Số tốt nghiệp và tuyển vào mỗi khoá	Tuỳ thuộc chỉ tiêu được cấp của năm học trước và chỉ tiêu được tuyển của năm nay (đối với hệ chính quy) và phụ thuộc và khả năng thu nhận được (chỗ ở, trang bị cho giảng dạy... đối với hệ ngắn hạn xin xem thêm biểu thống kê qui mô học sinh . Tuyển sinh của trường năm 1997 đính kèm .
Con số xác định học viên cho mỗi khoá đào tạo	- Lưu lượng học sinh có thể của trường là 1200 học sinh/ năm - Hệ chính quy : tuyển sinh theo chỉ tiêu nhà nước cấp qua Bộ Xây dựng - Hệ ngắn hạn và chính quy mở rộng : Tuỳ thuộc điều kiện bố trí chỗ ở và trang thiết bị, giáo viên , nhà trường sẽ xác định số học sinh sẽ tuyển Con số học viên cho mỗi khoá đào tạo
Các môn học cho mỗi khoá đào tạo	- Các môn chung : Chính trị - Pháp luật Quân sự - Thể dục Tiếng anh - Các môn kỹ thuật cơ sở : Vẽ kỹ thuật Cơ kỹ thuật Điện kỹ thuật Dung sai lắp ghép- đo lường Kỹ thuật an toàn Vật liệu cơ khí, vật liệu điện - Các môn kỹ thuật chuyên môn :

Các môn học cho mỗi khoá đào tạo	(Tuỳ theo nghề- Đào tạo, học chuyên môn nghề) - Thực tập :+ Qua ban (các nghề liên quan. rèn, nguội, chuyền..v + Nghề chuyên môn + Thực tập sản xuất ở công trường
Thời kỳ đào tạo và tổng thời gian đào tạo cho mỗi khoá	- Hệ chính quy : + 18 tháng bậc 3/7 (đã Tốt nghiệp PTTH12/12 + 18 tháng bậc 2/7 (đã tốt nghiệp hệ 9/12) - Hệ ngắn hạn : 6 tháng : 6 tháng - 9 tháng tuỳ theo nghề đào tạo
Chứng nhận cho người tốt nghiệp	- Bằng tốt nghiệp nghề : Cho hệ chính quy và chính quy mở rộng - Chứng chỉ đào tạo : Lớp cho các khoá học ngắn hạn (Theo quy định của Bộ Giáo dục và đào tạo)
Những nơi sử dụng chính	Học sinh ra trường chủ yếu được phân công về làm việc ở các cơ sở Tổng Công ty Lắp máy Việt Nam (LILAMA) Khu vực phía Nam ECC 18. ECC 45-1. ECC 45-4. ECC 7 Đà nẵng ECC45-3. - Các Công ty Liên doanh nước ngoài đang có tại Đồng nai : Poslilama; Vinaplaco (Mullsu Vina); Vedan; Liên doanh dầu khí Việt Xô - Một số cơ sở tại địa phương : XN chế biến hạt điều, cán thép Biên Hoà ..v.v.
Tỷ lệ của khu vực không chính thức trong các đơn vị sử dụng người TN	Không đáng kể

