



**NOTICE INVITING TENDERS**

Tender No. KSRCT/NTTM -01/2024-25/02

Date: 14.10.2024

KSRCT invites Tender in Two Bid Systems (Technical and Commercial) from Resourceful and Reliable Suppliers/Vendors for the Supply and Installation of Equipment's/Machines for NTTM (Government of India), Funded Project.

Interested may view and download detailed tender documents from KSRCT's website <https://ksrct.ac.in/>. Tender can be submitted on or before due date along with necessary documents submitted in hard copy in sealed cover to K.S. Rangasamy College of Technology, Tiruchengode, Namakkal (Dt), Tamil Nadu.

**PRINCIPAL**



**BID DOCUMENT**

Notice Inviting Tender No.	KSRCT/NTTM -01/2024-25/02
Name of the Work	<p>Supply, Installation, Commissioning and Testing the following Equipment's / Machines:</p> <ol style="list-style-type: none"><li>1. Rapier Loom with Electronic Jacquard</li><li>2. Lab Model Roving Machine</li><li>3. Non Woven Spunlace Machine</li><li>4. X- Ray Diffraction Analyser</li><li>5. Computerized Circular Single Jersey four cam track Knitting Machine</li><li>6. Melt Blown Spinning Full Line (Mini Model)</li><li>7. Laboratory Extruder - Wet Spinning</li><li>8. Flat Knitting Machine</li><li>9. Digital Fabric Printing Machine</li><li>10. Spectro Photo Colour matching system</li><li>11. Ultraviolet Transmittance Analyzer</li><li>12. Fully automatic High Volume Instrument</li><li>13. Rheometer</li><li>14. Flexural 3 Point Tester</li><li>15. Impact Strength Tester (Composite Materials)</li><li>16. Tensile Strength Tester (Non Woven &amp; Composite)</li><li>17. Water Resistance Tester</li><li>18. Absorption Tester (Non Woven)</li></ol>
Other Terms  (Vendor has to submit the required documents after installation)	<ol style="list-style-type: none"><li>1. Knowledge transfer and training should be provided to the faculty.</li><li>2. Include the machine/equipment instruction manual (in English) and the circuit/block diagram in English.</li><li>3. The standard operating procedure (SOP) manual to be supplied.</li></ol>



Annual Maintenance Contract	Minimum 2 years after warranty period of 2 Years in total 4 years
Technical Specification	Annexure – A
Tender Creation Date and Time	14.10.2024 and 01:00 p.m.
Bid Type	Two Bid System - Technical & Commercial
Earnest Money Deposit (EMD)	Nil with Bid Security Declaration (Annexure-B)
Financial Bid	Annexure – C
Manufacturing Authorization Form (MAF)	Annexure – D
Mandate Form	Annexure - E
Non-refundable Tender Processing fee (inclusive of GST @ 18%)	₹ 590 /-
Tender Closing Date and time	<del>21.11.2024</del> ( <b>Extended upto 05.12.2024</b> ) and 02:00 p.m.
Technical Bid Open Date and time	<del>21.11.2024</del> ( <b>on 05.12.2024</b> ) and 04:00 p.m.
Financial Bid Open Date and time	<del>25.11.2024</del> ( <b>on 11.12.2024</b> ) and 04:00 p.m.



### **QUALIFICATION CONDITIONS**

- Bidder should be authorized supplier/service provider of the quoted item/work and should submit the relevant documents/certificates.
- Bidder should have experience of supplying such items and will have to furnish details of previous supplies.

### **BID PRICE**

- Bid must be valid for a period of three months from the closing date of tender.
- All duties, taxes and other levies including the transportation expenses are payable by the Supplier/Agencies/Company under the contract and shall be included in total price.

### **BID EVALUATION**

- The purchase committee of KSRCT will evaluate and compare bids that confirms to terms and conditions, specifications, and quality parameters.

### **DELIVERY PLACE**

- Bidder has to supply and deliver the materials in requisite number at the office of **K.S.RANGASAMY COLLEGE OF TECHNOLOGY**, Tiruchengode – 637 215, Namakkal Dt., Tamil Nadu.

