



AUTONOMOUS  
INSTITUTION

AFFILIATED TO VTU BELAGAVI &  
APPROVED BY AICTE  
ACCREDITED BY NBA NEW DELHI

Hyderabad Karnataka Education Society's

## Poojya Doddappa Appa College of Engineering

KALBURGI - 585 102 - KARNATAKA - INDIA

ಹೈದರಾಬಾದ್ ಕರ್ನಾಟಕ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಯ

## ಪೂಜ್ಯ ದೊಡ್ಡಪ್ಪ ಅಪ್ಪ ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯ

ಕಲಬುರ್ಗಿ - ೫೮೫ ೧೦೨ - ಕರ್ನಾಟಕ

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Date: 03-11-2025

### TENDER NOTICE

for Supply, Installation & Commissioning of Equipment for

### AICTE IDEA LAB

at P.D.A. College of Engineering, Kalaburagi.

Sealed tenders are invited from reputed and experienced suppliers, manufacturers, or authorized distributors for the supply, installation, and commissioning of equipment, tools, and machines for setting up an AICTE IDEA Lab at our institute. The laboratory is to be developed as per the AICTE guidelines for promoting innovation, design thinking, and prototyping skills among students and faculty. The detailed specifications of the required items are enclosed with this document.

The following Terms and Conditions apply to all bidders participating in the tender for the supply, installation, and commissioning of equipment, tools, and machines for the establishment of an PDA-AICTE IDEA Lab. All prospective vendors are required to read and comply with these terms in their entirety.

All equipment and materials must be delivered in the quantities and specifications as mentioned in the purchase order issued by the purchaser. The delivery location will be specified in the purchase order PDA College of Engineering, Kalaburagi. The entire contract shall remain valid for a period of **three (3) months** from the date of award.

Quotations submitted by bidders must remain valid for a minimum of **90 days** from the final date of submission. Any quotation that does not meet this validity period will be considered noncompliant.

#### 1. Instructions to Bidders

Bids must be submitted in two sealed envelopes (Technical & Financial), super-scribed with Tender Ref. No., due date, and bidder's name. All quotations must be printed on the bidder's official letterhead and duly signed by an authorized representative.

  
PRINCIPAL  
Poojya Doddappa Appa  
College of Engineering  
Kalaburagi-585102 (Karnataka)

- a. Bidders must be registered with valid PAN, GST and must have at least 3 years of experience in supplying lab equipment along with details highlighting their experience and key competencies.
- b. The tender shall be conducted under a Two-Bid System: Technical & Financial Bid.
- c. The tender documents can be downloaded from the institution's website: <https://pdacek.ac.in/>
- d. Bidders must not be blacklisted or under investigation by any government authority.
- e. OEM authorization is mandatory where applicable.
- f. All documents must be signed and stamped by the authorized signatory.
- g. Incomplete or conditional bids will be rejected.
- h. Bids must be submitted before the deadline specified in the tender notice.
- i. All items must be delivered, installed, and commissioned within 45 days from Purchase Order (PO) date.
- j. Partial deliveries may be accepted only with prior written approval from the signatory.
- k. Failure to meet the delivery schedule may lead to penalties or cancellation of order.
- l. Any faults during the warranty period must be rectified and replaced if required by the supplier at no additional cost.
- m. Bidders must provide details of service support and escalation matrix.
- n. All disputes shall be subject to arbitration in accordance with the Arbitration and Conciliation Act, 1996. Jurisdiction: Kalaburagi Courts only.
- o. The contract shall be governed by the General Financial Rules (GFR) 2017 (including latest amendments) and the terms set forth in this document.
- p. Any other documents in support of technical eligibility can be added.
- q. The bidder must furnish complete technical documentation for each quoted item. This includes detailed product specifications, installation manuals, operation and maintenance manuals.
- r. The bidder is also required to submit a layout/design proposal aligned with the lab setup requirements, highlighting compliance points against the tender specifications.
- s. Original technical brochures or scanned versions of product catalogues should be submitted with the bid. Wherever available, URLs to the OEM's official product page should also be provided for cross- verification.
- t. Each bidder must clearly mention the make, model, and complete technical specifications for the equipment being offered. A compliance sheet responding to each technical requirement outlined in the tender must be prepared and duly signed.
- u. Bidders must demonstrate relevant experience by submitting a minimum of three Purchase Orders (executed within the last three years) for similar equipment supplied to academic, R&D, or industrial institutions, with each order value not less than ₹50 lakhs.

At least five institutional clients (with contact information) must be provided as a reference.

## **2. Mandatory Documents to be Submitted with the Bid**

Each bid must be complete in all respects and must include the following mandatory documents:

- Detailed Profile of the Bidder, highlighting experience and key competencies.
- Copy of the Company/Firm Registration Certificate.
- Copy of valid GST Registration Certificate.
- Copy of submitted GST return (at least up to August 2025).
- Copy of valid PAN Card.
- Chartered Accountant's Certificate for turnover for FY 2022–23, 2023–24, and 2024–25.
- CA-certified and audited Balance Sheets and Financial Statements (Form 3CB/3CA) for the last three financial years.
- Copies of Work Completion or Experience Certificates of similar completed works.
- Valid Shop Establishment License or Factory License.
- Genuine Manufacturer Authorization Form (MAF), which will be subject to verification with the respective OEM.
- Bidder should provide an Escalation Matrix for service and after sales support.
- Valid EPF, ESIC, and Professional Tax Registration Certificates (where applicable).
- Income Tax Return Acknowledgements for FY 2022–23, 2023–24, and 2024–25.
- Declaration/Affidavit (on ₹500/- Stamp Paper) regarding no blacklisting from IITs/NITs/Govt. Offices/PSUs/Autonomous Bodies.
- Complete, signed, and stamped tender document including amendments and deviation sheets, if any (to be uploaded online only).
- Declaration of agreed specifications on company letterhead, duly signed and stamped.
- Any other documents in support of technical eligibility.

All bidders are required to quote for all the items listed in the BoQ. **Partial or item-wise quotations will be summarily rejected.** Each bidder is allowed to submit only one quotation per package; **multiple submissions from a single bidder will lead to disqualification.**

## **3. Financial Criteria**

Each bidder must have an average annual turnover of ₹5 Crores or more over the last three financial years (FY 2022–23, 2023–24, 2024-25). The turnover must be supported by a CA certificate or audited financial statements.

Prices quoted must be inclusive of all taxes (GST, customs, etc.), transportation, packaging, insurance, unloading, installation, commissioning, and training charges. There shall be no extra claim under any circumstances after the finalization of the bid.

The quoted prices must be firm and fixed throughout the duration of the contract. No escalation in price will be allowed under any pretext.

#### **4. Evaluation and Award of Contract**

All bids will be evaluated on the basis of compliance with the technical specifications, completeness of submitted documentation, financial eligibility, and price competitiveness. The contract shall be awarded to the bidder whose offer is determined to be technically responsive and competitive in cost. The purchaser reserves the absolute right to reject any or all bids without assigning any reason. The final decision on selection will be at the sole discretion of the purchaser and shall be binding on all parties.

#### **5. Payment Terms**

Payment shall be released only after the successful supply, installation, training and commissioning of the equipment. Final inspection and acceptance will be carried out by the purchaser's technical committee.

No payment shall be made for equipment that is received in damaged condition, is nonfunctional, or fails to meet the required specifications. The bidder must submit all necessary documentation (delivery challans, installation report, warranty documents, training certificate, invoice, etc.) to process payment.

#### **6. Warranty and After-Sales Service**

All equipment must carry a minimum onsite warranty of at least three years from the date of successful installation and commissioning. During this warranty period, the bidder shall repair or replace any defective items at no additional cost to the purchaser including service charges. All associated transportation, testing, and labour costs shall be borne by the bidder.

In case of any service delay or failure to resolve issues during the warranty period, the purchaser reserves the right to invoke penalties or reject future business from the vendor.

#### **7. Other Conditions**

No bidder shall be given preference based on category, class, or affiliation. The procurement may be extended to additional phases (e.g., Phase II) depending on availability of funds and institutional requirements.

Delayed delivery or installation may result in cancellation of the order or imposition of penalties at 0.5% per week of the total order value, subject to a maximum of 10%, as deemed fit by the purchaser.

The scope of the supply and service must be entirely as per the BoQ and technical specifications. Bids with partial compliance or deviations shall not be entertained.

As per Ministry of Finance OM dated 12.11.2020, no EMD is required. Bid Security Declaration in Annexure-5 must be submitted instead.

## **8. Submission Deadline and Contact Details**

- a. The Technical and Financial Bids must be submitted strictly in the bid submission format provided (Annexure 1).
- b. Bidders must submit the Technical and Financial Bids along with supporting documents listed in the checklist (Annexure 2).
- c. Non-Blacklisting Form (Annexure 3).
- d. Declaration on Non-Chinese and/or Pakistan Origin of Equipment / Instruments / Machinery (Annexure 4).
- e. Bid Security Declaration (Annexure 5).