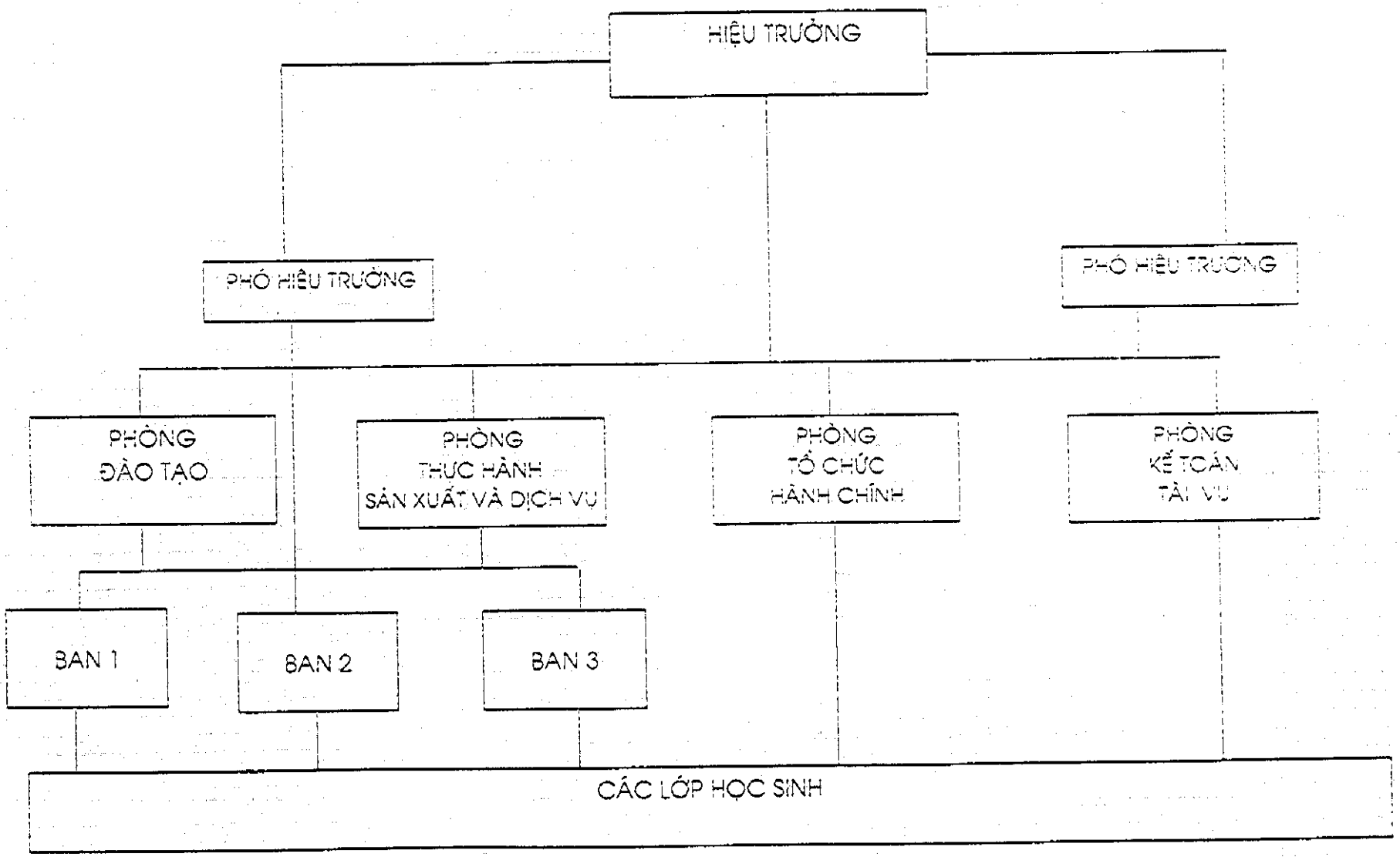
Mục đích của từng khoá đào tạo	Mục đích của các khoá học : - Đào tạo công nhân kỹ thuật ngành cơ khí xây dựng cung cấp cho các các cơ sở lắp ráp, gia công chế tạo kết cấu thép và thiết bị . Trong ngành xây dựng đang nhận lắp đặt các nhà máy tại Việt nam và có thể xuất khẩu lao động kỹ thuật . - Đào tạo lại, đào tạo nâng cao cho các công nhân đã có tay nghề để phù hợp hơn theo yêu cầu thực tế của các cơ sở doanh nghiệp xây lắp . - Đào tạo một số nghề đáp ứng nhu cầu xin việc làm cho thanh niên địa phương
Mức độ(trình độ) của từng khoá đào tạo ?	- Hệ chính quy (và chính quy mở rộng) : Bậc 2/7 và 3/7 theo tiêu chuẩn cấp bậc thợ do Bộ Xây dựng ban hành . - Hệ nâng cao trình độ : Theo hợp đồng 2 bên (cơ quan cử người đi hoặc cá nhân người học và nhà trường - Hệ ngắn hạn : Đào tạo theo model kỹ năng hành nghề, sau khoá học 6-9 tháng học viên sẽ đạt được một kỹ năng hành nghề nhất định đủ để làm một phần công việc trong thực tế
Chương trình giảng dậy của mỗi khoá đào tạo	- Theo chương trình được Bộ duyệt cho cácnghề chính quy -Theo chương trình trường biên soạn cho các nghề ngắn hạn - Theo yêu cầu của hợp đồng đào tạo - Các hoạt động chung : 16,67 %(Khai, bế giảng, thi tốt nghiệp nghỉ hè, lễ tế ...) - Thời gian học : 83,33 % (Lý thuyết và thực hành)

