TENDER NOTICE

Sathyabama Institute of Science and Technology is pleased to announce that the All India Council for Technical Education (AICTE) has sanctioned AICTE IDEA LAB to our institution in June 2025. In this regard, sealed tenders are invited from eligible and reputed vendors for the supply, installation, and commissioning of equipment, tools, machinery, and software under the AICTE IDEA Lab initiative. Tenders can also be sent to aicteidealab@sathyabama.ac.in

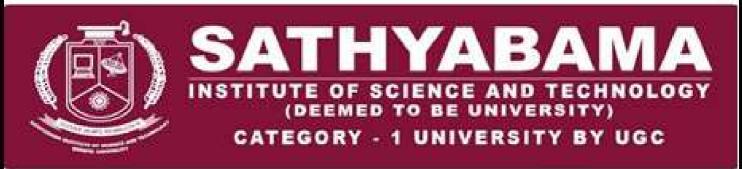
Documents for Tender can be downloaded from www.sathyabama.ac.in

Last date for submission

08-08-2025 (5:00 PM)

Tender opening date

10-08-2025



Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119. Tamilnadu



AICTE-IDEA (Idea Development, **Evaluation & Application) LAB SCHEME**

















ANNEXURE I

List of Mandatory Equipment in AICTE-IDEA Lab

| S. No. | Name of Equipment |
|--|--|
| 1 | Laser Cutter |
| 2 | Vinyl Cutter |
| 3 | 3D Printer |
| 4 | 3D Scanner |
| 5 | CNC Router |
| 6 | Mini Desktop Lathe cum Milling |
| 7 | Drilling M/c 1 HP Motor |
| 8 | Handheld High Speed Drilling M/c-15000 RPM with accessories - 2 Nos. |
| 9 | Benchtop Grinder Machine |
| 10 | Solder stations (5 nos) |
| 11 | Desoldering M/c |
| 12 | Advanced, motorized Sewing Machine |
| 13 | Wood Lathe |
| 14 | Power Tools |
| 15 | Portable Welding M/c |
| 16 | Refrigerator |
| 17 | Normal and Microwave Oven |
| 18 | Magnifying Glass with Stand- 2 No. |
| 19 | Digital Microscope |
| 20 | Mixed Signal Oscilloscope |
| 21 | Digital Storage Oscilloscope |
| 22 | Signal Generator |
| 23 | Variable Power Supply |
| 24 | Benchtop Multimeter |
| 25 | Projector |
| 26 | Heavy Duty Laser Printer |
| 27 | PCB Milling Machine* |
| 28 | Smart Board |
| 29 | Computer Workstation in networking- 5 Nos |
| * low cost FeCl3 version can also be opted as an alternative | |



| S. No. | Name of item | | |
|--------|---|---|---------------|
| 1 | Vacuum Cleaner | | |
| 2 | Hot Air Gun- 5 Nos. | | |
| 3 | | [Vernier calliper (0-200/0.01), Vernier 0-50, 50-100/0.001 inside and out | |
| 4 | Fire Extinguisher | | |
| 5 | First Aid Box | | |
| 6 | Digital Multimeter (5 units) | | |
| 7 | Clothes Iron (5 units) | | |
| 8 | Electronic Component Repository (LCR Meter, Variac etc) | | |
| 9 | 3D printer Filament | Depending on the printer | 2 rolls |
| 10 | Acrylic Sheets | 2mm,3mm, 4mm, 5mm All of area 8ft x 4ft | 2 sheets each |
| 11 | Foam Sheets | 8mm, 10mm, 12mm, 15mm All of area 8ft x 4 ft | 2 sheets each |
| 12 | Ply Boards | 8mm, 12 mm, 18mm, All of area 8ft x 4ft | 2 sheets each |
| 13 | Nylon Rods | 12mm, 15mm, 18mm, 25mm All of length 1 m | 5 each |
| 14 | Nuts | 3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm | 100 each |
| 15 | Bolts | Dia (3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm) length (1", 1.5", 2", 2.5") | 100 each |
| 16 | Screws | 3mm, 4mm, 5mm | 100 each |
| 17 | Washers | 3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm | 100 each |
| 18 | Studs | 6mm, 8mm, Length 1m | 5 each |
| 19 | Nails | 1", 2", 3" | 100 each |
| 20 | Adhesives | M-Seal, Feviquick, Fevi Bond | 10 each |
| 21 | 2Way Tapes | 20 rolls | |
| 22 | PVC Pipes | .75", 1", 1.5", 2.5", 3" Length 10ft | 1 each |
| 23 | Aluminum Channels | L, C, Box, Strip Length 12ft | 2 each |
| 24 | PCB Drill Bits | 0.5mm, 0.8mm, 1mm | 20 each |
| 25 | Drill Bits | 3mm, 4mm, 5mm, 6mm, | 20 each |
| 26 | Drill Bits | 8mm, 10mm, 12mm | 5 each |
| 27 | Carpentry Boring Bits | Entire Kit | 1 kit |
| 28 | Electronic Active and Passive components | Resistors, Capacitors, diodes and transistors | 10 each |



| 29 | USB Cables | For connecting Arduino and other development boards | 10 |
|----|----------------------|---|---------|
| 30 | Radium Cutter Knives | | 10 |
| 31 | Glue Sticks | | 50 |
| 32 | Hack Saw Blades | 6" and 12" | 10 each |
| 33 | 9V Battery Snaps | | 20 |
| 34 | LAN Cables | For connecting Raspberry Pi | 5 |
| 35 | 9V Batteries | | 20 |



