

ERODE SENGUNTHAR ENGINEERING COLLEGE AUTONOMOUS



(APPROVED BY AICTE, NEW DELHI AND PERMANENTLY AFFILIATED TO ANNA UNIVERSITY, CHENNAI
ACCREDITED BY NBA, NEW DELHI & NAAC WITH GRADE "A", IE(I), KOLKATA)

PERUNDURAI, ERODE - 638 057

Dr. V. VENKATACHALAM, B.E., M.S., M.Tech., Ph.D.

Principal

Tender Ref. No: ESEC/AICTE/IDEA Lab/2025-2026/01

Date: 30.07.2025

Tender Notice

Sealed/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	Equipment's	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.	2

			<p>LCD Screen: 3.5" graphic 65k color screen or larger.</p> <p>Connectivity: USB drive, LAN, or internet.</p> <p>Supported Materials: PLA, PETG, ASA, ABS, PP, PC, flexible filaments, and more.</p> <p>Wi-Fi Module: Built-in (network connectivity not required for setup or operation).</p>	
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</p> <p>Table Size: 225 (X) × 150 (Y) mm or more</p> <p>Drive System: Stepping Motor (X, Y, Z Axis)</p> <p>Operating Speed: 800 mm/min</p> <p>Software Resolution: 0.01 mm/step Position accuracy : 0.01 to 0.02 mm</p> <p>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</p> <p>Spindle Speed: Adjustable 20,000 and above rpm or more</p> <p>Tool Chuck Type: Collet Interface: USB or cable</p> <p>Control Commands: RML-1, NC code Power Supply: DC 24V, 2.5A (via AC 100– 240V, 50/60Hz adapter)</p> <p>Power Consumption: Approx. 50 W or more</p>	1
3	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, centrally 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
4	Desktop	Branded Company Product with at least three years product warranty	<p>CPU: INTEL CORE I7-12THGEN or Higher</p> <p>RAM:8GB+512GB SSD or more</p> <p>Conn: LAN+WIFI+BLUTOOTH+KEYMOUSE</p> <p>Display:20" DESKTOP MONITOR</p>	5

5	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; Typ400nits Approx Contrast Ratio: Typ 1200: 1Upto Response Time: Approx 8ms Viewing Angle: Approx178DegreesWide WorkingFrequency:1.5GHz Nominal RAM:4GB Or More 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	2
6	Bench Top Drill Machine	Branded Company Product with at least Three to Five years Warranty	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 No., Drill Bit Set 10 Pcs: 1 No	1
7	Scroll Saw	Branded Company Product with at least three years product warranty	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)	1
8	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
9	Soldering Station	Branded Company Product with at least three years product warranty	Power Rating: Approximately 60 W maximum output power. Temperature Range: Adjustable from approximately 200 °C up to 480 °C. Temperature Stability: Within ±2 °C under normal operating conditions. Heating Element: Ceramic heating element for rapid heat-up and efficient temperature maintenance. Display: Digital or analog temperature display (depending on variant) for precise temperature control.	1

			<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>	
10	Motorized Sewing Machine	Branded Company Product with at least three years product warranty	<p>Motor: 120 W</p> <p>Max Sewing Speed: 860 SPM Power: 220 - 240 V</p> <p>Automation Grade: Automatic Max Stitch Length: 4mm</p> <p>Thread Type: Computerized Weight: 7.6 kg</p> <p>Number of Stitches: 120</p> <p>Size/Dimension: 50.8 cm x 29.464 cm x 40.64 cm</p> <p>Maximum Stitch Width: 7 mm Number of Buttonhole Styles: 7 LCD Screen Display: Yes</p> <p>Bed Type</p> <p>Free Arm/Flatbed convertible Bobbin Type Drop & Sew Bobbin System</p>	1
11	Bench grinder	Branded Company Product with at least three years product warranty	<p>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</p> <p>Grinding wheel bore: 20 mm/2cm Grit 24, 60 or more</p> <p>Weight: 10 kg or less</p>	1
12	Refrigerator	Branded Company Product with at least three years product warranty	<p>Capacity: 183L or more</p> <p>Annual Energy Consumption: 148 kWh/Year or less</p> <p>Refrigerator Fresh Food Capacity: 165L or more</p> <p>Freezer Capacity: min 18L</p> <p>Bottle Count: 5 or more Noise Level: 40dB or less</p> <p>Installation Type: Freestanding</p>	1
13	Bench Top Multimeter	Branded Company Product with at	<p>DC Voltage: Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.03\% \text{ rdg} + 4 \text{ digits})$.</p> <p>Input impedance: 10 MΩ.</p>	1
14	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.</p> <p>Bit Holder: Standard 1/2"-20 UNF thread type.</p> <p>No-Load Speed (1st Gear): Adjustable from 0 up to approximately 3,000 rpm.</p> <p>Power Output: Approximately 300 W continuous output power.</p> <p>Weight: Approximately 1.7 kg total device weight.</p> <p>Impact Rate at No-Load Speed: Variable from 0</p>	1