**Bids along with annexures shall be submitted in sealed hard copy, clearly superscribed "Quotation for PDA-AICTE IDEA LAB", on or before 27.11.2025 till 5:00 PM, to the following address:**

Principal, PDA College of Engineering  
Aiwan-E-Shahi Area  
Kalaburagi, Karnataka - 585 102

For further details, / queries contact:

Dr. Rakesh Huded., Coordinator - +91 94488 42777

Dr. Pawan Rangdal., Co-Coordinator - +91 99722 42817

## **9. Opening of Bids**

The Technical Bids will be opened on **28-11-2025 at 4:00 PM** at the office of **The Principal, PDA College of Engineering, Aiwan-E-Shahi Area, Kalaburagi – 585102, Karnataka**, in the presence of the purchase committee and bidders or their authorized representatives who may wish to attend.

The attendance of the bidders or their authorized representatives will be recorded at the time of bid opening.

Representatives must carry **authorization letters** from their firms.

No separate intimation will be sent to the bidders for attending the Technical Bid opening.

Only the Technical Bid envelopes will be opened at this stage. Financial Bids of technically qualified bidders will be opened later, on the notified date and time in their presence separately.

Once technical evaluation is done, only **qualified bidders** are informed (by email/notice).

### **10. Pre-Bid Meeting and Site Visit**

A Pre-bid meeting will be held on **13th November 2025 at 4:00 PM** at **PDA College of Engineering, Kalaburagi** to clarify the queries of interested bidders regarding the tender specifications, terms, and conditions.

Bidders are encouraged to send their queries in writing to [principal@pdacek.ac.in](mailto:principal@pdacek.ac.in) at least two (2) days before the meeting.

The clarifications provided during the Pre-Bid Meeting shall form part of the tender conditions. Minutes of the meeting and any corrigenda (if required) will be published on the institution's official website.

Participation in the Pre-Bid Meeting is **optional but strongly encouraged**.

#### **Site Visit:**

Interested bidders may visit the proposed installation site of the AICTE IDEA Lab to assess space, power supply, and related facilities before or immediately after the pre-bid meeting, by prior appointment with the institute authorities.

The site visit shall be at the **bidder's own cost and responsibility**.

## 10. Specifications and Allied Technical Details

All equipment, tools, and consumables shall be of branded company products with a minimum **warranty of three years**. The specifications mentioned are the minimum requirements; bidders may quote higher specifications, provided the quoted price does not exceed the cost of the specified specification.

Sr. No	Equipments	Preferred Brand if any	Specification	Qty
1.	Single Nozzle 3D printer	Branded Company Product with at least three years product warranty	Printing Technology: Fused Filament Fabrication (FFF) or Fused Deposition Modeling (FDM). Printable Area: The minimum printable area should be at least 310 x 310 x 310 mm or above Printer Design: Core XY or Cartesian. Temperature Range: Hot end: Up to 300°C or above Heat bed: Up to 120°C. or above. Nozzle: Compatible with All polymers, 0.4, 0.6 and 0.8mm Steel Sheet: Provided with satin or smooth PEI surface. Filament Diameter: 1.75mm (supports PLA, PETG, ASA, ABS, etc.). Extruder: Gearbox with 1/10 ratio, Speed : 550 MM/Sec or above Stepper Drivers for smooth motion. or equivalent Stepper Motors: Choose between 1.8° or precise 0.9° X, Y stepper motors. LCD Screen: 3.5" graphic 65k color screen or larger. Connectivity: USB drive, LAN, or internet. Supported Materials: PLA, PETG, ASA, ABS, PP, PC, flexible filaments, and more.	1

			<p>Wi-Fi Module: Built-in (network connectivity not required for setup or operation).          Compatibility: Windows, macOS, Linux.          Printer Dimensions: The maximum physical dimensions of the system 700 X 700 X 700 or above. Fully enclosed Machine</p>	
2.	Resin 3D Printer	<p>Branded Company Product with at least three years product warranty</p>	<p>Build Volume (mm): 218.88mm(L)*122.88mm(W)*220mm(H)          Printing Technology: MSLA (Masked Stereolithography) with water cooled          Operation: 4.0-inch Capacitive Touch Screen          XY Resolution: 19*24um (11520*5120)          System: EL3D-4.0          Z Axis Accuracy; 0.02mm          LC: 10-inch 12K Mono LCD          Technology: MSLA Stereo lithography          Innovative Tilt Release Technology          AI Intelligent Monitoring &amp; Power-Loss Resume Printing          360° all-round exposure          Dual function of washing and curing          Large washing volume</p>	1
3.	PCB Milling Machine	<p>Branded Company Product with at least three years product warranty</p>	<p>Cutable Materials: Modeling Wax, Chemical          Wood, Foam, Acrylic, Poly Acetate, ABS,          PCB,Copper glad, etc          Table Size: 225 (X) × 150 (Y) mm or more          Drive System: Stepping Motor (X, Y, Z Axis)          Operating Speed: 800 mm/min          Software Resolution: 0.01 mm/step          Position accuracy : 0.01 to 0.02 mm          Max Travel Speed (mm/sec)-58 (2.28 ")          Drilling (mm)-0.2 -3.175 (8-125 mil)          Maximum Drilling Cycles/ Min-50          Spindle Motor: DC Motor Type 380 or More          Spindle Speed: Adjustable 20,000 and</p>	1

			<p>above rpm or more Tool Chuck Type: Collet Interface: USB or cable Control Commands: RML-1, NC code Power Supply: DC 24V, 2.5A (via AC 100–240V, 50/60Hz adapter) Power Consumption: Approx. 50 W or more</p>	
4.	CO2 Laser Cutting Machine	Branded Company Product with at least three years product warranty	<p>Working Area: Min 600 x 900 mm or above Laser Type: CO2 DC Glass Laser Tube/RF Metal Laser Tube Laser Power: 80/100W Wave Length: Upto 10.6 Micrometer Cutting Speed: 30000 mm/min or more Engraving Speed: 64000 mm/min or more XY Axis: LM Guide Rail or equivalent Cooling: Air/ Water Cooling Supply Voltage: 230V/415 V Accessories: CO2 Focus Lens: 1 No. Mirror 25mm: 3 Nos. Acetone: 1 litre Acrylic sheet: 2 Nos</p>	1
5.	Vinyl Printer	Branded Company Product with at least three years product warranty	<p>Dimensions: 50 cm x 15 cm x 15 cm or above Weight: 15.4 lbs or less Max cut size using machine mat: 11.5 inch x 23.5 inch or more Cut speed: up to 14.1 ips</p>	1
6.	3D Scanner	Branded Company Product with at least three years product warranty	<p>Technology: Stereo camera structured light with focusable cameras or equivalent CPU: Quad-core 64-bit SoC, 1.5GHz with integrated GPU RAM: 4 GB Projector: DLP MEMS mirror or</p>	1

			<p>equivalent  Camera Sensor: Sony 13 MP or better  Scan Speed: 4 seconds or more  Working  Distance : Effective Working Distance:  160mm-1400mm Scan Speed :  980,000points/s, up to 14FPS  Align Modes : Feature Alignment,  Hybrid  Alignment, Texture Alignment, Global  Markers  Safety : Eye-safe  Texture Scan : Yes  Interface : USB2.0 or above  Outdoor Scanning : Yes  Output Formats : OBJ; STL; PLY; P3;  3MF  Scanning Environment: Indoor and  outdoor  (shaded)  Texture / Color Scanning: Yes  Minimum Capturable Feature Size: 0.2  mm or  less  Scanner Weight: 500 grams or less  Scanner Dimensions: upto 240 × 60 ×  60 mm  Compatible OS: Any OS supporting a  modern  web browser</p>	
7.	Lathe Machine cum milling	Branded Company Product with at least three years product warranty	<p>Centre Width: Up to 400 mm or better  Height of Centers: Up to 88 mm  Maximum Workpiece Diameter: Up to 100 mm  Machine Base: Cross-ribbed surface, highquality cast iron with ground prismatic guide, capable of fitting milling/drilling attachment  Spindle: Supported with adjustable taper roller bearings  Spindle Receiver: MK3 or compatible  Spindle Drill Hole: Up to 22 mm or better</p>	1

