

**SREE KERALA VARMA COLLEGE**  
**KANATTUKARA P.O, THRISSUR-680011, Kerala State India**

**A4-405/15- SARD-1/ FE Tester**

**Date:01-02-2019**

Sealed tender offers are invited from eligible manufacturers/suppliers or their direct Indian agents for supply , Installation and Commissioning of following imported equipments for research purpose Under the SARD project sanctioned for Sree Kerala Varma College Thrissur-680011 from the Kerala State Council for Science Technology and Environment as per the specification appended. The tenders superscribed with the tender number should be reached to **The Principal, Sree Kerala Varma College, Kanattukara PO, Thrissur-680011, Kerala** latest by 3 p.m on 22-02-2019. The tender form with detailed specifications and terms and conditions may be had from the college office during working days (9.00 a.m. to 2.00 p.m.) or can be downloaded from the college website: **www.keralavarma.ac.in** . Separate tender forms are required for each Tender. Those who use downloaded tender forms must submit a demand draft for the tender form fee, favouring "Principal, Sree Kerala Varma College, and Thrissur payable at Thrissur.

<b>NO</b>	<b>Name of the Equipments</b>	<b>Cost of Tender form</b>
1	Ferroelectric test system with a probe station along with suitable data acquisition and management software	Rs 3800+480gst

Earnest Money Deposit 5%(EMD) shall be submitted by way of demand draft in favour of the Principal, Sree Kerala Varma College, Thrissur, payable at Thrissur. The Tender will be opened at 11 am. on 23-02-2019 at the office of Sree Kerala Varma College, Thrissur in presence of such tenderers or their representatives who may be present at that time.

**Important Dates**

Last date for submission of completed tenders : 22-02-2019 at 3.0 pm

Date and time for opening of tenders: 23-02-2019 at 11 am

PRINCIPAL



# SREE KERALA VARMA COLLEGE

THRISSUR – 680 011

E mail : skvcollege@yahoo.com

Fax:0487 2382438

M/s .....

.....

.....

.....

TO

The Principal,

Sree Kerala Varma College, Thrissur

Kerala-680011

India.

## TENDER FORM

Sir,

I, ..... of M/s .....  
..... here by agree to supply to Sree Kerala  
Varma College, Thrissur, in accordance with the terms and conditions stipulated in the  
tender form, the equipment hereunder named of the quality or sort and at the rate or price  
hereunder specified, on the acceptance on these tender **No: A4-405/15-SARD-I /FE**  
**Tester** by you. I enclose demand draft No.....  
dated..... for the sum of Rs..... towards earnest money deposit  
to your credit which needs to be returned to me by you if this tender is not accepted.

### Delivery:

We confirm that the quoted prices are firm and inclusive of all taxes and duties  
(including entry tax), freight and insurance for supply and installation at Sree Kerala Varma  
College, Thrissur campus. There would not be any price escalation during the supply  
period. We also confirm that we will abide by all the terms and conditions and we do not  
have any counter conditions.

Yours faithfully,

Signature of the tenderer ..... (Seal)

Place :

Date :

