

 <p>IIT PALAKKAD</p>	<p>भारतीय प्रौद्योगिकी संस्थान पालक्काड Indian Institute of Technology Palakkad अहलिआ एकीकृत कैम्पस, कोज़िपारा Ahalia Integrated Campus, Kozhipara पालक्काड- 678557 Palakkad – 678 557</p>	<p>दूरभाषसंख्या/ Phone no: 04923 – 226300/590/586</p> <p>ईमेल/ Email : purchase@iitpkd.ac.in</p>
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Ref No: IITPKD/MECH/KSG/124/2017

Date: 28.02.2018

Due Date of the tender: 12.03.2018 @ 3 PM

TENDER FOR INVITING QUOTATIONS

Dear Sirs,

On Behalf of Indian Institute of Technology Palakkad quotations are invited for “**Imaging Spectrograph/Monochromator with PMT**” confirming to the specification in the Annexure.

1. **Preparation of Bids:** - The tenders should be submitted under **two-bid system** (i.e.) Technical bid and Financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in technical bid. Financial Bid should indicate item – wise prices for the items mentioned in the technical bid. The technical and the financial bids should be put in separate cover and sealed. Both sealed covers should be put into a bigger cover.
2. The Quotations duly sealed and superscribed on the envelope **with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above. Fax and Email quotation are not acceptable.**
3. The price should be quoted per unit and packing and delivery charges should be indicated separately. The offer/bids should be exclusive of Taxes and Duties, which will be paid by the purchaser as applicable. However the percentage and of taxes and duties as on date should be clearly indicated.
4. The Quotations should be valid for **sixty days** from the due date and the period of delivery required should also be clearly indicated.
5. **Local Firms:** Quotations should be for free delivery to this Institute. If Quotations for Ex-Godown delivery charges should be indicated separately.
6. Outside Palakkad: Quotations should be for **F.O.R. at IIT Palakkad**. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
7. Goods shall not be supplied without an official supply order.
8. **Custom Duty:** Custom Duty which will be paid at a concessional rate against duty exemption certificate. **The price indicated should be CIF/CIP Kochi.**

9. **Concessional GST@ 5% will be paid extra against Government Notification No.47/2017, dated 14.11.2017**
10. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. No advance payment will be made. The Tenderer have to furnish the bank details along with tender like Account No, Account Name, IFSC Code, Bank address etc.
11. **Submission of Bids:** Quotation should be sent to the following address “**The Registrar, Indian Institute of Technology Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad -678 557, Kerala**”, Phone No: 04923 226 586/590, Email: purchase@iitpkd.ac.in.
12. **Delivery Period:** The quotation should indicate clearly when delivery and installation to be made.
13. **Delay in Supply or Liquidate damages:** If the supplier fails to deliver the stores within the time specified in the purchase order, the purchaser will recover from the supplier as liquidated damages a sum of **one- half of one percent (0.5%) of the P.O value of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed five percent (5%) of the P.O price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.**
14. **Late offer:** The quotation received after due date will not be considered. Please ensure that your offer is sent well in advance to reach the Institute by the due date.
15. **Loading and unloading charges will be borne by the supplier.**
16. **Warranty:** Warranty Clause should be indicated clearly.
17. **Acceptance and Rejection:** IIT Palakkad has the right to accept the whole or any parts of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Yours faithfully,



Registrar, IIT Palakkad

Encl: Specifications

Imaging Spectrograph/Monochromator with the following specifications: **1 No.**

Side entrance and Dual output option with adjustable slits – micrometer controlled
0 to 5 mm ($\leq 10 \mu\text{m}$ increment/decrement unit)

Front exit slit with mounting flange for Intensified CCD/EMCCD camera (quote as optional)

Side exit slit with mounting flange for Photomultiplier tube with detector housing

Scan range: 0-1500 nm

Czerny Turner type Imaging Spectrograph with Toroidal mirrors for astigmatism correction