### **OTHER TERMS AND CONDITIONS**

- No payment will be made for any damage of goods supplied.
- The purchase committee of KSRCT reserves the right to reject the offer of one or all the tenderers without assigning the reason thereof.
- Bidder should submit the following details as Annexure while placing the bid,
  1. Manufacture's specification sheet/catalogue
  2. Delivery period
  3. Payment detail
  4. Warranty detail
  5. Availability of after sales service (AMC)



## INSTRUCTIONS FOR OFFLINE BID SUBMISSION

This tender document has been published on the <https://ksrct.ac.in/> portal for inviting the tenders from eligible Suppliers/Vendors.

### **OFFLINE SUBMISSION** -- The bid should be submitted only in **OFFLINE**.

- a. The cover should contain all the prime eligibility documents along with fees towards the cost of the tender document and all pages of the tender document with the signature of the tenderer and it should be PVC/WAX sealed.
- b. The envelopes should be scripted at the top of the cover as “**NTTM – SUPPLY OF TECHNICAL TEXTILE MACHINERY AND INSTRUMENTS**”.
- c. The financial bid document should be removed from the tender document and covered with a sealed envelope with the name of the tenderer, superscripted at the top as “**FINANCIAL BID FOR NTTM – SUPPLY OF TECHNICAL TEXTILE MACHINERY AND INSTRUMENTS**”.
- d. The completed tender forms along with the enclosures and the sealed cover containing the financial bid should be submitted in ONE cover and addressed to

**The Principal**

**K. S. RANGASAMY COLLEGE OF TECHNOLOGY,  
KSR Kalvi Nagar, Tiruchengode, Namakkal DT,  
Tamil Nadu – 637 215.**

**Contact Details (Mobile)**

**: 9865455555 / 9280808082**

**E-Mail Id**

**: [principal@ksrct.ac.in](mailto:principal@ksrct.ac.in) /**

**[directorfinance@ksrct.ac.in](mailto:directorfinance@ksrct.ac.in)**

- d) The sealed envelope should be submitted by Speed Post/Registered Post with acknowledgement due/courier (OR) in person at the reception of K. S. RANGASAMY COLLEGE OF TECHNOLOGY, KSR Kalvi Nagar, Tiruchengode, Namakkal DT, Tamil Nadu – 637 215 on or before the due date and time.

Technical Bids will be opened as per the schedule given on critical dates in the presence of bidders or their authorized representatives. If the opening date happens to be a closed day/holiday, the tender will be opened on the next working day. Only one



authorised representative from the firm shall be allowed to participate in the opening of technical bids/price bids

**The Tenderer can quote rate either for the supply of one of Machinery & Instruments or any number of Machinery & Instruments, at his choice.**

(It is not compulsory to quote the rate for all the Machinery & Instruments.)

**The Details of the cost of the TEXTILE AND TECHNICAL TEXTILE LABORATORY MODEL/PROTOTYPE MODEL MACHINERY & INSTRUMENTS DEDICATED TO ACADEMIC ACTIVITIES Laboratory Machinery & Instruments and EMD Payable are furnished below:-**

Sl.No.	Name of the TEXTILE AND TECHNICAL TEXTILE LABORATORY MODEL/PROTOTYPE MODEL MACHINERY & INSTRUMENTS DEDICATED TO ACADEMIC ACTIVITIES	Cost (INR)	EMD (INR)
1	Rapier Loom with Electronic Jacquard	40,00,000	80,000
2	Lab Model Roving Machine	7,00,000	14,000
3	Non Woven Spunlace Machine	50,00,000	1,00,000
4	X- Ray Diffraction Analyser	40,00,000	80,000
5	Computerized Circular Single Jersey Four Cam Track Knitting Machine	35,00,000	70,000
6	Melt Blown Spinning Full Line (Mini Model)	29,00,000	58,000
7	Laboratory Extruder - Wet Spinning	26,00,000	52,000
8	Flat Knitting Machine	25,00,000	50,000
9	Digital Fabric Printing Machine	15,00,000	30,000
10	Spectro Photo Colour Matching System	15,00,000	30,000
11	Ultraviolet Transmittance Analyzer	10,00,000	20,000
12	Fully Automatic High Volume Instrument	42,00,000	84,000
13	Rheometer	4,00,000	8,000
14	Flexural 3 Point Tester	6,00,000	12,000
15	Impact Strength Tester (Composite Materials)	4,00,000	8,000
16	Tensile Strength Tester (Non Woven & Composite)	5,00,000	10,000
17	Water Resistance Tester	4,00,000	8,000
18	Absorption Tester (Non Woven)	3,00,000	6,000