Tỷ lệ giữa bài giảng và thực hành	Các môn học chung : 12,3 % Lý thuyết : Tổng các môn (giờ học) 21,0 % Thực hành : Tổng số giờ thực hành 60,8% Các hoạt động khác : - Thi tốt nghiệp - Khai bế giảng - Nghỉ hè, lễ tết - Dự phòng ....
Tỷ lệ của OJI	OJT : Đào tạo nghề nghiệp / thực hành ở các xí nghiệp - Tính theo sản xuất ở công trường/ thời gian thực hành :25,31% - Tính theo sản xuất công trình/thời gian nói chung Trừ hoạt động chung : 15,38 % - Tính theo SX công trình/thời gian học nghề Trừ các môn chung 17,54 %
Tình trạng hiện tại	Các vấn đề trong tình hình hiện nay - Luận chứng kinh tế kỹ thuật xây dựng giai đoạn 2 (Lưu lượng ở qui mô1200h/s 8,6 tỷ đồng VN đầu tư 1986 đến nay chưa kết thúc do đó : Trang thiết bị giảng dạy và thực tập chưa đồng bộ (phần thiết bị mới trang bị được 30 %) - Các trang thiết bị hiện có cũ và lạc hậu , thiếu . - Cần thiết phải từng bước đổi mới quá trình giảng dạy (Model mới chương trình đưa kiến thức công nghệ hiện đại tiên tiến vào giảng dạy , nâng cấp trình độ giáo viên, tăng cường khả năng đi thực tế hiện trường cho giáo viên và tạo thêm điều kiện thực tập sản xuất tại công trình cho học sinh ...

Mục đích của yêu cầu này	Xin đọc dự án - Nâng cao khả năng quản lý và giảng dậy với các thiết bị công nghệ tiên tiến, đủ để đào tạo công nhân kỹ thuật với lưu lượng 1200 công nhân/năm (Trong đó ra trường khoảng 500 - 700 h/s tốt nghiệp /năm) Với sự hỗ trợ về tài chính, chuyên gia và thiếu sự giảng dạy hiện đại của Nhật bản)
Các nội dung của yêu cầu này	- Để nâng mức quản lý và giảng dạy có sự giúp đỡ của các chuyên gia Nhật - Gửi giáo viên qua Nhật đã thực tập, học tập tại các cơ sở đào tạo - Tăng cường trang thiết bị và các phương tiện giảng dạy cho cả học thực hành lý thuyết .
Tại sao phía bạn chọn trường này ?	1. Tổng Công ty Lắp máy Việt Nam có hai trường đào tạo công nhân kỹ thuật để phục vụ cho Tổng Công ty và các Công ty khác trong Bộ Xây dựng (đó là hai trường duy nhất của Việt nam đào tạo công nhân nghề Lắp máy) 2. Tổng Công ty Lắp máy Việt Nam đề nghị phía bạn đầu tư cho trường CN kỹ thuật Lắp máy Long Thành và Trường đào tạo công nhân Lắp máy chủ yếu cho các công trình ở phía nam . Đây là khu vực đang có nhiều công trình lớn của Nhà nước . 3. Trường công nhân kỹ thuật Long thành là trường có cơ sở tương đối tốt đã được Nhà nước đầu tư nhiều vốn cho nên điều kiện tiếp thu dự án là tốt nhất .
Ông muốn gì về sự hợp tác với Nhật	Hoàn thành " Dự án nâng cấp khả năng đào tạo cho trường Lắp máy số 2 " do Nhật bản viện trợ . Đào tạo tay nghề cho Việt nam

