



**Punyasholk Ahilyadevi Holkar  
Solapur University, Solapur**

**e - Tender**

**For**

**Purchase of Field Emission Scanning Electron  
Microscope (FESEM) with EDS Instrument**

[Scientific Instrumentation Centre]



## Punyasholk Ahilyadevi Holkar Solapur University, Solapur

Web-<http://su.digitaluniversity.ac>  
e - Tender Notice, 2022-23.

Punyasholk Ahilyadevi Holkar Solapur University, Solapur – 413255 (Tel.& Fax. 0217-2744771/78) invites e–Tender for the purchase of **Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument** from original manufacturer / authorized dealer. The detail of e – tender as follows:

Item Description	EMD amount	Cost of e-Tender form
<b>Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument</b>	Rs. 3,00,000/-	Rs. 15,000/- (non-refundable)

### e- Tender Time Table

1.	e – Tender Publishing Date	Date: 15/12/2022 Time: 05:30
2.	Tender Sale/ Download Start Date and Time	Date: 15/12/2022 Time: 05:30
3.	Bid Submission Date and Time	Date: 15/12/2022 Time: 05:30
4.	Closing date and of e-/tender	Date: 05/01/2023 Time: 05:00
5.	Date and place of online opening of E-Tender (Technical Bid opening Date)	Date: 07/01/2023 Time: 03:00 P.A.H. SOLAPUR UNIVERSITY,SOLAPUR, Solapur Pune-National highway Kegaon, Solapur 413255.Telephone- 0217-2744771/78(Ext-133).
6.	Online /Tender Fee & EMD Submit Online payment	EMD & e-Tender form fee should Submit Online



Punyasholk Ahilyadevi Holkar Solapur University, Solapur

E - Tender Form

**Purchase of Field Emission Scanning Electron  
Microscope (FESEM) with EDS Instrument**

- 1) Name of Bidder :
- 2) Full Address :
- 3) Mobile :
- 4) E-mail ID :
- 5) G.S.T. No. :
- 6) PAN No. :

Authorized Signatory :

Name :

Designation :

Seal & Signature of Vendor



Punyasholk Ahilyadevi Holkar Solapur University, Solapur  
Scientific Instrumentation Centre  
**SECTION - A**

**MAIN TENDER DOCUMENT**

**Name of Work: - Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument**

**TENDERING PROCEDURE**

**1. GUIDELINE TO BIDDER ON THE OPERATION OF ELECTRONIC TENDERING SYSTEM OF P.A.H. SOLAPUR UNIVERSITY, SOLAPUR.**

**1.1 BLANK TENDER FORMS**

Tender form can be downloaded from the e- tendering portal Government of Maharashtra i.e. <http://www.mahatenders.gov.in> after entering the details of payment towards tender fees as per the Tender Schedule.

- 1.2 The prospective Bidders are free to ask for any additional information or clarification either in writing or orally concerning the work, and the reply to the same will be given by the Registrar, P.A.H. Solapur University, Solapur, 413255 and same will be made available on e-tendering portal of Government of Maharashtra i.e. <http://www.mahatender/Gov.in> and this clarification referred to as common set of conditions/deviations(C.S.D.), shall form part of tender documents and which will also be common and applicable to all Bidders.
- 1.3 The tender submitted by the Bidders shall be based on the clarification and shall be unconditional. Conditional tenders will be summarily REJECTED.
- 1.4 All Bidders are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as no responsive.
- 1.5 Bidders should have valid class II/III Digital Signature Certificate (DSC) obtained from any Certifying Authorities. In case of requirement of DSC, interested Bidders should go to [www.mahatenders.gov.in](http://www.mahatenders.gov.in) and follow the procedure mentioned in the document 'Procedure for application of digital certificate'.
- 1.6 For any assistance on the use of Electronic Tendering System (ETS), users may call the number: 24x7 Help Desk Toll FREE No-0120-4200462/4001002.

- 1.7 Bidder should install the mandatory components available on the home page of [www.mahatenders.gov.in](http://www.mahatenders.gov.in) under the section 'Mandatory Components' and make the necessary Browser Settings provided under section 'Internet Explorer Settings'

## **2. PRE-REQUISITED TO PARTICIPATE IN THE TENDERS PROCESSED BY P.A.H. SOLAPUR UNIVERSITY, SOLAPUR.**

### **2.1 ENROLMENT AND EMPANELMENT OF CONTRACTORS ON ELETRONIC TENDERING SYSTEM:**

The contractors interested in participating in the Tenders of P.A.H. Solapur University, Solapur process by using the Electronic Tendering System shall be required to enrol on [www.mahatenders.gov.in](http://www.mahatenders.gov.in) the Electronic Tendering System to obtain user ID.

After submission of application for enrolment on the system, the application information shall be verified by the authorized representative of the service provider. If the information is found to be complete, the enrolment submitted by the contractor shall be approved. The contractors may obtain the necessary information on the process of enrolment either from Helpdesk Support team or enrol directly on web site [www.mahatenders.gov.in](http://www.mahatenders.gov.in).

### **2.2 OBTAINING A DIGITAL CERTIFICATE**

The digital certificates are issued by an approved Certifying Authority Authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate Bid data/information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data during the Bid preparation. In case during the process of preparing and submitting a Bid for a particular tender, the contractor loses his/her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating System problem): he/her may not be able to submit the Bid online. Hence the Users are advised to store his/her Digital Certificate secure and if possible, keep a backup at safe place under adequate security to be used in case of need.

In case of online tendering, if the Digital Certificate issued to an Authorized User of a partnership firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney to that user to submit the bid on behalf of the partnership Firm. The partnership firm has to authorize a specific individual by an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partners required to authorize in the same form) to use the digital certificate as per Indian Information Technology Act 2000.

Unless the Digital Certificate is revoked, it will be assumed adequate authority of the Authorized user to bid on behalf of the firm for the tenders processed on the Electronic Tender Management System of Government of Maharashtra as per Indian Information Technology Act, 2000. The Digital signature of this authorized user will be binding on the firm. It shall be the responsibility of partners of the firm to inform the certifying authority or sub-certifying authority, if the Authorized user changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new authorized user.

The same procedure holds true for the Authorized Users in Private / Public Limited Company. In this case, the Authorization Certificate will have to be signed by the Director of the Company or the reporting authority of the applicant. For information of the process of application for obtaining Digital Certificate, the contractors may visit the section 'Digital Certificate' on the home page of the electronic tendering system.

### **Technical Specifications for the Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument**

This tender includes the supply, installation, commissioning and on-site training in the use of a high-end Field Emission Scanning Electron Microscope (FESEM), fully self-contained with all necessary support systems such as vacuum system, cooling system and high tension power supply system. The instrument must be a state of art, computer controlled user friendly system for ultra-high resolution imaging and analytical investigations of conducting, non-conducting samples in the form of minerals, thin films, crystals etc. ranging from micro to Nano scale dimensions. The system should be upgradeable for future attachments. The FESEM must have the following specifications:

<b>Sr No</b>	<b>Specification</b>	
1	Resolution	0.7 nm or better at 15/20 kV 1.3 nm or better at 1 kV
2	Accelerating Voltage	Variable from 20V or lower to 30kV or higher
3	Probe Current	In Adjustable range from a few pA to 300 nA or better Probe current setting must be fully automatic without change of aperture and column tuning
4	Magnification	10,00,000X or better
5	Electron Gun	It should be Schottky type gun. Emitter warranty should be three years for trouble free operations. If Emitter fails during warranty period, it should be replace free of cost.
6	Electron Optics	High Resolution imaging at low KV All parts including apertures should be operated through computer-controlled software Objective Lens : Electrostatic and electromagnetic
7	Specimen Stage	5 axes motorized fully Eucentric stage with motorized stage movements: X=70mm or higher -fully motorized Y=50mm or higher –fully motorized Z=40 mm or higher --fully motorized Rotation:360°– fully motorized Tilt:-4° to +70°–fully motorized
8	Specimen Chamber	At least 8 ports or more should be available for future expansion

9	Specimen Size	Specimen chamber should be capable to accommodate large specimen size of 150mm diameter or more.
10	Specimen Exchange & Vacuum System	Suitable vacuum systems having Sputter ion getter Pump, Turbo Molecular Pump and Rotary Pump/Oil free /Dry Scroll Pump must be provided.
		All necessary gauges and valves must be included.
		Pump down time should be 5 minutes or less.
11	Sample Holder	Multisampling specimen holder with 6 positions or more should be provided.
		Pin / regular stubs 1 inch – 10 Numbers
		Conductive carbon adhesive tapes -5 Nos
12	Auto Functions	Gun alignment, Focus, Stigmation, Brightness, Contrast and Beam alignment should be automatic ,
13	Detectors	1) SE Detector Chamber mounted Ever-Heart Thornley detector.
		2) BSE Detector -Chamber Mounted BSE detector
		3) In lens SE detector for high resolution images
		4) Beam deceleration/beam booster/ Gentle Beam or equivalent
		5) EDS Detector
		Detector size/Chip size :30mm <sup>2</sup> or more
		Resolution:129eV or better @Mn K $\alpha$
		Liquid Nitrogen free, Peltier cooled detector
		Motorized EDS detector Movement
		Detection from Boron to Uranium
		Integrated EDS software offering Live spectrum and Live Mapping.
		Supplied EDS server and analysis software should be capable of performing data acquisition storing and transfer in common windows-based application formats, qualitative & quantitative analysis, line scanning, elemental or dot mapping including spectrum imaging and phase mapping with specimen drift correction.
14	Coater and other accessories	Gold / Platinum Coater with suitable vacuum pump should be offered for coating all type of samples
		Vacuum pump and other necessary items to be provided.
		1 Set of gold / platinum targets.
15	Computer & Image acquisition and display	Compatible computers with latest configuration, keyboard, mouse, LED monitor, Windows licensed Operating system and one colour laser printer should be offered.
		24-inch or better LED Screen
		Image Size:5k x 3k pixel or better
		Image depth: up to 16 bits or better
		Image format: BMP, TIFF, JPEG, JPEG2000, GIF, PNG etc
		Software should be capable of automatic generation of report in MS-office.
		Image acquisition system should be compatible with Windows
16	UPS	FESEM and EDS compatible UPS should be offered with 2 hrs. back up should be

		offered.
17	Spares and consumables	Supplier must have support for quoted model at least for minimum 10 years.
18	Power Supply	Equipment and power supply connector should be compatible with Indian electrical main supply of 220V ,50Hz
19	Warranty	Three years Warranty for the equipment and its accessories from date of Installation .
20	Installation and training	Bidders must conduct site survey after placement of PO at no additional cost and all operation related requirements should also be submitted along with technical bid
		After installation initial operational training must be provided on site followed by advanced application training after 6-8 month of installation.

### **3. STEPS TO BE FOLLOWED BY CONTRACTORS TO PARTICIPATE IN THE E-TENDERS PROCESSED BY MAHATENDERS**

#### **3.1 PREPARATION OF ONLINE BRIEFCASE**

All contractors enrolled on the Electronic Tendering System of Government of Maharashtra are provided with dedicated briefcase facility to store documents/files in digital format. The contractors can use the online briefcase to store their scanned copies of frequently used documents/files to be submitted as a part of their bid response. The contractors are advised to store the relevant documents in the briefcase before starting the Bid Preparation and submission stage. In case the contractors have multiple documents under the same type. (e.g. multiple work completion certificates) as mentioned above, the contractors advised to either create a single pdf file of all the documents of same type or compress the documents in a single compressed file in zip rar formats and upload the same. It is mandatory to upload the documents using the briefcase facility. Therefore the contractors are advised to keep the documents ready in the briefcase to ensure timely bid preparation.

**Note :** Uploading of document in the briefcase does not mean that the documents are available to P.A.H. Solapur University, Solapur at the time of tender opening stage unless the documents are specifically attached to the bid during the online bid preparation as well as during decryption.

#### **3.2 ONLINE VIEWING OF DETAILED NOTICE INVITING TENDERS**

The contractors can view the detailed tender notice along with the time schedule (Key Dates) for all the live Bidders released by P.A.H. Solapur University, Solapur on the e-Tendering portal on <http://www.mahatendres.gov.in> under the organization of P.A.H. Solapur University, Solapur.



### **3.3 DOWNLOAD OF TENDER DOCUMENTS**

The pre-qualification/Main Bidding documents are available for free downloading. However to participate in the online Bidder, the bidder must purchase the bidding documents online.

### **3.4 ONLINE BID PREPARATION**

Submission of bids will be preceded by online bid preparation and submission of the digitally signed within the tender time schedule (Key dates) published in the detailed notice inviting tender. The bid data is to be prepared in the templates provided by the tendering authority of P.A.H. Solapur University, Solapur. In the unloadable document type of templates, the contractors are required to select the relevant document/compressed file (containing multiple documents) already uploaded in the briefcase.

### **3.5 SHORT LISTING OF CONTRACTORS FOR FINANCIAL BIDDING PROCESS**

The tendering authority will first open the technical bid documents of all contractors and after scrutinizing these documents will shortlist the contractors who are eligible for financial Bidding Process.

### **3.6 OPENING OF THE FINANCIAL BIDS**

The contractors may be present in the office of the Tender opening authority at the time of opening of Financial Bids. However, the results of the Financial Bids of all contractors shall be available on the P.A.H. Solapur University, Solapur e-tendering Portal immediately after the completion of opening process.

### **3.7 TENDER SCHEDULE (KEY DATES)**

The contractors are strictly advised to follow the dates and times allocated to each stage under the column “Contractor Stage” as indicated in the Time Schedule in the detailed tender notice for the Tender. All the online activities are time tracked and the electronic tendering System enforces time-locks that ensure that no activity or transaction can take place outside the start and end dates and time of the stage as defined in the tender schedule. At the sole discretion of the tender authority, the time schedule of the tender stages may be extended.

#### **4. SUBMISSION OF DOCUMENTS AND TENDER OPENING:**

##### **4.1 COVER I: DOCUMENTS TO BE UPLOADED AT THE TIME OF ONLINE SUBMISSION FOR FULFILLING QUALIFYING CRITERIA.**

Scanned copies of the following documents shall be uploaded by the bidder in cover no.1 at the time of online submission of the bid:

- 4.1.1 Valid certificate of Registration under Shops & Commercial Establishments Act.1948 or Company Act 1956, duly renewed. (Scan copy).
- 4.1.2 Valid G.S.T. certificate of the bidder {scan copy}
- 4.1.3 IT returns of last three years (A.Y. 2018-19, 2019-20 & 2020-21(scan copy)
- 4.1.4 Audited Balance sheet for the financial year 2018-19, 2019-20 & 2020-21
- 4.1.5 Average Turns. Over Certificate of C.A of Rs.1 Crore in the last three financial years (2018-19, 2019-20 & 2020-21) (Scan copy).
- 4.1.6 Should be Original Equipment Manufacturer (OEM)/Authorized Dealer (AUD)/Distributor of OEM.
- 4.1.7 Should be in Existence in **Field Emission Scanning Electron Microscope (FESEM) with EDS Instruments** sales and service business for the last three (3) years.
- 4.1.8 Should be successfully delivered and installed the **Field Emission Scanning Electron Microscope (FESEM) with EDS Instruments**.
- 4.1.9 **Client list and work done list & Service Centre (scan copy).**
- 4.1.10 Original Equipment Manufacturers (OEM) certificate or Authorized Dealer Certificate (scan copy).
- 4.1.11 Scan copy of Annexure-I should be given. (Technical Specification)
- 4.1.12 Scan copy of Annexure-II (Manufacturer Authorization form)
- 4.1.13 Scan copy of Annexure-III (Bid form)
- 4.1.14 Scan copy of Annexure-IV (Service Report Details)
- 4.1.15 Scan copy of Annexure-V. (Forwarding Letter on company letter head)

##### **4.2 Cover II: FINANCIAL BID**

The Bidder shall quote his financial offer duly signed in terms of item rates at the appropriate place of tender template in Excel Format File “**Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument**”(Annexure-VI). It shall be filled in cover No.2 (In the Online Excel Format File “**Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument**” form only). The Bidder should not quote his financial offer anywhere directly or indirectly in Envelope no 1. The bidder shall quote for the work as per details given in the Tender document and also based on the detailed set of conditions issued/additional stipulations made by the P.A.H. Solapur University, Solapur and made available to him on [www.mahatenders.gov.in](http://www.mahatenders.gov.in). The tender shall be unconditional. Financial bid will be opened only after bidder qualify technically (i.e. criteria’s mentioned in 4.1).

#### 4.3 SUBMISSION OF TENDER

The bidder shall refer to section “Guidelines to Bidders on the operations of Electronic Tendering System of [www.mahatenders.gov.in](http://www.mahatenders.gov.in) for details.

#### 4.4 OPENING OF TENDERS :

On the date, specified in the Tender Schedule following procedure will be adopted for opening of the Tender.

##### (A) Cover No.1 TECHNICAL BID

First of all cover No.1 of the Bidders will be opened online to verify its contents as per requirements. If the various scanned documents do not meet the qualifying criteria prescribed by the P.A.H. Solapur University, Solapur, a note will be recorded accordingly by the tender opening committee and the said Bidders Cover No.2 will not be considered for further action and the same will be recorded. The decision of the tender opening committee in this regard will be final and binding on the bidders.

##### (B) Cover No.2 FINANCIAL BID

Cover No.2 shall be opened online after opening of Cover No.1 Only. If the documents submitted in Cover No.1 meet the qualifying criteria prescribed by the P.A.H. Solapur University, Solapur and contents of Cover No.1 are found to be acceptable to the P.A.H. Solapur University, Solapur. The quoted rates of the items in the Financial Bid of the bidder shall then be read out from the template in the presence of bidders present at the time of opening of Cover No.2.

NOTE:- Commissioning Prices quoted by the bidders should include all local taxes, duties, Levies, installing, transportation costs and insurance costs etc till the equipment is accepted.

#### 5. EARNEST MONEY

Earnest Money Rs.3,00,000/- shall be paid through online system. Scanned copy of the receipt of EMD shall be uploaded in Envelope No. 1 online. In case of successful bidder the Earnest money will be refunded after paying the initial security deposit and completing the tender documents by the bidder. The amount of Earnest Money will be forfeited to the University in case the successful bidder does not pay the amount of initial security deposit within specified time limit.

#### 6. PERFORMANCE SECURITY DEPOSIT

Earnest Money Deposit credited along with tender shall be converted as a performance security deposit (5% of purchase order) and successful bidder shall have to credit remaining balance amount of performance security deposit or SD 5% of purchase order shall be deposited either in Cash through NEFT/RTGS or DD of Nationalized bank or in form of B.G of Nationalized Bank payable at P.A.H. Solapur University, Solapur should be valid till 60 days

after warranty period. On successful completion of contract security deposit amount will be refunded to the contractor without interest after expiry 60 days from the expiry of warranty.

#### 7. TIME LIMIT

The work period as specified in the N.I.T.(Notification Inviting Tenders) which shall be Reckoned from the date mentioned in the written work order for commencing the work.

#### 8. TENDER RATE

No alteration in the form of tender and in any schedule/Annexure of tender and no Additions in the scope of special stipulation will be permitted.

#### 9. TENDER UNITS

The bidders should particularly note the unit mentioned in the Schedule “B” on which the rates are based No change in the units shall be allowed.

#### 10. CORRECTIONS

No corrections/alternations shall be made in the tender documents.

#### 11. TENDER ACCEPTANCES:

The Bidders whose bid is lowest, the successful shall submit all the attested copies of the scanned documents uploaded online by him in Cover No.1 to the office of address The Registrar, P.A.H. Solapur University, Solapur after opening of financial bids. If all above documents meet the requirements of University, further process will be carried out. The decision of the tender opening authority in this regard will be final and binding on the contractor.

Acceptance of tender will rest with the University Authorities, P.A.H. Solapur University, Solapur. P.A.H. Solapur University, Solapur reserves the right to reject any or all tenders without assigning any reason therefore at any stage of tender. The Bidders whose tender is accepted will have to deposit security deposit and enter in to an agreement within 15 days of being notified to do so. In case of failure on the part of Bidders to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited to the University and the offer of the Bidders shall be considered as withdrawn by him.

#### 12. VALIDITY PERIOD

The offer shall remain open for acceptance for minimum period of 120 days from the date of opening of cover no.2 (Financial Bid) and thereafter until it is withdrawn by the bidder by notice in writing duly addressed to authority opening the tender and sent by Registered Post Acknowledgement due.



## General terms and Conditions

(These terms and conditions are generic in nature, which have been mentioned for the knowledge of the bidders and may be changed to specific terms and conditions with necessary changes with each Purchase Order (PO) as and when applicable.)

**All terms and conditions of Government of Maharashtra resolutions of 01/12/2016, will be totally applicable for this tender (The above G.R.is available on P.A.H. Solapur University website under the link of Finance and Accounts Section).**

### **1. Delivery and Installation**

1.1 The Bidder should deliver the goods/services within stipulated time as mentioned in Special terms and conditions from the date of purchase Order.

1.2 Delivery of the Goods shall be made by the supplier in accordance with the terms of the Purchase Contract. The bidder should take responsibility of the Goods till it reaches the delivery destination as informed by the P.A.H. Solapur University, Solapur. Transport to such place of destination in India, including insurance and storage as shall be specified in the contract, shall be arranged by the Supplier. Bidder shall organize the Road Permits wherever required.

1.3 The Bidder should install the goods within six (6) weeks, from the date of delivery.

1.4 The P.A.H. Solapur University, Solapur will consider the inability of the Bidder to deliver or install the equipment within the specified time limit, as a breach of contract and would entail the payment of Liquidation Damages on the part of the Bidder. The liquidation damages represent an estimate of the loss or damage that the P.A.H. Solapur University, Solapur may have suffered due to delay in performance of the obligations (relating to delivery, installation, operationalization, acceptance, warranty, maintenance etc. of the deliverables) by the Bidder.

1.5 The P.A.H. Solapur University, Solapur shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum as specified in Special Terms and Conditions.

1.6 Products shall be supplied in a ready to use condition along with all accessories mentioned in specifications etc.

### **2. All the payments will be made after complying following points.**

2.1 Bidder will be required to furnish the documentary proof of delivery, installation and acceptance duly signed by P.A.H. Solapur University, Solapur officials while claiming the payment.

2.2 Supplier will be entirely responsible for all applicable present and future duties, levies, charges, license fees G.S.T. etc. in connection with delivery of goods at site including incidental services and commissioning.

2.3 The Bidder must accept the payment terms proposed by the P.A.H. Solapur University, Solapur. The financial bid submitted by the Bidder must be in conformity with the payment terms proposed by the P.A.H. Solapur University, Solapur. Any deviation from the proposed payment terms would not be accepted. The P.A.H. Solapur University, Solapur shall have the right to withhold any payment due the Bidder in case of delays or defaults on the part of the Bidder. Such withholding of payment shall not amount to default on the part of P.A.H. Solapur University, Solapur.

2.4 The standard payment terms of the PAH Solapur University, Solapur are given below.

**A) Indigenous goods :-**

For goods manufactured or supplied from within India

Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/email

- (a) Three copies of Supplier's Invoice indicating, inter-alia description and specification of the goods, quantity, unit price, total value
- (b) Packing list
- (c) Certificate of country of origin
- (d) Insurance certificate, if required under the contract
- (e) Railway receipt/Consignment note
- (f) Manufacturer's warrantee certificate and in-house inspection certificate, if any
- (g) Inspection certificate issued by purchaser's inspector, if any
- (h) Any other document(s) as and when required in terms of the contract

**Payment Terms** – Payment of local items in Indian rupees (100% after delivery and successfully installation and performance checked by the University local technical committee and their recommendation report for payment). will be released after deduction of taxes if any applicable. Payment will be released through RTGS/NEFT after producing bank details on letter head.

**B) Imported goods :-**

Payment of foreign currency portion shall be made in currency of the Contracting the following manner:

- (a) On Shipment: Seventy (60%) percent of the Contract Price of the Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified as follows-

**Details of Shipping and other Documents to be furnished by the Supplier are :**

For goods manufactured or supplied from abroad Within

24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post / courier and copies thereof by FAX.

- (a) Three copies of supplier's Invoice giving full details of the goods including quantity, value, etc.
- (b) Packing list
- (c) Certificate of country of origin
- (d) Manufacturer's warrantee and Inspection certificate, if any
- (e) Inspection certificate issued by the Purchaser's Inspector, if any
- (f) Insurance Certificate, if required under the contract
- (g) Name of the Vessel / Carrier
- (h) Bill of Lading / Airway Bill
- (i) Port of Loading
- (j) Date of Shipment
- (k) Port of Discharge & expected date of arrival of goods
- (l) Any other document(s) as and when required in terms of the contract

**(b)** On Acceptance: Twenty (20%)percent of the Contract Price of Goods received in good condition shall be paid within thirty (30) days of receipt of the Goods.

**(c)** Twenty (20%) percent of the Contract Price will be released after successful installation and performance checked by the University local technical committee and their recommendation report for payment shall be paid within thirty (30) days of receipt of the Goods. Bank charges occurred outside India will be borne by the beneficiary.

2.5 Bidder should submit bill in two copies showing G.S.T. separately on his letter head.

2.6 Bidder should give bank details on his letter head for on line payments.

2.7 Applicable Taxes will be deducted at prevailing rate while making payments.

**3. Delivery and Installation**

3.1 All the goods ordered shall be delivered at Instrumentation Centre, PAH Solapur University, At Post – Kegaon, Solapur upto 9 months from date of issue of Purchase Order as per terms and condition of tender/purchase order. All the Aspects of safe delivery and commissioning shall be the exclusive responsibility of supplier. If the supplier fails to deliver and commissioning of the goods on or before the stipulated date, then penalty @ 1% per week of

the total order value shall be levied subject to maximum of 10% of total order value. The goods are to be supplied within this stipulated period, failing which the supply order is liable to be cancelled.

3.2 Delivery of the Goods shall be made by the Supplier in accordance with the terms of the Purchase Contract. The vendor should take responsibility of the Goods till it reaches the delivery destination as informed by the PAH Solapur University, Solapur, transport to such place of destination in India, including insurance and storage, as shall be specified in the contract, shall be arranged by the Supplier. Vendor shall organize the Road Permits wherever required.

3.3 The Vendor/Bidder should successfully install and commission the goods within six (6) weeks, from the date of receipt of material. It means the faultless functioning of equipment. The clearing of the consignment at Mumbai Airport shall be done by supplier. The corresponding shipping documents may be taken accordingly. If there is delay in clearing of the consignment for not giving timely, demurrage (Ware house charges), if applicable has to be paid by supplier. The charges for custom clearing will be reimbursed by the University on the production documents.

3.4 Installation will be treated as incomplete in one/all of the following situations:

- Non-delivery of supporting documentation
- Delivery, but no installation of the components and/or software

3.5 The PAH Solapur University, Solapur will consider the inability of the Bidder to deliver or install the equipment within the specified time limit, as a breach of contract and would entail the payment of Liquidation Damages on the part of the Bidder.

The liquidation damages represent an estimate of the loss or damage that the PAH Solapur University, Solapur may have suffered due to delay in performance of the Obligations (relating to delivery, installation, operationalization, implementation, Training, acceptance, warranty, maintenance etc. of the deliverables) by the Bidder.

3.6 The PAH Solapur University, Solapur shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum as specified in Special Terms and Conditions

3.7 Products shall be supplied in a ready to use condition along with all accessories



mentioned in specifications etc.

#### **4. Delivery and Documents**

The details of shipping and/or other documents to be furnished by the Supplier are specified hereunder.

- 1 Original copy of Supplier's invoices showing contract number, goods description, quantity, unit price and total amount.
- 1 Manufacturer's / Supplier's warranty certificate.
- 2 Inspection certificate issued by the nominated inspection committee appointed by University authority, if any, and the Supplier's factory inspection report and Quality Control Test Certificates.
- 4 The vendor to submit insurance certificate along with delivery documents.

#### **5. Price and Taxes:**

- 5.1 Prices quoted by the bidders for these equipment's should be in Indian Currency in rupees /foreign currency inclusive of all types of taxes and delivery at PAH Solapur University, Solapur. If the price is quoted in foreign currency the exchange rate on the date of opening financial bid will be treated for below tender and seized it.
- 5.2 **PAH Solpaur University is eligible for Exemption of custom / Excise duty under the notification no. TU/V/RG-CDE(1085)/2020. Date 22/12/2020. Renewal of Registration of Public Funded Research Institutions or a University or an Indian Institute of Technology or Indian Institute of Science, Bangalore or a Regional Engg. College, other than a Hospital\*, for purposes of availing Customs Duty exemption in terms of Notfn. No. 51/69-Customs dt.23.07.1996, Notfn.No. 47/2017-Integrated Tax (Rate)dt. 14.11.2017 and Notfn.No. 45/2017-Central Tax (Rate) dt.14.11.2017 Notfn.No. 45/2017-Union Territory Tax(Rate) dt. 14.11.2017 as amended from time to time. Subject to applicability of the cited clause of GST on items based on directives of DSIR and is also eligible for exemption of custom duty. Necessary certificate will be issued on demand.**
- 5.3 Once a contract price is arrived at, the same must remain firm and must not be subject to escalation during the performance of the contract due to fluctuation in foreign currency, change in the duty/tax structure, changes in costs related to the materials and

- labour or other components or for any other reason.
- 5.4 The prices quoted shall be valid for a minimum period of three Months from date of opening of tender.

## **6. Technical Information**

The technical documentation involving detailed instruction for operation and maintenance, users' manual etc., is to be delivered with every unit of the equipment supplied. The language of the documentation should be English.

## **7. Acceptance**

**A.** The acceptance / performance test will be performed after completion of installation and commissioning of all the components of the solution at the sites of installation. Complete hardware and Software as specified in the tender must have been supplied, installed and commissioned properly by the Bidder prior to commencement of the test. The acceptance test will be conducted by P.A.H. Solapur University, Solapur, their consultant or other such person nominated by the P.A.H. Solapur University, Solapur as its option as per the acceptance criteria. The acceptance will involve trouble-free operation for seven consecutive days at site. The Bidder will be responsible for setting up and running the acceptance test without any extra cost to the P.A.H. Solapur University, Solapur.

**B.** In the event of hardware and software failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which the P.A.H. Solapur University, Solapur reserves the right to get the corresponding component replaced by the bidder at no extra cost to the P.A.H. Solapur University, Solapur or to cancel the order and recall all the payments made by the P.A.H. Solapur University, Solapur to the bidder.

**C.** Successful conduct and conclusion of the acceptance tests for the installed components shall also be the sole responsibility and at the cost of the Bidder.

## **8. Acceptance certificate**

On successful completion of acceptability test, receipt of deliverables etc. for the equipment and after the P.A.H. Solapur University, Solapur is satisfied with the working on the system, the acceptance certificate signed by the bidder and the representative of the P.A.H. Solapur University, Solapur will be issued. The date on which such certificate is signed shall be deemed to be the date of acceptance of the system and the WARRANTY Of the Hardware starts from that date.

## **9. Governing Language**

- A.** The contract shall be written in English. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in English.
- B.** The technical documentation involving detailed instruction for operation and maintenance, users manual etc. is to be delivered with every unit of the equipment supplied. The language of the documentation should be English.

## **10. Inspections and Tests.**

- A.** The event of hardware and software failing to pass the acceptance test, as per the specifications given, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the P.A.H. Solapur University, Solapur reserves the right to cancel the purchase order.
- B.** On successful completion of acceptability test, receipt of deliverables, etc., and after the P.A.H. Solapur University, Solapur is satisfied with the working on the system, the acceptance certificate will be signed by the, Testing Agency and the representative of the P.A.H. Solapur University, Solapur. Notwithstanding anything contained above, in case of dispute, claim & legal action arising out of the contract, the parties shall be subject to the jurisdiction of courts at Solapur, Maharashtra, India only.



## General Terms & Conditions

### Scope of Work:

The Successful bidder on awarding the contract & purchase order from University shall start delivery of the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument.”

1. Within specified delivery period only for the requirements to be provided by University.
2. Bidder shall arrange for transport of the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” up to the delivery location, install the Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument in Laboratory with required peripherals and test the same.
3. The labor required for entire delivery, installation & commissioning cycle will be the responsibility of the Vendor.
4. Bidder shall provide on- site support for all related works with regard to the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument”.
5. Delay in the delivery of the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” due to non-availability of transport arrangements for the transporting the material to see that the material reach the destination within the stipulated period.
6. The price should be inclusive of all levis/taxes like GST, transportation, customs, excise traveling charges etc.
7. The University reserves the right to reject any or all tenders. The University may accept tender in full or part or may award part of the works to different bidders.
8. Terms of Delivery: All items should be delivered within 4 weeks from the date of purchase order at P.A.H. Solapur University, Solapur. Bidder will have to verify all the items within one week from the date of delivery in the presence of P.A.H. Solapur University, Solapur officials at respective Departments.
9. During Warranty period “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” failed/ not working provided by from Bidder no extra charges for this.

**Service Window**

Bidder shall provide technical support for the material supplied as per the service window mentioned here under:

- 1) Service Window: Working hour of the Location
- 2) Telephonic Support: Within 30 minutes
- 3) On-site Call Response: Within 4 Hours.
- 4) Spare Turn around: Same Working Day

**Warranty**

- a) The warranty for the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” to be supplied shall carry a free comprehensive, onsite warranty for a minimum period of 36 months i.e..-03 year and shall commence after the delivery, installation & satisfactory operation of the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” at the specific P.A.H. Solapur University location. (After date of installation)
- b) Bidder shall be responsible for replacement of any component of the “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” incase found defective before or during installation and also during warranty period.

**Uptime:**

The Bidder shall attend to and put forth the best of efforts to rectify any of the problems to the work station or related peripherals supplied and installed in the University on all the days irrespective of holidays i.e. general or special. It is also to be noted that in the event of the Bidder failing to carry out the repairs/ replacement within the time stipulated as per service window, the company shall at its own cost provide the University stand by “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument” of equivalent configuration, and the same shall be used by the University till the repairs/replacement receive to the location of the University and the same becomes operational.

Authorized Signatory

Name:

Designation:



## Annexure I

### Technical Specification of Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument

[To be submitted along with Technical Bid]

To

**The Registrar**

PAH Solapur University,

Solapur

Name of the firm: -----

Address: -----

Phone No. / Mobile No. -----

This tender includes the supply, installation, commissioning and on-site training in the use of a high-end Field Emission Scanning Electron Microscope (FESEM), fully self-contained with all necessary support systems such as vacuum system, cooling system and high tension power supply system. The instrument must be a state of art, computer controlled user friendly system for ultra-high resolution imaging and analytical investigations of conducting, non-conducting samples in the form of minerals, thin films, crystals etc. ranging from micro to Nano scale dimensions. The system should be upgradeable at a later other attachments. The FESEM must have the following specifications:

Sr No	Specification	
1	Resolution	0.7 nm or better at 15/20 kV
		1.3 nm or better at 1 kV
2	Accelerating Voltage	Variable from 20V or lower to 30kV or higher
3	Probe Current	In Adjustable range from a few pA to 300 nA or better
		Probe current setting must be fully automatic without change of aperture and column tuning
4	Magnification	10,00,000X or better
5	Electron Gun	It should be Schottky type gun.
		Emitter warranty should be three years for trouble free operations. If

		Emitter fails during warranty period, it should be replace free of cost.
6	Electron Optics	High Resolution imaging at low KV
		All parts including apertures should be operated through computer-controlled software
		Objective Lens : Electrostatic and electromagnetic
7	Specimen Stage	5 axes motorized fully Eucentric stage with motorized stage movements: X=70mm or higher -fully motorized Y=50mm or higher –fully motorized Z=40 mm or higher --fully motorized Rotation:360°– fully motorized Tilt:-4° to +70°–fully motorized
8	Specimen Chamber	At least 8 ports or more should be available for future expansion
9	Specimen Size	Specimen chamber should be capable to accommodate large specimen size of 150mm diameter or more.
10	Specimen Exchange & Vacuum System	Suitable vacuum systems having Sputter ion getter Pump, Turbo Molecular Pump and Rotary Pump/Oil free /Dry Scroll Pump must be provided.
		All necessary gauges and valves must be included.
		Pump down time should be 5 minutes or less.
11	Sample Holder	Multisampling specimen holder with 6 positions or more should be provided.
		Pin / regular stubs 1 inch – 10 Numbers
		Conductive carbon adhesive tapes -5 Nos
12	Auto Functions	Gun alignment, Focus, Stigmation, Brightness, Contrast and Beam alignment should be automatic ,
13	Detectors	1) SE Detector Chamber mounted Ever-Heart Thornley detector.
		2) BSE Detector -Chamber Mounted BSE detector
		3) In lens SE detector for high resolution images
		4) Beam deceleration/beam booster/ Gentle Beam or equivalent
		5) EDS Detector
		Detector size/Chip size :30mm <sup>2</sup> or more
		Resolution:129eV or better @Mn K $\alpha$
		Liquid Nitrogen free, Peltier cooled detector
		Motorized EDS detector Movement
		Detection from Boron to Uranium
		Integrated EDS software offering Live spectrum and Live Mapping.
		Supplied EDS server and analysis software should be capable of performing data acquisition storing and transfer in common windows-based application formats, qualitative & quantitative analysis, line scanning, elemental or dot mapping including spectrum imaging and phase mapping with specimen drift correction.

14	Coater and other accessories	Gold / Platinum Coater with suitable vacuum pump should be offered for coating all type of samples
		Vacuum pump and other necessary items to be provided.
		1 Set of gold / platinum targets.
15	Computer & Image acquisition and display	Compatible computers with latest configuration, keyboard, mouse, LED monitor, Windows licensed Operating system and one colour laser printer should be offered.
		24-inch or better LED Screen
		Image Size:5k x 3k pixel or better
		Image depth: up to 16 bits or better
		Image format: BMP, TIFF, JPEG, JPEG2000, GIF, PNG etc
		Software should be capable of automatic generation of report in MS-office.
		Image acquisition system should be compatible with Windows
16	UPS	FESEM and EDS compatible UPS should be offered with 2 hrs. back up should be offered.
17	Spares and consumables	Supplier must have support for quoted model at least for minimum 10 years.
18	Power Supply	Equipment and power supply connector should be compatible with Indian electrical main supply of 220V ,50Hz
19	Warranty	Three years Warranty for the equipment and its accessories from the date of Instalation.
20	Installation and training	Bidders must conduct site survey after placement of PO at no additional cost and all operation related requirements should also be submitted along with technical bid
		After installation initial operational training must be provided on site followed by advanced application training after 6-8 month of installation.

**Other conditions:**

1. Manufacturing year of Instruments.
2. Manufacturing year of software.





## Annexure II

### Manufacturers Authorization Form

[To be submitted along with Technical Bid]

Ref. No:

Date:

To,

**Subject: For the supply of “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument.”**

Dear Sir,

We \_\_\_\_\_ who are established and reputable manufacturers of

\_\_\_\_\_ having \_\_\_\_\_ Factories at \_\_\_\_\_ and

\_\_\_\_\_ do hereby authorise M/s \_\_\_\_\_ [**Name and address of vendor**] to submit a bid and sign the contract with you for the goods Manufactured by us against the above RfP No \_\_\_\_\_ dated \_\_\_\_\_

\_\_\_\_\_ We hereby extend our full guarantee and warranty as per the clauses of contract based on the terms and conditions of the RfP for the goods and services offered for supply by the above firm against the RfP.

Yours faithfully

[ \_\_\_\_\_ ]

**Name of the manufacturer**

**Note:** This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the bidder in its bid.



## Annexure III

### BID FORM

[To be submitted on the letter head of the bidder along with Technical Bid]

Ref. No.

Date:

To,

**Sub: RfP No.....Dated.....For supply of  
“Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument”**

Dear Sir,

We, the undersigned, offer to supply and deliver equipments and services including installation and commissioning of **“Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument”** in conformity with the tender.

We undertake, if our bid is accepted, to deliver the Goods in accordance with the delivery schedule specified in the Tender.

If our bid is accepted, we will provide Bank guarantee in your favour for a sum equivalent to 5 % of the contract price for the due performance of the contract in the format prescribed by the purchaser.

We agree to abide by this bid for the period of 120 days from their it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with PAH Solapur University, Solapur's written acceptance thereof and the PAH Solapur University, Solapur's notification of award shall constitute a binding Contract between us.

We hereby undertake to produce the certificate from our OEM supplier in support of above undertaking at the time of delivery/installation. It will be our responsibility to produce such letters from our OEM supplier's at the time of delivery or within a reasonable time.

We agree that the PAH Solapur University, Solapur will have Single Point of Contact with us, at the address stated below for the entire goods and services to be delivered by us in case our bid is accepted.

Address of Bidder for Single Point of Contact .....

.....

We understand that the PAH Solapur University, Solapur is not bound to accept the lowest of any bid the bank may receive.

Dated \_\_\_\_\_ day of \_\_\_\_\_ 20...

\_\_\_\_\_

(Signature in the Capacity of) Duly Authorized to sign  
bid for and on behalf of Name & Address of Bidder



**Annexure IV**  
**Service Support Details**  
 [To be submitted along with Technical Bid]

S.N.	Location	Whether local support available at the location [Yes or No]	In respect of Column 3, if response is “NO”, specify location from which support extended.	Service Support own or through Franchise	Address and Telephone No [for response specified in column 5]	Working Days and hours	No of S/w Engineer s	No of H/w Engineer s
1	2	3	4	5	6	7	8	9
1	PAH Solapur University, Solapur Scientific Instrumentation Centre							



## Annexure - V

### Forwarding Letter

(To be submitted on company's letter head with Technical Bid)

To:

=====

=====

=====

**Subject: Tender for supply of “Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument”**

Dear Sir,

This is in reference to your above-mentioned tender for the procurement of “**Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument**” Having examined the tender document, the receipt of which is hereby duly acknowledged, we the undersigned; hereby submit our proposal along with necessary supporting documents.

Further, we agree to abide by all the terms and conditions as mentioned in the tender document. We have also noted that PAH Solapur University, Solapur reserves the right to consider/ reject any or all applications without assigning any reason thereof.

Date :

Authorised Signatory.

Name:

Designation:

\*\*\*\*\*



## FINANICAL BID (In COVER - II)

Sr. No	Particulars	Quantity	Total Cost
1	<b>Product Specifications</b>  <b>Field Emission Scanning Electron Microscope (FESEM) with EDS Instrument</b> (Items wise details Specification Given in Annexure-I)	01	
<b>GST _____%</b>			
<b>If any Charges / Other Taxes</b>			
<b>Grand Total</b>			

**Note: Bidder are requested to note the following**

/

- All the details must be provided as per format.
- L<sub>1</sub> will be arrived based on above total cost.
- All items are with Three years warranty from date of installation.
- All the terms and conditions as mentioned in the Government of Maharashtra G.R. dated 01/12/2016 are applicable to the tender document.
- If the rates are allotted in foreign currency the exchange rate of the date of opening financial bid will be freezed.
- GST & other taxes may be indicated separately.

Seal and Signature of Vendor