			<p>Spindle Concentricity: Up to 5 microns or better</p> <p>Chuck: 3-jaw chuck as per DIN 6386, centrally clamped, 100 mm diameter or better</p> <p>Run Out (without Chuck): Up to 10 microns</p> <p>Sleeve Receiver: MK2, retractable sleeve with scale</p> <p>Spindle Speed Range: Between 50 to 2500 rpm</p> <p>Speed Stages: 6-8</p> <p>Motor Rating: 550W or better, induction motor, single phase 230V</p> <p>Traverse Cross: Up to 70 mm or better</p> <p>Traverse Longitudinal: Up to 300 mm or better</p> <p>Weight (Complete): Up to 55 kg or more</p> <p>Additional Accessories:</p> <p>Splash guard and chip collecting tray: 1 No.</p> <p>Cutter set with tungsten inserts: 2 Nos.</p> <p>Milling Attachment: 1nos</p> <p>Tungsten disposable tips ten-piece set: 1 No.</p> <p>Sample workpieces (Nylon Rod, Aluminium Rod)</p> <p>Desktop: 1 No</p>	
8.	CNC Router	Branded Company Product with at least three years product warranty	<p>Working Area: Min 1300 x 2500 mm</p> <p>Z Axis Working Area: 200 or above</p> <p>Resolution: <math>\pm 0.03/300</math>mm or more</p> <p>CNC Spindle: 3KW or more</p> <p>Lathe Structure : Welding Steel Structure or equivalent</p> <p>XYZ Structure: Rack Pinion , Ball Screw Linear Rails</p>	1

			<p>Max Spindle Speed : Min 18000RPM  Table: T-Slot/Vacuum Bed/Water Bed  Repeatability: <math>\pm 0.03</math>  Working Mode: Stepper Motor/Servo Motor  Dust Collector : To be included by Vendor  Voltage: AC 220V/415V, 50/60 Hz, 3 Phase</p>	
9.	Belt and Disc Sanding Machine	Branded Company Product with at least three years product warranty	<p>Motor: 230V 50Hz  Power: 380W S2 30min  No-load Speed: 1450rpm or more  Belt Size: 100x914mm or less  Disc Size: 150mm or better  Table Titing Range: 0°-45°  Belt Titing Range: 0°-90°  Table Size: upto 190x125mm</p>	1
10.	Scroll Saw	Branded Company Product with at least three years product warranty	<p>Power input: 50 Watt  Thickness of Cut: 50 mm (2 inch)  Throat: 406 mm (16 inch)  Length of Stroke: 18 mm (11/16 inch)  Strokes Per Minute: 400-1,600 SPM  Overall Length: 600 mm (23-5/8 inch)</p>	1
11.	Wood Turning Lathe	Branded Company Product with at least three years product warranty	<p>Motor: 230V~50Hz, 550W, S2:15min or above  Max. Disc Diameter: min 75 mm  Max. Cutting Length: 450 mm or more  Spindle Speed: 5 speeds such as 1600 / 2600 / 3200 RPM etc  Material: Cast Iron  Bed Height: 0.2 m  Cable Length: 0.850 m</p>	1
12.	Bench Top Drill Machine	Branded Company Product with at least three years product warranty	<p>Continuous rating input: Max. 250 W  Capacity: Steel: Min 13 mm (1/2")  Wood: Min 24 mm (15/16")  No Load Speed (RPM): 570, 890, 1,300, 1,900, 2,670(50 Hz), 690, 1,070, 1,560, 2,280, 3,200(60 Hz)  Net weight: Max. 20 kg (44.1 lbs.)  Power supply cord: 1.75 m (5.7 ft)  Additional Accessories: Bench Vise: 1</p>	1

			No., Drill Bit Set 10 Pcs: 1 No	
13.	Portable Welding Machine	Branded Company Product with at least three years product warranty	Welding Current (at 40°C, 10 min cycle): 120A @ 100%, 150A @ 60%, 200A @ 35% Supply Voltage: 240V +10%, -15%, 1 Phase, 50/60 Hz Open Circuit Voltage: 55V DC ±5V Welding Current Range: 15–200 Amps DC Insulation Class: F Type Ingress Protection: IP21 Dimensions (L×W×H) with Handle: upto 320×120×195 mm Weight (Approx.): 4.3 kg or less	1
14.	Computerized Sewing Machine	Branded Company Product with at least three years product warranty	Motor: 120 W Max Sewing Speed: 860 SPM Power: 220 - 240 V Automation Grade: Automatic Max Stitch Length: 4mm Thread Type: Computerized Weight:7.6 kg Number of Stitches:120 Size/Dimension: 50.8 cm x 29.464 cm x 40.64 cm Maximum Stitch Width: 7 mm Number of Buttonhole Styles:7 LCD Screen Display: Yes Bed Type Free Arm/Flatbed convertible Bobbin Type Drop & Sew Bobbin System	1
15.	Filament Dehydrator	Branded Company Product with at least three years product warranty	Operating Temperature Range: Min 45°C– 70°C Drying Time Setting: 0–48 hours or higher Hot-Air Heating: upto 360° circulation Moving Speed: 300 mm/s or more Power Rating: 160 W	1

			Shipping Weight: 2.5 kg	
16.	Reflow Oven	Branded Company Product with at least three years product warranty	No. of Waves: 7 or higher Heating Type: Infrared IC Heater Max. PCB Width: 300×320 mm or more Power Supply: AC 220V / 50Hz Peak Power: 1500W Cycle Time: 1–8 min or less Temperature Range: 0°C–280°C Overall Dimensions: min 350×450 mm Machine Weight: upto 25 kg	1
17.	Power Molder	Branded Company Product with at least three years product warranty	Plastic Product Capacity: Upto 120 Grams Suitable Plastic Types: LDPE, HDPE, PP, ABS, NYLON Approximate Weight : 250 Kilograms Physical Dimensions: 18 × 20 × 72 Inches Product Rate : Upto 100 Operations/Hour Multi-cavity Mould Possible: Upto 12 cavity Clamping force: Upto 8 ton Mould Maximum Height: 130 mm	1
18.	Digital multimeter	Branded Company Product with at least three years product warranty	Display Count: Up to 4000 DC Voltage Range: Up to 1000 V AC Voltage Range: Up to 1000 V DC Voltage Accuracy: ±0.5% or ±3 digits, whichever is higher AC Voltage Accuracy: Within ±1% + 3 digits DC Current Measurement: Up to 10 A AC Current Measurement: Maximum 10 A DC Current Accuracy: ±1.5% + 3 digits (approximate) AC Current Accuracy: ±1.5% + 3 digits (typical) Resistance Measurement: Up to 40 MΩ Resistance Accuracy: Estimated at ±1.5% + 3 digits Capacitance Measurement: Up to 1000 μF Capacitance Accuracy: ±5% or ±5 digits	5

			<p>Operating Temperature Range: From 0°C up to approximately 40°C</p> <p>Storage Temperature Range: Between -30°C and 60°C</p> <p>Overall Dimensions (H×W×L): Approximately 183×91×49.5 mm</p> <p>Unit Weight: Around 455 grams</p> <p>Safety Compliance: As per IEC 61010-1 &amp; IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>	
19.	MSO 100 MHz	<p>Branded Company Product with at least three years product warranty</p>	<p>Bandwidth: Up to 100 MHz</p> <p>Analog Channels: 4 or more</p> <p>Real-Time Sampling Rate: Maximum 1 GSa/s per channel</p> <p>Memory Depth: 10 Mpts per channel</p> <p>Waveform Update Rate: Approximately 120,000 wfms/s</p> <p>Vertical Resolution: 8 bits</p> <p>Vertical Scale: Ranging from 1 mV/div to 10 V/div</p> <p>Horizontal Scale: Spanning 1 ns/div to 100 s/div</p> <p>Spectrum Analyzer Frequency Range: DC to 500 MHz</p> <p>FFT Points: Up to 1M points for enhanced frequency domain resolution</p> <p>Waveform Math Functions: Includes addition, subtraction, multiplication, division, minimum, maximum, root, square, absolute, inverse, derivative, integral, and low-pass filter</p>	1

