By Speed Post/ Website

CENTRAL ARID ZONE RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
Jodhpur (Rajasthan) 342 003
Phone: 0291- 2787152 Fax: + 91 291 2788706

F. No. 4(14)/2014-2015/Admn.IV Dated : 27.10.2014

To,

M/s. .....
.....
.....

Sub: Inviting Quotations for Purchase of Inverted Research Phase Contrast Microscope with Digital Color CCD Camera and Image Analysis Software.

Dear Sir(s),

You are requested to kindly quote your lowest rates on the letter head of your firm with your all terms & condition keeping the following conditions in view, in respect of the articles as mentioned in the Schedule to Tender.

1. No advance payment will be made. However, the payment is normally made within 30 days from the date of receipt of material in good condition as per order.
2. Payment will be made by mode of e-payment to the supplier/firm after satisfactory supply of ordered material and receipt of pre-receipt.
3. The quantity proposed in the quotation may be increased or decreased at the discretion of the authority while placing the order.
4. Quotations not found according to specification will be rejected/not considered.
5. The firm should supply the printed literature, operational manual etc., if applicable. The firm should also supply a copy of the authorised dealership certificate of the item, if applicable.
6. Quotations should remain valid for 6 months from the date of quotation.
7. The rate should be on F.O.R. CAZRI, Jodhpur basis for indigenous items.
8. No. form 'C' & 'D' for sales tax will be issued. Payment will be made at full rate, if applicable. However, the firm is required to produce the valid sales tax Registration No. The firm should also indicate PAN/TIN as per Income Tax Rules.
9. The Rates quoted should **be clearly be indicated in figure as well as in words**. While quoting the rates, it may be clearly indicated whether the items are inclusive or exclusive of ST/VAT, CST, Excide Duty, Custom Duty, Octroi etc. either in terms of percentage or in absolute term.
10. Delivery will have to be made normally within 30 days from the date of issue of our order or as mentioned in the supply order unless such extension is allowed by the Institute **failing which suitable penalty as indicated in the supply order will be imposed.**
11. The quotation may be sent to the office by courier/Regd. Post/Speed Post in sealed cover superscribed with **"Quotation for Inverted Research Phase Contrast Microscope with Digital Color CCD Camera and Image Analysis Software"** due date 19.11.2014 and the same must be reach to this Office on or before **19.11.2014 upto 3.00 PM** failing which it will not be considered. The quotation should be dropped in the Tender Box placed in the Store Section (with A.A.O. IV). The Quotation will be opened on the very same i.e. on 19.11.2014 at 3.30 PM in presence of the representative of the firm if they desire to attend.
12. In case of any disputes, the decision of the Director, CAZRI, Jodhpur shall be binding on the part of the contractor/supplier.
13. Director, CAZRI, Jodhpur reserves the right to accept or reject any or all the quotation without assigning any reason.
14. All bids must be accompanied by a bid security/Earnest money deposit (EMD) @ 2% of the estimated value of the item, if the cost of the item is Rs. 1.00 lac or more, in the form of a Demand Draft on a scheduled commercial bank in India, in favour of **ICAR Unit – CAZRI, Jodhpur.** Without EMD as above, quotation will not be considered (Offer less than Rs. 1.00 lac need not require EMD). If the firm is registered with National small Industries Corporation (NSIC) there is no need to submit EMD (Bid Security).

P.T.O. ✶

15. Guarantee/Warrantee may be provided for the item(s) for which rates are quoted.

16. The firm awarded the contract may/will have to furnish a performance security in the form of Bank Guarantee as per the proforma to be supplied alongwith supply order or FDR pledged to **"ICAR Unit – CAZRI, Jodhpur**" from a scheduled Commercial Bank for an amount which may very from 5% to 10% of the value of the contract at the discretion of Director, which should remain valid for the entire period of warrantee plus two months.

17. In case, rates are quoted in terms of foreign currency, the rates must be quoted as on FOB basis and NOT on CIF basis indicating all the terms and condition. The foreign banking charges shall be borne by the beneficiary.

18. No part supply will be allowed.

19. Installation/Demonstration were-ever required will have to be done by the firm free of cost by their representative/engineer.

