



Indian Institute of Technology Kanpur Samtel Centre for Display Technologies

Enquiry number: SCDT/FlexE/2016-17/11

Date: August 12, 2016,

Subject: Sealed Quotations from prospective vendors are invited by Samtel Center for Display Technologies, IIT Kanpur for the supply and installation of **“BIOPRINTER”** with following specifications:

Note: All vendors are requested to send **“Technical and Financial Bid”** submitted together in separately sealed envelopes.

Specifications

- We are looking for cantilever based printing device which can handle biological samples such as proteins, DNA, RNA, Enzymes, antigen, antibodies and should also handle non biological samples like colloidal nanoparticles dispersions etc.
- The printer should be able to print on the following substrates such as silicon, glass, gold, silanes, PDMS, Hydrogels, Nitrocellulose, and Plastics etc. with high resolution at a faster speed.
- The print head should allow ultra-micro spot sizes printing ranging from 1 to 50 microns, should print thousands of spots with picoliter (10-12 L) to attoliter (10-18 L) volumes.
- It should also allow to print lines, square or desired pattern as per our need (as per specifications given below). Ultramicro- or nanoarrays of up to 10-50 domains or more should be readily produced and subsequently be suitable for use as ultraminiaturized test sites for biomolecular interactions.
- The size or molecular weight of the material should have no effect on the process as far as it is soluble in the given solvent.
- Printing head should be compatible with all kinds of solvents from polar to non- polar. Micro-cantilever material should not react with the solvent being used.
- The liquid transfer process should be made in less than 100 msec for each spot.
- The system should have such enclosure or inbuilt system which can provide control humidity during the printing of the materials.

Technical Specification

Sl. No.	Items	Specifications
1	Deposition Process	Direct microfluidic liquid transfer through micro cantilever (No jetting)
2	Spot Size	1-20 microns feature size

3	Droplet Volume	0.05-1000 femtoliters
4	Sample Volume	10 ⁻¹⁸ to 10 ⁻¹⁵ ltr
5	Substrate Size	Upto 50 mm x 50 mm
6	Substrate type	Hard, soft, or porous
7	Speed	<100msec/spot
8	XY Travel	Upto 50mm x 50mm
9	Resolution	20nm over entire area
10	Print design capability	Should be able to print from the bitmap

Terms and Conditions:

1. Manufacturer must have experience in the design and manufacturing of Bioprinter and should have sold numbers of bioprinters.
2. Manufacture must have experience in making Bio printers of a custom design for bio molecule printing.
3. If supplier is not the manufacturer, they are required to submit an authorization certificate from the principal along with the bid.
4. On site installation, demonstration & training on of machine will be done by manufacturer/ representative of manufacturer. All cost should be borne by the supplier.
5. Evaluation will be done on the basis of technical specifications as per our tender notice.
6. Financial bid will be open only for those, who meet given tender specification.
7. **Please do mention tender number clearly on envelop.**
8. Quotation must indicate FOB or FOR IIT Kanpur prices.
9. Please send the name and contact details of the person to whom company had supplied a similar systems. Committee may ask for the feedback.
10. The supplier must have supplied systems to institutions of national and/or international repute.
11. Payment terms & condition is 70% against delivery, 20% after installation and 10% after successful running of equipment for 3 months & approval.
12. Warranty/Guarantee has to be clearly mentioned. The Warranty must start from the date of installation at IITK.
13. Quotation should carry proper certifications like proprietary certificate, authorization certificate from manufacturer, etc.
14. Validity of quotation should be at least for 60 days.
15. Maximum educational discounts should be applied.
16. Institute is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).

17. Institute is exempted from payment of Excise Duty under notification No. 10/97.
18. The delivery period should be specifically stated. Earlier delivery may be preferred.
19. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved

Kindly send the quotation in sealed envelope latest by 3:00 PM on dated 22.08.2016 to the following address;

To,
Prof. Siddhartha Panda
Room No.305,
Samtel Centre for Display Technologies (SCDT),
Indian Institute of Technology Kanpur,
Kanpur – 208016, Uttar Pradesh, India