



KERALA UNIVERSITY OF FISHERIES & OCEAN STUDIES
കേരള ഫിഷറീസ്-സമുദ്രപഠന സർവ്വകലാശാല

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GA 7/922/2023

Panangad dated 02.2023

e- TENDER NOTICE

E- tenders are invited for the Supply of Trinocular Inverted Microscope with Phase Contrast and Bright Field Camera & Software for the Dept. of Fishery Resource Management, FFS, KUFOS, Panangad.

The Tender should be submitted as e- tender in the e- procurement portal of Kerala Government with detailed specification, Tender fee of Rs.1200/- and EMD of Rs.6,000/-, by means of e- Payment. The GST amount of the tender fee @18% should be remitted to the GST department directly by the bidder. More details will be available in the Office of Dr. Pramila S. Asst. Professor, Dept. of Fishery Resource Management, KUFOS Panangad, on all working days with the permission of undersigned. Our GST Regn. No. is: 32AAAGK0031Q1ZL.

All the terms and conditions applicable to University/Government quotations/Tenders are applicable to this Tender also. Right to accept the Tender in full or in part or to reject without assigning any reason is reserved to the undersigned.

REGISTRAR

To : Firms/ Programmer to Publish on the Website

Copy to: Dean FFS/ Dr. Pramila S. Asst. Professor, Dept. of FRM through Dean FFS/ SF/ Spare

TRINOCULAR INVERTED MICROSCOPEWITH PHASE CONTRAST AND BRIGHT FIELD CAMERA & SOFTWARE

1. Specifications:-Trinocular Inverted Microscope

1	Optical system	UIS (universal Infinity Corrected) optical system
2	Frame	Inverted Frame
3	Observation tube	Trinocular observation tube
4	Inclination	45 degree





5	IPD	48 – 75mm		
6	Light path	Eyepiece / camera port: 100/0 <> 0/100		
7	Revolving Nosepiece	Quadruple Nosepiece		
8	Eyepiece	Wide field paired 10x / 22mm		
9	Focus	Revolving nosepiece vertical movement system using the coarse and fine focusing knobs. Stroke: 20mm (Focal point: up to 18.5 mm from the plain stage top surface) Stroke per rotation : 36.8mm (Coarse), 0.2mm (Fine)		
10	Plane stage	200mm X 252mm		
11	Stage	Attachable Mechanical Stage	110mm (x) X 72mm (Y)	
		Sub stage	70mm (L) X 180mm (W)	
		Low drive control	Right hand vertical low drive	
12	Scale mark for	96 well Micro plate position, Lifting type Micro plate holder, Petri dish holder (65mm dia. Hole), Terasaki Holder (38mm dia. Hole), Glass slide holder (54mm dia. Hole)		
13	Objectives	Bright filed	PLCN 4X	Plan Achromatic 4X / 0.1, WD 18.5
		Phase Contrast	CACHN10XIPC	Plan Achromatic 10X / 0.25, WD 8.8
		Long Working Distance Phase Contrast	LCACHN20XIPC LCACHN40XIPC	Plan Achromatic 20X / 0.4, WD 3.2 Plan Achromatic 40X / 0.55, WD 2.2
14	Condenser	Maximum numerical aperture : 0.3 Working Distance : 72mm Applicable Objective magnifications: 2x, 4x, 10x, 20x & 40x Up to 190mm height tissue flask can be loaded on the stage without detachable condenser		
15	Illumination system	Light source	4000K color temperature LED Light source	
		Filter holder	Insert up to 6mm thick with 45mm filter, detachable	
		Aperture diaphragm	Diaphragm blade, manual , open / close system	



	Slider insertion	Options	With phase slider pocket and built-in slider position click stop mechanism pre-centered iPC aperture in 4X, 10X, 20X and 40X insertion direction can be adjusted by the range of ± 30 degrees to right or left sides
16	iPC slider	Options	Pre-centered phase contrast aperture for 4X, 10X, 20X and 40X and 2 $\phi 45$ mm empty apertures
17	Up gradation Facility (Optional)		Fluorescence up gradation for Blue & Green Excitation Filters, with 100W Mercury Burner
18	Rated voltage / Electric current		AC 100-240V 50/60Hz 0.4A
19	Power consumption		Less than 4W
20	Warranty		Two years

2. Specification: - Fluorescence & bright Field Camera with 2.0 Mega Pixel Resolution & with 0.5X Optically corrected C-Mount Adapter for separate lock & focusing facility.

MU 2.0 MP FLUORESCENCE CAMERA WITH 0.5X OPTICALLY CORRECTED C-MOUNT ADAPTER WITH SEPERATE FOCUS ADJUSTMENT AND FOCUS LOCK	
<p>Specifications: 2.0 Mega Pixel CMOS Camera with SONY Exmor sensor IMX385 having sensor size of 1/2", Resolution: 1920 X 1080, suitable for Fluorescence & Bright Field Imaging, pixel size 3.75 X 3.75 um, Binning 1X1 with USB 3 port for faster data transfer, comes with a software for point to Point measurement, auto white balance, auto exposure option, basic setting: Gain, Gamma, Contrast, Auto white balance, optical Port : C-Mount compatible with Windows® 10 or latest version (32/ 64 bit). Packing includes: 2.0 MP Camera, USB 3 cable, calibration slide.</p>	
Application	Bright Filed & Fluorescence
Camera casing	Metal Alloy
Sensor size	1 / 2''
Pixel size	3.75 x 3.75 micron
Sensor type	SONY Exmor CMOS sensor IMX385
Resolution (Max)	1920 x 1080
FPS / Resolution	125 @ 1920 x 1080
Binning	1 x 1
Dynamic Range	66.5 dB
Signal / Noise ratio	40.5 dB
Exposure time	0.1ms ~ 15s
Spectral range	380 -650 nm with IR Filter
White Balance	ROI White balance / Manual Temperature – Tint adjustment
Image processing % enchantment	Image Calibration, Measurement & Image Control
<p>Panangad P.O. 682-506, Kochi, Kerala, India. Phone : 91 484 2700964; Fax : 91 484 2700337 Email :- utypanangad@kufos.ac.in</p>	



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<http://www.kufos.ac.in/>
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KUFOS HQRS, Panangad, Ernakulam

Software	
Operating system Image format	Windows 10 (32.64 bit) JPG / TIF / BMP / PNG
Electronic Interfaces	
PC / Lap top Power supply Operating temperature Operating Humidity	USB – 2 for Win & Mac 5V DC via USB -2 <ul style="list-style-type: none">• -10°C to +50°C• 30 to 80% RH
Computer	
CPU	Core -2 , i3, i5, i7 > 2Gb RAM
Other requirements	C-Mount / Eye piece mount + Software
Warranty	Two years