20. The items required is for the Headquarter CAZRI, Jodhpur and therefore, supply will have to be made accordingly.

21. The details of this NITs are also available in our web site-**www.cazri.res.in.**

Yours faithfully,

Asstt. Administrative Officer (S)
for Director

Schedule to Tender

S.No.	Particulars	Qty.	Place of supply
1.	**Inverted Research Phase Contrast Microscope with Digital Color CCD Camera and Image Analysis Software :** • Microscope Body : Inverted Microscope with Infinity corrected optical system, Facility for attaching two digital CCD camera either of side simultaneously. Microscope should have capable to upgrade step wise motorization part like nosepiece, stage fluorescent, live cell imaging as research requirement further. Illumination: Should be 12V 100 W Halogen illuminations. (Provided Five spares bulb) Condenser: Condenser Universal Extra long working condenser for bright field phase contrast. Nosepiece: Sextuple revolving nosepiece to accommodate six objectives at a time. Eyepiece: 10x (F.O.V 22 mm), Should have diopter adjustment facility on both eye with incorporated betrand lens. Light Distribution: Eyepiece : Camera: 100:0/20:80/0:100, three way Stage: Rectangular XY Mechanical Stage with Universal holder to accommodate all types of specimen. Should have long handle stage movement lever. 2. Objectives: High performance Objective suitable for bright field (BF) /Phase contrast (PH) and fluorescence observation. • Plan Fluor 10X N.A 0.30 W.D 15.0 mm or better, BF/PH • Plan Fluor 20X N.A. 0.45 W.D 8.2-6.9 mm or better, BF/PH, with correction ring. • Plan Fluor 40X N.A. 0.60 W.D 3.6-2.8 mm or better, BF/PH, with correction ring. 3. **DIGITAL COLOR CAMERA:** Dedicated scientific grade microscopic colors high sensitive CMOS camera, should reproduce color like eye see it, imaging for Bright field, Phase contrast, Fluorescence, DIC, Darkfiled images and live cell imaging of 16 million poxels with CMOS sensor size of 36.0x23.9 mm, sensitivity of ISO 200-1280, high speed live display 6 fps at full pixel 4900x3250 resolution to 45 fps at 1600x1000 pixel resolution, exposure time of sensor 100 microsecond to 60 sec. Camera should be compatible to attachment onto desktop/laptop through single wire, Camera control should have capability to control two camera. USB interface with suitable adapter to mount on to microscope. Microscope, camera and imaging software should be from same manufacturer. 4. **Image analysis software should have following features**: • Image Acquisition and device control up to Four dimensional acquisition (X,Y,Z Wave length, Time, multipoint) can be selected. • Z-series image capture, • AVI live-stream capture, • Objective calibration, Multichannel, multipoint acquisition, • Capturing data saving, • Time lapse image capturing, • Auto measurement, Auto counting, • Report Generator facility, • Microscope, camera and software should be from same manufacturer for better Compatibility. • 5. All cables/power-cords/adapters required for operation should be provided 6. <u>Optional</u>: Fluorescent attachment: Six position fluorescent turrets with 120W / 130W Mercury fluorescent lamp (Precentred) connected through fiber optical cable to the microscope having lamp life of 2000 hrs. with filter mirror of DAPI, FITC, TRITC. (Fluorescent attachment should be quoted as optional). 7. Microscope, camera and image analysis software should be from same manufacturer for better compatibility and future upgradability. This is a very essential terms to be followed. Microscope should have capability to upgrade to DIC and other microscopic technique as research requirement further.	01 No.	CAZRI, Jodhpur

8. **Computer:**

Branded Compatible computer / System Core i7 4700 MQ (3.40 Ghz/ 6MB Cache), HM 86, 8 GB DDR3 (4GBx2,1600 MHz) RAM, 2 TB HDD+8gb SSD, 5400 rpm, 10 Point Multi 2 Touch, Blue Ray COMBO SLOT In, DVDT TV Tuner Card, NVlDlA Ge Force GT 745A-2GB Graphics, 802.11 bgn, 10/100/1000 Mbps LAN, 2x USB 2.0 + 2 x USB 3.0 Ports, 6 in 1 Media Card Reader, 720p (HD Camera) Skype Certified, Integrated Dolby V4 Speaker System, Integrated Bluetooth, Wireless 2.4 Ghz, wireless Mouse and keyboard, Windows 8 64Bit, Single License, 3-3-3 Year Warranty with system, 23" Frameless Full HD Touch Screen (LED Backlit display with OPS Technology: 2560x1440 resolution with support of millions of colour, Antivirus for 02 years, 1KV Offline UPS with inbuilt batteries (with one hours back-up).