For example,

if the tenderer is willing to quote rate for the Machinery & Instruments at sl. no: 1  
the EMD will be Rs. 80,000/-



If the tenderer is willing to quote rate for the Machinery & Instruments at sl. no: 1 and 2 the EMD will be Rs. 94,000/- (80,000 + 14,000/-)

If the tenderer is willing to quote rate for the Machinery & Instruments at sl. no: 1, 2 and 4 the EMD will be Rs. 1,74,000/- (40,000/- + 14,000 + 80,000/-) and so on

### EARNEST MONEY DEPOSIT

- a) The EMD as mentioned in the NIT should be paid and enclosed with the Bid documents.
- b) EMD shall be deposited in the form of a Demand Draft drawn in favour of The principal, K. S. RANGASAMY COLLEGE OF TECHNOLOGY, Tiruchengode” / BANK GUARANTEE in favour of “The principal, K. S. RANGASAMY COLLEGE OF TECHNOLOGY” issued by any Nationalized Bank valid for 210 days from the date of NIT.
- c) The DD/BG for the EMD amount in original should be attached to the Tender document.
- d) No other mode of payment for EMD will be accepted.
- e) **Tenderer who are registered with NSIC/MSME authorities for the tendered service/item is exempted from the payment of EMD on the production of a self-attested copy of the certificate issued by NSIC/MSME.**
- f) The EMD will not carry any interest while it is in the custody of K. S. RANGASAMY COLLEGE OF TECHNOLOGY.
- g) The EMD will be refunded to the successful/unsuccessful tenderers after the finalisation of the Tender. The EMD paid in the form of BG will be returned to the successful tenderer on payment of SD, execution of the agreement, and finalisation of the Tender.
- h) The EMD will be refunded to the unsuccessful tenderer after the finalisation of the Tender.
- i) The EMD will be forfeited if the successful tenderer does not supply the TEXTILE AND TECHNICAL TEXTILE LABORATORY MODEL/PROTOTYPE MODEL MACHINERY & INSTRUMENTS DEDICATED TO ACADEMIC ACTIVITIES Machinery & Instruments within the stipulated time.
- j) The EMD will be forfeited if the tenderer withdraws the tender within the validity period of the bid.

### SEARCHING FOR TENDER DOCUMENTS

Bidders can search for the tenders upon clicking <https://ksrct.ac.in/> scrolling on the institution web page and textile department page (<https://2023.ksrct.ac.in/schools-and-departments/b-tech-textile-technology-2/>).



## PREPARATION OF BIDS

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Any deviations from these may lead to rejection of the bids.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document.
4. The price bid format is given for ready reference only.
5. The price bid format in may also be downloaded from tender website.

## SUBMISSION OF BIDS

1. Bidder should be in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. Bidders are requested to note that they should necessarily submit their financial bids.
3. Technical bid should not include any financial information. Technical bid containing financial information shall be declared non-responsive and shall be disqualified.
4. The offer/bid shall be submitted in two bid systems (i.e.) Technical bid and Price bid. The technical bid shall consist of all technical details along with commercial terms and conditions. Price bid also should be submitted.
5. Bidder should consider any addendum/corrigendum published on the tender document, on the relevant website, before submitting their bid.

