

No: 55962/DPD/2022/UOK

**Department of Botany, University of Kerala  
Kariavattom, Thiruvananthapuram**

**e-Tender Notice**

**Date: 13/02/2023**

Department of Botany, University of Kerala, Kariavattom invites open tender through e-Procurement from the Original Equipment Manufacturers or their Authorised Dealers for the supply and installation of “**Trinocular Phase Contrast Microscope with Digital camera**”.

Last date and time for submission of tender online	15/03/2023 5 pm
Date and time of opening of tender	17/03/2023 11 am
For technical details contact	<b>1. Head of the Department</b> Dept. of Botany, University of Kerala Kariavattom, Thiruvananthapuram, 695 581 <b>Phone: 9447260101</b> <b>2. Dr. Shiburaj .S, Professor</b> Dept. of Botany, University of Kerala Kariavattom, Thiruvananthapuram, 695 581 <b>Phone: 9495826669</b>  <b>Email: <a href="mailto:botany@keralauniversity.ac.in">botany@keralauniversity.ac.in</a></b>

For further details logon to [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in)

## **Technical specifications of the required item**

### **Trinocular Phase Contrast Microscope with Digital camera Specifications**

- Ergonomically designed stand preferably with international standard certification.
- Rugged and sturdy stand.
- It should have low positioned co-axial coarse and fine focus knobs Integrated Carrying Handle at the back.
- The stand should have a built-in stabilized power supply for 24V/60W illuminator with mains connection to 110-240V, 50/60Hz.
- Microscope Should have High power 3W LED illumination for high demanding illumination needs.
- The microscope should have to convert in to a 6V/30W halogen illumination for Specific application and Should be included Blue filter
- Special skin-friendly material coated on all operating elements
- 30deg. Trinocular tube. Interpapillary adjustment from 55 to 75 mm or better
- Sidetopf designed Binocular tube with swiveling for comfortable two position height observations.
- Wide field 10x/ 22mmFOV mm or more with focusable front lens with provision to insert graticules including rubber eyecups.
- Microscope Should have Light Manager to control light intensity Between Objectives
- Microscope Should Eco Mode(automatically goes to standby after being idle for 15 minutes)
- Microscope should have 5X revolving nosepiece with precision click stops to accommodate 5 objectives.
- Microscope should have 5V USB Port
- Microscope Should have cable storage facility
- I Plan 4x/0.12NA, I plan 10X/0.25NA, I Plan 20X/0.45NAPH2, I Plan 40x/0.65NA pH2 and I Plan 100xOil/1.25NApH3.
- Should have Modular disk Condenser 0.9 to 1.25NA with Bright filed darkfiled , pH1,pH2,pH3.
- All the objectives should be of Anti-fungal treated.
- Dual layered mechanical stage with hardcore anodized surface with 1850x135mm or better with XY movement of 75x50mm with low positioned co-axial X Y movement knobs with friction adjustment mechanism.

### **Digital Microscopy camera**

- Should be supplied with 8MP , Ultra HD 4K resolution camera
- Exposure time .06mS to 1S.
- Frame Rate should be 30fps or better

- Should have HDMI,USB3,MicroSD and Ethernet Interface
- It Should Have passing cooling system
- Camera should have Active denoising, active sharpening and HDR Image enhancement Functions
- Camera should have settings such as white balance, exposure time, and image enhancement functions are done automatically. Without needing additional imaging software or a computer
- 0.5 X c mount should have supplied with camera
- Should be Supplied with Measurement Software capable to do measurement , area ,diameter and Z stacking etc.

Branded Computer i5 processor,8GB ram,1TB HDD,2GB graphics ,Win 10Pro,24” Full HD IPS Monitor

Warranty minimum 3 years + 2 years AMC

Microscope ,camera and software from the same manufacturer

### **Terms and Conditions**

1. Every tenderer should submit Tender fee of **Rs. 2,500/-**
2. Every tenders should submit an Earnest Money Deposit (EMD) of **Rs. 5,000 /-**
3. The Bidder should be a manufacturer or their dealer specifically authorised by the manufacturer to quote on their behalf for this tender as per Manufacturer Authorisation Form and Indian agents of foreign principals, if any. Equipments must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.
4. Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof.
5. The bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf for this tender as per Manufacturer Authorization Form and Indian agents of foreign principals, if any, who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the “Technical Specification”. Such equipment must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.

6. **Compliance Statement:** Along with the technical details provide a tabular column indicating whether the equipment quoted by you meets the specifications by indicating 'YES' or 'NO'. If 'YES', support the claim by providing original brochures. **Venders should provide clear brochures/data sheets about the equipment and its working. Also include adequate proof for the claim regarding the performance.**
7. Prices shall be quoted item wise.
8. The price should be inclusive of all taxes, duties, transportation, installation etc. Nothing extra will be paid in addition to the quoted rate.
9. **Validity of tender:** Tender submitted shall remain valid at least for 120 days from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.
10. **Delivery and installation: Proposed delivery schedule should be mentioned clearly. Delivery and installation should be made at Dept. of Botany, University of Kerala, Kariavattom Campus, Trivandrum - 695581, without any extra cost (inclusive of documentation, demurrage, customs duty, clearance and transportation charges). University of Kerala will provide customs duty exemption certificates if required. Complete installation, testing and demonstration of the system and day-to-day maintenance are to be provided at site.**
11. **Service facility:** Supplier should mention their details of service setup and manpower in Trivandrum who are responsible for after sales support.
12. The model number, make, and a printed literature of the product shall submit positively.
13. In case of any dispute, the decision of the University authority shall be final and binding on the bidders.
14. The undersigned reserves the right to reject any or all of the tenders received without assigning any reason thereof.
15. The quoted item should be under **comprehensive warranty three years plus 2 year AMC**

**Documents to be Uploaded**

- 1.Signed Compliance Matrix
- 2.Detailed Technical Brochure
- 3.BoQ
- 4.Detailed Financial Bid