

Tender Notice

Online 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.

Sr. No	Equipments	Preferred brands if any	Specifications	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. 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.	1

2	PCB Milling Machine	Branded Company Product with at least three years product warranty	<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</p> <p>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</p> <p>Spindle Motor: DC Motor Type 380 or More Spindle Speed: Adjustable 20,000 and 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>	1
3	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
4	Vinyl Cutter	Branded Company Product with at least Two years 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
5	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 equivalent Camera Sensor: Sony 13 MP or better Scan Speed: 4 seconds or more Working</p>	1

			<p>Distance : Effective Working Distance: 160mm-1400mm Scan Speed : 980,000points/s, up to 14FPS</p> <p>Align Modes : Feature Alignment, Hybrid Alignment, Texture Alignment, Global Markers</p> <p>Safety : Eye-safe</p> <p>Texture Scan : Yes</p> <p>Interface : USB2.0 or above</p> <p>Outdoor Scanning : Yes</p> <p>Output Formats : OBJ; STL; PLY; P3; 3MF</p> <p>Scanning Environment: Indoor and outdoor (shaded) Texture / Color Scanning: Yes Minimum Capturable Feature Size: 0.2 mm or less</p> <p>Scanner Weight: 500 grams or less Scanner Dimensions: upto 240 × 60 × 60 mm Compatible OS: Any OS supporting a modern web browser</p>	
6	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, high- quality 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 Spindle Concentricity: Up to 5 microns or better Chuck: 3-jaw chuck as per DIN 6386, centrically clamped, 100 mm diameter or better Run Out (without Chuck): Up to 10 microns Sleeve Receiver: MK2, retractable sleeve with scale Spindle Speed Range: Between 50 to 2500 rpm Speed Stages: 6-8 Motor Rating: 550W or better, induction motor, single phase 230V</p>	1

			<p>Traverse Cross: Up to 70 mm or better Traverse Longitudinal: Up to 300 mm or better Weight (Complete): Up to 55 kg or more</p> <p>Additional Accessories: Splash guard and chip collecting tray: 1 No. Cutter set with tungsten inserts: 2 Nos. Milling Attachment: 1nos Tungsten disposable tips ten-piece set: 1 No. Sample workpieces (Nylon Rod, Aluminium Rod) Desktop: 1 No.</p>	
7	CNC Router	<p>Branded Company Product with at least three years product warranty</p>	<p>Working Area: Min 1300 x 2500 mm Z Axis Working Area: 200 or above Resolution: $\pm 0.03/300$mm or more CNC Spindle: 3KW or more Lathe Structure : Welding Steel Structure or equivalent XYZ Structure: Rack Pinion , Ball Screw Linear Rails Max Spindle Speed : Min 18000RPM Table: T-Slot/Vacuum Bed/Water Bed Repeatability: ± 0.03 Working Mode: Stepper Motor/Servo Motor Dust Collector : To be included by Vendor Voltage: AC 220V/415V, 50/60 Hz, 3 Phase</p>	1
8	Belt and Disc Sanding Machine	<p>Branded Company Product with at least three years product warranty</p>	<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
9	Scroll Saw	<p>Branded Company Product with at least three years product warranty</p>	<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
10	Wood Lathe	<p>Branded Company Product with at least three years product warranty</p>	<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	Portable Welding Machine	Branded Company Product with at least Three to Five years 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
13	Advanced motorized 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
14	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 Shipping Weight: 2.5 kg	1
15	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	1
			Overall Dimensions: min 350×450 mm Machine Weight: upto 25 kg	