Inverted Microscope basic unit
(100-240V)12V-100W consisting of:

Inverted Microscope Main Body (100-240V) 1
equipped with:

side port, coaxial coarse/fine focus w/tension adjustment on coarse

Light-distribution: 100 Eyepiece, and 20 Eye - 80 Left
TI-DH Diascopic Illumination Pillar 100W 1
D-LH/LC Precentered Lamphouse 1
Halogen Lamp 12V-100W LL 1
TI-100WRC 100W Lamphouse Remote Cable 1
T-1-PSI00W Power Supply 100-240V 1
Power Cord Type BE for 220-240V 1
Vinyl Cover Type 108 1

TI-ND6 Detachable revolving Sextuple Nosepiece 1

TI-TD 25 Inclination tube D 25 Inclination angle, Turret select 1

TI-T-B Eyepiece Tube Base Unit 1

CFI 10X W/Diopter adjustment (FOV 22mm) 2

CFI UW Eyepiece Guard 2

TI-SR Rectangular Stage 310 x 300mm surface area 1
with cross travel range of 70mm X 50mm
Wlinsert rings & stage Clips

Filter 45mm NCB11, Daylight Colour Balance 1

Filter 45mm Heat Absorbing 1

Filter 45mm GIF 546 NM Green Interference 1

UNllVERSAL SYSTEM CONDENSER FOR ALL MICROSCOPY 'TECHNIQUES

TI-C System Condenser Turret 1
ELWD Lens for System Condenser N.A.0.30, W.D.75mm 1
PH-1 Module for ELWD, TE-C 1
TE-C LWD PH-1 Module 1
TE-C LWD PH-2 Module 1

	PHASE CONTRAST OBJECTIVES CFl Plan Fluor DL 10X A N.A. 0.305, W.D. 15.2 mm, PH-1 1 CFI Super Plan Fluor ELWD ADM 20XC N.A. 0.45, 1 W.D. 8.2-6.9mm, PH-1 Cover glass correction: 0-2.0mm CFl Super Plan Fluor ELWD ADM 40XC N.A. 0.60, 1 W.D. 3.6-2.8mm, PH-2 Cover glass correction: 0-2.0mm **COLOR CAMERA-CAMERA MODEL DS-Ri2** DS-Ri2 Microscope Camera 1 AC ADAPTER 2/CN 1 Power Cord BE (220-240V) 1 L-shaped USB3.0 Cable 1 DS-F2.5 F-Mount Adapter 2.5x for DS Series 1 TI-BDTV2 F-TV Tube for F-Mount Adapter 1 **IMAGE ANALYSIS SOFTWARE** Nikon Imaging Software NIS-ELEMENTS BR for 1 acquisition and device control through four-dimensional acquisition. **Features** Image Acquistion, Time Lapse Imaging, Z-Stack, Multi-channel Fluorescence, Annotation, 2D / 3D View, ND Viewer, Filter, Morphology, Large Image, Macro, Segmentation, Auto-measurement, Report Generator facility, Data Base, Vector layer & Multi-Dimensional File Format (ND format) **N.B.: After Installation and Demo there need to be a week long Training cum Practical part need to be included. Subsequent problem solving mechanism during equipment operations need to be clarified and included.**		

