

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES,  
STORE SECTION (DO), 1<sup>ST</sup> FLOOR, ANIMAL HOUSE,  
ANSARI NAGAR, NEW DELHI-110 029, INDIA**

# **TENDERENQUIRY DOCUMENT**

**(Two Bid System for Machinery & Equipments)**



**Advertised Tender Enquiry No.: XX-157/SO(DO)/Paed.Surg./24-25/M&E**

**Brief Description of Goods** : Purchase of Handheld ICG Fluorescence Imaging System - 01 Unit.

**SECTION-I**



**ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
ANSARI NAGAR, NEW DELHI-110 029  
TENDERS ENQUIRY DOCUMENTS (TED)**

**Advertised Tender Enquiry No : XX-157/SO(DO)/Paed.Surg./2024-25/M&E**

**On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:**

S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD
1.	Purchase of Handheld ICG Fluorescence Imaging System	01 Unit.	INR Rs. 1,20,000/-

**CRITICAL DATE SHEET**

Published Date & Time	30-11-2024 at 04.00 pm
Bid Document Download/Sale Start Date	30-11-2024 at 04.00 pm
Seek Clarification Start Date	30-11-2024 at 04.00 pm
Seek Clarification End Date	05-12-2024 at 04.00 pm
Pre Bid Meeting	11-12-2024 at 02-30 pm
Pre Bid Meeting Place & Address	NA
Bid Submission Start Date & Time	NA
Bid Submission End Date & Time	30-12-2024 (Monday) at 03.00 pm
Bid Opening Date & Time	31-12-2024 (Tuesday) at 03.00 pm

**Section - VII**  
**TECHNICAL SPECIFICATION AND GENERAL POINTS**

Technical Specifications for Open Circuit Fluorescence System

Item quantity: 01 No.

**1. Video Processor and Illuminator (VPI)**

- 1.2. The VIS light source shall be consisted of light emitting diode array.
- 1.3. The NIR light source shall be consisted of NIR laser diode array.
- 1.4. The VPI shall be able to generate simultaneous real-time HD video color and ICCG fluorescence images as an overlay in the same image.
- 1.5. NIR light source shall be triggered by the button on the camera.
- 1.6. It shall have an indicator in the monitor when NIR light source is on.
- 1.7. Video output signals: 2 HD-SDI, 1 DVI or more
- 1.8. It shall able to convert the video format between HD-SDI and 3G-SDI.
- 1.9. Output HD format: 1080i59.94, 1080p59.94 or better
- 1.10. Picture elements: 1920 x 1080
- 1.11. Service port I/O:
- 1.12. The device shall have buttons at the front panel for quick operation and setting purpose:
  - 1.12.2. Illumination button
  - 1.12.3. White balance button
  - 1.12.4. Menu setting
- 1.13. The device shall have atleast indicators at the front panel to indicate the following conditions:
  - 1.13.2. Illumination indicator
  - 1.13.3. Laser on indicator
- 1.14. An indication icon shall be shown on the monitor to indicate whether the white balance is completed.
- 1.15. The device shall be able to generate and display 4 different modes of images on the monitor simultaneously.
  - 1.15.1. White Light mode - displays the image in white light.
  - 1.15.2. Black and White Fluorescence mode - displays the NIR Fluorescence image in grayscale and displays others in black.
  - 1.15.3. NIR and VIS overlay mode - displays the NIR fluorescence which is superimposed in pseudo-color (green) on a white light image.

4. Color-sensitized Phosphor image mode displays the NIR image in monochrome, which is superimposed on a white light image.

1.16. Indication means shall be shown on the monitor to differentiate the use of modes plus.

1.23. Electrical safety

1.23.1. According to IEC 60601-1

1.23.2. Type of protection against electric shock - Class I

1.23.3. Degree of protection against electric shocks - Class I

1.24. Laser class: 3R (According to IEC/EN 60825-1, Complies with IEC/EN 1010-10 and 1010-11 except for deviation pursuant to Laser Notice No. 50, dated June 24, 2007)

1.25. Radio frequency emission: Group 1, Class A (According to CISPR 11/EN 55011)

1.26. Harmonic emissions: Class A (According to IEC/EN 61000-3-3)

1.27. Apertures for NIR radiation emission: Endoscope tip and light guide cable tip

1.28. Accessible NIR radiation (at the tip of the endoscope)

1.28.1. Wavelength: 805nm - 835nm

1.28.2. Repetition rate: 20 pulse/ sec

1.28.3. Energy output (maximum): 2 mJ/pulse

1.28.4. Beam divergence: 75° ~ 5° Embedded Laser Source Classification: Class 4

## **2. Full HD Portable Handheld Imager**

2.1. Image Sensors: CMOS HD sensor assembly

2.2. Resolution: 1080P or better

2.3. Frame rate: 60fps or better

2.4. Working distance: 10 - 40cm

2.5. Aspect ratio: 16:9 which can display captured images in widescreen monitor without any signal conversion. This prevents a loss of image quality caused by image ovalization.

