

KANNUR UNIVERSITY

THAVAKKARA, CIVIL STATION P.O.,

KANNUR, KERALA - 670002

Tel: 04972715243**e-mail: registrar@kannuruniv.ac.in, sopmud@kannuruniv.ac.in****NOTICE INVITING E-TENDER**

The Registrar, Kannur University invites e-tender(s) in **Two Bid System (Two cover)** for the Supply, Installation, Testing and Commissioning of **Photoluminescence Spectrometer with low temperature, life time measurement and quantum yield measurement** at the Scientific Instrumentation Centre, Swami Ananda theertha Campus, Payyannur, Kannur (under PM USHA scheme), from **original equipment manufacturers (OEMs) or authorized distributors/dealers** as per the technical specifications and schedule given below. The rate quoted should be inclusive of all taxes, installation charges and other charges. **The Registrar, Kannur University reserves the right to accept or reject the tenders without assigning any reason thereof.** The list of equipment/accessories proposed to be purchased, including its quantity and specifications are furnished in the schedule of items given below. Since this is an e-tender, only those bidders who have enrolled in the **<http://etenders.kerala.gov.in>** portal with their own Digital Signature Certificate (DSC) can participate in the tender. E-Tender document and other details can be obtained from the above e-portal.

TENDER SCHEDULE

Tender I D	2025_KnrU_775136
Description of Work	Supply, Installation, Testing and Commissioning of Photoluminescence Spectrometer with low temperature, life time measurement and quantum yield measurement
Pre-bid meeting date, time and place	25.07.2025, 3.00 PM Kannur University Headquarters Thavakkara, Civil Station PO, Kannur, Kerala - 670002
Start date and time for online submission of e - Tender	29.07.2025, 3.00 PM
Last date and time for online submission of e - Tender	25.08.2025, 11.00 AM
Date and time of tender opening	27.08.2025, 03.00 PM
Tender fee (Excluding GST)	₹ 22500
Earnest Money Deposit (EMD)	₹ 150000
Place of supply and installation	Scientific Instrumentation Centre, Swami Ananda theertha Campus, Payyannur, Kannur, Kerala - 670327

For further details, logon to <http://etenders.kerala.gov.in>

SPECIFICATION OF THE EQUIPMENT

Sl No.	Name of the equipment	Required quantity
1	Photoluminescence Spectrometer with low temperature, life time measurement and quantum yield measurement	1

Specification

RESEARCH GRADE STEADY STATE, PHOSPHORESCENCE, AND FLUORESCENCE LIFETIME SPECTROMETER

Technical Specification

Modular fluorescence spectrometer system for acquiring steady-state excitation and emission spectra in the UV-VIS-NIR spectral range with single photon counting sensitivity. The standard instrument configuration must have a guaranteed sensitivity of >35,000:1 for the Signal-to- Noise Ratio of the water Raman signal (FSD Method) measured with excitation at 350 nm, emission at 397 nm, with a 1 second integration time and 5 nm spectral bandwidth.

Source:

- 450 W or higher CW xenon lamp with integrated power supply for steady state PL measurements.
- Display with lamp parameter and usage in hours must be integrated with Lamp housing.
- 60W or higher pulsed lamp for phosphorescence lifetime measurement with optical pulse width 1.5 μ s to 2.5 μ s and repetition rate: 0.1 Hz - 100 Hz
- Photomultiplier gating circuitry which is beneficial for measuring phosphorescence spectra

Excitation Monochromator-

- Double monochromator in Czerny Turner configuration with suitable grating optimized for the UV range around 300-400 nm, with focal lengths of 325 mm each or better.
- Minimum step 0.01 nm.
- Computer-controlled slits, exchangeable triple grating turret enabling software selection of gratings.
- Computer-controlled filter wheel for higher-order removal
- stray light suppression greater than $1:10^{10}$.

Sample chamber-

- Large Sample Compartment with single cuvette holder temperature adjustable by water/coolant circulation, fitted with integrated probe for sample temperature monitoring by spectrometer operating software.
- Filter slots provided for holding 50mm square filters as standard.
- Suitable focusing optics lens/mirror based.

- T-geometry should be available for additional emission monochromator.
- Interlocks to operate detector protecting shutter.
- Computer-controlled signal level attenuator

Emission Monochromator-

- Double monochromator in Czerny Turner configuration with suitable grating optimised for visible range and blazed around 400-500 nm with a focal length of 325 mm each or better.
- Suitable NIR grating optimised for NIR measurement up to 1700nm and blazed around 1000nm
- Minimum step 0.01 nm.
- Computer-controlled slits, swing mirror, exchangeable triple grating turret enabling software selection of gratings.
- computer-controlled filter wheel for higher order removal
- Required NIR Order sorting filter around 1250nm
- Stray light suppression greater than $1:10^{10}$.