## **TERMS AND CONDITIONS**

1. The equipments of foreign origin are to be quoted in foreign exchange terms and supplied according to the international trade terms. The ability of the party to supply the equipment of foreign origin and installation in the college is to be mentioned. Whether the quoted price includes air port duty, clearance charges etc. is to be mentioned clearly. If not, the expected charges are to be mentioned. The college may be able to provide customs duty exemption certificate from the University of Calicut. The price against the production/non—production of customs duty exemption certificate is to be quoted separately.
2. Installation and demonstration etc. at the college should be done by the supplier free of cost.
3. The warranty period for the equipment and accessories is to be specified, if otherwise not mentioned along with the specifications of the equipments. The warranty should be comprehensive and supplier should bear all the cost of spares, its transportation, fitting etc. If the spares are to be imported, the supplier should bear the cost of insurance, freight, customs duty, clearance charges, labour etc.
4. Training : In order to fully and optimally utilize the equipment, necessary onsite training should be given to the concerned faculty member(s) if necessary, free cost.
5. Number of trained engineers available if any in Kerala and nearest service station etc. shall be mentioned.
6. The latest model shall be quoted and certified
7. Tenders not accompanied by Earnest Money Deposit (EMD) will not be considered and will be summarily rejected.
8. The Earnest Money Deposit of all unselected tenders will be refunded within a short time after the tenders are opened. EMD of the successful bidders will be refunded immediately after the successful completion of the warranty period. No interest will be allowed on the earnest money remitted
9. Payment terms: Total value will be released after successful commissioning and acceptance by the end user through bank.
10. Customs duty percentage and the CIF price on which it is based should be clearly specified in the tender and if the customs duty exemption certificate is secured the corresponding amount or the actual duty paid whichever is higher will be deducted from the bill. If the bill is actually paid, the tenderer should refund the amount to THE PRINCIPAL.
11. The tenderers should verify and make sure that the claims made by them against items towards sales tax, customs duty, excise duty etc., are not more than those permissible under the provisions of the laws in force, and that they will refund any excess claims admitted in this respect.
12. The offers should be kept open for a period of three months from the date of opening tenders. Acceptance of the offers will be intimated to the successful tenderers within that period. Tenderers will however, be given the option to keep their offers open for a further agreed period if there be any delay in intimating the acceptance.
13. Delivery period: The equipment and its accessories should be completely supplied, installed and commissioned to the satisfaction of the College within the specified period from the date of supply order or date of L/C whichever is later.
14. The rates of terms of AMC (both comprehensive and labour) for a minimum period of three years after the warranty period shall be clearly specified. Both comprehensive and labour AMC amounts will be taken into consideration for final selection.
15. During warranty and AMC period, the vendor shall give an uptime guarantee of 95% or more.
16. List of installations in Kerala over the past three years shall be provided.
17. Wherever options are called for in respect of specifications, the tenderer should induct all such options.
18. The successful tenderer should execute an agreement for the fulfillment of the contract in the stamp paper within fifteen days from the date of acceptance of the tender. The expenses incidental to the executing of agreement shall be borne by the successful tenderer.
19. The tenderer should send along with his tender an agreement executed and signed in Kerala Stamp Paper of value ` 100 purchased in the Kerala State. Stamp Paper will be supplied to firms outside Kerala

along with the tender forms on payment of the actual value of the stamp paper and admissible incidental charges which may be remitted by money order in advance. A specimen form of agreement is also given in this . Tenders without the agreement in stamped paper will be rejected outright. But in deserving cases where agreement has not been received, the purchasing officer may exercise his discretion and call upon such tenderer to execute the agreement within a period of ten days from the date of issue of such intimation, if the Purchasing Officer is satisfied that the omission to forward the agreement along with the tender was due to causes beyond the control of the tenderer and was not due to any negligence on his part. Agreement received from a tenderer after the above time limit will not be considered.

- 20. The specifications of the equipment are given below:
- 21. If the items are proprietary in nature a proprietary certificate and other relevant details must be included along with the tender form

**ANNEXURE**

**AGREEMENT**

Articles of agreement executed on this the .....day of  
.....between the  
Principal of Sree Kerala Varma College (hereinafter referred to as “the Principal”) of the one part  
and Shri.....  
.....(H.E. name and  
address of the tenderer (hereinafter referred to as “the bounden”) of the other part.

**WHEREAS** in response to the Notification No.....dated..... the bounden has submitted to the Principal a tender for the..... specified therein subject to the terms and conditions contained in the said tender.

**WHEREAS** the bounden has also deposited with the Principal a sum of Rs.....as earnest money for execution of an agreement undertaking the due fulfillment of the contract in case his tender is accepted by the Principal.

**Now These presents witness and it is hereby mutually agreed as follows:**

- 1. In case the tender submitted by the bounden is accepted by the Principal and the contract for .....is awarded to the bounden, the bounden shall within.....days of acceptance of his tender execute an agreement with the Principal incorporating all the terms and conditions under which the Principal accepts his tender.
- 2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the Principal shall have power and authority to recover from the bounden any loss or damage caused to the Principal by such breach as may be determined by the Principal by appropriating the earnest money

deposited by the bounden and if the earnest money is found to be inadequate the deficit amount may be recovered from the bounden and his properties moveable and immovable in the manner hereinafter contained.

3. All sums found due to the Principal under or by virtue of this agreement shall be recoverable from the bounden and his properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and in such other manner as the Principal may deem fit.
4. In witness whereof Shri..... (H.E name and designation) for on behalf of the Principal of Sree Kerala Varma college and shri.....the bounden have hereunto set their hands the day and year shown against their respective signatures

Signed by Shri.....(date).....