## ASSISTANCE TO BIDDERS

Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender. The email-id for the Help Desk is: [hodtextile@ksrct.ac.in](mailto:hodtextile@ksrct.ac.in) (Mobile: 9280808082) or [sukumar@ksrct.ac.in](mailto:sukumar@ksrct.ac.in) (Mobile: 9629558562).





## ACCEPTANCE AND REJECTION

K. S. RANGASAMY COLLEGE OF TECHNOLOGY, reserves the right to accept/reject any or all tenders and accept the whole or any part of the tender without assigning any reason. A tender that does not fulfil any of the terms and conditions of the tender or with incomplete documents in any respect will be rejected summarily.

## GENERAL INSTRUCTIONS TO THE BIDDERS

1. In the technical bids, the bidders are required to submit the necessary documents along with all annexures.
2. The enlistment of the vendors should be valid on the last date of submission of tenders.
3. Bidder must read the terms and conditions of tender carefully. He/She should only submit his tender if he considers himself eligible and he is in possession of all the documents required.
4. The Bidder should have a valid License/Registration, GSTIN No., PAN Number, Bank Account and registered office in India.
5. The Bidder should not have been blacklisted by any Govt. Dept./Semi-Govt./Dept. or any other organization.
6. Information regarding experience in the Supply & Installation of the same/similar Machinery & Instruments/machinery in India. Documentary Evidence to be supported by Purchase Orders and Project/installation completion certificates.
7. Bidders shall have sufficient manufacturing capacity /tie-ups and should have the after-sales support infrastructure.
8. **The rates quoted shall be inclusive of charges such as Insurance, transportation, installation, and training for the staff and all other taxes (excluding GST). Nothing extra shall be paid over the quoted rates.**

## EVALUATION CRITERIA AND FINAL SELECTION

- 1) The committee constituted by the Principal, K. S. RANGASAMY COLLEGE OF TECHNOLOGY will examine the technical documents and decide the suitability as per the requirements of K. S. RANGASAMY COLLEGE OF TECHNOLOGY and the terms and conditions of the tender. Only the technical bids of the firms, which meet the qualification criteria, would be taken up for detailed evaluation.



- 2) The technical committee will visit to verify the capacity and capability of the bidders to assess the performance of similar Machinery & Instruments/machinery supplied by them.
- 3) Selection of the bidders shall be based on a weighted criteria system to be derived from the submitted tender documents, experience etc., In the case of non-fulfilment of minimum pre-qualification criteria of the technical bid, the bid of the respective bidder shall be rejected. The competent authority will decide regarding the selection of Contractors.

### SECURITY DEPOSIT

- 1) The successful Bidder including NSIC / MSME registered firms should remit a **Security Deposit equivalent to 10 % of the awarded amount** for the Machinery & Instruments supplied for One year within five days from the date of receipt of the communication by the Bidder.
- 2) This security deposit is payable in the form of a Term Deposit Receipt (TDR) / Bank Guarantee issued by a Nationalized / Scheduled Bank and it should be for twelve months. Failure to pay the security deposit within the specified time will entail the forfeiture of EMD and also the rejection of the tender.
- 3) The security deposit will not carry any interest while it is in the custody of K. S. RANGASAMY COLLEGE OF TECHNOLOGY.
- 4) The Security deposit will be returned **after 12 months after the successful completion of the supply, installation, and training to the staff** and there is no liability on the part of the Bidder to K. S. RANGASAMY COLLEGE OF TECHNOLOGY.
- 5) The Security deposit will be forfeited in the following circumstances.
  - a) In case any document is found false / forged at any stage, the Security deposit will be forfeited.
  - b) If the contract is terminated by the K. S. RANGASAMY COLLEGE OF TECHNOLOGY due to the supply of poor quality Machinery & Instruments or negligence/misbehavior / bad act of the contractor / his personnel or non-observing of the provisions stipulated in the contract, the Security deposit shall be forfeited.
  - c) If the contractor is found violating any law/rule related to the supply of the Machinery & Instruments and a report in this regard is received from the competent authority indicating the contractor for violation of any law/rule, the security deposit shall be forfeited without prejudice to any other action as per provisions of the contract.
  - d) If the contractor fails to supply the Machinery & Instruments within the time limits specified, the penalty for delay shall be recovered from the Security deposit.