16	Digital multimeter	<p>Branded Company Product with at least three years product warranty</p>	<p>Display Count: Up to 4000 DC Voltage Range: Up to 1000 V AC Voltage Range: Up to 1000 V DC Voltage Accuracy: $\pm 0.5\%$ or ± 3 digits, whichever is higher AC Voltage Accuracy: Within $\pm 1\%$ + 3 digits DC Current Measurement: Up to 10 A AC Current Measurement: Maximum 10 A DC Current Accuracy: $\pm 1.5\%$ + 3 digits (approximate) AC Current Accuracy: $\pm 1.5\%$ + 3 digits (typical) Resistance Measurement: Up to 40 MΩ Resistance Accuracy: Estimated at $\pm 1.5\%$ + 3 digits Capacitance Measurement: Up to 1000 μF Capacitance Accuracy: $\pm 5\%$ or ± 5 digits Operating Temperature Range: From 0°C up to approximately 40°C Storage Temperature Range: Between -30°C and 60°C Overall Dimensions (H×W×L): Approximately 183×91×49.5 mm Unit Weight: Around 455 grams Safety Compliance: As per IEC 61010-1 & IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>	5
17	Mixed Signal Oscilloscope 100 MHz	<p>Branded Company Product with at least three years product warranty</p>	<p>Bandwidth: Up to 100 MHz Analog Channels: 4 or more Real-Time Sampling Rate: Maximum 1 GSa/s per channel Memory Depth: 10 Mpts per channel Waveform Update Rate: Approximately 120,000 wfms/s Vertical Resolution: 8 bits Vertical Scale: Ranging from 1 mV/div to 10 V/div Horizontal Scale: Spanning 1 ns/div to 100 s/div Spectrum Analyzer Frequency Range: DC to 500 MHz FFT Points: Up to 1M points for enhanced frequency domain resolution Waveform Math Functions: Includes addition, subtraction, multiplication, division, minimum, maximum, root, square, absolute, inverse, derivative, integral, and low-pass filter Trigger Types: Edge, Pulse Width, Video, Pulse Runt, Rise & Fall (slope), Alternate,</p>	5

			<p>Timeout, Event-Delay, Time-Delay, and Bus Arbitrary Waveform Generator (AWG): Dual-channel, 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>	
18	Digital storage oscilloscope	<p>Branded Company</p> <p>Product with at least three years product warranty</p>	<p>Number of Channels: Up to 2 independent analog inputs</p> <p>Memory Record Length: Up to 10 Mpts for extended waveform capture</p> <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: ≤ 3.5 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</p>	5

			<p>noise filtering, and AUTOSET configuration for display scaling (time base/gain) Protocol Decoding Support: Capable of analyzing I2C, SPI, UART, CAN, and LIN communication protocols Standard Accessories: Includes mains power cable, user manual (digital format), and one GTL-16E probe per input channel</p>	
19	Variable Power supply	<p>Branded Company Product with at least three years product warranty</p>	<p>Output Configuration: 4-channel design with independent electrical isolation across all outputs Channel Output Ranges:</p> <ul style="list-style-type: none"> • CH1 & CH2: Adjustable output voltage from 0 to 32V with a current delivery capacity up to 3A • CH3: Variable range 0 to 5V supporting up to 1A • CH4: Output adjustable from 0 to 15V with a load current of up to 1A <p>Constant Voltage Operating Mode Line Regulation: $\leq 0.01\% + 3 \text{ mV}$ (approximate value within rated voltage range) Load Regulation: $\leq 0.01\% + 3 \text{ mV}$ (across rated load variation) Ripple & Noise: $\leq 1 \text{ mVrms}$ across full bandwidth</p> <p>Constant Current Operating Mode Line Regulation: $\leq 0.2\% + 3 \text{ mA}$ Load Regulation: $\leq 0.2\% + 3 \text{ mA}$ Ripple Current: $\leq 3 \text{ mArms}$ (typical)</p> <p>Safety & 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 required for individual channel status visualization Display Type: 4.3-inch LCD (color or monochrome as applicable)</p> <p>Functional Features Tracking Operation: Supported (required for synchronizing output behavior) Auto Series/Parallel: Supported (automatic internal reconfiguration required)</p>	5

