

Domestic tender notification for the procurement of High-resolution spectrometer

Tender Summary

1	Section 1	Bid Schedule	
2	Section 2	Eligibility Criteria	As specified by IISc
3	Section 3	Terms and Conditions	As specified by IISc
4	Section 4	Specifications	Technical Specifications
5	Section 5	Technical Bid	Annexure 1: Bidder details
			Annexure 2: Declaration regarding the experience of the bidder
			Annexure 3: Declaration of track record
			Annexure 4: Declaration of acceptance of terms and conditions
			Annexure 5: Details of items quoted.
6	Section 6	Commercial Bid	Quotation with price, and technical specifications of the equipment.
7	Section 7	Checklist	

Section 1: Bid Schedule

1	Tender Number	PHY/SHBW/614/2016-27
2	Tender Date	31 st August 2026
3	Item Description	High-resolution spectrometer
4	Tender Type	Two bid system: (a) Technical Bid (Part A) (b) Commercial Bid (part B)
5	Place of tender submission	The Chairperson Kind attention: Dr. Shubhadeep Biswas Department of Physics Indian Institute of Science Bengaluru, Karnataka 560012, India
6	Last Date and Time for tender submission	21 st September 2026, 5:00 PM (Indian Standard Time)
7	Primary Point of Contact	Dr. Shubhadeep Biswas Department of Physics, Indian Institute of Science, Bengaluru 560012, India Email: shubha@iisc.ac.in

This is a Request for quote (RFQ) from the **Original Equipment Manufacturer (OEM) or their authorized Indian distributor** for the procurements of a **High-resolution spectrometer** at the Department of Physics in the Indian Institute of Science, Bangalore. All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact.

Section 2: Eligibility Criteria

Prequalification criteria:

1. The bidder must have substantial track-records in supplying similar high-resolution spectrometer (atleast five) to educational institutes/universities/research organizations in India.
2. The Bidder should belong to either class 1 or class 2 suppliers distinguished by their “local content” as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter (Refer in detail to the annexure).
 - (a) Class 1 supplier: Goods and services should have local content equal to or more than 50%.
 - (b) Class 2 supplier: Goods and services should have local content equal to or more than 20 % and less than 50%.
3. Purchase preference as defined by the recent edits to GFR (within the “margin of purchase preference”) will be given to the Class-1 supplier.
4. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.
5. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
6. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
7. Original Invoice, Original Warranty Certificate, and Original Test Reports should be produced for all imported items from OEM (Original Equipment Manufacturer) at the time of supply of equipment.
8. System Catalogue should be produced with the Technical Bid. Original Invoice, Original Warranty Certificate, and Original Test Reports should be produced for all imported items from OEM (Original Equipment Manufacturer) at the time of supply of equipment.
9. Manufacturers should have ISO or equivalent international standard certificate. Please attach the required certificate with the bid.
10. The supplier will support the user with all the spares for a minimum period of 5 years.
11. Details of experienced service engineers including contact detail should be provided in the tender document.
12. Bidder shall have to submit audited accounts (Balance sheet profit and loss account) for financial year 2012-23, 2023-24 and 2024-25. The audited statement must be signed and

stamped by qualified chartered accountants. The supplier will support the user with all the spares for a minimum period of 5 years.

13. Bidder must submit Income Tax return for assessment years 2022-23, 2023-24 and 2024-25.
14. Valid safety/health/environment protection authority-approved certification must be provided for the proposed system. The original/valid certificate should be provided with the Unit.
15. The bidder must have supplied similar systems to at least five educational institutes/universities and/or research organisations, including at least five Centrally Funded Institutes (IITs, IISc, IISER, NIT). Please provide the details and contact information.
16. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.

Section 3: Terms and conditions

(A) Submission of Tender

1. All documentation in the tender should be in English.
2. Vendors will be required to submit a technical proposal and a commercial proposal in **two separate sealed envelopes** (two bid systems). The technical bid should contain all commercial terms and conditions, except the price. **Only vendors who meet the technical requirement will be considered for the commercial negotiation.**
3. **The technical bid** (Part A) must contain a point-by-point technical compliance document. The technical proposal should contain a compliance table with 5 columns.
 - a. The first column must list the technical requirements, in the order that they are given in the technical requirements below.
 - b. The second column must provide the specification of the instrument against the requirement (please provide quantitative responses wherever possible)
 - c. The third column should describe the compliance with a “YES” or “NO” only. Ensure that the entries in column 2 and column 3 are consistent.
 - d. The fourth column should clearly state the reasons/explanations/context for deviations if any.
 - e. The fifth column may contain additional remarks. It can be used to highlight the technical features, qualify the response of previous columns, or provide additional details.
4. **The commercial bid** (Part B) – Indicating item-wise price for the items mentioned in the technical bid, **as per the format of quotation provided in the tender**, and other commercial terms and conditions. The commercial bid should indicate the following separately: (a) equipment price (b) optional items (c) Shipping cost and (d) the Total cost.
5. The technical bid and price bid should each be placed in separate sealed covers, superscribing on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
6. The SEALED COVER superscribing tender number/due date & should reach the Chairperson Office, Department of Physics, Indian Institute of Science, Bangalore – 560012, India on or before the due date mentioned in the tender notice. In case the due date happens to be a holiday the tender will be accepted on the next working day. If the quotation cover is not sealed, it will be rejected.
7. All queries are to be addressed to the person identified in “Section 1: Bid Schedule” of the tender notice.