- e) The assessment of recoveries made by the Principal, K. S. RANGASAMY COLLEGE OF TECHNOLOGY shall be final and binding on the contractor.

**AGREEMENT:**

- a. The successful tenderer will be required to execute an agreement in a Non-judicial stamp paper of appropriate value within the time frame stipulated by K. S. RANGASAMY COLLEGE OF TECHNOLOGY, Tiruchengode.
- b. The K. S. RANGASAMY COLLEGE OF TECHNOLOGY reserves the right to add/delete/modify the clauses in the agreement.
- c. Failure of the successful bidder to comply with this requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security (EMD) in which event the K. S. RANGASAMY COLLEGE OF TECHNOLOGY may make the award to any other bidder, at the discretion of K. S. RANGASAMY COLLEGE OF TECHNOLOGY or call for new bids.

**PERIOD OF CONTRACT:**

- a) The supply of the Machinery & Instruments should be completed within 60 days from the date of issue of the purchase order.
- b) Extension/non-extension will be the sole discretion of the authority and the Contractor cannot assume extension as their right.

**TERMINATION OF CONTRACT:**

- 1) The competent authority reserves the right to terminate the contract at any time without assigning any reason if it appears to the authority at any point of time that the services based on the quality of the machinery & Instruments
- 2) At any time during the period of the contract, if it comes to the notice of the K. S. RANGASAMY COLLEGE OF TECHNOLOGY that the contractor has misled this office by way of giving false/incorrect information which has been material in the award of the contract, the contract shall be liable to termination without any notice besides other legal action as per law. Further, in case of any breach, the contract can be terminated without any notice.

**SPECIAL TERMS & CONDITIONS**

- a) The contractor shall take all precautionary measures to avoid any damage to adjoining property while installing the Machinery & Instruments. All necessary arrangements shall be made at his own cost.
- b) K. S. RANGASAMY COLLEGE OF TECHNOLOGY reserves the right to make any change, omission, additions (or) alterations to the original specifications of the Machinery & Instruments. Such changes, omissions, and substitutions shall be deemed to have been formed as work included in the original tender and the contractor shall be bound to carry out the work/adhere to the supply order.
- c) **The Period of warranty for the Machinery & Instruments will be for two Years.**



d) The Contractor shall extend Post Supply Support to the Institute in maintaining the Machinery & Instruments.

**Annexure A**

**TECHNICAL SPECIFICATION**

S.No	Name of the TEXTILE LABORATORY MACHINERY & INSTRUMENTS	Specification
1	Rapier Loom with Electronic Jacquard	<ul style="list-style-type: none"><li>Machine Speed : 200 -260 RPM</li><li>Weft Insertion Speed : 400 - 650 m/min</li><li>Shedding : Electronic Jacquard (around 2500 to 3000 Hooks)</li><li>Weft Colour : 8 colours</li><li>Width : 190 cm or above</li></ul>
2	Lab Model Roving Machine	<ul style="list-style-type: none"><li>Materials : Suitable for cotton, Manmade fibers and blends</li><li>Spindle : 4 - 6</li><li>Draft : 3 over 3 or above</li><li>Delivery count : 0.5Ne to 6Ne</li><li>Staple length : 20mm to 80mm</li><li>Control: Electronic control panel</li></ul>
3	Non Woven Spunlace Machine	<ul style="list-style-type: none"><li>Lab scale Non woven machine</li><li>Fabric Width : 600 mm</li><li>With all auto control parameters</li></ul>
4	X- Ray Diffraction Analysis	<ul style="list-style-type: none"><li>Elements detected : All elements present in a crystalline matrix</li><li>Detection limits: Quantitative multiphase analysis of about 1%</li><li>Minimum film thickness - About 20 Å for phase identification</li><li>Depth resolution - Sampling depth between about 20 Å to 30 μm</li></ul>