Phụ lục 1

SƠ ĐỒ TỔ CHỨC
TRƯỜNG CÔNG NHÂN KỸ THUẬT LẮP MÁY SỐ 2



Biểu số 01-DN
Ngày gửi : 20.1

THỐNG KÊ
QUI MÔ HỌC SINH - TUYỂN SINH TRƯỜNG DẠY NGHỀ
(Tính đến ngày 31/12/1997)

Phụ lục II

Đơn vị báo cáo : Trường CNKT lắp máy số 2
Đơn vị nhận báo cáo
TTTQLGD Bộ Giáo dục và đào tạo
Sở Giáo dục - Đào tạo Tỉnh
Cơ quan quản lý
Cục thống kê Tỉnh
Đơn vị tính : người

	Hệ dài hạn tập trung												Các hệ khác	
	Qui mô học sinh			Tuyển sinh (chỉ báo cáo K 11)										
		Trong đó			Trong đó				Nguồn tuyển					
	Tổng số học sinh	Chỉ tiêu ngân sách NN cấp	Nữ	Tổng số học sinh	Chỉ tiêu ngân sách NN cấp	Nữ	Dân tộc ít người	Đảng viên	Học sinh TN PTTH	Học sinh TN PTCS	Cán bộ CNVC	Đối tượng khác	Đào tạo dài hạn	Đào tạo ngắn hạn
Tổng số	721	450	0	405	300	0	0	5	323	82	0	0		126
Phân theo nghề đào tạo														
Nghề : Hàn điện + Hàn hơi				80										
Nghề : Lắp máy - Cẩu chuyền				140										
Nghề : Điện				72										
Nghề : Gia công kết cấu				58										
Nghề : ống công nghệ				55										
Hàn ngắn hạn														40
Lái xe														86

Người lập biểu

HIỆU TRƯỞNG

Phụ lục III

Biểu số 03.DN
Ngày gửi : 20.1

THỐNG KÊ
GIÁO VIÊN GIẢNG DẠY CỦA TRƯỜNG DẠY NGHỀ
(Tính đến 31/12/1997)

Đơn vị báo cáo : Trường CNKT Lắp máy số 2
Đơn vị nhận báo cáo :
TTTTQLGD Bộ Giáo dục và đào tạo
Sở Giáo dục - Đào tạo tỉnh
Cơ quan chủ quản
Cục thống kê tỉnh