8. The quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor. The quotations should be on FOR-IISc Bangalore basis in INR only.
9. If the price is not quoted in Commercial Bid as per the format provided in the tender document the bid is liable to be rejected.
10. The Institute reserves the right to accept or reject any bid to annul the bidding process and reject all bids at any time before the award of the contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
11. Incomplete bids will be summarily rejected.

(B) Cancellation of Tender

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject the lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

(C) Validity of the Offer

The offer shall be valid at least 90 Days from the date of opening of the commercial bid.

(D) Evaluation of the Offer

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or commercial evaluation. The decision regarding acceptance and/or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and the decision in this regard shall be binding on the bidders.
4. The award of the contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.

- b. Receipt of bids after the due date and time and or by email/fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall consider that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
 7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
 8. The lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post-processing, optional items, recommended spares, warranty, and annual maintenance contract.

(E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

(F) Warranty:

The complete high-resolution spectrometer is to be under a warranty period of **a minimum of 1 year** from the date of delivery, including a free supply of consumables and spare parts and online/offline assistance. If the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended. The vendor should also quote price for one additional year for full coverage of the entire system.

(G) Annual Maintenance Contract:

An annual maintenance contract for at least 3 years post warranty should be provided on completion of the warranty period. In the bid, an AMC charge should also be provided. The AMC costs will not be considered towards classifying the domestic nature (class 1 or class 2) of the vendor (see eligibility criteria in section 2). In the bid, an AMC charge should also be provided.

(H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in the tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.

3. If the quality of the product and service provided is not found satisfactory, IISc Bangalore reserves the right to cancel or amend the contract.

(I) Delivery

The bidder shall provide the lead time to delivery, installation and made functional at IISc Bangalore from the date of receipt of the purchase order. The system should be delivered, installed, and made functional **within 4 months** from the date of receipt of the purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over the entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. Wherever needed, Scientist/Technical persons of the Institute should be trained by the supplier at the project site free of cost. In case the person is to be trained at supplier's site abroad or in India it should be mentioned in the quotation clearly. The supplier should bear all the expenses for such training including 'to & fro' fares and lodging & boarding charges.

(J) Payment Terms:

100% payments (except AMC) will be released after completion of delivery and satisfactory installation subject to TDS as per rules. AMC cost (if ordered), after completion of the warranty period) will be released on a half-yearly basis at the end of each six months subject to satisfactory services. The AMC will be comprehensive. As per GFR, no advance payment can be made to the authorized Indian distributors unless an equal amount of bank guarantee is provided.

(K) Statutory Variation:

Any statutory increase in the taxes and duties after the bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed onto IISc, Bangalore.

(L) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract about this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

(M) General:

1. All amendments, time extensions, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.

2. The bidder may furnish any additional information, which is necessary to establish capabilities to complete the envisaged work. It is, however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of the tender, with prior intimation.
4. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc Bangalore.

Section 4: Technical Specifications

Description	High-resolution spectrometer
Parameters	Value
Spectrograph	Pre-aligned and pre-calibrated Czerny-Turner spectrograph
Focal length	≥ 327 mm
Aperture	F/4.1 or better
Magnification	1:1 with a maximum tolerance of 10%
Optics	Toroidal optics for astigmatism correction required
Grating arrangement	Single interchangeable grating turret must accommodate more than equal to three gratings simultaneously. No manual change of turret should be required for using different gratings.
Focusing mirror	Preferred internal focusing mirror must be movable via software to achieve optimal focus across different wavelength bands. Vendor should demonstrate this during installation. The mirror should be compatible with the entire detection wavelength range and achieve the highest reflection efficiency.
Software-controlled adaptive focus	Automatic optimization when changing between grating or cameras to ensure best resolution at any wavelength.
Optical height	Preferred 125 mm (Optical working height). If the spectrometer entrance is at a different height, the manufacturer/supplier should provide the optical arrangement to ensure compatibility of beam height.
Focal plane size (W x H):	30 mm x 16 mm or larger area
Grating size	68 mm x 68 mm or larger
Spectral resolution (with 1200 lines/mm blazed at 600 nm grating & CCD):	≤ 0.12 nm
Wavelength accuracy center	≤ 0.04 nm
Wavelength repeatability for single grating:	≤ 4 pm
Wavelength repeatability for grating-to-grating	≤ 10 pm
I ² C interface compatibility	Spectrograph should be I ² C interface compatible
Spectral deconvolution	No mathematical spectral deconvolution to be involved
All optics and gratings	Should be compatible with the entire wavelength range of detection with the highest transmission or reflection efficiency
Computer interface	USB 2.0 interface or better
Input port 1	Motorized entrance slit should have variable opening from 10 μ m to 2.5 mm