Asstt. Administrative Officer (S)
for Director

Annexure-I: Detailed Specifications of Barcode Reader

PHYSICAL CHARACTERISTICS	
Dimensions	6.76 in. H x 1.34 in. D x 2.40 in. W 171.7 mm H x 34.1 mm D x 60.9 mm W
Weight	WLAN with battery: 8.3 oz./234.7 g to 8.5 oz./240.7 g Batch with battery: 8.2 oz./231.7 g to 8.4 oz./237.7 g
Display	2.8 in. QVGA with backlight; TFT-LCD, 64K colors
Touchpanel	Resistive touch panel
Keypad	27-key numeric; 2 programmable side buttons; supports keypad overlays for localization and custom functions
Expansion Slot	User accessible Micro SDHC card slot (up to 32GB)
Connectivity	Wi-Fi 802.11b/g/n and Bluetooth ; USB 1.1 full speed host/client
Notification	LED and audible alert
PERFORMANCE CHARACTERISTICS	
CPU	Marvell PXA 320 624 MHz
Operating System	Microsoft® Embedded CE 6.0 Core & Pro Editions
Memory	128 MB RAM/256 MB ROM; 256MB RAM/256MB ROM (MC2180 Only); user accessible microSD card slot (supports up to 32GB)
USER ENVIRONMENT	
Operating Temp.	14° F to 122° F/-10° C to 50° C
Storage Temp.	-40° F to 158° F/-40° C to 70° C
Drop Specification	4 ft./1.2 m to concrete at room temperature 4 ft./1.2 m drops per MIL STD 810G 3 ft./0.91 m to concrete across operating temperature
Tumble Specification	500 tumbles (1,000 hits) @ 1.64 ft./0.5 m
Sealing	IP54
Vibration	2Gs peak, 5Hz to 2kHz, 1 hour duration per axis
ESD	±15kVdc air discharge, ±8kv contact discharge
USER ENVIRONMENT (continued)	
Humidity	5% to 95% non-condensing
Development Tools	Motorola RhoElements for cross platform applications; EMDK suite (C, .NET and Java)
Management Tools	Motorola's Mobile Device Management (MDM) solutions

- Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED[2]: 450 Ft Candles (4,844 Lux) Sunlight: 10000 Ft Candles (107,640 Lux)
- LED lighting with high AC ripple content can impact scanning performance

POWER	
Battery	2400 mAh rechargeable Smart Li-Ion; user replaceable
DATA CAPTURE	
Scanner Options	1D linear imager, 1D[1] laser, 1D/2D area imager
Exit Window	Corning® Gorilla® Glass
WIRELESS COMMUNICATIONS	
WLAN	802.11b/g/n
WLAN Security	WEP, WPA, WPA2, 802.1x, EAP-TLS,TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5), PEAP (TLS, MSCHAPv2, EAP-GTC), LEAP, EAP-FAST (TLS, MS-CHAPv2, EAP-GTC), CCXv4 certified
WPAN	Bluetooth Class II, v 2.0 with EDR; integrated antenna
VOICE AND AUDIO	
Audio	Speaker and microphone Buzzer
Push-to-Talk	PTT (client included); high quality speakerphone, wired headset support, PTT will support headset and speakerphone mode
Voice Directed Picking	TekSpeech Pro Certified; Compatible with 3rd party VDP clients

PERIPHERALS AND ACCESSORIES

Accessories include: 1-slot docking USB charge cradle; 4-slot docking cradle charge only; 4-slot Ethernet cradle; 4-slot battery charger; USB sync/charge cable; power supply; modem adapter cable; holster; hand strap; lanyard; DC cable; battery

RECOMMENDED SERVICES

Managed Device Service; Service required from the Start with Comprehensive Coverage

Annexure-II: Specifications Details of Barcode Printer

Standard Features

- 300 meter ribbon capacity
- 32 bit RISC processor
- Co-resident EPL2 and ZPL II programming languages
- Triple connectivity: Serial, USB and parallel
- Print methods: Thermal transfer and direct thermal modes; printing of bar codes, text and graphics.
- OpenACCESS™ for easy media and ribbon loading
- Microsoft® Windows® drivers

Printer Specifications

Resolution

203 dpi/8 dots per mm

Memory

8 MB Flash, 8 MB SDRAM (standard)

Print Width

4.09"/104 mm

Print Length

39"/991 mm

Print Speed

5"/127 mm per second

Media Sensors

Reflective and transmissive sensors

Media Characteristics

Media width

.75”/19.5 mm to 4.49”/114 mm

Media length

0.25”/6.5 mm to 39”/991 mm

Maximum media roll size

5”/127 mm O.D. on a 1.00”/25.4 mm, 1.5”/38 mm I.D. core

Media thickness

0.003"/0.08 mm to 0.007"/0.18 mm

Media types

- Roll-fed or fan-fold
- Label stock (die cut or continuous, direct thermal or thermal transfer)
- Tag stock (die cut or continuous, direct thermal or thermal transfer)

Ribbon Characteristics

Outside diameter

2.6"/66 mm (300 m); 1.34"/34 mm (74 m)

Standard length

984' (300 m); 242' (74 m)

Ratio

- 1:4 One ribbon roll per 4 rolls of media (300 Meter)
- 1:1 One ribbon roll per roll of media (74 Meter)

Width

1.33"/33.8 mm to 2.4"/58 mm

Core I.D.