5	Computerized Single Jersey 4 Track Circular Knitting Machine	<ul style="list-style-type: none"><li>• Diameter : 30 inches</li><li>• Cam Track : 4 Track</li><li>• Feeder : 96</li><li>• Knit Cam : 96x4 (2 Track –Tuck Cam &amp; Miss Cam - 192)</li><li>• Gauge : 28</li><li>• Attachment : Lycra all feeder attachment</li><li>• Feeder : All Plaiting feeder</li><li>• Invertor : Panasonic</li><li>• Power Supply : 415 Voltage</li><li>• Stabilizer : 10 KW</li><li>• Panel : Touch (counter reading – 7 digit) - All Control, Symbol indication</li><li>• Stop motion : Needle detector, Roll counting, Yarn feed, Oil Stoppage, Pneumatic air stoppage.</li><li>• Controller : Air pressure regulator with multiple outlet, Solenoid valve</li><li>• Oiler Device : Pulsonic oiler device</li><li>• All Accessories, Tools, English circuit diagram and Needles</li></ul>
6	Melt Spinning Full Line (Mini Model)	<ul style="list-style-type: none"><li>• Spinneret : 20 – 30 holes</li><li>• Speed : Above 900 m/min (continuous variable frequency adjustable)</li><li>• Hopper : Stainless steel</li><li>• Melting temperature - 350 °C</li><li>• Melt Filtration - Stainless steel sintered plate</li><li>• Control mode - Integrated touch screen control</li><li>• Applicable materials - Chemical fiber, coal-based/pitch-based carbon fiber, or other modified polymers.</li></ul>
7	Laboratory Extruder - Wet Spinning	<ul style="list-style-type: none"><li>• Capacity (liter) – 3 or above</li><li>• Temperature : Room Temp to 95° C</li><li>• Second Heating Bath – 150° C or above</li><li>• Speed : 35 RPM or above</li><li>• Spinneret nut – 100 or above (Dia – 0.07mm)</li><li>• Air Gap between spinneret &amp; bath - &lt; 1cm</li><li>• Filament count - 1.5K , 3.0 K</li></ul>



		<ul style="list-style-type: none"> <li>• Tank material - Stainless steel</li> <li>• Heating temperature - RT-150°C</li> <li>• Draft - 20m/min</li> <li>• Draft ratio - 10:1</li> <li>• Control mode - PLC+ touch screen + software</li> <li>• Brand electrical/instrument/sensor, Integrated centralized control box</li> <li>• Centralized touch interface - Temperature control/temperature, measurement/flow/pressure/ speed</li> </ul>
8	Flat Knitting Machine	<ul style="list-style-type: none"> <li>• Width: 60 inch or above</li> <li>• Gauge : 16 or above : Twin carriage</li> <li>• Spring-Type movable sinker system</li> <li>• Digital Stitch Control System</li> <li>• Lint Remover attachment</li> <li>• Capability for actively controlling yarn-feed in both feed and retrieval direction</li> <li>• Touch control panel color display</li> <li>• Knit software and network connector</li> <li>• Centralized lubrication control</li> <li>• Extra Needles and extra cam assembly</li> </ul>
9	Digital Fabric Printing Machine	<ul style="list-style-type: none"> <li>• Minimum Media Width - 800mm or Above</li> <li>• Technology : sublimation printer</li> <li>• Ink Type : Heat transfer ink</li> <li>• Connectivity : USB</li> <li>• Color mode : 4 x 8 colours</li> <li>• Ink supply system : Automatic : Drying : IR dryer</li> <li>• Compressed water supply unit</li> <li>• Compressed air supply unit</li> <li>• Software and Computer</li> </ul>
10	Spectro Photo Colour matching system with software	<ul style="list-style-type: none"> <li>• Measurement Principle : Dual Beam</li> <li>• Sphere Dimension : Above 150 mm Diameter</li> <li>• Light Source : Pulsed Xenon</li> <li>• Wavelength Range : 360 nm To 700 nm</li> <li>• Wavelength Interval : 10 nm</li> </ul>



