

Date: 06/01/2022

## **G H Patel College of Engineering & Technology**

(A Constituent college of CVM University)

Bakrol Road, Vallabh Vidyanagar, 388 120.

Gujarat. India. Phone: +91-2692-231651 [www.gcet.ac.in](http://www.gcet.ac.in)

**Tender Notice: GCET/AICTE IDEA LAB/2021-22 dated 06/01/2022**

Sealed tenders are invited by Principal, G H Patel College of Engineering & Technology, Bakrol Road, Vallabh Vidyanagar - 388 120, Gujarat, India, for supply of the following items:

<b>Item No.</b>	<b>Name of the equipment/Items</b>	<b>Specifications</b>	<b>Quantity</b>
1	CO <sub>2</sub> Laser Cutter & Engraver (Non-Metallic components)	Appendix-I	One
2	Vinyl Cutting plotter	Appendix-II	One
3	Electric Pipe Bending Machine	Appendix-III	One
4	CNC Wood Router	Appendix-IV	One
5	Tool and Cutter Grinder	Appendix-V	One
6	CNC Turning Centre	Appendix-VI	One
7	3D Scanner	Appendix-VII	One
8	FDM 3D Printer (3 in 1)	Appendix-VIII	One
9	FDM 3D Printer (Small Size)	Appendix-IX	One
10	SLA 3D Printer	Appendix-X	One
11	FDM 3D Printer	Appendix-XI	One
12	MIG Welding Machine	Appendix-XII	One
13	Mechanical Hand and Power Tools	Appendix-XIII	-
14	PCB drill Machine Table Top (With stand)	Appendix-XIV	Four
15	Temperature Controlled Soldering Station	Appendix-XV	Seven
16	Soldering station and SMD rework station	Appendix-XVI	Three

Place of Delivery:

To,  
The Principal  
G H Patel College of Engineering & Technology,  
Bakrol Road, Vallabh Vidyanagar, 388 120  
Dist: -Anand (Gujarat) India.

Tender Notice: GCET/AICTE IDEA LAB/2021-22

## Appendix-I (Item No. 1)

### Technical Specifications for CO<sub>2</sub> Laser Cutter & Engraver (Non-Metallic components)

**Quantity: 01**

<b>Specifications</b>	
Working Area	:1300mmx900mm
Laser Type	:CO2
Laser Power	:130 Watt /150Watt
Cutting Speed	:0-30000 mm/min
Engraving Speed	:0-60000 mm/min
Cooling	:Water cooled
Cutting thickness	: 15 mm
Reposition Accuracy	:0.1 mm (Max)
Operation Mode	:Automatic

## Appendix-II (Item No. 2)

### Technical Specifications for Vinyl Cutting plotter

Quantity: 01

<b>Specifications</b>	
Max. Media Width	700 mm
Max. cutting Width	600 mm
Drive motor	Servo ARMS drive
Max. Speed	1100 mm/s
Max. Pressure	1000 g
Carriage	Yes
Power supply	AC 85 – 264 v/ 50-60Hz
Supported Software	Flexi 8, Coral Draw, Any cut, Sing master
Applications	Radium, vinyl, Reflective Retro, Hip, Garment vinyl full cutting, all suitable signage material cutting, digital Sticker half/full cutting, full cutting & creasing for box, Glass vinyl cutting (up to C4), Mobile/laptop skin lamination vinyl Cutting, Pen plotting for drawing purpose etc.

