

Tender Document

- Tender for Supply of
1. Electron Beam Physical Vapour Deposition System & RF DC Sputtering System
 2. Scanning Electron Microscope (SEM)
- For
Annamalai University, Annamalainagar


Tender Nos: AU/GUCC/RUSA/R&I Project/Equipment/Tender/01/2018
&
AU/GUCC/RUSA/Physics/Equipment/Tender/07/2018



Registrar i/c
Annamalai University
Annamalainagar 608 002
Tel: 04144-238259, Fax: 04144-238080

Visit us at <http://www.annamalaiuniversity.ac.in>

Tender Notice

	THE REGISTRAR, ANNAMALAI UNIVERSITY, ANNAMALAINAGAR – 608 002
Office of Issue	The Registrar , Annamalai University, Annamalainagar – 608 002
Tender No.	AU/GUCC/RUSA/R&I Project/Equipment/Tender/01/2018 & AU/GUCC/RUSA/Physics/Equipment/Tender/07/2018
Tender Forms Available at Website	http://www.annamalaiuniversity.ac.in & www.tenders.tn.gov.in
Date and Time of Issue/Publishing	22-02-2018 10:45
Document Download/Sale Start Date & Time	22-02-2018 10:45
Tender Submission Start Date & Time	22-02-2018 10:45
Tenders Submission Last Date & Time	14-03-2018 15:00
Date and Time of opening of Technical bid	14-03-2018 16:00
Place of opening of Technical bid	Conference Hall, Golden Jubilee Building, Annamalai University, Annamalainagar – 608 002
Date of opening of Pricel bid	To be intimated later

Sealed Tenders are invited on behalf of Annamalai University. Tenders are invited for **supply of (1) Electron Beam Physical Vapour Deposition (EB-PVD) System & RF DC Sputtering System and (2) Scanning Electron Microscope (SEM)** for Annamalai University from **Original Equipment Manufacturers (OEM)** or **Authorized distributors / Authorized Dealers / Indian Companies**. Prices quoted should be F.O.R. Destination, inclusive of all levies and taxes and packing & forwarding charges etc.

Signature of the Tenderer

Tenderer shall have to deposit **EMD of Rs. 50,000/- (Rupees Fifty Thousand only)** for Electron Beam Physical Vapour Deposition (EB-PVD) System & RF DC Sputtering System and **Rs.75,000/- (Rupees Seventy Five Thousand only)** for Scanning Electron Microscope (SEM) in the form of Demand Draft drawn on any scheduled bank payable at Annamalainagar in favour of **"The Registrar, Annamalai University, Annamalainagar - 608002"** along with the tender.

Tender Document is available on Website www.annamalaiuniversity.ac.in & www.tenders.tn.gov.in for downloading purpose at free of cost.

**Registrar i/c,
Annamalai University
Contact No. 04144-238259**

Signature of the Tenderer

Tender Conditions and procedure to be abided by the tenderers

1. INTRODUCTION

1.1. This tender is for procurement of the following equipments for Annamalai University, Annamalainagar, Chidambaram, India.

No.	File No.	Description
1.	AU/GUCC/RUSA/R&I Project/ Equipment/ Tender/01/2018	Electron Beam Physical Vapour Deposition System & RF DC Sputtering System
2.	AU/GUCC/RUSA/Physics/ Equipment/ Tender/07/2018	Scanning Electron Microscope (SEM)

The specification for the above mentioned equipments is given in Schedule A & Schedule B.

1.2. Applicability of Tamil Nadu Transparency in Tenders Act and Rules: This tender will be governed by the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 as amended from time to time.

2. ELIGIBILITY CRITERIA

2.1. A tenderer will be eligible for tendering only if he satisfies the eligibility criteria as given below:

- a) **A tenderer should be a manufacturer possessing a valid manufacturing license from the competent authority for manufacturing the items quoted and should have at least three years' experience. (Documentary evidence to be furnished)**
- b) **The manufacturer should be an ISO:9001 / Equivalent certified company. Documentary evidence should be enclosed.**
- c) **Authorized Dealer / Distributor / Supplier can also bid with authorization from the Manufacturer. (Documentary evidence to be furnished). A manufacturer shall not authorize more than one dealer / distributor for participating in this tender.**
- d) **In case a tenderer is participating as an authorized Dealer/Distributor/Supplier the manufacturer of the item should satisfy the conditions mentioned at (a) and (b) above.**

Signature of the Tenderer

- e) The tenderer should have a GST Registration. Copy of the Registration Certificate should be enclosed.
- f) The Tenderer should be an Income Tax assessee. (Return filed should be enclosed)

2.2. The tenderer should not have been blacklisted or debarred from participating in tenders by any Central / State Government agencies or autonomous bodies or universities/ institutions. (An undertaking to this effect should be furnished)

2.3. The tenderer submitting their offer must have supplied similar items to other Universities or institutions or Government agencies. Copies of such order must be enclosed with the offer.

3. COST OF TENDERING

The Tenderer shall bear all costs associated with the preparation and submission of this Tender and the tender inviting authority will in no way be responsible or liable for these costs.

The Tenderer may download the application format from the University Web Site at free of cost.

4. GENERAL INSTRUCTIONS

4.1. The tenderers are requested to go through the instructions, terms and conditions and specifications given in the tender. Failure to furnish all required information in every aspect will be at the tenderer's risk and may result in the rejection of the tender.

For any queries tenderer may contact the Registrar,
Annamalai University, Annamalainagar, Chidambaram – 608 002.
Tamil Nadu, INDIA.

Signature of the Tenderer

4.2. Clarification on the tender

A prospective tenderer requiring any clarification on the tender may request the Office of the Registrar, Annamalai University, by a letter or by fax. Registrar, Annamalai University will respond in writing to any request for clarification in the tender.