			<p>Trigger Types: Edge, Pulse Width, Video, Pulse Runt, Rise &amp; Fall (slope), Alternate Timeout, Event-Delay, Time-Delay, and Bus</p> <p>Arbitrary Waveform Generator (AWG): Dualchannel, 25 MHz, supporting various waveforms such as sine, square, pulse, ramp, DC, noise, sinc, Gaussian, Lorentz, exponential rise/fall, haversine, and cardiac</p> <p>AWG Sample Rate: 200 MSa/s</p> <p>AWG Vertical Resolution: 14 bits</p> <p>Display: 8-inch WVGA TFT LCD (800 × 480 pixels)</p> <p>Data Logging Capability: Up to 1000 hours</p> <p>Segmented Memory: Supports up to 29,000 segments for efficient waveform storage and retrieval</p> <p>Connectivity: USB 2.0 (host and device), Ethernet (RJ45), and Go-NoGo BNC</p> <p>Dimensions (W × H × D): 380× 200× 125 mm or above</p> <p>Weight: 2 Kgs or above</p> <p>Safety Compliance: Conforms to IEC 61010-1 and IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>	
20.	Digital Oscilloscope	Branded Company Product with at least three years product	<p>Number of Channels: Up to 2 independent analog inputs</p> <p>Memory Record Length: Up to 10 Mpts for extended waveform capture</p>	1

		warranty	<p>Bandwidth Limiting: Selectable 20 MHz bandwidth filter</p> <p>Sampling Rate: Maximum of 1 GSa/s real-time equivalent per channel</p> <p>Rise Time: <math>\leq 3.5</math> ns depending on probe and settings</p> <p>Display: 7" TFT color LCD with 800×480 resolution</p> <p>Time Base Range: From 5 ns/div to 100 s/div, user-adjustable</p> <p>Vertical Resolution: 8-bit digital resolution</p> <p>Trigger Modes: Automatic, Normal, and Signal-dependent triggering</p> <p>Maximum Input Voltage: 300 Vrms (within safety limits)</p> <p>Input Sensitivity: Within the range of 1 mV/div to 10 V/div</p> <p>Input Coupling Options: Selectable among AC, DC, and Ground</p> <p>Trigger Coupling Modes: Configurable as AC, DC, High-pass, or Low-pass</p> <p>Physical Dimensions: Approximately 350 × 200 × 120 mm or above</p> <p>Unit Weight: 2.5 kg or above</p> <p>Input Impedance: Nominal 1 MΩ // 16 pF</p> <p>Measurement Capabilities: Equipped for automatic parameter extraction, background noise filtering, and AUTOSET configuration for display scaling (time base/gain)</p> <p>Protocol Decoding Support: Capable of analyzing I2C, SPI, UART, CAN, and LIN communication protocols</p> <p>Standard Accessories: Includes mains power</p>
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			cable, user manual (digital format), and one GTL-16E probe per input channel	
21.	Power supply	Branded Company Product with at least three years product warranty	<p>Output Configuration: 4-channel design with independent electrical isolation across all outputs</p> <p>Channel Output Ranges:</p> <ul style="list-style-type: none"> <li>• CH1 &amp; CH2: Adjustable output voltage from 0 to 32V with a current delivery capacity up to 3A</li> <li>• CH3: Variable range 0 to 5V supporting up to 1A</li> <li>• CH4: Output adjustable from 0 to 15V with a load current of up to 1A</li> </ul> <p>Constant Voltage Operating Mode  Line Regulation: <math>\leq 0.01\% + 3 \text{ mV}</math>  (approximate value within rated voltage range)  Load Regulation: <math>\leq 0.01\% + 3 \text{ mV}</math>  (across rated load variation)  Ripple &amp; Noise: <math>\leq 1 \text{ mVrms}</math> across full bandwidth</p> <p>Constant Current Operating Mode  Line Regulation: <math>\leq 0.2\% + 3 \text{ mA}</math>  Load Regulation: <math>\leq 0.2\% + 3 \text{ mA}</math>  Ripple Current: <math>\leq 3 \text{ mArms}</math> (typical)</p> <p>Safety &amp; Operational Features  Output Control: Independent output ON/OFF switching functionality is required  Voltage Resolution: Approximately 100 mV  (*1)  Current Resolution: Approximately 10 mA  (*1)</p> <p>Display Parameters  Display Units: Four separate displays</p>	1

			<p>required for individual channel status visualization</p> <p>Display Type: 4.3-inch LCD (color or monochrome as applicable)</p> <p>Functional Features</p> <p>Tracking Operation: Supported (required for synchronizing output behavior)</p> <p>Auto Series/Parallel: Supported (automatic internal reconfiguration required)</p> <p>Power Requirements</p> <p>Supply Input: 230V AC <math>\pm 10\%</math>, 50 Hz</p> <p>Mechanical Specifications</p> <p>Maximum Dimensions (W <math>\times</math> H <math>\times</math> D): Within</p> <p>200 mm <math>\times</math> 100 mm <math>\times</math> 200 mm</p> <p>Maximum Weight: 10 kg or less</p>	
22.	Function Generator	<p>Branded Company Product with at least three years product warranty</p>	<p>Output Function: The equipment shall provide output waveforms including sine, square, triangle, and TTL signals as required.</p> <p>Frequency Range: For sine and square waveforms: approximately 0.1 Hz up to 3 MHz. For triangle waveform: approximately 0.1 Hz up to 1 MHz.</p> <p>Frequency Resolution: Frequency resolution shall be maintained within a maximum of 0.1 Hz.</p> <p>Frequency Stability: The frequency stability shall be within <math>\pm 20</math> ppm (parts per million).</p> <p>Frequency Accuracy: The frequency accuracy shall be maintained within <math>\pm 20</math> ppm.</p> <p>Frequency Aging: Frequency aging shall not exceed <math>\pm 5</math> ppm per annum.</p> <p>Amplitude Range: Output amplitude</p>	1

			<p>shall be up to 10 V peak-to-peak (Vp-p) into a 50 Ω load.</p> <p>Amplitude Accuracy: Amplitude accuracy shall be within ±20% at maximum amplitude setting.</p> <p>Output Impedance: Nominal output impedance shall be 50 Ω with a tolerance of ±10%.</p> <p>Attenuator: A single-step attenuator of -40 dB ±1 dB shall be provided.</p> <p>Display: A 6-digit LED display shall be incorporated for parameter indication.</p> <p>Output Control: Output shall be controlled via an ON/OFF selector switch.</p> <p>Power Source: The device shall operate on an AC supply of 240 V, 220 V, or 110 V ±10%, with frequency 50/60 Hz.</p> <p>Ambient Operating Temperature: Normal operation shall be ensured within the ambient temperature range of 0 °C to 40 °C.</p> <p>Dimensions: Maximum dimensions shall not exceed 255 mm (W) × 95 mm (H) × 295 mm (D).</p> <p>Weight: Maximum device weight shall be within 2.5 kg.</p>	
23.	Bench Top Multimeter	Branded Company Product with at least three years product warranty	<p>DC Voltage: Range: 500 mV to 1000 V across 5 ranges. Accuracy: ±(0.03% rdg + 4 digits).</p> <p>Input impedance: 10 MΩ.</p> <p>AC Voltage (True RMS): Range: 500 mV to</p>	1

			<p>1000 V across 5 ranges. Accuracy: <math>\pm(0.5\% - 5\% \text{ rdg} + \text{digits})</math> depending on frequency and range. Input impedance: 10 M<math>\Omega</math>. DC Current: Range: 500 <math>\mu\text{A}</math> to 20 A across 6 ranges. Accuracy: <math>\pm(0.02\% - 0.3\% \text{ rdg} + 2 \text{ digits})</math> depending on range. AC Current (True RMS): Range: 500 <math>\mu\text{A}</math> to 20 A across 6 ranges. Accuracy: <math>\pm(0.5\% - 1\% \text{ rdg} + \text{digits})</math> depending on frequency. Resistance: Range: 500 <math>\Omega</math> to 20 M<math>\Omega</math> across 6 ranges. Accuracy: <math>\pm(0.1\% - 0.3\% \text{ rdg} + \text{digits})</math> depending on range. Diode Test: Max forward voltage 1.5 V, open voltage 2.8 V. Capacitance: Range: 5 nF to 50 <math>\mu\text{F}</math>. Accuracy: <math>\pm(2\% \text{ rdg} + 4 \text{ digits})</math>. Frequency: Input level varies by range; functions include Auto/Manual Range, Max, Min, dBm, Rel, Hold. Continuity Beep: Threshold &lt;5 <math>\Omega</math>. Display: Dual 7-segment LED, 0.4" and 0.5". Power Source: AC 100/120/230 V <math>\pm 10\%</math>, 50/60 Hz. Dimensions &amp; Weight: Approximately 251 <math>\times</math> 91 <math>\times</math> 291 mm; 2.6 kg</p>	
24.	Non-Contact Voltage Tester	Branded Company Product with at least three years product warranty	<p>Function: Non-contact AC voltage detection tester. Voltage Detection Range: Approximately 90 V to 1000 V AC. Detection Method: Capacitive, with</p>	5

			<p>visual and audible indication.</p> <p>Sensitivity: Adjustable sensitivity for different voltage ranges.</p> <p>Response Time: Instantaneous detection within standard operating conditions.</p> <p>Indicators: Bright LED indicators and audible beep for voltage presence.</p> <p>Operating Environment: Suitable for use in ambient temperatures from 0 °C to 40 °C.</p> <p>Power Source: Powered by standard batteries (typically 2 × AAA or equivalent).</p> <p>Safety Standards: Complies with IEC/EN 61010-1 CAT III 1000 V safety standards.</p> <p>Dimensions: Compact, handheld design suitable for field use (approx. 150 mm × 30 mm × 25 mm).</p> <p>Weight: Lightweight, approximately 150 g for ease of portability</p>	
25.	LCR Meter	Branded Company Product with at least three years product warranty	<p>Display: Approximately 2.8" TFT touch LCD screen.</p> <p>Resolution: 25,000 or above counts resolution on both primary and secondary display</p> <p>Basic Accuracy: Within ±0.2% under standard conditions.</p> <p>Test Frequencies: Six or eight selectable frequencies depending on model variant.</p> <p>Measurement Combinations: Up to 15 different measurement combinations available.</p>	1