Đơn vị tính : Người

	Tổng số	Trong đó			Phân theo thâm niên giảng dạy				Chia theo tuổi đời					Cán bộ CNV	
		Nữ	Đảng viên	Dân tộc ít người	Dưới 5 năm	Từ 5-10 năm	Từ 10-20 năm	Trên 20 năm	Từ 35 tuổi trở xuống	Từ 36-50 tuổi	Từ 51 - 55 tuổi	Từ 56-60 tuổi	Trên 60 tuổi	Tổng số	Nữ
I- Tổng số CB-CNV của trường	78	36	15		08	03	19		21	56		01			
Trong đó :															
Phục vụ giảng dạy	36	09	09		08	08	15		11	25					11
Quản lý hành chính	04		03				04			03		01			
Quản lý nghiệp vụ	13	10	02						06	07					
Công nhân viên khác	25	17	01						04	21					
II- Giáo viên dạy nghề	35	08	13		10	03	22		10	24		01			
Trong đó : Trình độ chuyên môn															
Trên đại học															
Đại học cao đẳng	19	03	05		08	03	08		09	10					
THCN	10	04	01				10			10					
Trình độ khác	01		01				01					01			
Công nhân hướng dẫn thực hành	05	01	03		02		03		01	04					
Bậc 2/3	01						01			01					
Bậc 4/7	01	01			01		01		01						
Bậc 5/7	01		01							01					
Bậc 6/7	02		02		01		01			02					

Người lập biểu

HIỆU TRƯỞNG

Bộ Xây dựng
Tổng công ty Lắp máy Việt Nam
TRƯỜNG CNKT LẮP MÁY SỐ 2

Phụ lục IV

BÁO CÁO KIỂM KÊ TÀI SẢN CỐ ĐỊNH CỦA TRƯỜNG CNKT LẮP MÁY SỐ 2

Có đến 0h ngày 01 tháng 7 năm 1997

TT	Tên ký hiệu kiểu thiết bị thi công	Công suất	Nước chế tạo	Số đăng ký Số máy hoặc số tổ máy	Tài sản CĐ		Số lương, hiện trạng				Địa điểm đặt máy
					Thuộc đơn vị	Không thuộc đơn vị	Sử dụng được	Bị hư hỏng			
								Đang SC	Chờ SC	Chờ TL	
1	2	3	4	5	6	7	8	9	10	11	12
1	Xe IFa W 50	125HP	Đức	60B 4954	x		x				
2	Xe Lada BA3 2107	45	Liên xô	60B 6169	x		x				
3	Xe vận tải tự đổ MA3 5549		"	60B 4380	x		x				
4	Xe MAZA 1500	75	Nhật	50A 4521	x		x				
5	Máy hàn tự phát AC - 300	24	Liên xô	80160	x						Xưởng
6	Máy nổ bơm nước C 245 (T52 -1)		"	3194611	x		x				"
7	Máy cắt dột dập liên hợp HP 5222		"	7336	x		x				Sản xuất
8	Xe BoMa sơmirơmoóc MA3 504 AB	180	"	60B 5148	x						
9	Máy tiện kiểu SN B400 x 1500		Rumani	7785P172	x		x				Xưởng
10	Máy tiện T 6 - M 16		Việt Nam	75278	x		x				
11	Máy tiện 16E - 20		Liên xô	192	x		x				Sản xuất
12	Máy khoan đứng 2H 125		"	31170	x		x				
13	Máy khoan bàn 2M 112		"	77992	x		x				
14	Máy hàn tự phát 5 4 - 4Y. 8.5/T	26	"	409	x					x	Hỏng
15	Máy thuỷ động cơ 5 4 - 4 Y 8,5/11		"	652194	x			x		x	
16	Động cơ kiểu YAN MAR F8Y	8	Nhật	66361	x					x	
17	Máy hàn chạy xăng 2 mỏ 157		Liên xô	820107	x		(100 - 2015)				

