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**Enquiry No.** TIET/CS/HB/22-23/220167

**Date :** May 20, 2022

**Sub:** Request for Quotation(s) for the **Electrospinning Apparatus**

Dear Sir

We shall be grateful if you kindly let us have your lowest **quotations** for the following materials. THE QUOTATIONS SHOULD REACH THE UNDERSIGNED **LATEST BY May 31, 2022 @ 11:00 Am** through **courier or e-mail** accompanied by appropriate illustrative literature/catalogues/pamphlets/technical details, samples and specifications as the case may be. **On the quotation envelope/ subject the Enquiry Number & Date should be mentioned on the top of the Envelope/mail subject.**

Sr. No.	Item Name	Qty.
1.0	Setup for electrospinning fabrication with regulated high voltage generator and syringe pump (Specifications as per Annexure I)	1

**The offer sent by you must furnish the following details:**

1. Name, Make & specifications of each item.
2. **Price Breakup itemwise with MRP. (Treat it mandatory)**
3. Educational discount if any.
4. **Validity of quotation should be at least 60 Days.**
5. **GST %**
6. **Delivery FOR Central Stores TIET, Patiala**
7. Insurance, Freight & other charges if any.
8. Minimum Delivery Period.
9. **Payment terms. Net 30 days against delivery & satisfactory installation at Thapar Institute.**
10. Guarantee / Warranty Information.
11. **Also please share your Companies Turnover and Market Share along with the offer.**

Regards,

**Head Commercial**

## Specifications for Electrospinning Apparatus:

Item	Features required
Spinning Arrangement	<ul style="list-style-type: none"> <li>• Horizontal Spinning</li> <li>• Vertical Spinning</li> <li>• Solvent collector Spinning</li> </ul>
High Voltage power supply Specifications:	<ul style="list-style-type: none"> <li>• Variable from 0 to 40KV, Max Current 0.4mA (controllable)</li> <li>• With DIGITAL voltmeter and milli ammeter Accuracy 2%</li> <li>• Static Removal Device Shorting Stick to remove residual charges</li> <li>• Line Regulation: &lt; 0.05% for +/- 10% variation in input voltage</li> <li>• Load Regulation: &lt;0.05% for 10 to 100% Load Variation</li> <li>• Protection against Overload &amp; short circuit</li> <li>• Short circuit protection</li> </ul>
Syringe pump with two channels	<ul style="list-style-type: none"> <li>• To dispense from 1 no. Standard Syringes 2,5 &amp; 10 ml</li> <li>• Fabricated using insulated material and minimal metallic components to work under high voltage conditions and to avoid electric field distortions around the unit</li> <li>• Motor control through programmable micro controller to control and indicate flow rate &amp; syringe type. Panel Mounted Control.</li> <li>• Minimum Dead Volume 0.4ml</li> <li>• Syringe volume 2,5,10 and 20ml</li> <li>• Flow rates 0.05ml/hr to 100ml/hr (controllable)</li> <li>• Standard needles can be fitted to syringes.</li> <li>• Direct syringe based spinning no tubing is required.</li> </ul>
Collector	<ul style="list-style-type: none"> <li>• Stationary collector</li> <li>• Drum collector</li> <li>• Adjustable speed of rotating drum (200 to 5000 RPM)</li> <li>• Fibre alignment</li> </ul>
Spinneret	<ul style="list-style-type: none"> <li>• Multi-nozzle</li> <li>• Single Nozzle</li> <li>• Four nozzle spinning</li> <li>• High throughput fibre fabrication</li> </ul>
Linear Stage Switch Automated Easy distance adjustment between collector during operations	<ul style="list-style-type: none"> <li>• X axis control (Auto switch)</li> <li>• Y axis control (Auto switch)</li> <li>• Z axis manual control</li> </ul>
Control panel	<ul style="list-style-type: none"> <li>• Temperature and Humidity indicator</li> <li>• Main emergency stop button</li> <li>• Speed controller</li> <li>• ON/OFF button</li> </ul>