			<p>Power Requirements Supply Input: 230V AC \pm10%, 50 Hz</p> <p>Mechanical Specifications Maximum Dimensions (W \times H \times D): Within 200 mm \times 100 mm \times 200 mm Maximum Weight: 10 kg or less</p>	
20	Signal Generator	Branded Company Product with at least three years product warranty	<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 \pm20 ppm (parts per million).</p> <p>Frequency Accuracy: The frequency accuracy shall be maintained within \pm20 ppm.</p> <p>Frequency Aging: Frequency aging shall not exceed \pm5 ppm per annum.</p> <p>Amplitude Range: Output amplitude 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 \pm20% at maximum amplitude setting.</p> <p>Output Impedance: Nominal output impedance shall be 50 Ω with a tolerance of \pm10%.</p> <p>Attenuator: A single-step attenuator of -40 dB \pm1 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 \pm10%, with frequency 50/60 Hz.</p> <p>Ambient Operating Temperature: Normal operation shall be ensured within the ambient temperature range of 0 $^{\circ}$C to 40 $^{\circ}$C.</p> <p>Dimensions: Maximum dimensions shall not exceed 255 mm (W) \times 95 mm (H) \times 295 mm (D).</p> <p>Weight: Maximum device weight shall be within 2.5 kg.</p>	5
21	Bench Top Multimeter	Branded Company Product with at	<p>DC Voltage: Range: 500 mV to 1000 V across 5 ranges. Accuracy: \pm(0.03% rdg + 4 digits).</p> <p>Input impedance: 10 MΩ.</p>	5

		least three years product warranty	<p>AC Voltage (True RMS): Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.5\% - 5\% \text{ rdg} + \text{digits})$ depending on frequency and range. Input impedance: 10 MΩ.</p> <p>DC Current: Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.02\% - 0.3\% \text{ rdg} + 2 \text{ digits})$ depending on range.</p> <p>AC Current (True RMS): Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.5\% - 1\% \text{ rdg} + \text{digits})$ depending on frequency.</p> <p>Resistance: Range: 500 Ω to 20 MΩ across 6 ranges. Accuracy: $\pm(0.1\% - 0.3\% \text{ rdg} + \text{digits})$ depending on range.</p> <p>Diode Test: Max forward voltage 1.5 V, open voltage 2.8 V.</p> <p>Capacitance: Range: 5 nF to 50 μF. Accuracy: $\pm(2\% \text{ rdg} + 4 \text{ digits})$.</p> <p>Frequency: Input level varies by range; functions include Auto/Manual Range, Max, Min, dBm, Rel, Hold.</p> <p>Continuity Beep: Threshold $<5 \Omega$.</p> <p>Display: Dual 7-segment LED, 0.4" and 0.5".</p> <p>Power Source: AC 100/120/230 V $\pm 10\%$, 50/60 Hz.</p> <p>Dimensions & Weight: Approximately 251 \times 91 \times 291 mm; 2.6 kg.</p>	
22	Electronic Component Repository (LCR Meter, Variac etc) 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 displays.</p> <p>Basic Accuracy: Within $\pm 0.2\%$ 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> <p>Test Level: Selectable AC test levels approximately 0.3 V, 0.7 V, and 1 V rms; DC test level selectable at $\pm 1 \text{ V}$.</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>	1

23	Solder Station	Branded Company Product with at least three years product warranty	<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 ± 2 °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 $\pm 10\%$, 50/60 Hz.</p> <p>Safety Features: Thermal cutoff and overload protection within required standards.</p> <p>Dimensions: Compact design with 100 mm \times 100 mm \times 90 mm (W \times H \times D) or above</p> <p>Weight: Approximately 1.5 kg for ease of portability and bench use.</p>	5
24	Digital Microscope	Branded Company Product with at least three years product warranty	<p>Specification: Magnification: 1600X</p> <p>Light source: 8 LED lights</p> <p>Resolution: 1920\times1080, 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>	5
25	Cordless Drilling Machines (2 Nos.)	Branded Company Product with at least three years product warranty	<p>Torque (soft/hard/max.): Min 21/50/- Nm</p> <p>No-load speed (1st gear / 2nd gear): Min 0 – 500 / 0 – 1,900 rpm</p> <p>Weight incl. battery: 1.3 kg or less</p> <p>Max. impact rate: 27,000 bpm</p> <p>Battery type: Lithium-Ion or equivalent</p> <p>Chuck capacity, min./max.: 1.5 / 13 mm</p> <p>Weight excl. battery: 0.99 kg</p> <p>Torque settings: 20+2 or better</p>	2
26	Jigsaw Machines	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Approximately 500 W maximum power consumption.</p> <p>Voltage, Electrical: Nominal 230 V AC supply.</p> <p>Saw Stroke Length: Approximately 20 mm stroke length.</p> <p>Stroke Rate at No Load: Adjustable within approximately 800 to 3,100 spm (strokes per minute).</p> <p>Weight: Approximately 2.08 kg total weight.</p> <p>Bevel Angle: Adjustable within approximately -45° to 45° range.</p>	2