In the presence of witness:

- 1.
- 2.

## **INSTRUCTIONS TO TENDERERS REGARDING TENDER FORMS**

### **DOWNLOADED FROM INTERNET**

1. Tender file is to be downloaded from the College Website and printout is to be taken on A4 size paper and details are to be entered by the tenderer at the various locations in the document.
2. This tender document (in full) downloaded along with the various documents required to be submitted as per the tender conditions in a sealed cover duly super scribing with the name of the equipment, tender notice no. and date, should be submitted in the office as mentioned in the tender notice before the date and time stipulated in the tender document.
3. The cost of tender document as indicated in the tender document will have to be deposited by the tenderer in the form of bank draft payable in favour of Principal, Sree Kerala Varma College, Thrissur along with the tender document. This should be enclosed as a separate Demand Draft. A single demand draft for the cost of tender form and Earnest Money Deposit will not be accepted. Tender not accompanied with the demand draft towards the cost of the tender document will be summarily rejected.
4. The Earnest Money Deposit required for this supply as stipulated in the tender document also to be submitted separately.
5. Tenderers are advised to download tender documents well in advance and submit the tender before the stipulated time. It is the responsibility of the tenderer to check any correction or any modifications published subsequently in Website and the same shall be taken into account while submitting the tender. Tenderer shall download corrigendum (if any), print it out, sign and attach it with the main tender document. Tender document not accompanied by published corrigendum/s is liable to be rejected. The institution will not be responsible for any postal delays / delay in downloading of tender document from the College Website.

6. The tenderer may please note that the rate for items should be written in figures and in words. Each page of tender document should be signed by the tenderer.
7. Tenderers are free to download tender document at their own risk and cost, for the purpose of perusal as well as for using the same as tender document for submitting the offer. Master copy of the tender document is available in the office as mentioned in the tender document. After award of tender an agreement will be prepared based on the master copy of tender document available in the office. In case, any discrepancy between the tender document downloaded from the College Website and the master copy, latter shall prevail and will be binding on the tenderers. No claim on this account will be entertained.
8. If any change/addition/deletion is made by the tenderer, the tender will be summarily rejected and full earnest money deposit will be forfeited.
9. The following declaration should be given by the tenderer while submitting the tender:

### Declaration

- (a) I/we have downloaded tender form from the Website site **www.keralavarma.ac.in** and I/we have not tampered / modified the tender forms in any manner. In case, if the same is found to be tampered / modified I/we understand that my/our tender will be summarily rejected and full earnest money deposit will be forfeited and the contract will be terminated at my / our risks and cost.
- (b) I/we am/are submitting a demand draft no. \_\_\_\_\_ dated \_\_\_\_\_ issued by \_\_\_\_\_ for Rs \_\_\_\_\_ towards the cost of tender form.

Date :

Signature of Tenderer :

(Seal)

Address:

## TECHNICAL SPECIFICATION

SI No	Name of the items with specifications	quantity																																						
1	<p><b>Minimum Technical Specification required for the Ferroelectric test system</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Voltage Range (built-in drive voltage)</td> <td style="text-align: right;">±200V</td> </tr> <tr> <td>Voltage Range with an external amplifier and high voltage interface (HVI)</td> <td style="text-align: right;">10KV</td> </tr> <tr> <td>Number of ADC Bits</td> <td style="text-align: right;">14</td> </tr> <tr> <td>Minimum Charge Resolution</td> <td style="text-align: right;">122fC</td> </tr> <tr> <td>Minimum Area Resolution (assuming 1 ADC bit = 1μC/cm<sup>2</sup>)</td> <td style="text-align: right;">12.2μm<sup>2</sup></td> </tr> <tr> <td>Maximum Charge Resolution</td> <td style="text-align: right;">4.8μC</td> </tr> <tr> <td>Maximum Area Resolution (assuming saturation polarization = 100μC/cm<sup>2</sup>)</td> <td style="text-align: right;">4.8mm<sup>2</sup></td> </tr> <tr> <td>Maximum Charge Resolution with High Voltage Interface (HVI)</td> <td style="text-align: right;">480μC</td> </tr> <tr> <td>Maximum Area Resolution (assuming saturation polarization = 100μC/cm<sup>2</sup>) w/o HVI</td> <td style="text-align: right;">4.8cm<sup>2</sup></td> </tr> <tr> <td>Maximum Hysteresis Frequency</td> <td style="text-align: right;">1KHz</td> </tr> <tr> <td>Minimum Hysteresis Frequency</td> <td style="text-align: right;">1/8th Hz</td> </tr> <tr> <td>Minimum Pulse Width</td> <td style="text-align: right;">500μs</td> </tr> <tr> <td>Minimum Pulse Rise Time (5V)</td> <td style="text-align: right;">500μs</td> </tr> <tr> <td>Maximum Pulse Width</td> <td style="text-align: right;">100ms</td> </tr> <tr> <td>Maximum Delay between Pulses</td> <td style="text-align: right;">40ks</td> </tr> <tr> <td>Internal Clock</td> <td style="text-align: right;">50μs</td> </tr> <tr> <td>Minimum Leakage Current (assuming max current integration period = 1 seconds)</td> <td style="text-align: right;">10pA</td> </tr> <tr> <td>Maximum Small Signal Cap Frequency</td> <td style="text-align: right;">2KHz</td> </tr> <tr> <td>Minimum Small Signal Cap Frequency</td> <td style="text-align: right;">10Hz</td> </tr> </table>	Voltage Range (built-in drive voltage)	±200V	Voltage Range with an external amplifier and high voltage interface (HVI)	10KV	Number of ADC Bits	14	Minimum Charge Resolution	122fC	Minimum Area Resolution (assuming 1 ADC bit = 1μC/cm <sup>2</sup> )	12.2μm <sup>2</sup>	Maximum Charge Resolution	4.8μC	Maximum Area Resolution (assuming saturation polarization = 100μC/cm <sup>2</sup> )	4.8mm <sup>2</sup>	Maximum Charge Resolution with High Voltage Interface (HVI)	480μC	Maximum Area Resolution (assuming saturation polarization = 100μC/cm <sup>2</sup> ) w/o HVI	4.8cm <sup>2</sup>	Maximum Hysteresis Frequency	1KHz	Minimum Hysteresis Frequency	1/8th Hz	Minimum Pulse Width	500μs	Minimum Pulse Rise Time (5V)	500μs	Maximum Pulse Width	100ms	Maximum Delay between Pulses	40ks	Internal Clock	50μs	Minimum Leakage Current (assuming max current integration period = 1 seconds)	10pA	Maximum Small Signal Cap Frequency	2KHz	Minimum Small Signal Cap Frequency	10Hz	1
Voltage Range (built-in drive voltage)	±200V																																							
Voltage Range with an external amplifier and high voltage interface (HVI)	10KV																																							
Number of ADC Bits	14																																							
Minimum Charge Resolution	122fC																																							
Minimum Area Resolution (assuming 1 ADC bit = 1μC/cm <sup>2</sup> )	12.2μm <sup>2</sup>																																							
Maximum Charge Resolution	4.8μC																																							
Maximum Area Resolution (assuming saturation polarization = 100μC/cm <sup>2</sup> )	4.8mm <sup>2</sup>																																							
Maximum Charge Resolution with High Voltage Interface (HVI)	480μC																																							
Maximum Area Resolution (assuming saturation polarization = 100μC/cm <sup>2</sup> ) w/o HVI	4.8cm <sup>2</sup>																																							
Maximum Hysteresis Frequency	1KHz																																							
Minimum Hysteresis Frequency	1/8th Hz																																							
Minimum Pulse Width	500μs																																							
Minimum Pulse Rise Time (5V)	500μs																																							
Maximum Pulse Width	100ms																																							
Maximum Delay between Pulses	40ks																																							
Internal Clock	50μs																																							
Minimum Leakage Current (assuming max current integration period = 1 seconds)	10pA																																							
Maximum Small Signal Cap Frequency	2KHz																																							
Minimum Small Signal Cap Frequency	10Hz																																							

Minimum Specification for the thin film probe station/ higher versions with optical microscope may be quoted as optional

2" vacuum chuck

- 2"x2" coaxial X-Y stage
- 320 mm x 320 mm footprint
- Built in simple vibration isolation
- High Resolution Digital Microscope

Suitable magnetic base micropositioners both Left and right hand

Suitable DC tip holder and needles/probes

The data acquisition and management software should have the capabilities of measurements, analysis, plotting, program control and documentation