UV-VIS PMT Detector-

- Suitable PMT detector in cooled housing.
- Detectors should have a response width of <600 ps.
- The spectral coverage is 230 nm to 980 nm or better, with low dark count <100 cps at - 20 degrees or better.

NIR InGaAs (Steady State) Detector-

- TE Cooled NIR Steady State measurement
- Spectral range: 870 nm - 1650 nm or better
- Suitable Gratings and Filters must be quoted

Solid sample holder-

- Front face detection is suitable for measuring powders and film/slide samples, including all the sample holders.
- Adjustable sample Position from the outside of the sample chamber.
- Necessary set of 7 long-pass filters with wavelengths of 330 nm, 395 nm, 455 nm, 495 nm, 550 nm, 590 nm, and 645 nm. All filters are of the size of 50 mm x 50 mm and fit into the filter holders.

Quantum Yield-

- Integrating sphere with minimum 120mm inner diameter for absolute PLQY measurements.
- Sphere must fit inside the sample chamber.
- The sphere must feature a motorised sample loading mechanism which allows easy sample exchange
- Two separate 3ml cuvette (10mm path length) with stopper and all other holders, reference plug, powder tray and all other related accessories must be provided as sphere accessories for complete measurements of absolute PLQY for both solid and liquid samples.

TE cooled sample holder –

TE Cooled sample holder from – 10degC to 105degC for liquid samples measurement through software controlled.

Software-

- All the necessary hardware and timing electronics to measure steady state and time-resolved fluorescence spectra's full capabilities must be provided.
- Comprehensive fluorescence spectrometer control, performance monitoring, spectral and lifetime data acquisition, and data fitting and analysis.
- Software should also have facilities like spectral and fluorescence/phosphorescence lifetime acquisition, kinetic measurements, time-resolved excitation and emission spectra (TRES) and slicing of TRES data, data handling routines (normalization, scaling, arithmetic, integration, differentiation, smooth, etc.), routines for quantum yield, reflectance and absorption measurements, chromaticity and luminance calculation and presentation, etc.

Quartz Fluorescence Cuvette:

- 3ml Quartz fluorescence cell 1cm x 1 cm (Qty-2)

Neutral Density filter:

- ND filter with OD 2 and OD 3.

Computer-

- Suitable computer/workstation with all the interfacing hardware and pre-loaded software to operate the system with full capabilities and the license key must be provided.

One software license key is used to independently operate the software on another computer independently

Warranty

Three-year comprehensive warranty on the full system

Optional Items:**1. Low-temperature measurements Capabilities: 77K-500 K**

- Flow type LN Cooled cryostat for sample measurements covering the temperature range 77K-500K
- All the related mounting accessories must be included in the offer.
- Turbomolecular Pump for Cryostat (220 V): Ready-to-operate high-vacuum pump with integrated vacuum gauge and display. 10⁻⁸ mbar ultimate pressure.
- All the sample holders for solid and liquid sample must be included.

2. Time Resolved Fluorescence measurements (TCSPC):

- The system should be upgraded on field to measure fluorescence lifetime based on TCSPC technique.
- TCSPC technique based shorter lifetime from picoseconds to microseconds or better.

A. Pulsed Laser diode 375 nm (± 10 nm wavelength range). Repetition rate 20MHz or better

Typical Pulse Width @10 MHz – 60ps or better.

B. Pulsed Laser diode 450 nm (± 10 nm wavelength range). Repetition rate 20MHz or better

Typical Pulse Width @10 MHz – 90ps or better.

All the other software and hardware accessories must be included to measure the fluorescence lifetime.

Terms and Conditions

1. The tender fee and EMD should be remitted online (SBI MOPS), as indicated on the e-tender website. **The 18% GST on the tender fee must be remitted directly to the GST department by the bidder.**

Sl. No	Equipment	Tender Fee in Rupees (₹)			EMD (₹)
		Excluding GST	GST (18 %)	Total (₹)	
1	Photoluminescence Spectrometer with low temperature, life time measurement and quantum yield measurement	₹ 22500	₹ 4050	₹ 26550	₹ 150000

2. All the MSMEs with Udyog Aadhar Registration or any other body specified by the Ministry of Micro, Small and Medium Enterprises **working within the state of Kerala** will be exempted from the payment of Tender Fee and EMD. Only Manufactures for Goods and Service Providers for Services are eligible for EMD/Tender fee exemption under MSME category.