27	Hot air gun	Branded Company Product with at least three years product warranty	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.	2
28	Power 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	2
29	Centrifugal 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 ±3 dB	1
30	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 ² 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.	2
31	Mini Hacksaw	Very Good Quality	Blade Length: Approximately 10 inches nominal length. Handle Material: Constructed from metal as standard. Overall Length: Around 11 inches total length.	5

32	Ball Peen Hammer	Very Good Quality	Weight: Approximately 110 grams nominal weight. Dimensions: Around 32.6 cm × 10 cm × 2 cm (L × W × H) overall measurements.	5
33	Rubber mallet	Very Good Quality	Weight: Approximately 450 grams nominal weight. Dimensions: Around 33.6 cm × 9.6 cm × 6.2 cm (L × W × H) overall size.	5
34	Open end spanner set 12Pcs	Very Good Quality	Weight: Approx1.74Kg nom.wt. Qty: 12pcs/set. Size: 6mm-32mm overall dims.	2
35	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	1
36	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
37	Wire Stripper	Very Good Quality	Weight: Approx281g nom.wt. Size:130mm nominal	5
38	file set	Very Good Quality	Length: 160 mm	1
39	Big file set	Very Good Quality	Length: 200 mm	1
40	Chisel set	Very Good Quality	Weight: 340 gm	3
41	Router Bit Starter Kit	Very Good Quality	Pieces Per Set: 15 pcs	1
42	Digital Vernier Caliper	Very Good Quality	Product Type: Digital Calliper Meas.Range:0-150mm / 0-6" Resolution:0.01mm	5
43	Micrometer	Very Good Quality	Resolution:0.001mm/0.00005" Meas.Range:0-25mm/0-1"	5
44	Steel Rule 300mm	Very Good Quality	Product Type: Steel Rule ScaleSize:12"/300mm Material: Stainless Steel	3
45	Steel Rule 600mm	Very Good Quality	Product Type: Steel Rule ScaleSize:24"/600mm Material: Stainless Steel	2
46	Power Return Measuring Tape	Very Good Quality	Length: 3 m	3
47	Measuring Tape 5M	Very Good Quality	Length: 5 m	2

48	Spirit Level	Very Good Quality	Vials:3 Accuracy:0.5mm/m Length:300mm Product Type: Level	3
49	Normal and micro 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
50	Refrigerator	Branded Company Product with at least three years product warranty	Capacity:230L or more AnnualEnergyConsumption:148kWh/Year or less RefrigeratorFreshFoodCapacity:185L or more Freezer Capacity: min 18L BottleCount:5 or more NoiseLevel:40dB or less Installation Type: Freestanding	1
51	Smart Board	Branded Company Product with at least three years product warranty	Display Size: Approx 98 Inch Up to Resolution: 4KUHDorHigher Brightness: Min 350 nits; Typ400nitsApprox Contrast Ratio: Typ 1200: 1Upto Response Time: Approx 8ms Viewing Angle: Approx178DegreesWide 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	1
52	Projector	Branded Company Product with at least three years product warranty	Projection Tech: RGB liquid crystal shutter projection (3LCD) Up to Connectivity: USB Type B: 1port (Firmware Update/Copy OSD) Approx AnalogInput:D-Sub15pin:1port Digital Input: HDMI:1port Projection Lens: Type: No Optical Zoom/Focus (Manual)Nominal FocalLength:16.70mm Approx	5