Input port 2	Blank, with the option for future installation of a motorized entrance slit
Output port 1	CCD camera output port
Output port 2	Blank, with the option for future installation of another CCD camera
Input fiber coupling	XY-Adjustable ferrule adapter
Input fiber	200 μm core diameter, UV-VIS SMA-ferrule, 2 m length
Gratings	Three (with additional option for fourth) pre-installed and pre-calibrated gratings on a single turret: 1. 384 lines/mm blazed at 605 nm 2. 600 lines/mm blazed at 300 nm 3. 1200 lines/mm blazed at 600 nm Additional optional grating: 300 lines/mm blazed at 1700 nm
CCD detector	Back Illuminated Deep Depletion CCD with anti-fringing and dual AR coating
Window Type	UV-grade fused silica, 'Broadband VUV-NIR', wedged
Active pixels	1024 x 256 or more
Pixel size (W x H)	26 μm x 26 μm or smaller
Image area	26.7 mm x 6.7 mm with 100% fill factor or better
Peak Quantum efficiency	> 95%
Quantum efficiency in range	> 80% from 380 nm to 900 nm
TE Cooling	-80°C with air, with the option to add water cooling to take the temperature to -100°C or lower; LN cooling not allowed
Guaranteed dark current	0.003 e-/pixel/sec or less.
Read noise	< 5 e- @ 50 kHz and 15 e- @ 3 MHz
Maximum spectra	270 with full vertical binning or faster
Readout rates	50 kHz, 1 MHz and 3 MHz
Active area pixel well depth	650,000 e- or higher
Register well depth	1,000,000 e-
Digitization	16 bits
Linearity	Better than 99%
Vertical clock speed	2 to 180 μs (software selectable)
PC interfacing	USB 2.0 or 3.0
Software	SDK should be provided for the above item, and a single software should control the spectrometer and the CCD
Integration	For a fully integrated system, the spectrograph and CCD should be manufactured by the same OEM.
Information and parameter values	Please provide the public-domain URL of the OEM website to check the details and verify them.

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this section and submitted to

The Chairperson,
Attn. Dr. Shubhadeep Biswas
Department of Physics
Indian Institute of Science, Bengaluru 560012, India
Email: shubha@iisc.ac.in

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No	Items Details
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- | | |
|-----|---|
| 1. | Name of the Bidder |
| 2. | Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed) |
| 3. | Registration No/ Trade License, (attach attested copy) |
| 4. | Registered Office Address |
| 5. | Address for communication |
| 6. | Contact person- Name and Designation |
| 7. | Telephone No |
| 8. | Email ID |
| 9. | Website |
| 10. | PAN No. (attach copy) |
| 11. | GST No. (attach copy) |

Signature of the Bidder

Name, Designation, Seal

Date

Annexure-2:

Declaration regarding experience

To,
The Chairperson,
Department of Physics
Indian Institute of Science, Bengaluru 560012, India

Ref: Tender No: XXXXXXXX

Dated: XXXXX

Supply and Installation of High-resolution spectrometer at the Department of Physics in IISc Bangalore.

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has years of experience in supplying of High Precision Linear Stage.

(Signature of the Bidder)

Name, Designation, Seal

Date

Annexure-3:

Declaration of the track record

To,
The Chairperson,
Department of Physics
Indian Institute of Science, Bengaluru 560012, India

Ref: Tender No: XXXXXXXX

Dated: XXXXX

Supply and Installation of High-resolution spectrometer at the Department of Physics in IISc Bangalore.

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred /blacklisted by any Government / Semi Government organizations/institutions in India or abroad. I further certify that I'm competent officer in my company/firm to make this declaration.

Or

I declare the following,

Sl. No.	Country in which the company is Debarred/blacklisted /case is Pending	Blacklisted/debarred by Government/Semi Government/Organizations /Institutions	Reasons	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully

(Signature of the Bidder)

Name Designation, Seal

Date

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
The Chairperson,
Department of Physics
Indian Institute of Science, Bengaluru 560012, India

Ref: Tender No: XXXXXXXX

Dated: XXXXX

Supply and Installation of High-resolution spectrometer at the Department of Physics in IISc Bangalore.

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name, Designation, Seal

Date

Annexure – 5:

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

- 1. Bidder should provide technical specifications of the quoted product/s in detail.
- 2. Bidder should attach product brochures along with technical bid.
- 3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	... (details of essential items)				
1.b	...				
2.	Optional items noted in the technical specification				
2.a	... (details of essential items)				
2.b	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (1 year)				
6.	AMC 3 years beyond warranty				
7.	FOR- IISc, Bengaluru				

Any additional items

Sl. No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairperson,
Attn. Dr. Shubhadeep Biswas
Department of Physics
Indian Institute of Science, Bengaluru 560012, India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Sealed Envelope “A”: Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
 - a. Annexure 1: Bidders details
 - b. Annexure 2: Declaration regarding experience
 - c. Annexure 3: Declaration regarding clean track record
 - d. Annexure 4: Declaration for acceptance of terms and conditions
 - e. Annexure 5: Details of items quoted
2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Sealed Envelop “B”: Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.