			<p>Test Level: Selectable AC test levels approximately 0.3 V, 0.7 V, and 1 V rms; DC test level selectable at <math>\pm 1</math> V.</p> <p>Measurement Speed: Selectable measurement speeds of approximately 10 measurements per second (fast) and 2.5 measurements per second (slow).</p> <p>Auto LCR Mode: Automatic identification and measurement of component types within supported ranges.</p> <p>Data Hold: Feature available to hold measured data on display.</p> <p>Interface: USB virtual COM port provided for remote communication capabilities.</p> <p>Software: Datalogging software available for data capture and analysis.</p>	
26.	Soldering Station	<p>Branded Company Product with at least three years product warranty</p>	<p>Power Rating: Approximately 60 W maximum output power.</p> <p>Temperature Range: Adjustable from approximately 200 °C up to 480 °C.</p> <p>Temperature Stability: Within <math>\pm 2</math> °C under normal operating conditions.</p> <p>Heating Element: Ceramic heating element for rapid heat-up and efficient temperature maintenance.</p> <p>Display: Digital or analog temperature display (depending on variant) for precise temperature control.</p> <p>Temperature Control: Adjustable via knob or digital interface with fine resolution.</p> <p>Power Supply: AC 220 V <math>\pm 10\%</math>, 50/60 Hz.</p>	3

			<p>Safety Features: Thermal cutoff and overload protection within required standards.</p> <p>Dimensions: Compact design with 100 mm × 100 mm × 90 mm (W × H × D) or above</p> <p>Weight: Approximately 1.5 kg for ease of portability and bench use</p>	
27.	Digital Microscope	<p>Branded Company Product with at least three years product warranty</p>	<p>Specification: Magnification: 1600X</p> <p>Light source: 8 LED lights</p> <p>Resolution: 1920×1080, 640*480</p> <p>Pixel: 30W</p> <p>Focal length: 3-40mm manual adjustment</p> <p>Support Android 4.2 or above/widows/Mac system</p>	1
28.	Soldering Rework Station	<p>Branded Company Product with at least three years product warranty</p>	<p>Soldering Iron Power: Up to approximately 60 W output power with temperature adjustable within approximately 200 °C to 480 °C range.</p> <p>Heating Element: Needle bit with MCH heater providing rapid heat-up and stable temperature control within ±2 °C.</p> <p>Hot Air Blower Power: Up to approximately 500 W output power with temperature adjustable within approximately 200 °C to 450 °C range, multiple nozzles included.</p> <p>Hot Air Features: Auto-pause function on placement in cradle, airflow adjustable within operational limits.</p> <p>DC Power Supply: Provides output voltage approximately 15 V up to 2 A maximum current plus 5 V USB output for</p>	1

			<p>auxiliary power.  Control: Microcontroller-based system with LED indicators for temperature and mode selection.  Safety: ESD-safe design compliant with applicable standards.  Build: Metallic body with powder coating, approximate dimensions 280 mm × 180 mm × 140 mm (W × H × D).  Weight: Approximately 3.5 kg.  Power Source: AC 220 V ±10%, 50/60 Hz.  Accessories: Includes soldering iron with needle bit, hot air blower with 3 nozzles, iron stand with sponge, hot air cradle, patch cord, and power cord.  Operating Temperature: Suitable for ambient temperature approximately 0 °C to 40 °C</p>	
29.	Hand Drill Machine	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Approximately 500 W or above maximum power consumption.  Bit Holder: Standard 1/2"-20 UNF thread type.  No-Load Speed (1st Gear): Adjustable from 0 up to approximately 3,000 rpm.  Power Output: Approximately 300 W continuous output power.  Weight: Approximately 1.7 kg total device weight.  Impact Rate at No-Load Speed: Variable from 0 up to approximately 48,000 bpm.  Rated Torque: Approximately 1.4 Nm</p>	2

			<p>maximum torque output.  Drill Spindle Connecting Thread:  Standard  1/2"-20 UNF thread.  Chuck Capacity (Min/Max):  Approximately  1.5 mm minimum to 13 mm maximum.</p>	
30.	Cordless drill	<p>Branded Company Product with at least three years product warranty</p>	<p>Torque (soft/hard/max.): Min 21/50/- Nm  No-load speed (1st gear / 2nd gear):  Min 0 – 500 / 0 – 1,900 rpm  Weight incl. battery: 1.3 kg or less  Max. impact rate: 27,000 bpm  Battery type: Lithium-Ion or equivalent  Chuck capacity, min./max.: 1.5 / 13 mm  Weight excl. battery: 0.99 kg  Torque settings: 20+2 or better</p>	2
31.	Jig Saw	<p>Branded Company Product with at least three years product warranty</p>	<p>Rated Input Power: Approximately 500 W  maximum power consumption.  Voltage, Electrical: Nominal 230 V AC supply.  Saw Stroke Length: Approximately 20 mm stroke length.  Stroke Rate at No Load: Adjustable within approximately 800 to 3,100 spm (strokes per minute).  Weight: Approximately 2.08 kg total weight.  Bevel Angle: Adjustable within approximately -45° to 45° range.</p>	1
32.	Miter Saw	<p>Branded Company Product with at least three years product warranty</p>	<p>Rated Input Power: Approximately 1,750 W  maximum power consumption.  Saw Blade Diameter: Approximately 254 mm nominal diameter.  Mitre Setting: Adjustable up to</p>	1

			<p>approximately 47° left and 52° right.  Bevel Setting: Adjustable up to approximately 45° left and 0° right.  Saw Blade Bore Diameter: Approximately 25.4 mm standard bore.  Cutting Capacity at 0°: Approximately 90 mm × 130 mm maximum cross-section.  Cutting Capacity at 45° Mitre: Approximately 90 mm × 91 mm maximum cross-section.  Cutting Capacity at 45° Bevel: Approximately 60 mm × 130 mm maximum cross-section.  Tool Dimensions (W×L×H): Approximately 477 mm × 559 mm × 567 mm.  No-Load Speed: Fixed at approximately 5,000 rpm.  Weight: Approximately 11.1 kg</p>	
33.	Hot air gun	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Approximately 1,800 W maximum power consumption.  Voltage, Electrical: Nominal 230 V AC supply.  Weight: Approximately 0.75 kg.  Working Temperature Range: Adjustable within approximately 60 °C to 550 °C.  Heat-Up Time: Approximately 1 second to reach target temperature.  Airflow: Adjustable within approximately 350 to 550 liters per minute.  Airflow Control: Three selectable airflow settings</p>	2
34.	Table saw	Branded	Rated input power: Max 1800 W	1

		Company Product with at least three years product warranty	Incline setting: 45 ° L / 0 ° R Table size: Up to 555 x 555 mm Saw blade diameter: 254 mm Cutting height 90°: 80 mm Cutting height 45°: 55 mm Saw blade bore diameter: 30 mm Weight 24.4 kg or less Max. cutting capacity on the right: 545 mm No-load speed: 4300 rpm Cutting height 90°: 80 mm Cutting height 45°: 55 mm	
35.	Bench grinder	Branded Company Product with at least three years product warranty	Grinding wheel diameter: min 150 mm Rated input power: 350 W or more Grinding wheel widths: 20 mm or more No-load speed: upto 3,000 rpm Grinding wheel bore: 20 mm/2cm Grit 24, 60 or more Weight: 10 kg or less	1
36.	Angle Grinder	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 670 W maximum power consumption. No-Load Speed: Approximately 11,000 rpm. Disc Diameter: Approximately 100 mm nominal diameter. Grinding Spindle Thread: Standard M10 thread. Weight: Approximately 1.5 kg. Switch: Lockable switch for operational safety	1
37.	Straight Grinder	Branded Company Product with at least three years product warranty	Rated Input Power: Max 300 W power consumption. No-Load Speed: Up to 28,000 rpm. Voltage, Electrical: Nominal 230 V AC supply. Spindle Collar Diameter: Approximately 41 mm. Weight: Around 1.4 kg. Maximum Grinding Tool Diameter: Up to 25	1

			mm. Maximum Collet Diameter: Up to 8 mm. Switch: Lockable switch for enhanced safety	
38.	Circular Saw	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,400 W maximum consumption. Saw Blade Diameter: Nominal 184 mm diameter. Saw Blade Bore Diameter: About 20 mm standard bore size. Guide Rail Compatibility: Not compatible with guide rails. No-Load Speed: Typically 5,200 rpm. Weight: Around 4.1 kg	1
39.	Blower	Branded Company Product with at least three years product warranty	Rated Input Power: Max 650 W power consumption. Weight: Approximately 1.7 kg. Voltage, Electrical: Nominal 230 V AC supply. Sound Pressure Level: Around 103 dB(A). Sound Power Level: Approximately 95 dB(A). Uncertainty (K): Within $\pm 3$ dB	1
40.	Cordless Screw Driver	Branded Company Product with at least three years product warranty	Battery Capacity: Around 1.5 Ah nominal capacity. Torque (Soft/Hard/Max): Approximately 14 Nm / 30 Nm / Maximum not specified. No-Load Speed (1st Gear / 2nd Gear): Ranges from 0 up to 400 rpm and 0 up to 1,500 rpm respectively. Battery Type: Rechargeable Lithium-Ion battery. Chuck Capacity (Min/Max): From approximately 0.8 mm up to 10 mm.	1