			Focal Number:1.44 Nominal Zoom:1.44-1.95 Ratio (Wide to Tele) ThrowRatioRange:1.00-1.35(Digital Zoom Approx	
53	Heavy Duty Laser Printer	Branded Company Product with at least three years product warranty	Functions: Print, Scan, Copy Printer Type: Laser Nominal Dims(mm):409×398.5×267Approx Weight:9.7KgNominal Print Speed: Upto30ppm(A4Size) Approx Warranty:1YearOn-Site PrintResolution:600×600dpi, HQ1200(2400×600dpi) Quality Approx 2Sided-Duplex- Paper Type: Plain, Thin, Recycled Approx 2Sided-Duplex-Paper Size: A4 Paper Handling: Tray#1- Paper Type: Plain, Thin, Recycled Tray#1- Max Capacity: Upto250Sheets(80g/m ²)Approx Paper Output: Upto100Sheets(80g/m ²) Face Do wn Tray; One Sheet Face Up Tray Approx Copy- Color /Mono: Yes/Yes Multiple Copies: Sorts/StacksUpto99PagesApprox Enlarge/Reduce:25%- 400%(In1%Steps)Approx CopyResolution:600×600dpi 2Sided-Duplex- Copy Paper Type: Plain, Thin, Recycled 2Sided-Duplex- CopyPaperSize: A4 Scan- Resolution Interpolated: Upto19200×19200dp I Approx Scan- Resolution Glass: Upto600×2400dpiApprox Connectivity: Hi- SpeedUSB2.0 DisplayType:16Chars×2Lines MemoryCapacity:32MBAprox PowerSource:220-240VAC50/60Hz Power Consumption-Ready: Approx 60W Power Consumption-Sleep: Approx6.6W Power Consumption-Off: Approx0.08W NoiseLevel:50dB(A)Approx	2
55	Desktop	Branded Company Product with at least three years product warranty	CPU: INTEL CORE I7-14THGEN or Higher RAM:16GB+512GB SSD or more Conn: LAN+WIFI+BLUTOOTH+KEYMOUSE Display:20" DESKTOP MONITOR	5
56	3D printer Filament	Very Good Quality	Weight Kg: 5 Approx Melt Flow Index: 2 (190°C/2.16kg) Nominal FilamentLength:330mApprox Dim Accuracy: +/-0.1mmApprox	2

			Roundness Accuracy: +/-0.5mmApprox SpoolInnerDia:55mmNominal SpoolOuterDia:200mmApprox SpoolWeight:300gNominal SpoolWidth:65mmApprox	
57	Acrylic Sheet	Very Good Quality	3mm, 4ft x 4ft	20
58	Acrylic Sheet 4mm, 4ft x 4ft	Very Good Quality	4mm, 4ft x 4ft	20
59	Acrylic Sheet	Very Good Quality	5mm, 4ft x 4ft	20
60	Foam Sheet	Very Good Quality	8mm, 4ft x 4ft	2
61	Foam Sheet	Very Good Quality	10mm, 4ft x 4ft	1
62	Foam Sheet	Very Good Quality	12mm, 4ft x 4ft	1
63	Foam Sheet	Very Good Quality	15mm, 4ft x 4ft	1
64	Ply Board	Very Good Quality	5mm, 2ft x 4ft	12
65	Nylon Rod	Very Good Quality	10mm, 1m	5
66	Nuts	Very Good Quality	(3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	1
67	Bolts	Very Good Quality	(3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) dia 1" Inch Pack of 100	1
68	Screws	Very Good Quality	(3mm,4mm,5mm) Pack of 100	1
69	Washers	Very Good Quality	(3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	1

