

**All Bidders****Amendment -VI**

**Subject: Supply, Installation, Testing and Commissioning of Integration and Data Management System for Modular Operation Theatres for Jai Prakash Narayan AIIMS Trauma Centre, New Delhi.**

**IFB No. : HSCC/SES/IOT/AIIMS-TRAUMA/2015**

Dear Sir,

This has reference to above IFB No. for the Subject works.

The following Amendment may be noted which shall be treated as part of the contract to be submitted duly signed & stamp along with tender.

| <b>Sr. No.</b> | <b>Bidder's Query</b>  | <b>Clarification/Amendment</b>   |
|----------------|--|--|
| 1              | <p>One major and two satellite Dome/light head with difference LH dimensions as per tendered specification</p> <p>Bidder's Query-Please clarify whether two satellite Dome/light head is required and confirm the availability of clear height from floor to floor to false ceiling of 3100 mm for installation of 3 Dome OT Light with one carrier/monitor arm in the OTs.</p> <p>Certification US FDA/CE to allow for maximum competition and participation</p> <p>Centrally mounted HD Camera PAL for displaying real time image during surgery. Video output asked for is Y/C1 x (PAL/NTSC) which is standard Definition. We request you to amend it to HD: Component YPbPr which is High Definition</p> | <p>1. OT light should have two domes instead of three domes.</p> <p>Certification US FDA/CE should be provided.</p> <p>Component YPbPr which is High Definition should be provided</p> |
|                | <p>Carrier/Monitor Arm for Mounting 26" Monitor or more</p> <p>High definition Flat screen color video Monitor: Medical graded flat screen LED monitor of 26" or more size. It should have a full HD resolution of 1920 x 1080 pixels or more. Aspect ratio of 16.9 progressive scan PAL system. Multiple video outputs: DVI, SVHS,HDMI. Direct fibre optic output etc. Should be mounted on carrier/Monitor</p>   | <p>One 26" Monitor should be with the OT light and another 26" monitor should be hung with spring arm.from ceiling of OT.</p>  |

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|-----|---|---|
|     | <p>Arm of OT Light.</p> <p>Separate Ceiling mounted Boom arm shall be provided for mounting 26" Monitor 2.</p> <p>Please clarify, since two 26" medical grade monitors have been asked for at 1.1 please amend the BOQ and specification accordingly</p>  |   |
| 2.0 | <p>500 GB internal storage and 2 TB external storage HDD for archiving. Compatibility to Network attached Storage (NAS) in the specs. for more storage of huge data. As per last Amendment-V Full High Definition Dual Channel Digital Documentation System should have at least 2 TB or more internal Hard Disk Drive for in system archiving. It should have two inputs Full HD (1920 x 1080) DVI and output of Full HD (1920 x 1080) DVI</p>   | <p>Full High Definition Dual Channel Digital Documentation System should have at least 2 TB or more internal Hard Disk Drive for in system archiving. It should have two inputs Full HD (1920 x 1080) DVI and output of Full HD (1920 x 1080) DVI</p> |
| 3   | <p>As per last Amendment-V Sl.No 8 , Bidder's query WHO surgical safety check list should be provided. WHO Surgical safety checklist is recommended by World Health Organization to enhance patient safety</p> <p>Amended as per last Amendment-V Sl.No 8 The recorder should have two inputs of DVI, HD-SDI, Composite video &amp; S-video inputs for recording from various sources on 2 channels.</p>  | <p>WHO surgical safety check list should be provided. WHO Surgical safety checklist is recommended by World Health Organization to enhance patient safety</p>   |
| 4   | <p>As per last Amendment-V Bidder's query 13.vii.b. Digital Signal processor for audio signals shall be integrated with audio from respective OT's and auditorium and will ensure echo/feedback free bi-directional audio communication?</p> <p>Amended as per last Amendment-V 13.vii.b. All the necessary Audio cable, speaker cable both within Operation Theater&amp; outside which is necessary for Bi-directional Audio communication between OT &amp; Seminar Hall shall be within the scope of the bidder</p> | <p>Digital Signal processor for audio signals shall be integrated with audio from respective OT's and auditorium and will ensure echo/feedback free bi-directional audio communication</p>  |
| 5   | <p>As per last Amendment-V Bidder's query 8 The recorder should have two inputs of DVI, HD-SDI, Composite video &amp; S-video inputs for recording from various sources on 2 channels.</p>  | <p>The recorder should be able to record two signals simultaneously.</p>  |