			up to approximately 48,000 bpm. Rated Torque: Approximately 1.4 Nm 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.	
15	Cordless drill	Branded Company Product with at	Torque (soft/hard/max.): Min 21/50/- Nm No-load speed (1st gear / 2nd gear): Min 0 – 500 / 0 – 1,900 rpm	2
16	Jig Saw	Branded Company Product with at least three years product warranty	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.	1
17	Miter Saw	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,750 W maximum power consumption. Saw Blade Diameter: Approximately 254 mm nominal diameter. Mitre Setting: Adjustable up to 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.	1
18	Planer	Branded Company Product with at least three years product warranty	Rated Input Power: Not exceeding 710 W under nominal operating conditions. Planing Width: Approximately 82 mm effective width capacity. Planing Depth: Within the range of up to 2.6 mm maximum depth per pass. Weight: Circa 2.8 kg total unit mass. Adjustable Rebating Depth: Maximum	1

			adjustable depth of approximately 9 mm. No-Load Speed: Operating speed typically around 18,000 rpm.	
19	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
20	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
21	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
22	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. Weight (Excluding Battery): About 0.8 kg. Torque Settings: 20 plus 1 adjustable settings.	1
23	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.	

			<p>Container Volume (Gross): Approximately 15 liters total volume.</p> <p>Container Volume (Net, Water): About 8 liters capacity for water.</p> <p>Filter Surface Area: Around 2,300 cm² effective filtration area.</p> <p>Airflow Rate (Turbine): Approximately 53 liters per second.</p> <p>Vacuum Pressure (Turbine): Up to 270 mbar vacuum pressure.</p> <p>Number of Wheels: Four wheels for mobility.</p>	1
24	Random orbit sander	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Up to 280 W maximum consumption.</p> <p>Sanding Pad Diameter: Nominal 125 mm diameter.</p> <p>Orbit Diameter: Approximately 2.6 mm orbital diameter.</p> <p>Weight: Around 1.4 kg.</p> <p>No-Load Speed: Adjustable within 7,500 to 12,000 rpm range.</p> <p>Orbital Stroke Rate: Between 15,000 and 24,000 orbits per minute (opm).</p> <p>Eccentricity: Approximately 1.3 mm.</p>	1
25	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
26	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
27	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 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>	1
28	Normal Oven	Branded Company	<p>Oven Cap: 20L or more Type: Solo</p> <p>Door: Side Swing Child Lock: Yes</p>	1

		Product with at least three years product warranty	Completion Beeper: Yes Power Levels: upto 5 Control: Membrane Type Cavity Mat: Anti-Bacterial Dims(mm):455×252×320 PowerOut:700W or less	
29	Printer	Branded Company Product with at least three years product warranty	Functions: Print, Scan, Copy Printer Type: Laser Nominal Dims(mm): 409×398.5×267 Approx Weight: 9.7 Kg Nominal Print Speed: Upto 30ppm (A4Size)	1
30	Virtual Reality Kit	Branded Company Product with at least three years product warranty	Wide viewing angle, Oculus Quest compatibility, advanced features. Connectivity Technology: Bluetooth Specific Uses For Product: Work, Creativity, Collaboration, Social Experiences	2
31	Table saw	Branded Company Product with at least three years product warranty	Rated input power: Max 1800 W 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	1
32	Claw Hammer Steel Shaft	Very Good Quality	Weight: Approximately 8 oz (220 grams) nominal weight. Dimensions: Around 27.8 cm × 12.4 cm × 3.6 cm (L × W × H) overall size	2
33	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.	2
34	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.	2
35	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
36	Open end spanner set 12Pcs	Very Good Quality	Weight: Approx 1.74Kg nom.wt. Qty: 12pcs/set. Size: 6mm-32mm overall dims.	1
37	Combination Spanner set 8Pcs	Very Good Quality	Weight: Approx 649g nom.wt. Qty: 8pcs/set.	1

