

KANNUR UNIVERSITY

(PMU D- SECTION)

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NOTICE INVITING E-TENDER (Re- Tender)

The Registrar, Kannur University invites e-tender(s) (Re- Tender) in Two Bid System (Two cover) for the supply, Installation, Testing and Commissioning of **Confocal Microscope** at Bio-Innovation Centre, Janaki Ammal Campus, Palayad, Kannur University (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 ID (Re-Tender)	2025_KnrU_795683_1
Name of work	Supply, Installation, testing and commissioning of Scientific Confocal Microscope at Bio Innovation Centre, Janaki Ammal Campus, Palayad, Kannur University
Last date for receipt of Tender	29/09/2025, 11 AM
Date and time of Opening tender	30/09/2025, 11 AM
EMD	Rs. 2,60,000 /-
Tender fee	Rs.25,000 /- {excl. GST}
<i>All the MSMEs with Udyog Aadhar Registration working within the state of Kerala will be exempted from the payment of Tender Fee and EMD. Under MSME category, only Manufactures for Goods and Service Providers for Services are eligible for EMD/Tender fee exemption</i>	
Place of supply and installation	Bio Innovation Centre, Janaki Ammal Campus, Palayad, Thalassery Kannur University- 670661

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

List of Equipments

Sl No.	Item	Required Quantity (Nos)
1	Confocal microscope (Advanced laser scanning spectral confocal with instant super resolution imaging.)	1

1. Technical Specification for Confocal microscope

TECHNICAL SPECIFICATIONS FOR ADVANCED LASER SCANNING SPECTRAL CONFOCAL WITH INSTANT SUPER RESOLUTION IMAGING.

The system should be of latest high sensitive state of the art spectral confocal technology for fixed & live cell imaging including Photon counting as standard. The System should be able to offer Instant Super resolution enhancement imaging at 120nm resolution in XY and 200-250nm Resolution in Z without any post processing.

SPECIFICATIONS:

A. Fully Motorized Inverted Fluorescence Research Microscope for Bright Field/DIC and Fluorescence Imaging:

1. Fully Motorized Inverted Fluorescence Research Microscope for BF, Fluorescence with a both side camera ports. An addition port on the microscope for laser fiber coupling.
2. An XY motorized stage with universal sample holders for slides, 35/60 mm Petri dish or better for tile scanning applications. The stage should be applicable for standard multi well plates with dimension 123mmx73mm or better
3. Fluorescence module: The system must be capable of visualization of various dyes such as DAPI, GFP, Cy3 and Cy5 or similar dyes. High power LED Fluorescence Light source with minimum 20,000 Hrs or better life should be offered.
4. High precision and heavy-duty Z-focus drive with step size at least 5nm or better, finer for High resolution Z scanning. LED/IR Laser based drift compensator.
5. Objectives: Should include Confocal Grade objectives:

- a. 10X/0.4 NA or more
 - b. 20X / 0.4 NA or more long working
 - c. 40X/ 1.3 NA or more long working distance application
 - d. 60-63X-oil/1.40 NA or more
 - e. All objectives should come with fully automated DIC accessories.
6. Suitable and Integrated anti vibration table for the system from the manufacturer should be provided along with the main system or a branded imported table should be provided.

B. EXCITATION LASER LINES WITH LASER MODULE:

1. Laser Module with control electronics and Solid-State Laser lines should be offered.
2. Solid State Laser line 405 nm with minimum laser power 50 mW or more. UV/405nm laser should have dedicated port for better focal plan corrected imaging.
3. Solid State Laser line 488 nm with minimum laser power 20 mW or more.
4. Solid State Laser line 514 nm with minimum laser power 20 mW or more
5. Solid State Laser line 561 nm with minimum laser power 20 mW or more.
6. Solid State Laser line 638/640 nm with minimum laser power 30 mW or more.
7. All the Visible lasers should be controlled through AOTF.