		<ul style="list-style-type: none"><li>• Photometric Range : 0% To 200%</li><li>• Wavelength Accuracy : 0.1 nm (avg.)</li><li>• Observer angle should be <math>2^{\circ}/10^{\circ}</math></li><li>• Instrument should have 2 measuring aperture-4 mm &amp; 8 mm</li><li>• Measuring Time should not exceed 2.6 Sec</li><li>• Calibration Plate for black &amp; White calibration should be provided</li><li>• Instrument should have On-board camera based locator which will enable operator to position the instrument accurately on the chosen sample with minimal contact.</li></ul>
11	Ultraviolet Transmittance Analyzer	<ul style="list-style-type: none"><li>• Wavelength range : 250– 450 nanometers</li><li>• Bandwidth : Less than 4 nanometers</li><li>• Lamp - Xenon flash lamp</li><li>• Transmittance - 0–100%.</li><li>• Absorbance - 0–2.7 A</li></ul>
12	Fully automatic High Volume Instrument	<ul style="list-style-type: none"><li>• Automatic measuring properties – Length, Volume and elongation, Micro wire, Maturity, Colour, Micronaire and trash, UV reflection, Trash</li><li>• Test Mode : ICC and HVI mode</li><li>• Principle : Optical</li></ul>
13	Rheometer	<ul style="list-style-type: none"><li>• Measurement modes - Rotational and oscillation</li><li>• Measurement geometry - cone and plate, parallel plate, or concentric cylinder</li><li>• Temperature range : -50 °C to +400 °C</li><li>• Pressure : Up to 80 bar</li><li>• Shear rate range : Up to 5000 s<sup>-1</sup> or above</li><li>• Angular Frequency Range - Up to 628 rad/s</li><li>• Angular velocity range - Angular velocity range of 1 x 10<sup>-6</sup> rad/s to 300 rad/s or better</li><li>• Instrument must have a LCD touch panel integral to the instrument (i.e. at the test station) which provides a constant readout of torque, axial force, temperature, gap, etc.</li></ul>



14	Flexural 3 Point Tester	<ul style="list-style-type: none"><li>• Maximum Capacity - 5 kN (1125 lbf, 500 kgf)</li><li>• Temperature Range -100 °C to 350 °C (-148 °F to 660 °F)</li><li>• Adjustable Span Distance : 10 - 200 mm</li><li>• Adjustable Span Distance 10 - 200 mm</li><li>• Conforms to ISO, ASTM, DIN, and many other standards</li><li>• All accessories</li></ul>
15	Impact Strength Tester (Composite Materials)	<ul style="list-style-type: none"><li>• Drop height model : 1000 to 1500 mm</li><li>• Type of test : Puncture, Charpy, Izod, Tensile impact test</li><li>• Drop height min:50 mm</li><li>• Drop weight, max.: 30 kg</li><li>• Operating pressure: 8 bar</li></ul>
16	Tensile Strength Tester (Non woven & Composite)	<ul style="list-style-type: none"><li>• Force Capacity kN : 100</li><li>• Speed Accuracy : +/- 0.1% under stable conditions</li><li>• Accuracy : Better than +/- 0.5% of reading down to 1/1000th of load cell capacity</li><li>• With overload, over travel and impact protection</li><li>• Windows software for tensile, compression, peel, shear, tear, cyclic, creep and multi stage testing</li><li>• Software calibration to check facility for instant verification of machine accuracy</li><li>• Fully digital testing with high precision control and accuracy, includes automated computer control of test methods with printer</li></ul>
17	Water Resistance Tester	<ul style="list-style-type: none"><li>• For testing the water resistance of fabric such as cloth, canvas, coating cloth tents, tarpaulin, rainproof garment fabric and fabric material, etc.</li><li>• Sample holder area - 100 cm<sup>2</sup></li><li>• Measuring range: 0 pa – 200 kpa</li></ul>
18	Absorption Tester (Non Woven)	<ul style="list-style-type: none"><li>• Force measure range - 0 to 1000g±0.01g</li><li>• Test accuracy - 0.01%F·S</li><li>• Test speed : 1 to 40mm/second</li><li>• Liquid suction &amp; dripping time : 0 to 999 seconds</li><li>• Touch screen control with English menus</li></ul>