|          |   |  |
|----------|---|--|
| <p>6</p> | <p><b><u>As per the last Amendment-V</u></b></p> <p><b>2. AUDIO-VISUAL COMMUNICATION SYSTEM. Para 2.4 - 2.6 of technical specification</b><br/>Sl.No.13. viii</p> <p>Bidder’s query -Seminar Hall will be having its own Audio Visual set up which is to be integrated with audio signal from respective Operation Theaters&amp; Digital Signal Processor?</p> <p>viii. Amended in the last amendment-V as Seminar Hall will be having its own Audio Visual set up which shall be integrated with audio signal from respective Operation Theaters&amp; Digital Signal Processor.</p>  | <p>Seminar Hall will be having its own Audio Visual set up which shall be integrated with audio signal from respective Operation Theaters&amp; Digital Signal Processor.</p> <p>Video matrix and Digital signal Processor for Auditorium should be provided by the contractor.</p>   |
|          | <p><b>Bidder’s query</b></p> <p>3.3 The Full High Definition Dual channel Digital Documentation System for parallel recording of videos/stills from two Video sources should be a high end computer system based on Windows- 7/8 embedded platform (for security purposes) designed specifically for recording, managing and archiving surgical images and video in native full HD resolution. The captured full high –definition images and videos can be accessed from the hard drive for printing or saving on to multiple forms of external media which includes CD/DVD, USB Flash Drive &amp; Hospital network via separate 12” or more touch screen.</p> <p>We request you kindly amend the full High Definition Dual Channel Digital Documentation System to have “7 inch touch screen or more of its own”, plus a remote control for easy operations without interfering with camera &amp; other surgical devices.</p> <p><b>More suggestions:</b></p> <ol style="list-style-type: none"> <li>1) The recorder should have two inputs of DVI, HD-SDI, Composite video &amp; S-video inputs for recording from various sources on 2 channels.</li> <li>2) The recorder should have one output each for DVI, HD-SDI, Composite Video &amp; S-video for routing the image if required.</li> </ol> | <p>Full High Definition Dual Channel Digital Documentation System to have 7 inch touch screen or more of its own”, plus a remote control for easy operations without interfering with camera &amp; other surgical devices.</p> <ol style="list-style-type: none"> <li>1. The recorder should have two inputs of DVI, HD-SDI, Composite video &amp; S-video inputs for recording from various sources on 2 channels.</li> <li>2. The recorder should have one output each for DVI, HD-SDI, Composite video &amp; S-video inputs for recording from various sources on 2 channels.</li> <li>3. Should be able to edit the achieved videos like cutting, cropping etc.</li> <li>4. The recording should be MPEG 4 AVC/H.264 format with a maximum native resolution of 1920 x 1080 pixels depending on the input selected.</li> </ol> |

- 3) Should be able to edit the achieved videos like cutting, cropping etc.
- 4) The recording should be MPEG 4 AVC/H.264 format with a maximum native resolution of 1920 x 1080 pixels depending on the input selected.

**As per the last Amendment-V**

- 1) Full High Definition Dual Channel Digital Documentation System to have 7 inch touch screen or more of its own”, plus a remote control for easy operations without interfering with camera & other surgical devices.
- 2) The recorder should have two inputs of DVI, HD-SDI, Composite video & S-video inputs for recording from various sources on 2 channels.
- 3) The recorder should have two inputs each for DVI, HD-SDI, Composite video & S-video inputs for recording from various sources on 2 channels.
- 4) The recorder should have one output each for DVI, HD-SDI, Composite Video & S-video for routing the image if required.
- 5) Should be able to edit the achieved videos like cutting, cropping etc.

**Point 2.2-**The audio/video router should have the following outputs.

**As per the last Amendment-V**

**Point 2.2-**The audio/video router should have the following outputs.

| S. No | I/P (Source)      | Signal Type | Output (Destination) |
|-------|-------------------|-------------|----------------------|
| 1.    | Endoscopic Camera | DVI/HD-SDI  | DVI Monitor - 1      |
| 2.    | In-Light Camera   | S-Video/DVI | Monitor -2           |
| 3.    | Room Camera       | VGA/DVI     | Conference Room      |
| 4.    | C-Arm             | DVI         | Monitor – 3          |
| 5.    | Navigation System | VGA         | Archiving System     |
| 6.    | Microscope        | DVI         | Monitor -I           |
| 7.    | Patient           | DVI/VGA     |                      |