C. SPECTRAL SCAN HEAD:

1. The Spectral scan head unit must be equipped with prism based spectral dispersion mechanism. Spectral band selection with slit/knife edge/prism wedges-based mechanism (by changing the position and width/separation of the slit/knife edge/prism wedge).
2. The spectral selection and control should be possible from both ends of the central wavelength independently for all channels.
3. Built in Galvanometric scanning system capable to scan for various speed requirement from 10fps at 512x512 pixel format without interlacing or interpolating pixel value.
4. Scanning Resolution should be offered from 16x16 to 8K X 8K range or better/higher.
5. The scan field diagonal should be at least 22-25 mm or higher.
6. The Scan head must facilitate various imaging for ratio- metric and other enhanced resolution applications.
7. The system should provide a spectral resolution of at least 5nm or better.

8. The system should provide 120 nm or better in XY and 200-250nm or better in Z resolution, on the fly while acquisition without any post processing.

D. CONFOCAL FLUORESCENCE DETECTION MECHANISM:

1. Should have True Spectral confocal imaging unit and it should have provision to accommodate 3 detectors or more in the scan head and it should have at least three high sensitive GaAsP/HyD detectors with QE/PDE more than 55% or better. The detectors must work in the spectral range of 410nm to 850nm at least.
2. All detectors must be directly coupled to scan head and not through the optical fiber to avoid any signal loss.
3. Additional Transmitted light PMT for laser based DIC imaging should be included.
4. All High sensitive Fluorescence Detectors must work in Photon counting mode for absolute imaging performance to capture faintest signal avoiding detector noises.

E. CONFOCAL IMAGING WORKSTATION AND CONTROL SOFTWARE:

The system must be provided with Factory tested Workstation having Xenon processor with CUDA functionality, 64 GB DDR4 working memory, Nvidia Quadro RTX 5000 graphics card with 16 GB graphic card memory and 3072 CUDA cores. A fast 1TB NEVDA M 2 SSD system drive along with standard 6 TB HDD drive for storage of data, HP 9.5mm Slim Super Multi DVD writer. Windows 10 IoT Enterprise. Keyboard and Mouse with 37inch 4Kx4K Monitor having IPS with LED-Backlight.

System control software with imaging capabilities including the following:

1. Software should be capable of controlling motorized components of the microscope, confocal scan head, laser control including AOTF and image acquisition & processing for confocal and super resolution imaging.
2. Multidimensional Image Acquisition, Line, curved line, frame, Z-stack, Time series, polarizing imaging, Photon counting imaging capabilities. Multi point imaging and stitching of large specimens as standard.
3. Standard geometry measurements like length, areas, angles etc. and intensity measurements like histogram, line profile, intensity statistics.
4. Spectral imaging with lambda stacking and spectral un-mixing with online fingerprinting for separation of overlapping excitation/emission spectra of fluorophores.

5. Colocalization module.
6. FRET and FRAP module
7. 3D rendering and advanced 3D visualization software.

Other terms & Clauses

- 1) A 10kV UPS with battery for minimum 2 hours backup should be provided.
- 2) 3 years warranty for the complete system; viz., microscope, workstation and UPS should be offered from the date of supply.
- 3) Should have a good after sales service/technical support capable of reaching our site at short notice. Visits towards breakdown calls by service/application support engineers should be attended within 48-72 hours. Technical as well as Application support for the department shall be provided as & when required without any additional cost.
- 4) The supplier must provide an application-oriented training for the users on the operation of the instrument for 3-5 days and support analysis of our samples if required.

General Terms and Conditions

1. The tender should be submitted in two cover system (Technical bid & Financial bid).
2. Prices shall be quoted in Indian Currency only.
3. Tender fee and EMD should be remitted through SBI MOPS as indicated in the e-Tender website. All payments including EMD should be made through online but 18% GST of Tender fee should be remitted to GST Department directly. The bidder shall be solely responsible for the payment of GST. The University holds no responsibility or liability in this matter."