1	2	3	4	5	6	7	8	9	10	11	12
18	Máy cưa đĩa (cưa mộc) MUT		Tiệp	400 F2	x		x				
19	Máy hàn 1 chiều B ⌐ 302 - L 402		Liên xô	No TOH	x					x	Xưởng
20	Máy hàn điện 1 chiều B ⌐302 - LM03		"	H	x					x	"
21	Máy hàn điện 1 chiều B ⌐302 - LM04		"	H	x					x	SX phụ
22	Tăng phô hàn xoay chiều T 300		"	126	x					x	
23	Tăng phô hàn xoay chiều T 300		"	22	x					x	Xưởng
24	Máy hàn nắn dòng 1 chiều B // 30604		"	212	x					x	"
25	Máy hàn xoay chiều BK 300 PH		T.Quốc	711335	x					x	"
26	Máy hàn xoay chiều BK 300 PH		"	711331	x					x	"
27	Máy hàn xoay chiều BK 300 PH		"	711554	x						
28	Palăng điện T 200 - 52120 - 03T2		"	22168	x			x			
29	Tời điện 3.2 M M	3.2 T	"	16490	x					x	Xưởng
30	Tời điện 3.2 M M	3.2 T	"	16424	x					x	
31	Tời quay tay kiểu	5 T	"	LM 77130	x					x	
32	Tời quay tay kiểu	5 T	"	LM 77144	x					x	
33	Tời quay tay 2 T kiểu T 2A	2 T	"	39101	x					x	
34	Tời rút 3 tấn kiểu TY 1968	3 T	"	28(85)	x					x	
35	Máy mài 2 đá đứng 3b - 634		"	65064	x		x				
36	Palăng xích CF2 - 778	1.5 T	Nhật	03	x			x			
37	Palăng xích CF2 - 787	3 T	"	044031	x					x	
38	Máy mài cầm tay kiểu BOSH		Đức	251 - 110	x					x	
39	Máy mài 1 đá kiểu TY 16		Liên xô	579 - 063	x						
40	Máy khoan điện cầm tay HYD-10		Nhật	36984	x					x	
41	Palăng LUGA - 0.5			193A	x						

1	2	3	4	5	6	7	8	9	10	11	12
42	Máy siêu âm Y M-3			6277	x					x	
43	Máy hiện sóng SB - 5			690003	x					x	
44	Máy hiện sóng SB - 10			69394	x					x	
45	Pin hàn hơi W2		Ba lan	374	x		x				
46	Pin hàn SK 1.5 - 1		Việt Nam	527	x		x				
47	Pin hàn SK 1.5 - 1		"	538	x		x				
48	Pin hàn SK 1.5 - 1		"	605	x		x				
49	Máy khoan BT cầm tay BOSCH	0.45	Đức	4502	x		x				
50	Ti vi màu JVC		Nhật		x		x				
51	Đầu vi đeo SHARPS 779E		"	37006	x		x				
52	Máy in kim vi tính EPSONE XL 050		"	0EC0585585	x		x				
53	Máy vi tính 14 in		Đài loan	0102732	x		x				
54	Máy vi tính 14 in		"	0120567	x		x				
55	Máy vi tính 14 in(E 710900490)		"	800264418	x		x				
56	Bể lò rèn kiểu 5-32-1145		T.Quốc	0315	x						
57	Kích răng 5 tấn P-5			4502	x		x				
58	Kích răng 5 tấn P-5			4502	x		x				
59	Máy bơm nước YTALYA - 4HP			3521	x		x				
60	Máy hàn 6 mỏ LK KĐM-1000			1995	x						
61	Máy cắt PLAMA			455240/94-1	x						
62	Máy hàn bán tự động K 200			47649	x						
63	Xe tải BPRLIET			30B 5193	x			x			
64	Xe SAVIEM			53A 3215	x						
65	Máy Potocopy Canoon NP 1215		Nhật	PBD39539	x		x				

1	2	3	4	5	6	7	8	9	10	11	12
66	Máy lạnh National		"								
67	Đèn chiếu OVHBC				x		x				
68	Máy siêu âm KT CL mối hàn YD2-12		Liên xô		x		x				
69	Máy hàn 6 mô KH-MHD-1000		Việt nam		x		x				
70	Xe con 4 chỗ Honda ACooc		Nhật	60L 1077							
71	Kích uốn ống thuỷ lực 1/2" - 3"		Đức								

Người lập biểu

THỦ TRƯỞNG ĐƠN VỊ