			Weight (Excluding Battery): About 0.8 kg. Torque Settings: 20 plus 1 adjustable settings.	
41.	Vacuum Cleaner	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,100 W maximum power consumption. Weight: Around 6 kg total weight. Container Volume (Net): Approximately 10 liters capacity. Voltage, Electrical: Nominal 230 V AC supply. Container Volume (Gross): Approximately 15 liters total volume. Container Volume (Net, Water): About 8 liters capacity for water. Filter Surface Area: Around 2,300 cm <sup>2</sup> effective filtration area. Airflow Rate (Turbine): Approximately 53 liters per second. Vacuum Pressure (Turbine): Up to 270 mbar vacuum pressure. Number of Wheels: Four wheels for mobility	1
42.	Random orbit sander	Branded Company Product with at least three years product warranty	Rated Input Power: Up to 280 W maximum consumption. Sanding Pad Diameter: Nominal 125 mm diameter. Orbit Diameter: Approximately 2.6 mm orbital diameter. Weight: Around 1.4 kg. No-Load Speed: Adjustable within 7,500 to 12,000 rpm range. Orbital Stroke Rate: Between 15,000 and 24,000 orbits per minute (opm). Eccentricity: Approximately 1.3 mm.	1

43.	Planer	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Not exceeding 710 W under nominal operating conditions.</p> <p>Planing Width: Approximately 82 mm effective width capacity.</p> <p>Planing Depth: Within the range of up to 2.6 mm maximum depth per pass.</p> <p>Weight: Circa 2.8 kg total unit mass.</p> <p>Adjustable Rebating Depth: Maximum adjustable depth of approximately 9 mm.</p> <p>No-Load Speed: Operating speed typically around 18,000 rpm</p>	1
44.	Cordless Vacuum Cleaner with Starter kit	Branded Company Product with at least three years product warranty	<p>Battery Voltage: Rated at approximately 18.0 V nominal voltage.</p> <p>Weight Excluding Battery: Around 1.3 kg without battery attached.</p> <p>Container Volume: Approximately 0.7 liters net capacity.</p> <p>Filter Surface Area: Roughly 55 cm<sup>2</sup> filtration surface.</p> <p>Maximum Airflow Rate (Turbine): Up to 10 liters per second.</p> <p>Maximum Vacuum Pressure (Turbine): Not exceeding 60 mbar under standard conditions.</p> <p>Operating Time (18 V Battery): Typically 7 minutes per Ah of battery capacity</p>	1
45.	Rotary Tool Kit	Branded Company Product with at least three years product warranty	<p>Rated Power Input: Approximately 175 W within nominal voltage range.</p> <p>Voltage: Operates within 220 to 240 V AC supply.</p> <p>Weight: Around 0.66 kg total mass.</p> <p>Length: Approximately 24 cm overall</p>	2

			<p>length.</p> <p>Width: About 4.1 cm nominal width.</p> <p>Depth: Roughly 4.3 cm depth dimension.</p> <p>No-Load Speed: Variable speed ranging from 5,000 up to 35,000 rpm.</p> <p>Battery Technology: Not applicable (n.a.).</p> <p>Speed Setting: Fully variable speed control as required.</p> <p>Accessory Quick Change System: Equipped with multi chuck for rapid accessory interchange.</p> <p>Vibration Level: Approximately 18 m/s<sup>2</sup> measured vibration</p>	
46.	Rubber Grip Hacksaw	Very Good Quality	<p>Depth of Throat: Approximately 98 mm (3.85 inches) nominal depth.</p> <p>Blade Length: Around 254 mm (10 inches) standard length.</p>	2
47.	Hacksaw Mini	Very Good Quality	<p>Blade Length: Approximately 10 inches nominal length.</p> <p>Handle Material: Constructed from metal as standard.</p> <p>Overall Length: Around 11 inches total length.</p>	2
48.	Claw Hammer Steel Shaft	Very Good Quality	<p>Weight: Approximately 8 oz (220 grams) nominal weight.</p> <p>Dimensions: Around 27.8 cm × 12.4 cm × 3.6 cm (L × W × H) overall size</p>	2
49.	Ball Pein Hammer	Very Good Quality	<p>Weight: Approximately 110 grams nominal weight.</p> <p>Dimensions: Around 32.6 cm × 10 cm × 2 cm (L × W × H) overall measurements.</p>	2
50.	Rubber mallet	Very Good	<p>Weight: Approximately 450 grams</p>	2

		Quality	nominal weight. Dimensions: Around 33.6 cm × 9.6 cm × 6.2 cm (L × W × H) overall size.	
51.	Ring spanner set 12Pcs	Very Good Quality	Weight: 3.08 Kg nominal weight. Quantity: 12 pcs per set. Size: 6 mm to 32 mm overall range.	1
52.	Open end spanner set 12Pcs	Very Good Quality	Weight: Approx1.74Kg nom.wt. Qty: 12pcs/set. Size: 6mm-32mm overall dims.	1
53.	Combination Spanner set 8Pcs	Very Good Quality	Weight: Approx649g nom.wt. Qty: 8pcs/set.	1
54.	Allen key set 10pcs	Very Good Quality	Hex Key Size: 1.5,2,2.5,3,4,5,5.5,6,8,10mm; Qty:10pcs/set	2
55.	Allen key set 12pcs	Very Good Quality	BallKeySize:1/16",5/64",3/32",7/64",1/8",9/64",>5/32",3/16",7/32",1/4",5/16",3/8" Qty:12pcs/set	2
56.	Combination plier	Very Good Quality	Weight: Approx422g nom.wt. Size: 8"/200mm nominal	2
57.	Long nose plier	Very Good Quality	Weight: Approx399g nom.wt. Size:180mm/6" nominal	2
58.	Circlip straight 5"	Very Good Quality	Weight: Approx399g nom.wt. Size:130mm/5" nominal	2
59.	Circlip bent	Very Good Quality	"Weight: Approx399g nom.wt. Size:130mm/5"" nominal"	2
60.	Diagonal Cutter	Very Good Quality	"Weight: Approx239g nom.wt. Size:180mm nominal"	2
61.	Wire Stripper	Very Good Quality	Weight: Approx281g nom.wt. Size:130mm nominal	2
62.	Adjustable spanner	Very Good Quality	Size: Upto 150 mm	2
63.	Pipe wrench	Very Good	Size: Max 300 mm	2

		Quality		
64.	C – clamp	Very Good Quality	Size: Upto 75 mm	4
65.	C – clamp	Very Good Quality	Size: Upto 150 mm	4
66.	Snap- off Knife	Very Good Quality	Size: 18 mmm	2
67.	16pcs screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	1
68.	6pcs precision screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	2
69.	Max steel snip cutter	Very Good Quality	Length: 250 mm	2
70.	PVC Pipe cutter	Very Good Quality	Length: 42 mm	2
71.	Hot Glue Gun	Very Good Quality	Power: 40 W	4
72.	Small file set	Very Good Quality	Length: 160 mm	2
73.	Big file set	Very Good Quality	Length: 200 mm	2
74.	Chisel set	Very Good Quality	Weight: 340 gm	2
75.	Punch set	Very Good Quality	Weight: 390 gm	2
76.	Bench wise	Very Good Quality	Base Type: Fixed Size:2–3½" nominal JawWidth:60mm	2
77.	Router Bit Starter Kit	Very Good Quality	Pieces Per Set: 15 pcs	1
78.	Drill bit set	Very Good Quality	WAF(mm):1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7,7.5,8,8.5,9,9.5,10,10.5,11,11.5,12,12.5,13	2