2.6. Dimensions: < 15 cm in any dimension

2.7. Weight: less than 500 gms

2.8. Cable length: 3m

2.12. The imager has twin anamorphic illumination ports to visually define FOV extent for the operator and ensure adequate illumination of anatomy irrespective of lighting conditions.

2.13. The imager is immune to ambient room lighting, which means room lights can be turned on during imaging.

The imager should have an option for high-magnification mode of use. It should be able to zoom in and out for long-term recordings.

2.15. The imager should have a sterile drape so that it can be placed in the surgical field without contamination.

2.16. The imager shall have at least following buttons for special functions and settings purposes.

2.16.1. Focus buttons for focusing the image.

2.16.2. A button to toggle between VIS and NIR.

2.16.3. A button to toggle between different modes of NIR.

2.16.4. A button to call for menu functions.

2.16.5. Basic functions including turning camera light on and off, white balance, screen capture and recording can be done using the buttons on the camera.

2.18. Optimized for simultaneous VIS (visible) imaging and fluorescent imaging in the NIR spectral range.

### 3. High Resolution Medical Grade Monitor

3.1. 26 inch LED surgical display

3.2. Resolution of 1920 x 1080

3.3. Should have DVI, and HDMI inputs.

3.4. Aspect Ratio 16:9

3.5. Should meet European CE or USA FDA approval standards.

### 4. Trolley

4.1. Trolley should be capable to mount above-mentioned system.

4.2. Should have space to keep CO2 cylinder.

4.3. Should have movable arm to mount monitor.

4.4. Should be made of high quality durable material rust free.

### 5. High-definition medical video recorder

5.1. Should have provision to record the images and video sequences in OT.

5.2. Should be compliant to Medical standards.

5.3. It should support wide range of recording resolutions.

5.4. 1920 x 1080 (30Hz / 29.97Hz) to 640 x 480; Undiluted recording resolution.

5.5. 1921 x 1201 (Resize to 1728 x 1080); Supported input resolution.

5.6. It should have multiple (H) & (S) inputs/outputs.

5.7. Should have still image recording format of jpeg and video output of MPEG4 file.

Display should be at least 15" LCD

- It should support removable devices like USB HDD Drive, USB Flash Drive, memory card etc. for 300GB
- Should have a weight no more than 3 Kg
- Should be FDA approved Class I device

**6. Sterile Drapes**

- The sterile drape is a custom sterile drape that attaches to the imager
- It is a specially designed optical window and sterile tapes
- It is designed to maintain sterility of the field throughout the procedure.

**7. Fluorescence Assessment quantification Software:**

7.1. Software for VPI of Open camera system that enables relative quantification of near infra-red (NIR) fluorescence. The software should detect the onset and stability of the fluorescence signal within the field of view and displays fluorescence signals. The software should detect the onset and stability of the fluorescence signal within the field of view and display fluorescence signal intensity as a color map and percentage value relative to a reference set by the user

Accessories: No Accessories

**Consumables:**

- 1. Sterile drape

BOQ for Open Camera Fluorescence System		
S.no	Description	Qty
1	Video Processor and illuminator	1
2	Handheld Imager	1
5	HD Medical Grade Monitor	1
6	HD Medical Grade Recorder	1
7	Trolley	1
Accessories		
1	POWER CORD, INDIA	1
2	CABLE FOR VIDEO SIGNAL	1
Consumable		
1	DRAPES FOR HANDHELD IMAGER	1

- Clearly mention accessory, consumable, if accessory has limited life span, it must be mentioned for life cycle analysis.
- Any additional Accessories or Consumable must be added to the BOQ quote.
- Accessories or consumables if they have limited life span or uses must be mentioned to allow life cycle analysis of the equipment (the department projects use 50 times in a year for 10 years).

- There should be rate fixation of the consumables for a minimum of 10 years. The equipment cost provided in AMR for 5 years followed by CMC for another 5 years.
- Physical demonstration may be asked if required.

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