### Appendix-III (Item No. 3)

## Technical Specifications for Electric Pipe Bending Machine

Quantity: 01

<b>Specifications</b>	
Type of Machine	:Three roller type motorized
Pipe Diameter	:Up to 2 Inches
Pipe Thickness	:Up to 3 mm
Pipe Bending Material	:MS, GI, SS, Al and Brass
Max. Bending Angle	:180°
Electric Motor Capacity	:5 hp

## Appendix-IV (Item No. 4)

### Technical Specifications for CNC Wood Router

Quantity: 01

<b>Specifications</b>	
Working Area	:1300mmx2500mmx250mm
Max RPM	:0-24000
Max Working RPM	:0-18000
Power Consumption	:5.5kW
Phase	:3Phase
Working Mode	:Servo
Rotary attachment	:125mmDx1300mmL
Dust collector	:Required
Resolution	:± 0.03/300 mm
Repeatability	:± 0.03 mm

**Appendix-V (Item No. 5)**  
**Technical Specifications for Tool and Cutter Grinder**  
**Quantity: 01**

<b>Specifications</b>	
Max Distance Between center	:300mmto 350 mm
Table dimension	:500x150mm
Grinding Speed	:2800RPM
Motor	:1HP

**Appendix-VI (Item No. 6)**  
**Technical Specifications for CNC Turning Center**  
**Quantity: 01**

Swing Over Bed	mm	500
Std. Turning Diameter	mm	250
Max. Turning Diameter	mm	320
Max. Turning Length	mm	320
X-Axis Travel (Cross)	mm	175
Z-Axis Travel (Longitudinal)	mm	320
Spindle Speed Range	rpm	50-4000
Spindle Bore	mm	55
Spindle Nose		A25
Max. Bar Capacity	mm	44
No. of Turret Station		8
Quill Dia.	mm	85
Quill Stroke	mm	120
Thrust	Kgf	300
Positioning Uncertainty (P)	mm	0.007
Repeatability (Ps Medium)	mm	0.005
Chuck	mm	210
Coolant Pump	-	-
Controller		FANUC/SIEMENS

## Appendix-VII (Item No. 7)

### Technical Specifications for 3D Scanner

**Quantity: 01**

Ability to capture texture	Yes
3D resolution, up to	0.5 mm
3D point accuracy, up to	0.1 mm
3D accuracy over distance	up to 0.03% over 100 cm
Texture resolution	1.3 mp
Colors	24 bpp
Video frame rate, up to	16 fps
Exposure time	0.0002 s
Data acquisition speed, up to	Up to 8 lakh points per second
Multi core processing	Yes



## Appendix-VIII (Item No. 8)

### Technical Specifications for 3D Printer (3 in 1)

**Quantity: 01**

Connectivity :	Wi-Fi, USB Cable, USB Flash Drive
<b>3D PRINTER</b>	
Build Area for 3d printing :	320 x 350 x 330 mm
Layer Resolution :	50 - 300 microns
Nozzle Temperature :	Up to 275°C
Supported Materials :	PLA, ABS, TPU, Wood Filled PLA, more being tested
Heated Bed Temperature :	Up to 80°C
<b>LASER ENGRAVER :</b>	
Build Area for Laser Engraving :	320 x 350 mm
Camera :	Built-in Camera
Wavelength :	450nm
Supported Materials Laser Engraving :	Wood, leather, plastic, fabric, paper, non-transparent acrylic, more being tested
Design File Formats Laser Engraving :	SVG, JPEG, PNG, JPG, BMP, DXF, SNAPLZR
<b>CNC CARVING :</b>	
Build Area for CNC :	320 x 350 x 275 mm
Shank Diameter :	0.5mm - 6.35mm (0.02 - 0.25 inches)
Spindle Speed :	6,000 - 12,000 RPM
Supported Materials for CNC Carving :	Wood, acrylic, PCB, carbon fiber sheet, jade, more being tested
Design File Formats for CNC Carving :	SVG, JPEG, PNG, JPG, BMP, DXF, SNAPCNC

**Appendix-IX (Item No. 9)**  
**Technical Specifications for 3D Printer (small size)**  
**Quantity: 01**

Build volume	300 x 300 x 300 mm
Maximum printing temperature (extruder)	290° C (554° F)
Maximum platform temperature	105° C (221° F)
Layer resolution	90 - 290 microns
Minimal wall thickness	400 microns
Extruder	Single and double
Materials	Nylon, HIPS, PC, TEP, Fiber Glass, ABS, PLA, ASA, TPU92A, Carbon fiber material