70	Studs	Very Good Quality	(6mm,8mm) 1 Meter	5
71	Nails	Very Good Quality	(1",2",3",1.5",5") Pack of 100	1
72	Adhesives	Very Good Quality	Fevicol 2Kg	10
73	2 Way Tape	Very Good Quality		20 Rolls
74	PVC Pipe	Very Good Quality	75",10ft	10
75	PVC Pipe	Very Good Quality	1",10ft	10
76	PVC Pipe	Very Good Quality	1.5",10ft	10
77	PVC Pipe	Very Good Quality	2.0",10ft	10
78	Aluminum channels	Very Good Quality	(L, C, Box, strip length 12ft)	2
79	PCB Drill Bit	Very Good Quality	0.4mm	10
80	PCB Drill Bit	Very Good Quality	0.8mm	10
81	PCB Drill Bit	Very Good Quality	1mm	10
82	Drill Bit	Very Good Quality	3,4, 5 and 6 mm	20
83	Drill Bit	Very Good Quality	8, 10 and 12 mm	5
84	Drill Bit	Very Good Quality	6mm	10
85	Solder wick flux	Very Good Quality	Regular	10
86	Drilling M/c	Very Good Quality	1 HP Motor	1
87	Handheld High Speed Drilling M/c-	Very Good Quality	15000 RPM with accessories	2
88	Benchtop Grinder Machine	Very Good Quality		1

89	Desoldering M/c	Very Good Quality	Regular	5
90	Power Tools	Very Good Quality	Regular	2
91	Magnifying Glass with Stand	Very Good Quality	Regular	2
92	Benchtop Multimeter	Very Good Quality	Regular	5
93	Vacuum Cleaner	Very Good Quality	Regular	1
94	Hot Air Gun	Very Good Quality	Regular	5
95	Measuring Equipment	Very Good Quality	Vernier calliper (0-200/0.01), Vernier height gauge (0-1000mm), Micrometer 0-50, 50-100/0.001 inside and outside], Metal Scale etc	1
96	Clothes Iron	Very Good Quality	Regular	5
97	Electronic Component Repository	Very Good Quality	(LCR Meter, Variac etc)	1
98	Carpentry Boring Bits	Entire Kit	Regular	1 kit
99	Electronic Active and Passive components	Resistors, Capacitors, diodes and transistors	Regular	10 each
100	USB Cables	For connecting Arduino and other development boards	Regular	10
101	Radium Cutter Knives	Very Good Quality	Regular	10
102	Glue Sticks	Very Good Quality	Regular	50
103	Hack Saw Blades	Very Good Quality	6" and 12"	10 each
104	9V Battery Snaps	Very Good Quality	9V	20
105	LAN Cables	For connecting Raspberry Pi	Regular	5

106	9V Batteries	Very Good Quality	Regular	20
107	Hacksaw	Very Good Quality	Regular	5
108	Pliers	Very Good Quality	Regular	
109	Manual PCB Drilling Machine	Very Good Quality	Regular	3
110	PCB power Drilling Machine	Very Good Quality	Regular	3
111	Needle Files	Very Good Quality	Regular	2
112	Pipe Vice	Very Good Quality	Regular	2
113	Mini HackSaw	Very Good Quality	Regular	5
114	Steel Shaft Claw Hammer	Very Good Quality	Regular	5
115	Nylon Mallet	Very Good Quality	Regular	5
116	Dremel multi tool kit	Very Good Quality	Regular	2
117	Double ended spanner sets	Very Good Quality	Regular	2
118	Tool Wall covering Perforator	Very Good Quality	Regular	3
119	Bench Grinding Machine	Very Good Quality	Regular	1
120	Tri Square 8"	Very Good Quality	8"	5
121	Dremel Cordless Rotary Tool	Very Good Quality	Regular	1
122	Power Router	Very Good Quality	Regular	1
123	Sewing Machine	Very Good Quality	Regular	1
124	Impact Drill	Very Good Quality	Regular	3