Focal length: 750 mm

Aperture $\geq f/6.5$,

PMT Resolution $\leq 0.05 \text{ nm}$ @ 435.8nm (1200 l/mm grating), 10um

Slits

CCD resolution $\leq 0.07 \text{ nm}$ @ 435.8 nm (1200 l/mm grating), 20 μm slit

Triple turret grating with 1200, 1600 and 1800 l/mm gratings mounted

Turret Interface: RS232/USB

Wavelength accuracy better than $\pm 0.2 \text{ nm}$

Wavelength reproducibility better than 0.004 nm

Repeatability better than $\pm 0.04 \text{ nm}$

Detector coverage better than 27 nm

Drive-step size $\leq 0.0025 \text{ nm}$ with 1200 l/mm

Linear Dispersion $\leq 1.52 \text{ nm/mm}$

Motorised diverter mirror for exit

Astigmatism (at focal plane edges) $\leq 100 \mu\text{m}$

Power supply unit with:

Input: 100 ~ 240V AC 1.5A 50/60hz

Output: 24V 5A

Basic control software to be provided with following functionalities:

Grating and exit slit selection interface

Wavelength range selection

Monochromator wavelength calibration wizard

Photomultiplier tube – 1 No.

Typical size: 1-1/8 in

Photocathode: Sb-Cs/Multialkali

Window material: UV glass/fused silica

Spectral range better than 185-650 nm (UV to visible range)

Maximum wavelength response at 340 nm (approx.)

Characteristics at 25 °C

Anode sensitivity: Luminous (2856K) $\geq 400 \text{ A/lm}$

Cathode sensitivity: Luminous (2856K) $\geq 40 \mu\text{A/lm}$

Quantum efficiency $\geq 21 \%$

Gain $\geq 1.0 \times 10^7$

Anode pulse rise time $\leq 2.2 \text{ ns}$

Electron rise time $\leq 22 \text{ ns}$

High voltage power supply for PMT included

ICCD/EMCCD camera (Optional) – 1 No.

Compatible with spectrometer and capable of mounting on front exit slit flange

Camera data acquisition software to be provided



Terms and conditions

1. The bidder must provide detailed specifications of each equipment/item in addition to specifications mentioned in the table. Model numbers, data sheets and brochures must be included for each quoted equipment, system and all accessories
2. Compliance sheet for the specification and OEM brochure has to be attached along with the technical bid. The bidder has to fill the compliance sheet and mention page numbers or reference number in OEM brochure. Unfilled / partially filled sheets will lead to summary rejection/disqualification
3. The bidder must also specify clearly the scope of IIT Palakkad and the bidder with regards to the shipping, customs clearance, local transportation, site preparation and installation.
4. The bidder must have supplied to other centrally funded institutions namely IITs/IISc/IIST/IISERs/National Laboratories/Government of India research centres in India, similar equipment within the past 3 years for a total order value exceeding INR 75 lakh. Details and documentary evidence of the equipment supplied, the contact person (indentor/user/in-charge) in said institution shall be provided.
5. The bidder must preferably be the manufacturer (OEM) of the equipment supplied. If, however, the OEM does not have such capability in India, sole distributors of the equipment/systems may quote. In such a case, the vendor shall produce documentary evidence of being the sole distributor/subsidiary of the OEM.
6. In addition, the bidder should be a company registered under Companies Act., 1956/2013 OR a Limited Liability Partnership (LLP)/a registered partnership firm OR a sole-proprietorship entity. Appropriate registration incorporation certificate is to submitted
7. The vendor must have a registered office and service center in South India (Karnataka/Andhra Pradesh/Telangana/Tamilnadu/Kerala) with trained personnel. Details of the same must be provided
8. The vendor must quote for all the items, sub-items indicated in the specifications except optional items to be eligible for consideration.
9. The vendor must provide complete details of warranty. Warranty included in the quoted price must be clearly mentioned and any additional warranty must be specified as optional with prices.
10. Additional charges if any for system integration, testing, installation, training, packaging, document handling, freight forwarding must be indicated for the items quoted.