4.3. Amendments to the Tender

- i. Tender Inviting Authority may amend the tender wherever it is felt that such an amendment is absolutely necessary.**
- ii. Amendment to tender may also be given in response to clarifications by prospective tenderers and it is solely the discretion of the Tender Inviting Authority. Any amendment to the tender will be uploaded on the website <http://www.annamalaiuniversity.ac.in> and www.tenders.tn.gov.in. It is the responsibility of the tenderer to verify the amendments if any and get the amendment documents before the submission of the tender provided no such change could be effected 48 hours prior to the time fixed for opening of the tender.**

4.4. The Tender document is not transferable under any circumstances.

5. EARNEST MONEY DEPOSIT (EMD)

5.1. The tenderer should furnish Earnest Money Deposit (EMD) as detailed below along with the tender by way of Demand Draft/Bankers cheque obtained from any Nationalized/ Scheduled Bank and drawn in favour of "The Registrar, Annamalai University" payable at Annamalainagar or Chidambaram.

Signature of the Tenderer

S.No	File No.	Description	EMD
1.	AU/GUCC/RUSA/R&I Project/ Equipment/ Tender/ 01/2018	Electron Beam Physical Vapour Deposition System & RF DC Sputtering System	50,000/-
2.	AU/GUCC/RUSA/Physics/ Equipment/Tender/07/ 2018	Scanning Electron Microscope (SEM)	75,000/-

5.2. Any tender without required EMD will be considered as **NON-RESPONSIVE** and will be **SUMMARILY REJECTED**.

5.3. The Tender Inviting Authority will arrange to refund the Earnest Money Deposit to the unsuccessful tenderers after publishing the list of successful tenderers, within a reasonable time.

5.4. No interest will be paid on the EMD.

5.5. The EMD is liable to be forfeited if:

- i. The Tenderer withdraws his tender at any stage after the last date and time fixed for submitting the tender.
- ii. The Tenderer on becoming successful, fails to furnish the required security deposit or sign the agreement, within the stipulated time limit.

6. PERFORMANCE SECURITY :

i. Successful tenderer has to furnish Security Deposit equivalent to 5% of the tendered value either in the form of Demand Draft drawn in favour of "The Registrar, Annamalai University" or in the form of irrevocable bank guarantee obtained from any Nationalized/Scheduled bank.

ii. The EMD of the Successful Bidder will be adjusted towards Security Deposit (SD). Security Deposit will be released only after the expiry of the warranty period as mentioned in clause 8.5.

Signature of the Tenderer

7. SUBMISSION OF TENDER:

7.1. Due Date for Tender Submission

- i. The tender document duly filled in, signed on all pages shall be submitted in sealed cover to the Registrar, Annamalai University at his office upto 3.00 PM on 14.03.2018 as per the procedure laid down herein. The tender can be submitted on all working days upto the above closing date. In the event of this day being declared as a holiday, the tenders can be submitted up to 3.00 P.M. on the following working day.**
- ii. The tender inviting authority will not be held responsible for any delay in the receipt of the Bank Draft or any delay in the receipt of the document by the tenderer including loss of the document in transit or delay in obtaining any document / certificate or on any other account. No extension of the date and time for the submission of the documents will be given for any such delay.**
- iii. The tender inviting authority may extend the due date for submission of tender by issuing an amendment in which case all the rights and obligations of the Tender Inviting Authority and the Tenderers previously subject to the original due date for submission will then be subject to the new date for submission.**
- iv. Any tender received by the Tender Inviting Authority after the due date and time will not be considered and will be returned to the tenderer.**

7.2. Procedure for Submission of Tender

- i. Tenderers are advised to go through the tender documents and understand all the provisions and stipulations contained therein before submitting the tender.**

Signature of the Tenderer

- ii. **The tender shall be submitted as per the procedures and requirements stipulated herein.**
- iii. **Tender submitted by telex, cable or fax will not be accepted and will be summarily rejected.**
- iv. **The Commercial bid should be neatly typed. Hand written offers will be rejected. Any deviation in the offer shall lead to rejection.**
- v. **The tenderer who are supplying imported material, must be registered with the Competent Authority/Department of the Government of India.**
- vi. **The purchaser shall not be responsible for any postal delay in receipt of the offer. Any bid received by the Purchaser which does not fulfil the desired terms and conditions shall be rejected out rightly and no communication in this regard shall be sent. Delayed/Late bids will not be accepted, at any circumstances.**
- vii. **All the bids will be opened in the presence of bidders representatives, who, chose to attend the same as per the date and time specified in the Tender Document.**
- viii. **This tender is based on two-cover systems i.e. Technical bid and price bid. Therefore, the tender shall be submitted in two parts viz. Cover A and Cover B. Each part shall be placed in an independent sealed envelope and shall be super scribed as follows**

Cover-A : "TECHNICAL BID COVER"

"TENDER FOR SUPPLY OF FOLLOWING EQUIPMENT TO ANNAMALAI UNIVERSITY"

1. ELECTRON BEAM PHYSICAL VAPOUR DEPOSITION SYSTEM & RF DC SPUTTERING SYSTEM EQUIPMENT

Signature of the Tenderer

TENDER NUMBER: -----

2. SCANNING ELECTRON MICROSCOPE (SEM) EQUIPMENT

TENDER NUMBER: -----

Cover-B : "PRICE BID COVER"

"TENDER FOR SUPPLY OF FOLLOWING EQUIPMENT TO ANNAMALAI UNIVERSITY"

1. ELECTRON BEAM PHYSICAL VAPOUR DEPOSITION SYSTEM & RF DC SPUTTERING SYSTEM EQUIPMENT

TENDER NUMBER: -----

2. SCANNING ELECTRON MICROSCOPE (SEM) EQUIPMENT

TENDER NUMBER: -----

- ix. The contents of each of the two covers shall be as described in the subsequent clauses. For all other references, these covers will be referred to briefly as "Technical Bid Cover" and "Price Bid Cover".**

Both the covers i.e. Cover-A and Cover-B, shall be placed inside an outer cover and shall be super scribed as follows:

"TENDER FOR SUPPLY OF FOLLOWING EQUIPMENT TO ANNAMALAI UNIVERSITY"

1. ELECTRON BEAM PHYSICAL VAPOUR DEPOSITION SYSTEM & RF DC SPUTTERING SYSTEM EQUIPMENT

TENDER NUMBER: -----

2. SCANNING ELECTRON MICROSCOPE (SEM) EQUIPMENT

TENDER NUMBER: -----

Signature of the Tenderer

- x. **The sealed tender envelope shall be addressed to**
- The Registrar,
Annamalai University,
Annamalainagar – 608 002,
Chidambaram, Tamil Nadu, India**
- xi. **The tender envelope shall carry the name and address of the Tenderer prominently with Phone No. / email ID / and FAX No.**
- xii. **The Technical Bid Cover (Cover-A) shall contain the following as per the sequence indicated below.**

1.	Earnest Money Deposit (EMD) of as per clause-5 of the Tender document
2.	Application form for supply of equipment as per Appendix-1
3.	Documentary evidence for payment of income tax (latest income tax return should be furnished)
4.	Letter of Tender as per Appendix-2
5.	Documentary evidence for registration under GST
6.	Documentary evidence for ISO:9001 / equivalent certified company
7.	A copy of Manufacturing license/Registration Certificate
8.	Authorization from Manufacturer in case of Authorized Dealers/Distributors/Suppliers
9.	Documentary evidence of supplying similar items to other Universities/Institutions/Govt. agencies.
10.	In addition to the above any document or certificates, etc., mentioned anywhere in the tender document shall also be a part of the technical tender requirements.

Signature of the Tenderer

- xiii. The PRICE BID COVER (Cover-B) shall contain the Price Bid as per the format given in Appendix-3A(1&2) & Appendix – 3B.

The tenderer shall not carry out any alteration in the format prescribed for Price Bid. The tenderer shall not enclose any other document or statement that will influence the price. In such an event, the tender inviting authority shall summarily reject the tender.

7.3. Signing of the Tender

The tender shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. All pages of the tender shall be signed by the person or persons signing the tender. The tenderer shall enclose a certified copy of the power of attorney authorizing the signatory or signatories to sign the tender document. This certification shall be from the Managing Director or the Legal Manager of the firm.

The tender shall contain no alterations or additions, except those to comply with instructions issued by the Tender Inviting Authority, or as necessary to correct errors made by the tenderer, in which case such corrections shall be signed by the person or persons signing the tender.

All the pages in the tender document should be signed by the tenderer, after filling the prices in figures & words.

8. GENERAL TERMS AND CONDITIONS

8.1. DELIVERY SCHEDULE:

The Price Quoted should be for CHIDAMBARAM

- i. **Materials should be door delivered at Annamalai University, Annamalainagar, Chidambaram, Tamilnadu.**
- ii. **Delivery must be made within a period of 45 days from the issue of the order either directly or through their dealer network unless**

Signature of the Tenderer

otherwise specified.

- iii. If the supplier fails to deliver the equipment ordered within the allotted delivery period as specified above, the Purchaser may procure goods or services similar to those un-delivered upon such terms and in such manner as it deems appropriate from any other firm at the risk and cost of the supplier.

8.2 PAYMENT TERMS:

- i. Payment will be made within 30 days from the date of delivery, installations, commissioning and demonstration of the equipment and acceptance by concerned Department/ Section.
- ii. Payment shall be made by Cheque or such other mode/ electronic fund transfer offered by the Bank.

8.3 Taxes & Duties :

- i. As per Govt. Notification No.10/97-CE dated 1st March 1997, Annamalai University, Chidambaram is exempted from Excise Duty for SCIENTIFIC / TECHNICAL INSTRUMENTS WHICH ARE USED FOR RESEARCH PURPOSE ONLY. The University shall provide all the documents under this notification to enable supplier to clear the goods without payment of excise duty, whenever required. Supplier should state clearly that this certificate is required.
- ii. As per Govt. of India Notification 51/96 Customs dated 23rd July 1996, Annamalai University, Chidambaram is exempted from Custom duty for all research equipment. The University shall provide all the documents under this notification to enable the supplier to clear the goods without payment of Custom duty, whenever required. Supplier should state clearly that this certificate is required.

Signature of the Tenderer

- iii. **GST will be charged as applicable. Any statutory variation will be paid to supplier on documentary evidence. Supplier should clearly indicate the percentage of GST applicable.**
- iv. **Clearing & forwarding charges should also be mentioned**

8.4 Loss, Damage & shortage :

Annamalai University shall not be responsible for any loss, damages and shortage during transit. Payment shall be made for the material received in good condition only.

8.5 Warranty

The equipment supplied under the contract shall carry a warranty for at least Five years. Supplier shall extend free maintenance service during the warranty period.

8.6 Commissioning and Demonstration

The Supplier shall be responsible for commissioning of the equipment. Supplier should also arrange for demonstration of the equipment to the Staff of the University.

8.7 Annual Maintenance

The University reserves the right to entrust Annual Maintenance of the equipment supplied under this tender to the concerned supplier. Therefore the tenderer shall mention the annual maintenance charges AMC/SMC in the price schedule. Tenderer should also give a brief write up about the services to be covered under Annual Maintenance charges quoted by him.

Signature of the Tenderer

8.8 General:

The acceptance of the offer will rest with the Annamalai University who reserves the right to reject/accept partially or wholly the tenders received, without assigning any reason.

- i. Mere submission of tender/ proposal does not imply acceptance of the same at this end and the firms will be finalised only after meeting the laid down qualifying parameters for which decision of the Tender Inviting Authority / Tender Accepting Authority shall be final and binding on the parties.
- ii. Printed terms and conditions of the applicant on their quotation Form/ Literature/ Letter etc. if any, will not be binding on the University.

8.9 Liquidated Damages :

Timely delivery is essence of the contract and hence should any consignment be delayed, liquidated damages at the rate 0.5% of the value of the delayed consignment, for each week or part there of shall be levied and recovered subject to maximum of 5% of total order value.

8.10 Acceptance / Rejection:

The Tender Accepting Authority reserves the right to accept a quotation in part or in full or to reject all quotations or any of the quotations received, for non-compliance of any of the above items, conditions or instructions or for any other reason without assigning any reason thereof.

9.1. TENDER OPENING

- i. Tender will be opened in the presence of the tenderers or their authorized representative who choose to be present and the tender

Signature of the Tenderer

scrutiny committee at 4.00 P.M. on 14.03.2018. The representative of tenderer who attend the tender opening must produce their identification proof and authorization letter from the companies / tenderer.

- ii. In the event of the specified date of Tender opening being declared a holiday, the tenders will be opened at the same time on the next working day.
- iii. Cover-A containing “Technical Bid” shall be opened first.
- iv. On opening the tender, the details such as name of the tenderer, address, EMD details, etc., will be read out.
- v. Tenders found without the EMD or with an invalid EMD or insufficient EMD, will be summarily rejected. Unopened tenders will be returned to such tenderers.
- vi. On verifying the EMD, the Technical bids will be examined to decide their service suitability for the said work. Tenderers whose Technical bids are not found acceptable will be advised of the same and their sealed covers containing the respective Financial Bids will not be opened. Their EMD will also be returned to them.
- vii. Price bids of only those tenderers whose Technical bids are substantively responsive, will be opened.

9.2. Process to be Confidential

- i. Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of contract shall not be disclosed to tenderers or any other persons not officially concerned with such process until the award to the successful tenderer has been announced.

Signature of the Tenderer

- ii. Any effort by a tenderer to influence the tender accepting authority, scrutiny / evaluation committee or its members in the processing of tenders or award decisions may result in the rejection of his tender.

9.3. Criteria for Technical Evaluation

(Evaluation of Technical Bid)

- i. The tender accepting authority will determine whether the tenderer has fulfilled all the tender conditions as stipulated in the tender document and whether the tender is substantially responsive or not.
- ii. A responsive tender is one which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one:
 - a) Which affects in any substantial way the scope, quality or performance of the contract.
 - b) Which in a substantial way is inconsistent with the Tender conditions, the tender accepting authority's rights or the Tenderers obligations under the Contract, or
 - c) Whose rectification would affect unfairly the competitive position of other Tenderers presenting substantively responsive Tenders.
- iii. Tenderers who have not fulfilled the tender conditions shall be a non-responsive tender and will not be taken up for further evaluation and Price Bid opening.

Signature of the Tenderer

- iv. **To assist the examination, evaluation and comparison of Tenders, the tender accepting authority may at its discretion, ask any tenderer for clarification on his Tender. The request for clarification and the response shall be in writing or by fax but no change in the substance of the Tender shall be so sought, offered, or permitted**
- v. **When a tender fails to be responsive, it will be rejected by the tender accepting authority and may not subsequently be made responsive by correction or addition / withdrawal of the non-conforming deviation or reservation.**

9.4. Price Bid Opening and Evaluation of Price Bid

- i. **The Tender inviting Authority will then proceed with opening of Cover-B, i.e., “PRICE BID COVER” of those tenderers whose technical bid has been found substantively responsive. The opening of the “Price Bid cover” will be done in the presence of those tenderers or their representatives who choose to be present. The Tender Inviting Authority will inform such tenderers in advance about the acceptance of their technical tender and the date and time of opening of the “Price Bid Cover”.**
- ii. **The tender will be evaluated based on the prices offered by the tenders for the concerned equipments.**
- iii. **The tender who has bid the lowest evaluated price will be determined considering the following factors:-**
 - a) **the quoted price shall be corrected for arithmetical errors;**
 - b) **in cases of discrepancy between the prices quoted in words and in figures, lower of the two shall be considered;**

Signature of the Tenderer

- iv. **The evaluation shall include all central duties such as customs duty and central excise duty and sales tax as a part of the price, as detailed below:-**
- a) **In evaluation of the price of an imported item, the price has to be determined inclusive of the customs duty;**
 - b) **In evaluation of the price of articles which are subject to excise duty, the price has to be determined inclusive of such excise duty.**
- v. **Annual Maintenance charges will not be included while evaluating the tender.**

10. AWARD OF TENDER

10.1. The award of the tender shall be made strictly in accordance with the “Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 and no deviation will be made.

10.2. Notwithstanding anything that is said herein, the Tender Accepting Authority reserves the right to accept or reject any tender or all tenders, and to cancel the tendering process and reject all tenders, at any time prior to the award of tender, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers on the grounds for the tender accepting authority’s action.

11. NOTIFICATION OF AWARD

11.1 The tenderer whose tender has been accepted will be notified by the Tender Accepting Authority, in writing.

Signature of the Tenderer

11.2. Upon furnishing the security deposit by the successful tenderer or tenderers and upon signing the Agreement (Appendix-4), the EMD will be returned to the unsuccessful tenderer within a reasonable time period.

12. DISPUTES AND JURISDICTION:

Any legal disputes arising out of any breach of contract pertaining to this tender process shall be settled in the court of competent jurisdiction located within the town of Chidambaram in Tamil Nadu.

13. ACKNOWLEDGEMENT:

It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.

Date:

Signature of Tenderer

Place:

Official seal and address

Signature of the Tenderer

Appendix-1**APPLICATION FORM FOR SUPPLY OF EQUIPMENT****1. NAME OF THE EQUIPMENT:****2. TENDER NUMBER:**

S.NO.	VENDOR DETAILS	
1	Name and Address of the Manufacturer/Firm/Vendor	
	Phone Number	
	Fax	
	E-Mail	
	Contact Person Name	
	Mobile Number	
2	Name and Address of the Local Authorized Dealer/Distributors/ Supplier	
	Phone Number	
	FAX	
	E-Mail	
	Contact Person Name	
	Mobile Number	
3	GST No. of the Firm/Dealer (copy to be enclosed)	
4	PAN No. of the Dealer (Copy to be attached)	
5	EMD (DD No., Date & Amount and issuing Bank)	
6	Name of the University/ Government Institutes who have purchased similar equipments from your concern (attach copies)	

Signature of the Tenderer

7. Declaration by the tenderer.

- i. **We hereby declare that all the particulars given in this application are true and complete to the best of our knowledge and belief and we will produce all the relevant documents promptly, if necessary or as and when asked for by Annamalai University, Chidambaram. We understand that information provided by us will serve as Prequalification Criteria for supply of equipment under this tender and in the event of any information being found false or incorrect or ineligibility being detected even after the award of Contract, our contract may be cancelled and all our claims may be forfeited by the Annamalai University, Annamalainagar. We have read and understood all the terms and conditions of the tender and we fully agree to it.**
- ii. **We also declare that we will not sell our products at a lesser price to other parties than those supplied to Annamalai University and in the event of happening of such situation, we will be bound to refund the difference and our contract may also be cancelled at the discretion of Annamalai University.**
- iii. **We also undertake that all the terms such as Product Range, Price, Discount, Delivery/other charges, Terms of Payment and also the name/s of the Dealer/ Distributor will remain unchanged during the contract period and no alteration will be done without the approval of Annamalai University.**

Date : **Signature :**

Place : **Name :**

Designation :

Seal of the firm :

Signature of the Tenderer

Appendix – 2

**TENDER FOR SUPPLY OF _____ EQUIPMENT TO
ANNAMALAI UNIVERSITY**

LETTER OF TENDER

To

**The Registrar,
Annamalai University,
Annamalai Nagar,
Chidambaram – 608 002.**

Sir,

Sub: Tender for Supply of _____ Equipment.

1) I / We, the undersigned do hereby tender and undertake to Supply of _____ equipment to Annamalai University in strict accordance with and subject to the terms and conditions set forth or mentioned in the Tender documents and appendices.

2) I / We have gone through the instructions in the tender and carefully read all the conditions of tender and agree to abide by all the conditions mentioned there in.

3) I / We hereby state that I/we have remitted _____ (Rupees only) in the form of Demand Draft/Bankers Cheque No. _____ Dated : _____ drawn on _____ Bank _____ Branch, in favour of the Registrar, Annamalai University, as Earnest Money Deposit and agree to have it forfeited to the Annamalai University in case of my / our failure to supply the equipment.

Signature of the Tenderer

4) I / We hereby certify that the price offered is final and I / We will not come forward for any revision or alteration in rates quoted subsequently due to hike in prices or any other reasons. However I/we are aware of the university's right to negotiate the discount rate while evaluating the tender.

5) I / We confirm that our Tender is in conformity with the technical specifications and commercial terms & conditions as stipulated in the Tender Document and without any deviations whatsoever. I am / We are aware that our Tender is liable for disqualification in the event of technical and commercial deviations observed by the Tender Accepting Authority at a later date during the process of evaluation of our Tender.

6) I / We further declare that the information and documents furnished in the Tender submitted by us are correct and genuine. I am / we are aware of the Tender Inviting Authority's right to forfeit the Earnest Money Deposit and / or Security Deposit and blacklisting me / us if, any information furnished by us proved to be false at the time of inspection and not complying with the tender conditions.

7) I / We state that I / We have not been blacklisted or debarred from participating in tenders by any Central / State Government agencies or autonomous bodies or universities / institutions.

8) In the event of my / our tender becoming successful, I / We undertake and agree to forward to the Registrar, Annamalai University, in ten (10) days, after the notification of the acceptance of this tender has been received by us.

9) We undertake and agree that we will not withdraw this Tender during the period that will be required for intimation of acceptance or non-acceptance as stipulated in clause 10 of the Tender document. If I / we do so withdraw, I / we shall forfeit the Earnest Money Deposit to Annamalai University. I / We agree to execute at our cost the Agreement in ten (10) days after the notification of the

Signature of the Tenderer

acceptance of our Tender has been received by us. In the event of our failing to make the Security Deposit or to execute the Agreement in the said manner, the Earnest Money Deposit accompanying this Tender shall be forfeited to the Annamalai University and this concluded Contract shall in such case be considered as having been cancelled or terminated and I / we agree to be liable, irrespective of the forfeiture aforesaid for all damages, losses, costs, charges and expenses arising from or by reason of such failure and arrangements.

As witness our hand this.....day of.....of 2018.

Signature of the Tenderer :

Name & Address :

Company Seal :

Signature of the Tenderer

Appendix-3A(1)

**PRICE BID FOR ELECTRON BEAM-PHYSICAL VAPOUR DEPOSITION
(EB-PVD) SYSTEM**

Item No.	Item Description	Price (in Rs.)
1.	BASE UNIT	
2.	VACUUM CHAMBER	
3.	EB GUN WITH POWER SUPPLY	
4.	THERMAL EVAPORATION FACILITY	
5.	SHUTTER	
6.	DIGITAL THICKNESS MONITOR	
7.	SUBSTRATE HOLDER WITH ROTATION & HEATING	
8.	HT/IB CLEANING	
9.	DEPOSITION MONITOR	
10.	WATER CHILLER UNIT	
	GRAND TOTAL	

IMPORTANT NOTE:

- 1) The price quoted above shall be inclusive of all taxes and charges except GST.
- 2) GST shall be mentioned separately.
- 3) FOR; Destination as given in the purchase order.
- 4) Warranty period for the above items must be at least 5 years from the date of installation.
- 5) Training must be provided to the faculty members and research scholars after the successful installation of the Equipment.

Signature:**Name:****Designation:****Seal of the Firm:**

Signature of the Tenderer

Appendix-3A(2)**PRICE BID FOR RF/DC SPUTTERING SYSTEM**

Item No.	Item Description	Price (in Rs.)
1.	BASE UNIT	
2.	VACUUM CHAMBER	
3.	SPUTTERING KIT	
4.	POWER SUPPLY	
5.	SOURCE SHUTTER	
6.	GAS FLOW CONTROLLER	
7.	DIGITAL THICKNESS MONITOR	
8.	SUBSTRATE HOLDER WITH ROTATION & HEATING	
9.	DEPOSITION MONITOR	
10.	WATER CHILLER UNIT	
	GRAND TOTAL	

IMPORTANT NOTE:

- 1) The price quoted above shall be inclusive of all taxes and charges except GST.
- 2) GST shall be mentioned separately.
- 3) FOR; Destination as given in the purchase order.
- 4) Warranty period for the above items must be at least 5 years from the date of installation.
- 5) Training must be provided to the faculty members and research scholars after the successful installation of the Equipment.

Signature:**Name:****Designation:****Seal of the Firm:**

Signature of the Tenderer

Appendix-3B**PRICE BID FOR SCANNING ELECTRON MICROSCOPE (SEM)
EQUIPMENT**

1	Price (Both in figure and words) in Rs.	
2	GST	%
		Amount in Rs.
Total Amount in Rs.		

Important Note:

1. The price quoted above shall be inclusive of all taxes and charge except GST.
2. GST shall be mentioned separately.
3. FOR; Destination as given in the purchase order.

Other Information to be provided:

1.	Warranty period in years
2.	Annual maintenance charges (applicable after expiry of warranty period)
3.	After First expiry year of the warranty
4.	After second year of the warranty
5.	After third year of the warranty
6.	After fourth year of the warranty
7.	After fifth year of the warranty

Signature:**Name:****Designation:****Seal of the firm:**

Signature of the Tenderer

Appendix - 4**FORMAT OF CONTRACT AGREEMENT**

THIS AGREEMENT made on the day of 2018 between The Registrar, Annamalai University, Annamalainagar – 608 002, Chidambaram. (Herein after “the Purchaser”) of the one part and (Name of Supplier) of (Address of the Supplier) (herein after called “the Supplier) of the other part:

**WHEREAS the Purchaser is desirous of procuring _____ equipment as per the tender reference No..... and has accepted a bid by the Supplier for the above said equipment price offered by the Supplier is Rs. _____ (Rupees in words
)**

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Tender referred to, and they shall be deemed to form and be read and construed as part of this agreement.**
- 2. The following documents shall be deemed to form, be read and construed as part of this Agreement, viz;**
 - a) The letter of Acceptance issued by the purchaser.**
 - b) The Notice Inviting Tender.**
 - c) The supplier’s bid including enclosures, appendixes, documents, Price Catalogue etc.**
 - d) The Tender Document including various Terms and Conditions.**
 - e) Any other document listed in the Tender document.**
- 3. In consideration of the payments to be made by the Purchaser to the Supplier within thirty (30) days from the date of delivery and acceptance by concerned department/ section.**
- 4. The warranty period is _____ years.**

Signature of the Tenderer

5. The AMC/SMC for the subsequent year after the warranty period will be as follows.

After First expiry year of the warranty	
After second year of the warranty	
After third year of the warranty	
After fourth year of the warranty	
After fifth year of the warranty	

IN WITNESS whereof the parties here to have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the Said (For the Purchaser) in the presence of

Signature

Name Address

Signed, Sealed and Delivered by the Said (For the Supplier) in the presence of

Signature

Name Address

Signed, Sealed and Delivered by the Said (For the Purchaser) in the presence of

Signature

Name Address

Signature of the Tenderer

SCHEDULE -A

**Tender No. : AU/GUCC/RUSA/R&I Project/ Equipment/
Tender/01/2018
Electron Beam Physical Vapour Deposition System & RF DC Sputtering
System
SPECIFICATION -1**

**TECHNICAL SPECIFICATIONS OF ELECTRON BEAM-PHYSICAL VAPOUR
DEPOSITION (EB-PVD) SYSTEM**

1.0 BASE UNIT CONSISTING OF

- (A). **BASE PLATE:** Stainless Steel finely machined & electro polished base plate with necessary feed through ports.
- (B). **ROTARY VACUUM PUMP:** Rotary Pump having displacement capacity of 12 m³ /hr.
- (C). **TURBO MOLECULAR PUMP:** Turbo Pump having the pumping speed of 600 ltrs/sec for Nitrogen.
- (D). **VACUUM LINES & VALVES:** Stainless steel vacuum pipelines; 1 inch electro pneumatic Right Angle valves for roughing and backing; The valves are electrically interlocked to avoid accidental opening by operators; Electromagnetically operated vent valve; Fine control needle valve for controlled admittance of process gas into the vacuum chamber; Motorized high vacuum valve of suitable size is mounted above the high vacuum pump and can be operated in throttling mode during Ion cleaning.
- (E). **LIQUID NITROGEN TRAP:** Inbuilt Liquid Nitrogen Trap of 1.4 Lt Capacity must be incorporated below the High Vacuum Valve.
- (F). **ULTIMATE VACUUM:** Ultimate Vacuum of 1×10^{-6} mbar can be achieved in clean, ambient degassed chamber.
- (G). **HOUSING CABINET:** Ergonomically and aesthetically designed, powder coated MS cabinet with a easy access front panel for control and monitoring; The front and rear side door for easy servicing and maintenance; The unit is to be mounted on 4 castor wheels for mobility and easy maneuverability.
- (H). **VACUUM GAUGES:** Pirani sensor to monitor to measure the vacuum in the range of 1000 mbar to 1×10^{-3} m bar; Penning sensor to monitor a vacuum range of 10^{-2} mbar to 10^{-6} mbar.

2.0 VACUUM CHAMBER:

Stainless steel front-loading high vacuum D shaped chamber and having dimension 400 mm diameter x 500 mm high; Front loading door with viewport; Removable chamber top plate with vacuum penetrations; Baffle plate to prevent debris from being deposited on electrodes and the high vacuum valve; Chamber should have removable stainless steel liners for easy cleaning.

Signature of the Tenderer

3.0 ELECTRON BEAM GUN WITH POWER SUPPLY:

Four-crucible electron beam evaporation source with Four 4cc volume crucibles; 270 beam deflection; Integral x-y beam sweep coils; Water cooling; Quick release electron emitter assembly; X-Y beam sweep controller with independent control in both X and Y direction of: Beam position, Beam sweep amplitude, Beam sweep frequency, Sinusoidal, triangular or square oscillation waveforms; Motorized turret indexer for the electron beam source. Enables any of the four crucibles to be selected from the control panel. Complete with rotary feedthrough, baffle plate, drive indexing mechanism and controller.

3KW electron beam power supply comprising a free standing power supply module and remote mounting high voltage and gun control panel. Operates at 5kv; Integral high voltage transformer; Forced air cooling; Digital display of high voltage and filament/emission currents; Removable trolley base on power module; Interconnecting cables; Safety interlocks for air cooling, high vacuum cooling water and turret rotation.

4.0 THERMAL EVAPORATION FACILITY

1 No's. Of thermal evaporation electrical feed through and evaporation source holder for evaporation source made of electrolytic pure copper, with 200 amps current carrying capacity are to be provided and it can be used for both sector and central evaporation; Holder can accept Filament / Basket / Boat as evaporation sources; 1 No's of 200 amps power supply capable of delivering 200 amps at 10 volts, 100 amps at 20 volts is to be provided; Separate digital panel meter is to be provided for LT secondary current.

5.0 SHUTTER

2 No. of Electro pneumatic operated source shutters with rotary shaft seal are to be provided to cover the evaporation sources

6.0 DIGITAL THICKNESS MONITOR

Digital Thickness monitor with water cooled Crystal holder, 1 No. of sensor head, feedthrough and Oscillator are to be provided to measure the rate of deposition and Thickness; Rate display: 3 digits LED Auto-ranging from 00.00 to 999 Ang/sec; Thickness Display: 4 digit LED Auto ranging from 0.000 to 999.9 k Ang.; Static thickness resolution: 1Ang at minimum update rate.

7.0 SUBSTRATE HOLDER WITH ROTATION AND HEATING

The substrate holder platform and associated fixtures is to be designed to accommodate 4" substrates and multiple numbers of smaller substrates; A rotary drive mechanism is to be provided for the continuous rotation of the substrate adjustable up to 20 rpm; Substrate heater is to be provided to

heat the substrate from R.T to 800 deg. C; The offered heater should be compatible with vacuum, plasma and reactive gases; Temperature measurement using 'K' type thermocouple is required; Temperature controlled using PID controller with suitable power controller must be provided.

8.0 HT/IB CLEANING

One bar type ion bombardment gadget is to be fixed on the feed through to provide a uniform glow discharge. All necessary accessories and cables are to be provided

9.0 DEPOSITION MONITOR

An advanced quartz crystal film thickness monitor with the following features are to be provided: Two crystal inputs standard; Data storage for up to nine materials; User selectable rate resolution of 0.01 or 0.001nm/sec (0.1 or 0.01 Angstroms/sec); Relay outputs for functions such as shutter control; RS232 port and Windows software for operation and data logging; 1 No. of front-loading quartz crystal sensor head, the sensor head is water-cooled and the position can be adjusted within the vacuum chamber; Quartz crystal oscillator.

10.0 WATER CHILLER UNIT

0.5 TR capacity water chiller unit with 25 ltr storage tank, recirculation pump, water level indicator , temperature controller along with necessary tubes and fitting are to be provided.

SPECIFICATION-2

TECHNICAL SPECIFICATIONS OF RF/DC SPUTTERING SYSTEM

1.0 BASE UNIT CONSISTING OF

- (A). **BASE PLATE:** Stainless Steel finely machined & electro polished base plate with necessary feed through ports.
- (B) **ROTARY VACUUM PUMP:** Rotary Pump having displacement capacity of 12 m³ /hr.
- (C). **TURBO MOLECULAR PUMP:** Turbo Pump having the pumping speed of 600ltrs/sec for Nitrogen.
- (D). **VACUUM LINES & VALVES:** Stainless steel vacuum pipelines; 1 inch electro pneumatic Right Angle valves for roughing and backing; The valves are electrically interlocked to avoid accidental opening by operators; Electromagnetically operated vent valve; Fine control needle valve for controlled admittance of process gas into the vacuum chamber; Motorized high vacuum valve of suitable size is mounted above the high vacuum pump and can be operated in throttling mode during Ion cleaning.
- (E). **LIQUID NITROGEN TRAP:** Inbuilt Liquid Nitrogen Trap of 1.4 Lt Capacity must be incorporated below the High Vacuum Valve.
- (F). **ULTIMATE VACUUM:** Ultimate Vacuum of 1×10^{-6} mbar can be achieved in clean, ambient degassed chamber.

Signature of the Tenderer

(G). HOUSING CABINET: Ergonomically and aesthetically designed, powder coated MS cabinet with a easy access front panel for control and monitoring; The front and rear side door for easy servicing and maintenance; The unit is to be mounted on 4 castor wheels for mobility and easy maneuverability.

(H). VACUUM GAUGES: Pirani sensor to monitor to measure the vacuum in the range of 1000 mbar to 1×10^{-3} m bar; Penning sensor to monitor a vacuum range of 10^{-2} mbar to 10^{-6} mbar.

2.0 VACUUM CHAMBER:

Stainless steel front-loading high vacuum D shaped chamber and having dimension 400 mm diameter x 500 mm high; Front loading door with viewport; Removable chamber top plate with vacuum penetrations; Baffle plate to prevent debris from being deposited on electrodes and the high vacuum valve; Chamber should have removable stainless steel liners for easy cleaning.

3.0 SPUTTER KIT

- 4 Nos. of 2" indirectly water cooled, flexible sputter source.
- Water flow switch
- Bench top rack
- High power Nd-Fe-B magnets which are isolated from the water
- Easy to change target without breaking any internal seals.
- User-adjustable tilt angle ($\pm 45^\circ$) with respect to the plane of the substrate
- Low out gassing rate and compatible for wide pressure range operation up to $\sim 10^{-7}$ mbar.
- Excellent thin film uniformity and deposition rates under appropriate conditions.

4.0 POWER SUPPLY

- RF power supply of 13.56 MHz, 300W RF with auto matching network and network controller along with connecting cables to be provided.
- 2KW DC power supply along with connecting cables to be provided.

5.0 SOURCE SHUTTER

- 2 Nos. of electro pneumatically operated source shutter with rotary shaft seal, to cover the sputtering source to be provided.

6.0 MASS FLOW CONTROLLER

- 2 No. of Mass flow controller for Argon and Nitrogen or Oxygen gas having flow rate 2-100 sccm for controlling the flow rate of the process gas along with necessary valves, filters, tubing and fittings to be provided.

7.0 DIGITAL THICKNESS MONITOR

Digital Thickness monitor with water cooled Crystal holder, 1 No. of sensor head, feedthrough and Oscillator are to be provided to measure the rate of deposition and Thickness; Rate display: 3 digits LED Auto-ranging from 00.00 to 999 Ang/sec; Thickness Display: 4 digit LED Auto ranging from 0.000 to 999.9 k Ang.; Static thickness resolution: 1Ang at minimum update rate.

8.0 SUBSTRATE HOLDER WITH ROTATION AND HEATING

The substrate holder platform and associated fixtures is to be designed to accommodate 4" substrates and multiple numbers of smaller substrates; A rotary drive mechanism is to be provided for the continuous rotation of the substrate adjustable up to 20 rpm; Substrate heater is to be provided to heat the substrate from R.T to 800 deg. C; The offered heater should be compatible with vacuum, plasma and reactive gases; Temperature measurement using 'K' type thermocouple is required; Temperature controlled using PID controller with suitable power controller must be provided.

9.0 DEPOSITION MONITOR

An advanced quartz crystal film thickness monitor with the following features are to be provided: Two crystal inputs standard; Data storage for up to nine materials; User selectable rate resolution of 0.01 or 0.001nm/sec (0.1 or 0.01 Angstroms/sec); Relay outputs for functions such as shutter control; RS232 port and Windows software for operation and data logging; 1 No. of front-loading quartz crystal sensor head, the sensor head is water-cooled and the position can be adjusted within the vacuum chamber; Quartz crystal oscillator.

10.0 WATER CHILLER UNIT

0.5 TR capacity water chiller unit with 25 ltr storage tank, recirculation pump, water level indicator , temperature controller along with necessary tubes and fitting are to be provided.

SCHEDULE - B**AU/GUCC/RUSA/Physics/ Equipment/ Tender/07/2018****Scanning Electron Microscope (SEM)**

Specifications for Scanning Electron Microscope	
Resolution	3 nm or better at 30 kV in High vacuum mode and 4nm or better at 30 kV in low vacuum mode
Acceleration voltage	0.5 kV to 30 kV or better
Magnification	15x to 300,000x or better
Filament	Factory pre centered Tungsten filament
Low Vacuum Range	10- 100 Pa or better
Specimen stage	Specimen stage should be 2-axes motorized X, Y & Z axes 50x40x45 mm or better; T= -10⁰ to +75⁰ ; R=360⁰
Objective lens Aperture	2 or more apertures
Operating System	Windows 7 or better, pre-loaded on PC of latest configuration from a reputed brand with suitable working software
Monitor	21 inch or better
Number of pixels	4096 x 3536 pixels or better
Image format	BMP, JPG, TIFF
Image Display	Images should be capable of displaying composition and topography
Vacuum System	Fully automated turbo molecular pump, pump capacity and pumping down time from cold start and specimen exchange time to be indicated
Detectors	SE (secondary electron detector), BSE (backscatter electron detector), both for low vacuum and high vacuum EDS detector (dry – LN₂ free) with its essential accessories and its software
Desired features	Model should have features like Auto contrast, Auto focus, Auto stigma, Auto gun alignment and biasing, click center zoom
Spare Parts	To be supplied with equipment for trouble free running for next five years after installation

Signature of the Tenderer

Warranty	Five years from the date of installation
Note:	Installation and On-site Training to be provided by vendor
	Model quoted should be available on the Vendor's website
	Latest model UPS of reputed make and suitable capacity with 30 mins backup to be quoted Color Laserjet printer of 600 dpi X 600 dpi to be quoted
IMPORTANT: PLEASE PROVIDE A COMPLIANCE STATEMENT OF THE SPECIFICATIONS ALONG WITH QUOTATION	

Signature of the Tenderer