## Appendix-X (Item No. 10)

### Technical Specifications for SLA 3D Printer

Quantity: 01

<b>Specifications</b>	
Build Volume	14.5 × 14.5 × 18.5cm
Laser Power	One 250MW laser
Layer thickness	25–300 microns
XY Resolution	25 microns
Laser Spot size	85 microns
MATERIALS	Bio compatible, Engineering, and More
SUPPORTS	Auto-Generated, Light-Touch Removal
Post Processing Unit:	Curing Unit, Washing Unit

## Appendix-XI (Item No. 11)

### Technical Specifications for FDM 3D Printer

Quantity: 01

Technology:	Fused Deposition Modelling
Net Build Size:	500 mm × 500 mm × 500 mm
Accuracy:	Parts are produced within an accuracy of +/- .200 mm (.008 in), or +/- .002 mm/mm (.002 in/in), whichever is greater.
Connectivity:	Ethernet TCP/IP 10/100 base T, Wi-Fi, USB
Materials	Nylon, HIPS, PC, TEP, Fiber Glass, ABS, PLA, ASA, TPU92A, Carbon fiber material
maximum Extraction Temperature	Up-to 400° C
Extruder	Single and double

## Appendix-XII (Item No. 12)

### Technical Specifications for MIG Welding Machine

Quantity: 01

Rated Input Supply Voltage	415 V AC
Max Rated Input Power in KVA	8
Open Circuit Voltage	10 to 48
Rated duty cycle	60%
Welding Current Range	70 to 250 A
Dimensions (mm)	475X200X465
Weight	16

## Appendix-XIII (Item No. 13)

### List of Hand and Power Tools

Description	Quantity
Hacksaw frame	05
Hacksaw blade	50
Wood working chisel set	01
Pincer	02
Combination plier (185mm)	02
(255mm)	02
Flat files (set)	01
Square files(set)	01
Flat wood rasp file(set)	01
Mini Hacksaw	05
Hammer(set)	01
Nylon mallet(set)	01
Allen key set	02
Double ended spanner set	02
Spirit level (300mm)	03
Screwdriver (set)	01
Pipe vice	02

### Power tools

Description	Quantity
Cordless driller	01
Circular saw	01
Sander	01
Blower	01

## Mechanical Tools

Description	Quantity
Power return measuring tape (2 meter)	05
C clamp	10
Glass cutter	02
Tri square (8")	05
SS Steel rule (1 foot)	05
(2 feet)	05
Ratchet set	01
Bench vice	05
Baby vice	10
Tap set	01
Dremel multi tool kit	01
Micrometer (0-25mm)	01
(25-50mm)	01
Digital vernier caliper (0-100mm)	02
Vernier caliper (0-100mm)	05
Needle files (wood working)	05

**Appendix-XIV (Item No. 14)**

**PCB drill Machine Table Top (With stand)**

**Quantity: 04**

<b>Description</b>	<b>Quantity</b>
Drill Bits Range :0.6 to 3.0 mm, Metal base, Mains operated AD/DC motor-direct drive, Compact tabletop high speed drilling machine, Three step speed controlled	04



**Appendix-XV (Item No. 15)**  
**Temperature Controlled Soldering Station**

**Quantity: 07**

<b>Description</b>	<b>Quantity</b>
Temperature range (depends on tool) 100 – 450°C, Temperature accuracy °C average tip temperature can be "offset" to +/- 5 °C at idle with no load, Temperature stability ± 6°C, Heating time (approx.) in seconds (50–350 °C) 28 sec, Soldering Iron: 40W-80W, Power 85 W	07

**Appendix-XVI (Item No. 16)**  
**Soldering station and SMD rework station**

**Quantity: 03**

<b>Description</b>	<b>Quantity</b>
Airflow Type: Air bar Output, Air volume: 23L/Min, Power Consumption: 560 W, Hot air temperature: 100-500 °C, Soldering Wattage: 90W	03