3. Custom Clearance of the consignment including all the stages of custom clearance will be under the purview of supplier.

4. The tender should be submitted in two cover system (Technical bid & Financial bid).

5. The successful bidder shall, before signing the agreement and within the period specified in the letter of acceptance of his tender, deposit a sum equivalent to **5 % of the value of the contract** by way of Demand Draft drawn in favour of the Finance Officer, Kannur University payable at SBI Kannur Branch or Kannur Branch of other Nationalized or Scheduled bank, **as performance security** for the satisfactory fulfilment of the contract.

6. The bidder should be registered company/firm. Certificate of incorporation/Company registration certificate/Memorandum and Articles of Associations/Valid GST registration certificate/Valid Income tax registration certificate/Valid Service tax registration certificate should be uploaded/submitted along with the tender.

7. The bidders shall keep their rate firm for a period of **180 days**.

8. Profile of Bidder as per Annexure 1 shall be provided.

9. The bidder should have the responsibility to attend the first level service if any complaint report. The bidder should provide minimum one preventive maintenance during warranty period. Relevant documents or undertaking signed by the personnel with address and contact person's name, phone no, and URL of complaint logging website to be submitted in case, if the bidder doesn't have their own service centre in Kerala and the bidder authorize another service centre/service engineers for attending service.

10. The earnest money deposit (EMD) of the unsuccessful bidders will be returned through ONLINE Transaction and the EMD of successful bidders will be discharged upon the bidder executing the contract and furnishing the security deposit that will have to be deposited for the satisfactory fulfilment of the contract.

11. Forfeiture of EMD:

- (i) If any bidder withdraws from his tender before the expiry of the bid validity period specified **or**
- (ii) in case after being successful bidder, he/firm fails to sign the contract, and to furnish the performance security.

12. The bid shall contain detailed technical specifications, Brochures and pamphlets of the item/items quoted.

13. All the claimed specifications (make, model, year of manufacture, warranty etc.) should be mentioned in

the Brochure or Catalogue of the equipment.

14. All charges, taxes, duties and levies should be clearly indicated and the rate tendered should be inclusive of all taxes and other charges.
15. The installation, commissioning and the initial operation will be the responsibility of the supplier.
16. In case of under performance during the warranty period, the item should be replaced and the period of warranty will recommence from the date of replacement.
17. The payment will be made after completion of supply, installation and commissioning.
18. The final acceptance of the tenders rests entirely with the Kannur University who do not bind themselves to accept the lowest or any tender.
19. Communication of acceptance of the tender normally constitutes a concluded contract. Nevertheless, the successful bidder shall also execute an agreement for the due fulfilment of the contract within the period to be specified in the letter of acceptance. In cases where a successful bidder, after having made partial supplies fails to fulfil the contracts in full, all or any of the materials not supplied may at the discretion of the Registrar, be purchased by means of another tender/quotation or by negotiation or from the next higher bidder who had offered to supply already and the loss, if any, caused to the University shall thereby together with such sums as may be fixed by the University towards damages be recovered from the defaulting bidder.
20. The bidder shall undertake to supply materials according to the standard sample and /or specifications.
21. No representation for enhancement of rates once accepted will be considered.
22. The prices quoted should be inclusive of all taxes, duties, cess etc., which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery during the course of execution of the contract.
23. Special conditions, if any, of the bidders attached with the tenders will not be applicable to the contract unless they are expressly accepted in writing by the purchaser.
24. The bidder should upload along with his tender, **an agreement executed and signed in Kerala Stamp Paper of value Rs.200/- purchased in Kerala State. Tenders without the agreement in stamped paper will be rejected outright.** But in deserving cases where agreement has not been received, the Registrar may exercise his discretion and call upon such bidder to execute the agreement within a period of ten days from the date of issue of such intimation, if the Registrar is satisfied that the omission to forward the agreement along with the tender was due to causes beyond the control of the bidder and was not due to any negligence on his part. Agreement received from a bidder after the above time limit will not be considered. [Format of agreement appended].
25. The bidder shall quote their rate in the standard BOQ provided, indicating the break up details.
26. The provisions of Kerala Stores Purchase Manual are applicable to this Tender and further proceedings.
27. The University reserves all rights to accept or reject any or all the tenders without assigning any reason whatsoever at its discretion.
28. The bids shall be opened online at Kannur University on the date mentioned in Invitation Bid. If the date fixed for opening happens to be a holiday/due to net failure/ due to technical issue, the tenders will be opened on the next working day, at the same time.
29. Prices shall be quoted in Indian currency only.
30. Bidders must not be blacklisted by any Government or Public Sector Undertaking (PSU).
31. The bidder must have completed minimum of two such installations in any Government Organization/ Public Sector Undertakings/ Educational Institutions in India within last 5 years.
32. Spare/ accessory support for a minimum period of 7 years should be provided by the supplier.

