INDIAN INSTITUTE OF TECHNOLOGY GOA

At Goa Engineering College Campus
Farmagudi, Ponda, Goa 403401
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GSTIN: 30AABAI1653D1ZF
PAN: AABAI1653D
TAN: BLRI08261B

Enquiry No: IITGOA/2018-19/076 **Date: 17/01/2019**

IIT Goa invites sealed quotations in two bid format for the supply of below mentioned item.

Sl. No.	Description of Item	Qty
1	PCB fabrication and soldering facility including PCB prototyping machine, soldering station, desoldering station etc. **(Detailed Specifications Attached)**	01 unit

Terms and conditions:

1. Quotation must be valid for at least 90 days.
2. The GSTIN should invariably be mentioned in your offer.
3. Kindly attach a compliance certificate along with the technical quote.
4. Prices should be quoted in Indian Rupees inclusive of taxes and any shipping charges.
5. Delivery and installation should be made within 4 weeks of getting a confirmed order.
6. Payment: Within 30 days after the delivery and installation of the item at IIT GOA.
7. Supplier should organize two days training for the students and faculties at IIT Goa.
8. The suppliers may furnish a list of customers of previous supply of a similar/ same range of equipment to IIT's/ NIT's/Universities with contact details. Copies of order received need to be submitted along with the technical quote. (Optional)
9. The suppliers shall provide the banking details along with their quote on their letterhead duly signed and stamped.
10. IIT Goa reserves the right to accept and/or reject any/all bids without assigning any reason.
11. Quotations shall be submitted in two parts;
    1) **Part – I (Technical)** should contain all the technical details and specification of the product. It should contain unpriced bid along with terms and conditions, compliance certificates, proprietary certificates (if applicable), any other certificates/details etc. This envelope should be marked as "Technical Bid"
    2) **Part -II (Financial)** The financial bid of the above item should be in a sealed envelope marked as "Financial Bid" and should contain financial terms and conditions.
12. For any clarification, you may kindly contact Dr. Nandakumar Nambath (e-mail: npnandakumar@iitgoa.ac.in) and Stores & Purchase Department (email: purchase@iitgoa.ac.in) till 25/01/2019.

13. All sealed quotations must reach to the Assistant Registrar (Stores & Purchase), IIT Goa, at Goa College of Engineering Campus, Farmagudi, Ponda, Goa by 17.00 Hrs on or before 07th February, 2019".

Sd/-

Asst. Registrar (S&P)

Specification

The PCB fabrication facility expected to have the following features.

- Should be able to fabricate double-sided PCBs with plated through holes (PTH) with laminates such as FR4, RT-Duroid, flexible PET materials etc.
- Should be able to populate PCBs with through-hole and surface mount components at least in a semi-automatic way though a fully automatic way is preferred.
- Soldering and desoldering/rework stations.

The facility should contain the items (1A or 1B), 2, 3, 4, and 5 one unit each from the following list.

Item 1A. PCB prototyping machine with conductive ink technology

Specification	Details
Minimum trace width	0.25mm or less
SMD component footprint	0603 package or smaller
Maximum board thickness	2.5mm or more
Minimum pin-to-pin pitch for soldering	0.5mm or less
Maximum PCB size	10cmX10cm or more
Maximum speed of drilling	10,000 rpm or more
Drill bit diameter	0.5mm to 2mm or wider range
Reflow soldering of SMD components	Needed
Interface with PC	Needed
Supported OS	Windows or Linux
Compatibility with Gerber file format	Needed
Cooling unit to store the conductive ink (refrigerator)	5 litre or more capacity
Dust free enclosure	To keep the machine(s) free of dust from outside as well as to contain the drill waste
Accessories	Conductive inks, ink dispenser, drilling unit, drill bits, accessories to pick and place SMD components

Item 1B. PCB prototyping machine with CNC drilling technology

Specification	Details
Minimum trace width	0.25mm or less
SMD component footprint	0603 package or smaller
Maximum board thickness	2.5mm or more
Minimum pin-to-pin pitch for soldering	0.5mm or less

Maximum PCB size	10cmX10cm or more
Maximum speed of drilling	20,000 rpm or more
Drill bit diameter	0.5mm to 2mm or wider range
Reflow soldering of SMD components	Needed
Interface with PC	Needed
Supported OS	Windows or Linux
Compatibility with Gerber file format	Needed
Dust free enclosure	To keep the machine(s) free of dust from outside as well as to contain the drill waste
Accessories	Drill bits, accessories to pick and place SMD components

Item 2. Handheld vacuum cleaner to clean the drill waste

Specification	**Details**
Maximum vacuum pressure	15kpa or more
Maximum power	750W or more
Weight	5kg or less

Item 3. Desktop PC to interface with the prototyping machine

Specification	**Details**
Processor	Intel core i7, base frequency 3.2GHz or higher, 7th generation or later
OS	Windows 10 Home 64
RAM	16GB DDR4 (expandable to 32 GB)
HDD	1TB or more
Monitor	23" or more (resolution 1920X1080 or more)
Connectivity	10/100/1000 Gigabit Ethernet and Wireless (802.11ac)
Expansion Slots	PCIe x 16 (min. 2 slots)
Productivity	MS Office (H&S)
USB Ports	Min. 2 of Type 2, at least 1 USB 3.0
HDMI Port	Min. 1
Serial Port	Yes
VGA Port	Yes
Display Port	Yes
Input Devices	Keyboard and optical mouse
OEM	HP/Dell/Lenovo/Aspire preferred

Item 4. PCB design software compatible with 1A or 1B

Specification	Details
Software	Industry standard software such as OrCAD, Allegro, PADs etc. with perpetual license
No. of licenses required	01 (floating license preferred)
OS compatibility	Should be compatible with items (1A or 1B) and 3

Item 5. Soldering and desoldering/rework station

Specification	Details
Component types to be handled	Through-hole and SMD (QFN, PLCC etc.)
Pencils to be included	Hot air, soldering, and desoldering
Power	1000W or more
Soldering/desoldering temperature range	200-400 degree Celsius or wider
Hot air temperature range	100-400 degree Celsius or wider
Hot air flow volume	100litre/min or more
Vacuum suction	500mmHg or more
PCB holder stand size	20cmX20cm or more
Accessories	Magnifying system for visual inspection, thermal tweezers set, solder tip activator, solder wire stand, flux/spirit dispensing bottles, flux pen, desoldering pump, solder wire roll, desoldering wick, ESD mat, cutters, ESD safe cleaning brushes, vacuum pickup pen for SMD components, ESD safe soft tip tweezers, curved tweezers, tweezers for SMD chip components etc.