List of **Mandatory Tools** in AICTE-IDEA Lab

| S. No | General & Mechanical Tool Name |
|-------|--|
| 1 | Hacksaw (5 Nos.) |
| 2 | Micro Chisel Set (3 Nos.) |
| 3 | Pliers (3 Sets) |
| 4 | Manual PCB Drilling Machine (3 Nos.) |
| 5 | PCB power Drilling Machine (3 Nos.) |
| 6 | Cordless Drilling Machines (2 Nos.) |
| 7 | Jigsaw Machines (2 Nos.) |
| 8 | Power Circular Saw (2 Nos.) |
| 9 | Files Set (2 Sets) |
| 10 | File Handles (1 Set) |
| 11 | Needle Files (2 Sets) |
| 12 | Pipe Vice (2 Pcs) |
| 13 | Mini HackSaw (5 Nos.) |
| 14 | Ball Peen Hammer (5 Nos.) |
| 15 | Steel Shaft Claw Hammer (5 Nos.) |
| 16 | Nylon Mallet (5 Pcs) |
| 17 | Rubber Mallet (5 Pcs) |
| 18 | Allen Key Set (3 Sets) |
| 19 | Dremel multi tool kit (2 Nos.) |
| 20 | Double ended spanner sets (2 Sets) |
| 22 | 12 Piece Open ended Spanner Set (2 Sets) |
| 22 | Belt and Disc Sanding Machine (1 No.) |
| 23 | Scroll Saw Machine (1 No.) |
| 24 | Tool Wall covering Perforator (3 pcs) |
| 25 | Dremel Moto Saw |
| 26 | Bench Grinding Machine |
| 27 | Power Return Measuring Tape (5 Nos.) |
| 28 | Tri Square 8" (5 Nos.) |
| 29 | Stainless Steel Rule (5 Nos.) |
| 30 | Digital Vernier Caliper (5 Nos.) |
| 31 | Spirit Level (5 Nos.) |
| 32 | Dremel Cordless Rotary Tool |
| 33 | Power Router |
| 34 | Sewing Machine |
| 35 | Impact Drill (3 Units) |
| 36 | Ratchet Set (2 Units) |
| 37 | Router Bit Starter kit |
| 38 | Scroll Saw |



Electrical Tools

| S. No | Electrical Tool Name |
|-------|--|
| 1 | Hot Air Blower With Soldering Iron (5 Nos) |
| 2 | Tin Cutter with Spring (10 units) |
| 3 | Centrifugal Blower |
| 4 | Screwdriver Sets (2 sets) |
| 5 | Cutting Mats (5 Nos.) |
| 6 | Vacuum Cleaner (2 Nos.) |
| 7 | Hot Air Gun- 5 Nos. |
| 8 | Micrometer - 5 Nos |
| 9 | Glue Gun-5 Nos |
| 10 | Air Compressor |
| 11 | Allen Set Wrench(5 set) |
| 12 | Tongue and Groove Pliers (5 pcs) |
| 13 | Non-contact voltage tester (5 pcs) |
| 14 | Wire Stripper (5 pcs) |
| 15 | Fish Tape (2 pcs) |
| 16 | Flashlights (2 pcs) |
| 17 | DC Regulated Power Supply (3 units) |
| 18 | Solder Wick (10 pcs) |
| 19 | Filament Dehydrator |
| 20 | Reflow Oven |
| 21 | Glass Cutter |
| 22 | Gypsum (10kg) |
| 23 | Digital Multimeter (5 units) |
| 24 | Clothes Iron (5 units) |
| 25 | Oscilloscope (4 units) |



| S. No | Networking Tool Name |
|-------|---------------------------------------|
| 1 | C-Clamp (10 pcs) |
| 2 | Ratchet clamp 8 inches/200mm (10 pcs) |
| 3 | Baby Vice 60 mm (5 pcs) |
| 4 | Bench vices (5 units) |
| 5 | Anvil |





ANNEXURE III

List of Optional Equipment & Consumables in AICTE IDEA Lab

(This is a suggestive list. Institutions can choose equipment depending on the area they identify to focus on)

| S. No. | Equipment |
|--------|--|
| 1 | Coil Winding M/c motorized |
| 2 | Plotter -Printer |
| 3 | HAM Radio transceiver, antenna and related equipment |
| 4 | Relevant Software (Academic Licenses) |
| S. No. | Consumable |
| 1 | Sensor set including sensors for Home/ Industry/ Agriculture Automation, Medical diagnosis |
| 2 | Arduino UNO boards (10 sets including USB A to B cable+ male -male connecting wires+ female to female connecting wires+ male -female connecting wires) |
| 3 | NodeMCU (ESP8266) boards (10 sets (10 sets including USB A to B cable+male -male connecting wires+ female to female connecting wires+ male -female connecting wires) |
| 4 | Raspberry Pi 4 boards (05 sets including HDMI – mini HDMI connector, Memory card of 8 GB, adaptor, casing) |
| 5 | BeagleBone AI for Artificial Intelligence based applications (5 sets) |
| 6 | BeagleBone -Black-Wireless 5 sets) |
| 7 | Peripheral sets for Arduino/ NodeMCU/ Raspberry Pi (10 sets) |
| 8 | ESP32 CAM Development Board WiFi+Bluetooth with OV2640 Camera Module (5 sets) |
| 9 | Solnoi Electronics Raspberry Pi 3 Camera Module Night Vision Camera (5 sets) |



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

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