38	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
39	Combination plier	Very Good Quality	Weight: Approx422g nom.wt. Size: 8"/200mm nominal	2
40	Long nose plier	Very Good Quality	Weight: Approx399g nom.wt. Size:180mm/6" nominal	2
41	Circlip straight 5"	Very Good Quality	Weight: Approx399g nom.wt. Size:130mm/5" nominal	2
42	Circlip bent	Very Good Quality	"Weight: Approx399g nom.wt. Size:130mm/5"" nominal"	2
43	Diagonal Cutter	Very Good Quality	"Weight: Approx239g nom.wt. Size:180mm nominal"	2
44	Wire Stripper	Very Good Quality	Weight: Approx281g nom.wt. Size:130mm nominal	2
45	Adjustable spanner	Very Good Quality	Size: Upto 150 mm	2
46	Pipe wrench	Very Good Quality	Size: Max 300 mm	2
47	C – clamp	Very Good Quality	Size: Upto 75 mm	4
48	Snap- off Knife	Very Good Quality	Size:18 mmm	2
49	Screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	1
50	6pcs precision screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	2
51	Max steel snip cutter	Very Good Quality	Length: 250 mm	2
52	PVC Pipe cutter	Very Good Quality	Length: 42 mm	2
53	Hot Glue Gun	Very Good Quality	Power: 40 W	4
54	Small file set	Very Good Quality	Length: 160 mm	2
55	Big file set	Very Good Quality	Length: 200 mm	2
56	Chisel set	Very Good Quality	Weight: 340 gm	2
57	Punch set	Very Good Quality	Weight: 390 gm	2
58	Bench vise	Very Good Quality	Base Type: Fixed Size:2–3½" nominal JawWidth:60mm	2
59	Router Bit Starter Kit	Very Good Quality	Pieces Per Set: 15 pcs	1
60	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 Wt:~1.3Kg nom.wt Sz(mm):205×115×55 overall	2

61	Baby wise	Very Good Quality	Vice Type: Bench Size:2" nominal JawWidth:50mm	2
62	Ratchet Set	Very Good Quality	Vice Type: Bench Sz:2" nominal; Jaw:50mm	2
63	Pegboard	Very Good Quality		5
64	Digital Vernier Caliper	Very Good Quality	Product Type: Digital Calliper Meas.Range:0–150mm / 0–6" Resolution:0.01mm	2
65	Micrometer	Very Good Quality	Resolution:0.001mm/0.00005" Meas.Range:0–25mm/0–1"	1
66	Steel Rule 300mm	Very Good Quality	Product Type: Steel Rule ScaleSize:12"/300mm Material: Stainless Steel	5
67	Steel Rule 600mm	Very Good Quality	Product Type: Steel Rule ScaleSize:24"/600mm Material: Stainless Steel	5
68	Engineering Square	Very Good Quality	Size:150×80mm nominal Material: Carbon Steel	2
69	Measuring Tape 5M	Very Good Quality	Length: 5 m	3
70	Spirit Level	Very Good Quality	Vials:3 Accuracy:0.5mm/m Length:300mm Product Type: Level	3
71	Goggle	Very Good Quality	Goggle – Industrial Standard Make	5
72	Apron	Very Good Quality	Apron - Standard Make	5
73	Ear Muff	Very Good Quality	Earmuff – Industrial Standard Make	5
74	Mask	Very Good Quality	Mask – Industrial Standard Make	50
75	Fire Extinguisher	Very Good Quality	Fire Extinguisher– Industrial Standard Make	4
76	First Aid Kit	Very Good Quality	First Aid Kit – Industrial Standard Make	2
77	Gloves Pair	Very Good Quality	Gloves – Industrial Standard Make	10
78	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	10
79	Acrylic Sheet 3mm, 4ft x 4ft	Very Good Quality		20
80	Acrylic Sheet 4mm, 4ft x 4ft	Very Good Quality		20
81	Acrylic Sheet 5mm, 4ft x 4ft	Very Good Quality		20

82	Foam Sheet 8mm, 4ft x 4ft	Very Good Quality		2
83	Foam Sheet 10mm, 4ft x 4ft	Very Good Quality		1
84	Foam Sheet 12mm, 4ft x 4ft	Very Good Quality		1
85	Foam Sheet 15mm, 4ft x 4ft	Very Good Quality		1
86	Ply Board 5mm, 2ft x 4ft	Very Good Quality		12
87	Nylon Rod 10mm, 1m	Very Good Quality		5
88	Nuts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1
89	Bolts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) dia 1" Inch Pack of 100	Very Good Quality		1
90	Screws (3mm,4mm,5mm) Pack of 100	Very Good Quality		1
91	Washers (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1
92	Studs (6mm,8mm) 1 Meter	Very Good Quality		2
93	Nails (1",2",3",1.5",5") Pack of 100	Very Good Quality		1
94	Fevicol 2Kg	Very Good Quality		1
95	2 Way Tape	Very Good Quality		10
96	PVC Pipe .75",10ft	Very Good Quality		10
97	PVC Pipe 1",10ft	Very Good Quality		10
98	PVC Pipe 1.5",10ft	Very Good Quality		10
99	PVC Pipe 2.0",10ft	Very Good Quality		10
100	Aluminium channels (L, C, Box, strip length 12ft)	Very Good Quality		2
101	PCB Drill Bit 1mm	Very Good Quality		10
102	Drill Bit set	Very Good Quality		1
105	Arduino UNO R3	Very Good Quality		5
108	Arduino NANO	Very Good Quality		5