## **Terms and Conditions and Important Instructions for Bidders:**

1. Please quote the price of item/equipment as per the specifications given in Appendix-I to XVI in prescribed format given in Annexure-A.
2. The quotation must be in the form furnished by Procuring Entity and should be free from corrections/erasures. In case there is any unavoidable correction, it should be properly attested. If not, the quotation will not be considered.
3. The last date for submitting the sealed tender by person / R.P.A.D. / Speed Post / Courier is on or before 07/02/2022 before 04:00 PM.
4. Quotation will be opened on 08/02/2022 at 3.00 PM at G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.
5. G H Patel College of Engineering & Technology reserves the right to accept the offer by individual items and reject any or all tenders without assigning any reason thereof and does not bind itself to accept lowest quotations.
6. G H Patel College of Engineering & Technology reserves the right to modify the quantity specified in this enquiry.
7. Manufacturer's name and country of origin of materials offered must be clearly specified.
8. Complete details and ISI specifications if any must accompany the quotation. Make/brand of the item shall be stated wherever applicable.
9. The prices quoted should be firm till the supplies are completed. Please quote the rates in words and figures. Rates quoted should be free delivery at destination including all charges otherwise the quotation is likely to be rejected. Prices quoted for free delivery at destination will be given preference. If there is no indication regarding the FOR, in the quotation, then it will be considered as FOR destinations. Price quoted should be net and valid for a minimum period of three months from the date of opening of the quotation.
10. Payment of sales tax is primarily the responsibility of the seller and will not be paid unless the percentage value is clearly mentioned in the quotations. If no indication regarding GST/CST/ST is recorded in the quotation, the GST/CST/ST will be considered as included.
11. Delivery period required for supplying the item/equipment should be invariably specified in the quotation.
12. The Quotations would be evaluated item wise; bidder shall submit a single bid for each equipment and quoted price should be "FOR GCET-Vallabh Vidyanagar".

Tender Notice: GCET/AICTE IDEA LAB/2021-22

13. The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
14. All supplied items are under warranty of Minimum 1 year from the date of successful acceptance of items with free repairs and free replacement at our site.
15. Training Clause (if any): Free Training at the time of Installation at our site.
16. Testing/Installation Clause (if any): Free Installation at the time of delivery at our site.
17. Information brochures/Product catalogue, if any must be accompanied with the Quotation clearly indicating the model quoted for.
18. Sealed tender to be submitted/delivered at the address mentioned below, G H Patel College of Engineering & Technology, Bakrol Road, Vallabh Vidyanagar – 388120, Dist:-Anand (Gujarat) India. With title line, “Tender Notice: GCET/AICTE IDEA LAB/2021-22”.
19. Dispute clause: Any dispute relating to the enquiry shall be subject to the jurisdiction of the court at ANAND only.
20. Our normal payment terms are 100% (hundred percent) within 30 (thirty) days on receipt and acceptance of item/equipment, successful installation and commissioning at our site in good condition.

**Annexure- A**
**FORMAT FOR QUOTATION SUBMISSION  
 (In letterhead of the supplier with seal)**

Date: \_\_\_\_\_

To:

 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Sr. No.	ITEM Description	Unit Price	P & F Charges, if applicable	Tax	Quantity	Total Amount
		(a)	(b)	(c)	$d=c \times (a + b)$	
1	<ul style="list-style-type: none"> <li>Model</li> <li>Specifications</li> </ul>					
2						
	Total					

<b>Erection &amp; commissioning</b>	<b>Vendor scope (if applicable)</b>
<b>Payment Terms</b>	
<b>Warranty</b>	
<b>Delivery</b>	
<b>Insurance</b>	
<b>Validity of quotation</b>	
<b>Any other remarks</b>	
<b>Grand Total (Rs.)</b>	

 \_\_\_\_\_  
 (Authorized Signature with Rubber Stamp)

 \_\_\_\_\_  
 (Name of the Authorized Person)

 \_\_\_\_\_  
 (Name & Address of the Firm)

 \_\_\_\_\_  
 (Contact Numbers)

Tender Notice: GCET/AICTE IDEA LAB/2021-22

Page 21 of 21