Sl. No	Equipment	Tender Fee (excl GST)	(18% GST)	EMD
1.	Confocal microscope (Advanced laser scanning spectral confocal with instant super resolution imaging.)	₹ 25,000	₹ 4,500	₹ 2,60,000

4. 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. Under MSME category, only Manufactures for

Goods and Service Providers for Services are eligible for EMD/Tender fee exemption.

5. Custom Clearance of the consignment including all the stages of custom clearance will be under the purview of supplier.
6. The total rate tendered should be inclusive of all taxes and other charges.
7. The bidders shall keep their rate firm for a period of **180days**.
8. 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 University Campus Branch or Kannur Branch of other Nationalized or Scheduled bank, **as performance security** for the satisfactory fulfillment of the contract.
9. All bid/tender documents are to be submitted online. Tenders /bids shall be accepted only through online mode on the website and no manual submission of the same shall be entertained.
10. Profile of Bidder as per Annexure1 shall be provided.
11. The earnest money of the unsuccessful bidders will be returned through online Transaction as per terms in E-tender website 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.
12. 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.
13. The bid shall contain detailed technical specifications, Brochures and pamphlets of all items quoted.
14. All the claimed specifications (make, model, year of manufacture, warranty etc) should be mentioned in the Brochure or Catalogue of the equipment
15. The installation, commissioning and the initial operation will be the responsibility of the supplier.
16. In case of underperformance 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 only after completion of supply, installation and commissioning.
18. The bidder shall undertake to supply materials according to the standard sample and /or specifications.
19. No representation for enhancement of rates once accepted will be considered.
20. The bidder shall quote their rate in the standard BOQ provided indicating the breakup details.
21. The provisions of Kerala Stores Purchase Manual are applicable to this Tender and further proceedings.
22. The University reserves all rights to accept or reject any or all the tenders without assigning any reason whatsoever at its discretion.
23. 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.

24. The final acceptance of the tenders rests entirely with the University who do not bind themselves to accept the lowest or any tender. But the bidders on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.
25. 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.
26. 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 fulfill 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 there by together with such sums as may be fixed by the University towards damages be recovered from the defaulting bidder.
27. 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.
28. Bidders must not be blacklisted by any Government or Public Sector Undertaking (PSU).

DOCUMENTS TO BE SCANNED AND UPLOADED

1. Bidder Profile (*as per format mentioned in Annexure1*)
2. Scanned copy of valid registration certificate (GST) & PAN Card
3. Scanned copy of relevant Brochure of the equipment including make & model and copy of its certifications like ISO certification.
4. Details of active/ functioning Service Centres in Kerala or nearby regions
5. Warranty Details
6. Valid authorization certificate from OEM (in case of resellers)
7. Any Details of previous installations.

GST No. of Kannur university : 32AAAGK0152J1ZT

Sd/-

Prof.(Dr.) Wilson V A
Development Officer (Registrar in-charge)

ANNEXURE 1**BIDDER PROFILE**

Sl.No	Particulars	
Details of bidder(Firm/Company)		
1	Name	
2	address	
3	Telephone & Mob	
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)	
Details own functional service centre or authorized functional service centres		
9	Number of Professionals	
10	Service Tax Registration Number	
11	Income Tax Registration Number (PAN)	
12	GST Registration Number	

Signature of the Bidder

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.....
..... (H.E. name and address of the tenderer)(hereinafter referred to as “the bounden”) of the other part.

WHEREAS in response to the Notification No..... dated..... the bounden has submitted to the University a tender for the specification therein subject to the terms and conditions contained in the said tender;

WHEREAS the bounden has also deposited with the University a sum of Rs.....
`..... as earnest money for execution of an agreement undertaking the due fulfillment 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 case 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. In case the bounden fails to execute the agreement as aforesaid 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 his properties movable and immovable in the manner hereinafter contained.
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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 where of Shri.....(name and designation) for and on behalf of the University and Shri.
..... Bounden have hereunto set their hands the day and year shown against their respective signatures.

Signed by Shri. (date)
In the presence of witnesses:

1.
2.

Signed by Shri. (date)
In the presence of witnesses:

1.
2.