			Wt:~1.3Kg nom.wt Sz(mm):205×115×55 overall	
79.	Baby wise	Very Good Quality	Vice Type: Bench Size:2" nominal JawWidth:50mm	2
80.	Ratchet Set	Very Good Quality	Vice Type: Bench Sz:2" nominal; Jaw:50mm	2
81.	Pegboard	Very Good Quality		5
82.	Digital Vernier Caliper	Very Good Quality	Product Type: Digital Calliper Meas.Range:0–150mm / 0–6" Resolution:0.01mm	2
83.	Micrometer	Very Good Quality	Resolution:0.001mm/0.00005" Meas.Range:0–25mm/0–1"	1
84.	Steel Rule 300mm	Very Good Quality	Product Type: Steel Rule ScaleSize:12"/300mm Material: Stainless Steel	5
85.	Steel Rule 600mm	Very Good Quality	Product Type: Steel Rule ScaleSize:24"/600mm Material: Stainless Steel	5
86.	Engineering Square	Very Good Quality	Size:150×80mm nominal Material: Carbon Steel	2
87.	Meter Tape 30m	Very Good Quality	Length: 30 m	1
88.	Measuring Tape 3M	Very Good Quality	Length: 3 m	3
89.	Measuring Tape 3M	Very Good Quality	Length: 5 m	3
90.	Spirit Level	Very Good Quality	Vials:3 Accuracy:0.5mm/m Length:300mm Product Type: Level	3
91.	Goggle	Very Good Quality	Goggle – Industrial Standard Make	5
92.	Apron	Very Good	Apron - Standard Make	5

		Quality		
93.	Ear Muff	Very Good Quality	Earmuff – Industrial Standard Make	5
94.	Mask	Very Good Quality	Mask – Industrial Standard Make	50
95.	Fire Extinguisher	Very Good Quality	Fire Extinguisher– Industrial Standard Make	6
96.	First Aid Kit	Very Good Quality	First Aid Kit – Industrial Standard Make	2
97.	Gloves Pair	Very Good Quality	Gloves – Industrial Standard Make	10
98.	Normal Oven	Branded Company Product with at least three years product warranty	Oven Cap: 20L or more Type: Solo Door: Side Swing Child Lock: Yes Completion Beeper: Yes Power Levels: upto 5 Control: Membrane Type Cavity Mat: Anti-Bacterial Dims(mm):455×252×320 PowerOut:700W or less	1
99.	Refrigerator	Branded Company Product with at least three years product warranty	Capacity:183L or more AnnualEnergyConsumption:148kWh/Y ear or less RefrigeratorFreshFoodCapacity:165L or more Freezer Capacity: min 18L BottleCount:5 or more NoiseLevel:40dB or less Installation Type: Freestanding	1
100.	Smart Board	Branded Company Product with at least three years product warranty	Display Size: Approx 75Inch (190 cm) Up to Resolution: 4KUHDorHigher Brightness: Min 350 nits; Typ400nitsApprox Contrast Ratio: Typ 1200: 1Upto Response Time: Approx 8ms Viewing Angle: Approx178DegreesWide	1

			<p>WorkingFrequency:1.5GHzNominal  RAM:4GBOrMore  InternalStorage:32GBMin  OS: Android Based  HDMI: 3Ports  USB: 2Ports  Sensing Type: Infrared Touch Frame  Surface Protection: 4mm Toughened Glass Or Equivalent  Infrared Touch Points: 20Approx  Voltage:DC+5V±5%Range  OPS: Optional</p>	
101.	Projector	<p>Branded Company  Product with at least three years product warranty</p>	<p>Projection Tech: RGB liquid crystal shutter  projection (3LCD) Up to  Connectivity: USB Type B: 1port  (FirmwareUpdate/Copy OSD) Approx  AnalogInput:D-Sub15pin:1port  Digital Input: HDMI:1port  Projection Lens: Type: No Optical  Zoom/Focus (Manual)Nominal  FocalLength:16.70mm Approx  FNumber:1.44 Nominal Zoom:1.44  -1.95 Ratio (Wide to Tele)  ThrowRatioRange:1.00 –1.35(Digital Zoom Approx</p>	1
102.	Printer	<p>Branded Company  Product with at least three years product warranty</p>	<p>Functions: Print, Scan, Copy  Printer Type: Laser Nominal  Dims(mm):409×398.5×267Approx  Weight:9.7KgNominal  PrintSpeed:Upto30ppm(A4Size)Approx  Warranty:1YearOn  -Site  PrintResolution:600×600dpi,HQ1200(2400×600dpi) Quality Approx  2Sided  -Duplex  -  PaperType:Plain,Thin,RecycledApprox  2Sided  -Duplex  -PaperSize:A4  PaperHandling:Tray#1</p>	1

			<ul style="list-style-type: none"> <li>- PaperType:Plain,Thin,Recycled Tray#1</li> <li>- MaxCapacity:Upto250Sheets(80g/m<sup>2</sup>)</li> <li>Approx PaperOutput:Upto100Sheets(80g/m<sup>2</sup>)FaceDownTray;OneSheetFaceUpTrayApprox Copy</li> <li>- Colour /Mono: Yes/Yes</li> <li>Multiple Copies: Sorts/StacksUpto99PagesApprox</li> <li>Enlarge/Reduce:25%</li> <li>- 400%(In1%Steps)Approx</li> <li>CopyResolution:600×600dpi</li> <li>2Sided</li> <li>-Duplex</li> <li>- CopyPaperType:Plain,Thin,Recycled</li> <li>2Sided</li> <li>-Duplex</li> <li>-CopyPaperSize:A4</li> <li>Scan</li> <li>- ResolutionInterpolated:Upto19200×19200dpiApprox</li> <li>Scan</li> <li>- ResolutionGlass:Upto600×2400dpiApprox</li> <li>Connectivity:Hi</li> <li>-SpeedUSB2.0</li> <li>DisplayType:16Chars×2Lines</li> <li>MemoryCapacity:32MBAprox</li> <li>PowerSource:220</li> <li>-240VAC50/60Hz</li> <li>PowerConsumption</li> <li>-Ready:Approx60W</li> <li>PowerConsumption</li> <li>-Sleep:Approx6.6W</li> <li>PowerConsumption</li> <li>-Off:Approx0.08W</li> <li>NoiseLevel:50dB(A)Approx</li> </ul>	
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103.	Desktop	Branded Company Product with at least three years product warranty	CPU: INTEL CORE I7 -12THGEN or Higher RAM:8GB+512GB SSD or more Conn: LAN+WIFI+BLUTOOTH+KEYMOUSE Display:20" DESKTOP MONITOR	5
104.	3D printer Filament	Very Good Quality	Weight Kg: 1 Approx Melt Flow Index: 2 (190°C/2.16kg) Nominal FilamentLength:330mApprox Dim Accuracy: +/- -0.1mmApprox Roundness Accuracy: +/-0.5mmApprox SpoolInnerDia:55mmNominal SpoolOuterDia:200mmApprox SpoolWeight:300gNominal SpoolWidth:65mmApprox	10
105.	Acrylic Sheet 3mm, 4ft x 4ft	Very Good Quality		20
106.	Acrylic Sheet 4mm, 4ft x 4ft	Very Good Quality		20
107.	Acrylic Sheet 5mm, 4ft x 4ft	Very Good Quality		20
108.	Foam Sheet 8mm, 4ft x 4ft	Very Good Quality		2
109.	Foam Sheet 10mm, 4ft x 4ft	Very Good Quality		1
110.	Foam Sheet 12mm, 4ft x 4ft	Very Good Quality		1
111.	Foam Sheet 15mm, 4ft x 4ft	Very Good Quality		1
112.	Ply Board 5mm, 2ft x 4ft	Very Good Quality		12
113.	Nylon Rod 10mm, 1m	Very Good Quality		5
114.	Nuts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1

115.	Bolts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) dia 1" Inch Pack of 100	Very Good Quality		1
116.	Screws (3mm,4mm,5mm) Pack of 100	Very Good Quality		1
117.	Washers (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1
118.	Studs (6mm,8mm) 1 Meter	Very Good Quality		2
119.	Nails (1",2",3",1.5",5") Pack of 100	Very Good Quality		1
120.	Fevicol 2Kg	Very Good Quality		1
121.	2 Way Tape	Very Good Quality		10
122.	PVC Pipe .75",10ft	Very Good Quality		10
123.	PVC Pipe 1",10f	Very Good Quality		10
124.	PVC Pipe 1.5",10f	Very Good Quality		10
125.	PVC Pipe 2.0",10ft	Very Good Quality		10
126.	Aluminium channels (L, C, Box, strip length 12ft)	Very Good Quality		2
127.	PCB Drill Bit 0.4mm	Very Good Quality		10
128.	PCB Drill Bit 0.8mm	Very Good Quality		10
129.	PCB Drill Bit 1mm	Very Good Quality		10