125	Ratchet Set	Very Good Quality	Regular	2
126	Scroll Saw	Very Good Quality	Regular	1
127	Hot Aii Blower With Soldering Iron	Very Good Quality	Regular	5
128	Tin Cutter with Spring	Very Good Quality	Regular	10
129	Screwdriver Sets	Very Good Quality	Regular	2 sets
130	Cutting Mats	Very Good Quality	Regular	5
131	Glue Gun	Very Good Quality	Regular	5
132	Air Compressor	Very Good Quality	Regular	1
133	Allen Set Wi ench	Very Good Quality	Regular	5
134	Tongue and Groove Pliers	Very Good Quality	Regular	5
135	Non-contact voltage tester	Very Good Quality	Regular	5
136	Fish Tape	Very Good Quality	Regular	2
137	Flashlights	Very Good Quality	Regular	2
138	DC Regulated Power Supply	Very Good Quality	Regular	3
139	Solder Wicx	Very Good Quality	Regular	10
140	Glass Cutter	Very Good Quality	Regular	1
141	Gypsum	Very Good Quality	10 kg	10
142	Clothes Iron	Very Good Quality	Regular	5
143	Oscilloscope	Very Good Quality	Regular	4

144	C-Clamp	Very Good Quality	Regular	10
145	Ratchet clamp 8 inches/200mm	Very Good Quality	8 inches/200mm	10
146	Baby Vice 60 mm	Very Good Quality	60 mm	5
147	Bench vices	Very Good Quality	Regular	5
148	Anvil	Very Good Quality	Regular	1

Terms and Conditions

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 AICTE IDEA Lab. All prospective vendors are required to read and comply with these terms in their entirety.

1. General Information

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.

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 non-compliant.

2. Bid Submission Guidelines

Bids may be submitted either via email (digitally signed) or in hard copy form, as specifically mentioned in the tender notice. All quotations must be printed on the bidder's official letterhead and duly signed by an authorized representative.

Each bid must be completed 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 April 2026).
- 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 ₹100/- 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. Technical Documentation and Compliance

The bidder must furnish complete technical documentation for each quoted item. This includes detailed product specifications, installation manuals, operation and maintenance manuals. The

bidder is also required to submit a layout/design proposal aligned with the lab setup requirements, highlighting compliance points against the tender specifications.

Original technical brochures or scanned versions of product catalogs should be submitted with the bid. Wherever available, URLs to the OEM's official product page should also be provided for cross-verification.

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.

4. Eligibility and Qualification Criteria

All bidders must be OEMs or authorized partners/distributors with valid authorization for the products they are quoting. Authorization letters must be submitted on the OEM's official letterhead.

Bidders must demonstrate relevant experience by submitting a minimum of three Purchase Orders (executed within the last five years) for similar equipment supplied to academic, R&D, or industrial institutions. A list of at least five institutional clients (with contact information) must be provided as a reference.

It is mandatory that the bidder or OEM has a registered support office in India to provide warranty and after-sales support. In the case of imported equipment, either the OEM or their authorized seller must submit a certificate confirming the presence of such a service support facility in India.

The OEM must also submit a declaration confirming the availability of spare parts for the quoted products for a minimum of one year and authorize the bidder to participate in the tender.

5. Financial Criteria

Each bidder must have an average annual turnover of ₹5 Crores or more over the last three financial years (2022–23, 2023–24, and 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.

6. 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 lowest 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.

7. 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. All associated transportation, testing, and labor 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.

8. Payment Terms

Payment shall be released as per the Institution Policy. 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 non-functional, 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.

9. 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 order or imposition of penalties, 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.

10. Submission Deadline and Contact Details

All quotations must be submitted by **15 May 2026** to the **principal@jbiet.edu.in** or sent in hard copy to:

The Principal

J.B. Institute of Engineering & Technology
(UGC Autonomous)

Address, Yenkapally (V), Moinabad (M),
Ranga Reddy, District Hyderabad. ,
Moinabad, Hyderabad, 500075 ; Website,
www.jbiet.edu.in ; Phone Number,
8008884683.