		<ul style="list-style-type: none"><li>• Built-in thermal printer</li><li>• With high-precision sensor, good linearity</li><li>• Should be fully automated with high accuracy</li><li>• Made with high-quality stainless steel</li></ul>
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**Annexure B**

**(To be submitted by bidder on its Company Letterhead)**

It is here by submitted that if I/We .....(Name of bidder/firm/company) withdraw or modify the bids during period of validity, or if I/We..... (Name of bidder/firm/company) are awarded the contract and I/We.....(Name of bidder/firm/company) fail to sign the contract or to submit a performance security before the deadline defined in the tender documents, I/We .....(Name of bidder/firm/company) will be suspended to take part in KSRCT's tendering process for the period of two years from the date of occurrence of the above mentioned default.”

Date :

Authorized Signatory



Annexure C

**FINANCIAL BID**

**(“FINANCIAL BID FOR NTTM – SUPPLY OF TECHNICAL TEXTILE MACHINERY  
AND INSTRUMENTS”)**

Sl. No.	Name of the TEXTILE AND TECHNICAL TEXTILE MACHINERY & INSTRUMENTS	(in Figures)	(in Words)
1			
2			
3			
4			
5			

**Signature of Tenderer/Authorized Signatory :**

**Name of the Tenderer :**

**Seal of the Tenderer :**

**Address :**

**Note: -**

(if there is any discrepancy in figures and words in the quote, the rate quoted in words shall prevail)



**Annexure D**

**ORIGINAL MACHINERY & INSTRUMENTS MANUFACTURER (OEM)  
Manufacturing Authorization Form (MAF)**

**(On Letter Head of Manufacturer)**

Ref. No:

Date:

**To**

**THE PRINCIPAL,  
K. S. RANGASAMY COLLEGE OF TECHNOLOGY,  
KSR Kalvi Nagar,  
Tiruchengode – 637 215,  
Namakkal DT, Tamil Nadu.**

We manufacturers of Original Machinery & Instruments at \_\_\_\_\_  
do hereby authorize (M/s. Name and address of the agent ) to submit an offer against  
the Tender for the supply of (Name of the Machinery & Instruments)

\_\_\_\_\_

M/s. \_\_\_\_\_ is authorised to submit the bid and conclude  
the contract regarding business.

We hereby extend our full guarantee and warranty for the goods offered by the above  
firm. The dealer is associated with us from the period \_\_\_\_\_ to

\_\_\_\_\_

Yours faithfully,

(Signature)

Name and seal of the Manufacturer.



Annexure E

**MANDATE FORM**

**ELECTRONIC CLEARING SERVICE (CREDIT CLEARING)/REAL TIME GROSS SETTLEMENT  
(RTGS) FACILITY FOR RECEIVING PAYMENTS**

**DETAILS OF ACCOUNT HOLDER:-**

NAME OF THE ACCOUNT HOLDER	
COMPLETE CONTACT ADDRESS	
TELEPHONE NUMBER//E-MAIL	
GST Number	
PAC Card Number	

**BANK ACCOUNT DETAILS:**

BANK NAME	
BRANCH NAME WITH COMPLETE ADDRESS	
TELEPHONE NUMBER AND E-MAIL	Bank Ph. No : E-mail :
IFSC CODE	
IS THE BRANCH ALSO NEFT ENABLED	YES / NO
TYPE OF BANK ACCOUNT( SB/CURRENT)	SAVINGS ACCOUNT / CURRENT ACCOUNT
BANK ACCOUNT NUMBER	
MICR CODE OF THE BANK	