GST No. of Kannur university : 32AAAGK0152J1ZT

DOCUMENTS TO BE SCANNED AND UPLOADED

1. Bidder Profile (as per format mentioned in Annexure 1)
2. Bid Particulars (as per format mentioned in Annexure 2)
3. Scanned copy of valid registration certificate (GST) & PAN Card
4. Scanned copy of Preliminary Agreement in **Kerala Stamp Paper of Rs.200/-** (as per format mentioned in Annexure 3)
5. Scanned copy of relevant Brochure of the equipment including make & model and copy of its certifications like ISO certification.
6. MSME certificate/ UDYAM registration certificates in case of MSME firms.
7. Valid authorization certificate from OEM (in case of resellers)
8. Warranty certificate/ details
9. Details of active/ functioning Service Centres in India
10. Non blacklisting declaration by the bidder
11. Details of previous installations in India within last 5 years.

(Registrar in-charge)

Sd /-
Prof.(Dr.) Wilson V A
Development Officer

ANNEXURE 1**BIDDER PROFILE**

Sl.No.	Particulars	
Details of bidder (Firm/Company)		
1	Name	
2	address	
3	Telephone & Mobile Number	
4	Email & website	
Details of Authorized Person		
5	Name	
6	Address	
7	Telephone & Email	
Information about the company		
8	Status of Company (Public Ltd. / Pvt. Ltd)	
9	Details of Registration of Firm (Provide Ref.)	
10	Number of Professionals	
11	Location and address of offices (in India & overseas)	
12	Service Tax Registration Number	
13	Income Tax Registration Number(PAN)	
14	GST Registration Number	

Signature of the Bidder

ANNEXURE 2

TECHNICAL BID (BID PARTICULARS)

1. Tender Number :-----
2. Name of the Bidder :-----
3. Full Address of the Bidder :-----
4. Name of the actual signatory of the
product(s) offered :-----
5. Bidder's proposal number and date :-----
- 6 . Name & Address of the officer to
whom all references shall be made
regarding the Tender :-----

Telephone :-----
Mobile :-----
E-mail :-----

Bidder Signature Name -----
Designation -----
Company -----
Date -----

ANNEXURE – 3

Preliminary Agreement

Articles of Agreement executed on this the day of

..... between the **Registrar, Kannur University** (hereinafter referred to as “the University”) of the one part, and **Shri** (name and address of the tenderer) (hereinafter referred to as “**the Bounden**”) of the other part.

Whereas, in response to the Notification No./ Reference No..... dated, the bounden has submitted to the University a tender for the supply of, as per specification therein and subject to the terms and conditions contained in the said tender;

And whereas, the bounden has also deposited with the University a sum of Rs.....as earnest money for execution of an agreement undertaking the due fulfilment of the contract in case his tender is accepted by the University;

Now these presents witness and it is hereby mutually agreed as follows:

1. In the event the tender submitted by the bounden is accepted by the University and the contract for is awarded to the bounden, the bounden shall, within days of acceptance of his tender, execute an agreement with the University incorporating all the terms and conditions under which the University accepts his tender.
2. If the bounden fails to execute the agreement as stated above, incorporating the terms and conditions governing the contract, the University shall have power and authority to recover from the bounden any loss or damage caused to the University by such breach, as may be determined by the University, by appropriating the earnest money deposited by the bounden. If the earnest money is found to be inadequate, the deficit amount may be recovered from the bounden and his properties, both movable and immovable, in the manner hereinafter contained.
3. All sums found due to the University under or by virtue of this agreement shall be recoverable from the bounden and his properties, movable and immovable, under the provisions of the Revenue Recovery Act for the time being in force, as though such sums are arrears of land revenue, and in such other manner as the University may deem fit.

In witness whereof Shri (name and designation), for and on behalf of the University, and Shri.(the Bounden) have hereunto set their hands on the day and year shown against their respective signatures.

Signed by Shri. **(date)**

In the presence of witnesses:

1.
2.