109	Arduino Mega	Very Good Quality		3
110	Raspberry Pi Model 4B, 4GB	Very Good Quality		3
111	Ldrobot D500 LiDAR Kit	Very Good Quality		1
112	ESP 8266 Node MCU	Very Good Quality		2
113	ESP32 Development Board	Very Good Quality		2
114	8*8 LED Matrix Module	Very Good Quality		2
120	Bluetooth	Very Good Quality		2
121	7 Segment LED Display	Very Good Quality		2
122	GSM/GPRS/GPS Module	Very Good Quality		2
123	LDR Module	Very Good Quality		2
124	4×4 Matrix Keypad	Very Good Quality		2
125	Joy Stick Module	Very Good Quality		2
126	Active Buzzer (BIG)	Very Good Quality		2
127	Active Buzzer (SMALL)	Very Good Quality		2
128	Motor Driver	Very Good Quality		2
129	Sound Playback Module	Very Good Quality		2
130	BO Motors	Very Good Quality		10
131	Vibrating Motor	Very Good Quality		10
132	Capacitive Touch Switch	Very Good Quality		2
133	IR Sensors (Obstacle Sensors)	Very Good Quality		2
134	Triple Axis Magnetometer	Very Good Quality		2
135	Humidity Sensor	Very Good Quality		2
136	MQ-2	Very Good Quality		2
137	MQ-3	Very Good Quality		2
138	MQ-4	Very Good Quality		2
139	MQ-5	Very Good Quality		2
140	MQ-7	Very Good Quality		2
141	Ultrasonic Sensor Module	Very Good Quality		2
142	Triple Axis accelerometer	Very Good Quality		2

143	PIR Motion Detector Module	Very Good Quality		2
144	Pulse Rate Heart Sensor	Very Good Quality		2
145	Relay Module	Very Good Quality		2
146	Soil Moisture Sensor	Very Good Quality		2
147	Touch Sensor	Very Good Quality		2
148	Rain Drop Sensor	Very Good Quality		2
149	Flex Sensor	Very Good Quality		2
150	Temperature Sensor	Very Good Quality		2
151	Force Pressure Sensor	Very Good Quality		2
152	Colour Recognition Sensor	Very Good Quality		2
153	Water Flow Sensor	Very Good Quality		2
154	Sound Sensor	Very Good Quality		2
155	IR Sensor Array for Line Following	Very Good Quality		2
156	RFID Reader-Tags	Very Good Quality		2
157	RF Modules Tx& Rx 315 MHz ASK	Very Good Quality		2
158	Stepper motor with Driver Board	Very Good Quality		2
159	Servo Motor 360 rotation	Very Good Quality		10
160	Servo Motor 180 rotation	Very Good Quality		10
161	Metal Gear Servo Motor (180° Rotation)	Very Good Quality		10
162	Solder Wire 100grm	Very Good Quality		10
163	Solder Flux	Very Good Quality		10
164	830 Points Solderless Breadboard	Very Good Quality		5
165	400 Points Solderless Breadboard	Very Good Quality		5
166	Copper Clad Board single side	Very Good Quality		10
167	Copper clad board double side	Very Good Quality		10

168	Male to Male Breadboard Jumper	Very Good Quality		10
169	Female to Female Breadboard Jumper	Very Good Quality		10
170	Male to Female Breadboard Jumper	Very Good Quality		10

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 (**Erode Sengunthar Engineering College, Perundurai, Erode-638 057, Tamilnadu**). 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 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 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 November 2024).
- Copy of valid PAN Card.
- Chartered Accountant's Certificate for turnover for FY 2021–22, 2022–23, and 2023–24.
- 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 2021–22, 2022–23, and 2023–24.
- 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. 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 (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.

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 only after the successful supply, installation, 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 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 **20.08.2025** to the email ID esecprincipal@gmail.com or sent in hard copy to:

The principal,
Erode Sengunthar Engineering College,
Perundurai, Erode-638 057,
Tamilnadu,

Contact: Dr.V.Venkatachalam, Principal, Ph. No. 9442132706

Email: esecprincipal@gmail.com


Dr. V.VENKATACHALAM, M.S., M.Tech., Ph.D.,
PRINCIPAL
Erode Sengunthar Engineering College,
(Autonomous)
Thudupathi, Perundurai, Erode -638 057.