- 300 m ribbon 1.00"/25.4 mm
- 74 m ribbon 0.5"/12.7 mm

Operating Characteristics

Environmental

- Operating Temp: 40° F/5° C to 105° F/41° C
- Storage Temp: -40° F/-40° C to 140° F/60° C
- Operating Humidity: 10% to 90% non-condensing R.H
- Storage Humidity: 5% to 95% non-condensing R.H.

Agency Approvals

TUV-R NRTL, TUV-R CB, NOM, KCC, CE, FCC Class-B

Physical Characteristics

- Width: 7.75"/197 mm
- Height: 7.25"/184 mm
- Depth: 10.75"/273 mm
- Weight: 10.98 lbs/5 kg

Zebralink™ Solutions

Software

- ZebraDesigner™ Pro—An intuitive, easy-to-use software program for creating complex label designs (option)
- ZebraDesigner—Offers basic features for simple label design
- ZebraNet™ Bridge Enterprise—Centrally manage Zebra printers from a single PC screen anywhere on your global network (unlicensed product free, licensed product option)
- ZebraNet Utilities v7.0—Provides enhanced printing, conversion and administration capabilities; message management; and more
- Zebra Universal Driver—The most powerful driver available from Zebra
- Web View—Connect and control Zebra bar code printers via the printer’s Web interface using a common Web browser using ZPL
- Alert—Printers equipped with ZebraNet® print servers will notify you via any e-mail-enabled, wired, or wireless device to minimize downtime

Networking Options

Ethernet—10/100 internal offered in combination with USB and serial interface (replaces parallel port)

Firmware

- ZPL II®—Zebra Programming Language provides sophisticated label formatting and printer control and is compatible with tabletop and mobile Zebra printers
- EPL2™—Eltron Programming Language with Line Mode simplifies label formatting and enables format compatibility with legacy applications

Fonts/Graphics/Symbologies

- 16 resident expandable ZPL fonts
- One resident scalable ZPL font
- 5 resident expandable EPL2 fonts
- Supports user-defined fonts and graphics—including custom logos

Bar Code Symbologies

- Bar Code Ratios: 2:1 (non-rotated) and 3:1
- Linear Bar Codes: Codabar, Code 11 (ZPL), Code 128, Code 39, Code 93, Code 93, EAN-13, EAN-8, EAN-14 (ZPL), German Post Code (EPL), Industrial 2-of-5 (ZPL), Interleaved 2-of-5, Japanese Postnet (EPL), ISBT-128 (ZPL), Logmars (ZPL), MSI, Plessey, Postnet, GS1 DataBar (RSS-14), Standard 2-of-5 (ZPL), UCC/EAN-128 (EPL), UPC and EAN 2 or 5 digit extensions (ZPL), UPC-A, UPC-A and UPC-E with EAN 2 or 5 digit extensions, UPC-E, and GS1 Databar (formerly RSS)
- 2-Dimensional: Codablock (ZPL), Code 49 (ZPL), Data Matrix, MaxiCode, QR Code, PDF417, MicroPDF417, Aztec

(For EPL and ZPL except where noted)

Communication and Interface Capabilities

- Centronics® parallel (36 pin) connector ports
- RS-232 Serial interface
- USB V1.1 interface, bi-directional
- 10/100 internal Ethernet with USB V1.1 (option)

Options and Accessories

- Dispenser—Label peel and present with label present sensor
- ZebraNet 10/100 Print Server—Internal Ethernet for network communication and printing
- KDU and KDU Plus™—Keyboard display units for stand-alone printing applications

Electrical Specifications

- Auto-ranging external power supply with C7 type connector
- Output: 20 VDC, 2.5A
- Input: 100-240 VAC, 50-60 Hz

The following set up has to be arranged from the part of the potential company who is going to be selected for the supply of the Scanner, computer equipment and accessories as mentioned in the detailed specifications required for setting a up a workstation.

The system should enable digital scanning without inverting specimen sheets. This device need to be consisted of a scanner mounted upside-down in a vertically moveable frame connected to a computer installed with scanning software and hard drive storage to capture and retain the digitized image from the scanner and associated data.

A diagrammatic representation of the system will be likely as follows:

- Scan frame
- Scanner with cable
- Computer
- Display
- Barcode reader
- External hard drive etc.