130.	Drill Bit 4mm	Very Good Quality		10
131.	Drill Bit 5mm	Very Good Quality		10
132.	Drill Bit 6mm	Very Good Quality		10
133.	Arduino UNO R3	Very Good Quality		5
134.	Arduino NANO	Very Good Quality		5
135.	Arduino Mega	Very Good Quality		3
136.	Raspberry Pi Model 4B, 4GB	Very Good Quality		3
137.	ESP8266 NodeMCU	Very Good Quality		2
138.	ESP32 Development Board	Very Good Quality		2
139.	Beaglebone blu	Very Good Quality		1
140.	Beaglebone Black	Very Good Quality		1
141.	Voltage Regulator Module	Very Good Quality		2
142.	Mini Micro submersible Water Pump	Very Good Quality		2
143.	Piezoelectric Plate	Very Good Quality		2
144.	8*8 LED Matrix Module	Very Good Quality		2
145.	Bluetooth	Very Good Quality		2
146.	7 Segment LED Display	Very Good		2

		Quality	
147.	GSM/GPRS/GPS Module	Very Good Quality	2
148.	Laser Module	Very Good Quality	2
149.	LDR Module	Very Good Quality	2
150.	4x4 Matrix Keypad	Very Good Quality	2
151.	Joy Stick Module	Very Good Quality	2
152.	Active Buzzer (BIG)	Very Good Quality	2
153.	Active Buzzer (SMALL)	Very Good Quality	2
154.	Motor Driver	Very Good Quality	2
155.	Sound Playback Module	Very Good Quality	2
156.	BO Motors	Very Good Quality	10
157.	Vibrating Motor	Very Good Quality	10
158.	Capacitive Touch Switch	Very Good Quality	2
159.	IR Sensors (Obstacle Sensors)	Very Good Quality	2
160.	Triple Axis Magnetometer	Very Good Quality	2
161.	Humidity Sensor	Very Good Quality	2
162.	MQ - 2	Very Good Quality	2

163.	MQ - 3	Very Good Quality		2
164.	MQ - 4	Very Good Quality		2
165.	MQ - 5	Very Good Quality		2
166.	MQ - 7	Very Good Quality		2
167.	Ultrasonic Sensor Module	Very Good Quality		2
168.	Triple Axis accelerometer	Very Good Quality		2
169.	PIR Motion Detector Module	Very Good Quality		2
170.	Pulse Rate Heart Sensor	Very Good Quality		2
171.	Relay Module	Very Good Quality		2
172.	Soil Moisture Sensor	Very Good Quality		2
173.	Touch Sensor	Very Good Quality		2
174.	Rain Drop Sensor	Very Good Quality		2
175.	Flex Sensor	Very Good Quality		2
176.	Temperature Sensor	Very Good Quality		2
177.	Force Pressure Sensor	Very Good Quality		2
178.	Colour Recognition Sensor	Very Good Quality		2
179.	Water Flow Sensor	Very Good Quality		2

180.	Sound Sensor	Very Good Quality		2
181.	IR Sensor Array for Line Following	Very Good Quality		2
182.	RFID Reader -Tags	Very Good Quality		2
183.	RF Modules Tx& Rx 315 MHz ASK	Very Good Quality		2
184.	Stepper motor with Driver Board	Very Good Quality		2
185.	Servo Motor 360 rotation	Very Good Quality		10
186.	Servo Motor 180 rotation	Very Good Quality		10
187.	Metal Gear Servo Motor (180° Rotation)	Very Good Quality		10
188.	Solder Wire 100gm	Very Good Quality		10
189.	Solder Flux	Very Good Quality		10
190.	830 Points Solderless Breadboard	Very Good Quality		5
191.	400 Points Solderless Breadboard	Very Good Quality		5
192.	Copper Clad Board single side	Very Good Quality		10
193.	Copper clad board double side	Very Good Quality		10
194.	Male to Male Breadboard Jumper	Very Good Quality		10
195.	Female to Female Breadboard Jumper	Very Good Quality		10
196.	Male to Female Breadboard Jumper	Very Good Quality		10

## Annexure-1

Ref. No: PDA/AICTE IDEA LAB/2025-26/003

Date:

### FORMAT FOR BID SUBMISSION

Note to Bidders: This format must be strictly followed. Technical and financial bids must be submitted in a sealed envelope.

#### I. TECHNICAL BID FORMAT

Covering Letter (on bidder's letterhead)

To: Principal,

Subject: Submission of Technical Bid for the supply of Equipment/tools/Machine

##### 1. Bidder Information:

- Company Name:
- Registered Address:
- Contact Person:
- Email ID:
- Mobile Number:
- Legal Status: (Proprietorship / Partnership / Pvt Ltd / Public Ltd / Others)
- PAN & GST Numbers (attach copies)

##### 2. Eligibility Documents:

- Certificate of Incorporation / Registration
- GST Registration and PAN Copy
- OEM Authorization Letter (if applicable)
- Declaration of Non-Blacklisting (Annexure-3)
- Experience Certificate (minimum 3 years)
- Financial Turnover (last 3 years with CA certificate)

##### 3. Technical Compliance Sheet:

- Compliance with all technical specifications item-wise (Yes/No)
- Supporting product datasheets, brochures, or technical manuals (to be attached Compulsorily)

##### 4. Service & Warranty Details:

- Minimum warranty offered: 3 years
- After-sales support details.
- Comprehensive onsite warranty for 3 years, including parts, labor, and service.
- Service escalation matrix (compulsorily to be provided by the vendor).

## II. COMMERCIAL (FINANCIAL) BID FORMAT

Covering Letter (on bidder's letterhead)

To: Principal,

Subject: Submission of Commercial Bid for [Tender Name] Price Bid Format (to be filled as per below the template):

Sl. No	Item Description	Quantity	Unit Price	GST in %	Total Price (INR)
1.					
2.					
3.					
...					
	<b>Grand Total (Inclusive of GST)</b>				

Note:

- a. All prices must be inclusive of delivery, installation, training, and three years' warranty.
- b. Bids quoting NIL charges shall be treated as unresponsive and rejected as per GFR Rule 173(i).

Authorized Signatory:

Name:

Designation:

Signature with Seal:

Date:

**Annexure-3**

Ref. No: PDA/AICTE IDEA LAB/2025-26/003

Date:

**Declaration of Non-Blacklisting**

(To be submitted on the Rs 500/-stamp paper and signed by the authorized signatory)

I/We, M/s \_\_\_\_\_, having our registered office  
at \_\_\_\_\_, do hereby declare that:

1. **We have not been blacklisted or debarred** by any Government Department, Public Sector Undertaking, Autonomous Body, or any other Government Agency in India or abroad.
2. We are **not involved in any litigation** that may impact or compromise the timely delivery, quality, or execution of services/goods as required under this tender.
3. We understand that any **false declaration** in this regard shall result in our disqualification and may lead to further legal action by the procuring entity.
4. All the information and documents submitted by us in the bid are **true and correct to the best of our knowledge and belief.**

Authorized Signatory:

Name:

Designation:

Company Seal:

Date:

**Annexure-4**

Ref. No: PDA/AICTE IDEA LAB/2025-26/003

Date:

**Declaration on Non-Chinese and/or non-Pakistan Origin of Equipment  
/Instruments / Machinery**

(To be submitted on the bidder's letterhead and signed by the authorized signatory)

I/We, M/s \_\_\_\_\_, having our registered office at \_\_\_\_\_, do hereby declare that:

1. All equipment, machinery, instruments, or components proposed to be supplied under this tender are not manufactured in the People's Republic of China and/or Pakistan, nor are they of Chinese/Pakistan origin or assembled using parts sourced from Chinese/Pakistan manufacturers.
2. We fully comply with the Government of India's guidelines, orders, and circulars regarding the procurement of goods from countries sharing a land border with India, particularly those related to restrictions on Chinese origin equipment as per: Ministry of Finance, Department of Expenditure, Public Procurement Division, Order No. F.No.6/18/2019-PPD dated 23rd July 2020, and related amendments.
3. We understand that non-compliance with this declaration shall render our bid liable for rejection, and may also invite penal action including blacklisting.
4. We undertake that, if at any stage the above declaration is found to be false, Vellore Institute of technology, Chennai Campus, shall be at liberty to terminate the contract and forfeit our security/deposit/performance guarantee without notice.

Authorized Signatory:

Name:

Designation:

Company Seal:

Date:

## Annexure-5

Ref. No: PDA/AICTE IDEA LAB/2025-26/003

Date:

### **BID Security Declaration**

I/We understand that, as per tender conditions, bids must be supported by a Bid Security Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with PDA College of Engineering, Kalaburagi for a period of one year if I am / we are in breach of any obligation under the bid conditions, including:

- a. Withdrawal/modification of bid during the period of bid validity.
- b. Failing to sign the contract after award of bid.

Sign:

Name:

Designation:

Official Seal:

Date: