

## भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्डं, भारत, पिन-826004

(शिक्षा मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व का एक संस्थान)

# INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD DHANBAD, JHARKHAND, INDIA, PIN-826004

(An Institute of National Importance under Ministry of Education, Govt. of India)

STORES & PURCHASE SECTION Phone:(0326) 2235678 || Email : purchase@iitism.ac.in || Website : www.iitism.ac.in

No. CR-INS-175-23-24 Date: 12 December 2023

### **Request for Quotation**

To,

Subject: Supply & Installation of Load lock attachment with vacuum quite mode upgrade kit for the existing Zeiss Sigma 300 FESEM, Energy Dispersive spectroscopy (EDS) detector attachment for the existing Zeiss Sigma 300 FESEM, Backscattered Electron (BSE) detector attachment for the existing Zeiss Sigma 300 FESEM

#### Sirs

Indian Institute of Technology (Indian School of Mines), Dhanbad is interested in the purchase of the materials/ equipment listed below:

Sl.No.	Detailed Specifications	Quantity
1	Supply & Installation of	01 No
	Load lock attachment with vacuum quite mode upgrade kit for the existing Zeiss	
	Sigma 300 FESEM (Specification in Annexure –II)	
2	Supply & Installation of	01 No
	Energy Dispersive spectroscopy (EDS) detector attachment for the existing Zeiss	
	Sigma 300 FESEM (Specification in Annexure –II)	
3	Supply & Installation of	01 No
	Backscattered Electron (BSE) detector attachment for the existing Zeiss Sigma 300	
	FESEM (Specification in Annexure –II)	

#### **INSTRUCTIONS:**

- 1) Please attach relevant technical literature of the item.
- 2) Please fill the attached form 01 regarding the class of supplier.
- 3) Please mention the warranty/ guarantee period in your offer. Equipment/ material supplied must have a minimum warranty/ guarantee of **24 months**.
- 4) Please attached authorization certificate from OEM.
- 5) Please mention after-sales service information in your offer.
- 6) Please attach a certificate that the quoted price is not more than that of any other Govt. organization/institution in India. This has to be mentioned in the offer letter.
- 7) The rates should be quoted for each item separately as per the price schedule attached as Annexure I (A) & (B). The comparison between the indigenous and the foreign offers shall be made on a FOR destination basis and CIF/CIP basis respectively. However, the CIF/CIP prices quoted by any foreign bidder shall be loaded further as under:
  - -Towards customs duty, IGST, and other statutory levis, custom clearance, inland transportation, currency fluctuation, etc. -30% of the CIF/CIP value. -Duties & taxes, if applicable, are to be shown separately clarifying whether those are extra or included in the price. Price bids of only technically qualified tenderers shall be opened in their presence on a pre-notified date and time.
- 8) The items/ materials shall be required to be delivered at CRF Department of IIT (ISM) Dhanbad at the risk and cost of the tenderer.
- 9) Your tender must be **valid for a minimum 120 days** from the date of opening of tender.
- 10) The stores are required to be delivered within 30 days, late delivery may not be accepted.
- 11) Full details of stores offered should be given in the tender along with supporting & relevant literature/ Technical Literature.
- 12) The items offered should be of good quality confirming to BIS standards, wherever applicable.
- 13) Advance payment is not admissible. Payment shall normally be made within 3-4 weeks subject to receipt and acceptance & installation (as per Purchase Order Terms) of the ordered materials/items.
- In the event of the supplier failed to supply the materials or install the same as contractual condition, IIT (ISM) Dhanbad shall have the right to deploy suitable agency/ third party to get the job completed at the risk and cost of the supplier.
- 15) Tender may please be submitted in sealed cover only superscribed with Enquiry No. CR-INS-175-23-24 latest by 01.01.2024.
  - 16) The offer must be submitted in the office of the Deputy Registrar (Purchase & Stores), IIT (ISM), Dhanbad—826004 (Jharkhand, India) only. Please send your offer by Regd.Post/ Speed Post/ Courier along with Courier receipt. Tender/ quotation will be received during IIT (ISM) Dhanbad working hours only (i.e. Monday to Friday). In any circumstances,



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No. CR-INS-175-23-24 Date: 12 December 2023 hand delivery is not acceptable. Late or delayed tenders shall be summarily rejected. Bids sent through Email/Fax or

submitted in unsealed cover(s) will not be accepted and such bids will be treated as non-responsive bids.

- 17) **Performance Bank Guarantee:** A bank guarantee issued by a Nationalized Bank in India towards PBG for an amount equal to 10% of the total value of the purchase order and valid till the period beyond two months of completion of the warranty period should be submitted in favor of **Registrar, IIT (ISM) Dhanbad.**
- 18) For any other information that you may like to obtain, you are free to contact IIT (ISM) Dhanbad before submission of tender.
- 19) IIT (ISM) Dhanbad reserves the right to accept and/or reject any/all tenders without assigning any reason.
- 20) **Payment**: will be made within 30 days after satisfactory supply, inspection, installation/commissioning/satisfactory services & acceptance and on submission of pre-receipted tax invoice, delivery challan, warranty certificate, and installation report in triplicate
- 21) Please attach purchase order copies of the same equipment that you have supplied to any other Govt., public sector, and autonomous institutions.
- a) In a tender, either the Indian agent on behalf of the principal/OEM or the principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
  - b) If an agent submits a bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.



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No. CR-INS-175-23-24

Annexure -I (A)

Date: 12 December 2023

### 1. PRICE SCHEDULE FOR GOODS BEING OFFERED WITHIN INDIA

Name of the	he Bidder			
NIT Refer	ence No			
File Refere	ence No			
		1 .	1	T =
Sl. No.	Full Description of items with (HSN	Quantity	Unit Price (in	Total Amount (in
1	Code/SAC Code)		INR)	INR)
1.				
2. 3.				
Ex-Work	re Drice			
	& Forwarding			
Transpor				
_	ST (as applicable %)			
	e up to Destination/handover (in case of fabri	cation)		
	on & Commissioning charge	,		
	charges, if any			
	TISM) Dhanbad			
Addition	nal Warranty Charges, if any			
Annual	Maintenance Charge, if any			
*(C	on the basis of the technical specifications sub	omitted)		•
Total Bid	Price		in words	
Note:				
(a) The Pr	ice schedule of optional items shall be indicat	ed in a separate she	et in the same Performa	a.
(b) Cost sr	pare parts may be indicated separately			
Signature Name	of Bidder			
Business				
Address				



No. CR-INS-175-23-24

Signature of Bidder

Business Address\_

Name .

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Date: 12 December 2023
Annexure –I (B)

				Annexure –I (
	2. PRICE SCHEDULE FO	OR GOODS BEING OF	FERED FROM ABROAD	
Name of the I	Bidder			
NIT Reference	e No			
File Referenc	e No			·
Sl. No.	Description/Part No./Make Model	Quantity	Unit Price (in foreign	Total Amount (in
			currency)	foreign currency)
1.				
2.				
3.				
Total Ex-W	orks Price-			
Packing &	Forwarding and inland freight			
*FCA (at po	ort)			
Terminal cl	narges, loading on vassal			
**FOB (na	me of port)			
Air freight &	& insurance up to destination port			
*CIF				
Carrier char	ges & insurance up to final destination			
**CIP				
Concessions	al Custom Duty (Against DSIR Certificate)			
IGST rate (A	IGST rate (Against IIT (ISM) Certificate			
Other Dutie	Other Duties taxes/clearance charge, if any			
Transportati	on charges up to IIT ISM Dhanbad			
Chargeable	Chargeable weight/Gross weight of consignment			
Indian ager	acy Commission (%)			
Installation	& Commissioning charge			
Training ch	arges, if any			
	Warranty Charges, if any			
Annual Ma	Annual Maintenance Charge, if any			
	discounts, if any			
*&** ]	Mandatory requirement		Total Bid Price in wo	rds
Note: Total Bid pric (a) Indian age (b) Installatio (C) Please no (d) Banker's o (f) Price schee (g) Quoting I (h)Wherever	te in foreign currency	Indian Rupees only.  Int Number, Name of Baniate sheet in the same performs bid will be rejected.  In the same, the contract	 k, Branch code, RTGS code, NEF1 orma.	`code, SWIFT code etc.



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No. CR-INS-175-23-24 Date: 12 December 2023

### Form-1

**Declaration by bidder** 

(Please specify the Class of Supplier and Local Content percentage)
In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated: 04<sup>th</sup> June 2020 and 2nd March 2021 issued by DIPP, Ministry of Commerce and Industries, GoI.

To,
The Director,
Indian Institute of Technology (Indian School of Mines)
Dhanbad -826004
Respected Sir,
By the order No. P- $45021/2/2017$ -PP (BE-II) dated $04^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-II-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-III-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-III-Part (1) (E- $50310$ ) dated $4^{th}$ June 2020 and P- $45021/2/2017$ -BE-III-Part (1) (E- $50310$ ) dated $4^{th}$
March 2021 I hereby declare that
I am aware of all provisions mentioned in Tender No. CR-INS-175-23-24 as well as order No. P-45021/2/2017-PP (BE-II) dated
04th June 2020 and P-45021/2/2017-BE-II-Part (1) (E-50310) dated 4th March 2021 and abides by the same.
I declare that for this tender, I am a Class-I local supplier / Class-II local supplier / Non-local supplier (Strike out whicheve
is not applicable) and classification is based on the local content of goods/services/work offered by the bidder in this
tender.
Local content (in percentage) in offered goods/services/work is:%
Whereas 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the
Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of
imported content in the item (including all customs duties) as a proportion of the total value, in percent.
The services such as transportation, insurance, installation, commissioning, training, and after-sales service support like
ACM/CMC, etc. are not included as Local content in case of imported products.
The local content for all inputs which constitute the said goods/services/works has been verified and the bidder is
responsible for the correctness of the claims made therein.
Date:
Signature:
Name of Authorized Signatory:
Name of Bidder:
Seal of Bidder:



No. CR-INS-175-23-24

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Date: 12 December 2023

Annexure -II

### **Tender Specifications for the items**

CRF IIT(ISM), Dhanbad, is looking for a Load-lock, an EDS detector, and a BSE detector compatible with the existing Sigma 300 FESEM system. The exterior of the system should be class 1000 clean room compatible. Specifications for the said items are as follows. Vendors are required to quote for the said system with all required accessories including those mentioned in the specifications.

_	accessories including those mentioned in the specifications.			
1.	Load lock	Should be able to accommodate samples up to 60 mm or better		
	attachment	Should be compatible and attachable with the existing Zeiss Sigma 300 FESEM system		
	with vacuum	<ul> <li>Should minimize the loading time of samples up to a factor of 3 or higher</li> </ul>		
	quite mode	The control should be easily accessible on the load-lock interface as well as on the Zeiss		
	upgrade kit for	Sigma 300 FESEM system software		
	the existing	Should be supplied with Vacuum Quite Mode upgrade kit for reducing power consumption		
	Zeiss Sigma	and pump noise induced vibration of the FESEM. The pre-pump of the FESEM should be		
	300 FESEM	automatically switched off after a threshold vacuum level.		
2.	Energy	Should be a state-of-art EDS system		
	Dispersive	Should be seamlessly get integrated with the Zeiss Sigma 300 FESEM system		
	Spectroscopy	It should be a SDD type EDS detector		
	(EDS) detector	• Should have a detector area of 70 mm <sup>2</sup> or more		
	attachment for	<ul> <li>Detector window should made by Si<sub>3</sub>N<sub>4</sub></li> </ul>		
	the existing	• The Energy resolution for Mn-Kα and carbon should be at least 127eV and 50 eV		
	Zeiss Sigma	respectively.		
	300 FESEM	• The EDS detector should be able to handle high input count rate of at least 1.5 M input		
		counts per second.		
		The EDS must be plasma cleaner compatible		
		Should offer a high-count rate for Elemental Analysis and Mapping applications		
		Detection Range of detector should be at least from Be to Am		
		The detector must guarantee the detection of Aluminum and Silicon L Lines		
		The EDS should be able to do quantitative as well as qualitative analysis		
		• The EDS operations must be controlled from a dedicated software installed in a separate		
		PC provided by the vendor		
		• The EDS software must have the software functions like – mapping, point Id, Line scan,		
		multipoint, drift correction etc.		
3.	Backscattered	Should be seamlessly get integrated with the Zeiss Sigma 300 FESEM system.		
	Electron (BSE)	The BSE should have an option for angle selection		
	detector	Should be able to measure at low acceleration voltage		
	attachment for	Should be able to image at different contrast levels		
	the existing	Should be able to produce an image by mixing the signal with other detector(s)      Should exhibit long term temperature atability.		
	Zeiss Sigma 300 FESEM	<ul> <li>Should exhibit long-term temperature stability</li> <li>Should be completely integrated with the pole piece</li> </ul>		
	(Specification	<ul> <li>There should not be any requirement for alignment with the optical axis</li> </ul>		
	is attached as	<ul> <li>Control for the detector should be integrated with the control software for Zeiss Sigma 300</li> </ul>		
	Annexure-1).	FESEM		



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No. CR-INS-175-23-2		23-24 Date: 12 December 2023
4.	Warranty	Warranty for the entire system should be for two years from the date of successful installation
		and commissioning.
5.	Installation and	The installation and commissioning of the entire system must be done by your factory-trained
	commissioning	engineer at free of cost.
6.	Training on the	After successful installation and commissioning of the system, the required operational
	complete	training on the entire system must be provided on-site to the deputed personnel at no
	system	additional cost.
7.	Eligibility	Vendor or its OEM must have supplied minimum 3 nos. of similar equipment to
	Criteria	Government labs / Govt. Institutions / Universities etc. in India in the last 5 years.
		• The offer needs to include a list of names of the organizations/ institutions / Universities /
		etc., with details of the user(s), where similar type equipment has been supplied earlier by
		the vendor.
		Organization or its Agent should have export experience
		All printed catalogue of the system and its accessories should be attached with the technical bid.
		Original invoice, Original Warranty Certificate and Original Test reports from OEM (if
		applicable) should be submitted for all the Imported Items at the time of delivery
		Should be able to attend service call within 24 hours of a report.
		• Should be able to provide a live video/physical demonstration of a similar system, installed
		in India, if asked by the purchase committee
		• Compliance statements (vis-à-vis) against all the parameters of the specification in tabular
		form must be provided along with the quotation. The technical literatures/brochures in
		support of compliance of the specifications should be included therewith. These statements
0	Out a Transco	and brochures must be duly signed and stamped by the authorized person of the company.
8.	Other Terms	• Vendor must guarantee the regular supply of spares for the lifetime of the system
	and Conditions	• All voltages should be compatible with Indian conditions (AC 220 volt ± 10% V, with 50
		Hz frequency) and similar conditions for three-phase supply, if required. Price should
		include Installation & Commissioning Charges.
		Price should be quoted as FOR, IIT(ISM) Dhanbad