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| 3.    | Room Camera       | VGA/DVI     | Conference Room      |
| 4.    | C-Arm             | DVI         | Monitor – 3          |
| 5.    | Navigation System | VGA         | Archiving System     |
| 6.    | Microscope        | DVI         | Monitor -I           |
| 7.    | Patient           | DVI/VGA     |                      |

|  |            |   |                    |  |  |                               |                |  |  |
|--|------------|---|--------------------|--|--|-------------------------------|----------------|--|--|
|  |            | <b>vital sign</b>                       |                    |  |  | <b>vital sign</b>             |                |  |  |
|  | <b>8.</b>  | <b>Archiving System-1</b>               | <b>DVI/VGA</b>     |  |  | <b>8. Archiving System</b>    | <b>DVI/VGA</b> |  |  |
|  | <b>9.</b>  | <b>Free for Future Use</b>              | <b>DVI</b>         |  |  | <b>9. Free for Future Use</b> | <b>DVI</b>     |  |  |
|  | <b>10.</b> | <b>Free for Future Use</b>              | <b>DVI</b>         |  |  | <b>10. Conferenci</b>         | <b>DVI/S-</b>  |  |  |
|  | <b>11.</b> | <b>Archiving System-II</b>              | <b>DVI/S-Video</b> |  |  | <b>ng Solution (Polycom)</b>  | <b>Video</b>   |  |  |
|  | <b>12.</b> | <b>Conferenci ng Solution (Polycom)</b> | <b>DVI/S-Video</b> |  |  |                               |                |  |  |

All other terms & conditions remain unchanged.

Chief General Manager  
For & on behalf of Director (AIIMS)

### Bill of Quantity

| Package -Supply , installation, testing & comissioning of INTEGRATION AND DATA MANAGEMENT SYSTEM FOR OT and defect Liability Period. |   |      |     |                       |                            |                     |  |  |  |
|--|---|------|-----|-----------------------|----------------------------|---------------------|--|--|--|
| <b>PART-I</b>  |   |      |     |                       |                            |                     |  |  |  |
| S. No.   | Description   | Unit | Qty | Rate in Fig. (in Rs.) | Rate in words ( in Rupees) | Total Amount in Rs. |  |  |  |
| 1)   | Digital Display Monitor - Complete with all accessories as per technical specifications.  | Nos. | 4   |                       |                            |                     |  |  |  |
| 2)   | Audio-Visual Communication System - Complete with all accessories as per technical specification. <b>Includes the following:</b>  | Nos. | 4   |                       |                            |                     |  |  |  |
| 2a)  | Set of Microphone, Amplifer/mixer, Speaker for each OTas per technical specifications   | Nos. | 4   |                       |                            |                     |  |  |  |
| 2b)  | Full High Definition Video Conferencing System for OT as per technical specifications   | Nos. | 4   |                       |                            |                     |  |  |  |
| 2c)  | Dedicated Full High Definition Video Conferencing system for Seminar Hall along with integration with Projector & Audio set up of Seminar Hall as per technical specifications                        | Nos. | 1   |                       |                            |                     |  |  |  |
| 2d)  | Local Area Network (LAN ) in Operation Theater and in Seminar hall along with Network Switch and LAN cabling as per technical specifications  | Lot  | 1   |                       |                            |                     |  |  |  |
| 2e)  | Digital Signal Processor with 8 or more number of inputs for echo & feedback cancellation along with mixing of audio from each OT & transmitting it to the auditorium as per technical specifications | Nos. | 1   |                       |                            |                     |  |  |  |

|                |   |      |   |  |  |  |
|----------------|---|------|---|--|--|--|
| 2f)            | Full High definition video switcher 4 or more number of inputs along with full hd cabling , transmitters & receivers for transmission from each OT & transmitting it to the auditorium as per technical specifications  | Nos. | 1 |  |  |  |
| 3)             | Central Control system -Complete with all accessories as per technical specification.   | Nos. | 4 |  |  |  |
| 4)             | High Definition <b>42" or more LED</b> Monitor for Image Data Management System .Complete with all accessories as per technical specification.  | Nos. | 4 |  |  |  |
| 5)             | CAMERA (PTZ) inside OT's- complete with all accessories as per technical specification  | Nos. | 4 |  |  |  |
| 6)             | OT LIGHT (LED) with HD camera, HD Flat Monitor (26") and Spring Arm acrobat 3000 or more with VESA 100 or more. Complete with all accessories as per technical specification.   | Nos. | 4 |  |  |  |
| 7)             | Ceiling suspended boom arm system having a Spring Arm Acrobat 3000 and VESA 100 or more. Complete with all accessories as per technical specifications.   | Nos. | 4 |  |  |  |
| 8)             | Turnkey works- Complete with all accessories as per technical specification.  | LS   | 1 |  |  |  |
|                | Total Amount  |      |   |  |  |  |
|                |   |      |   |  |  |  |
| <b>PART-II</b> |   |      |   |  |  |  |
|                | <b>Comprehensive Maintenance Charges</b> for the complete Integration and Data Management System for Modular Operation Theatre including spares, repair or replacement of defective equipments/parts, tolls, tackles, accessories, consumables, labour charges etc. complete in all respect after completion of one year DLP as per the contract. |      |   |  |  |  |

|  |               |                            |   |  |  |  |  |  |
|--|---------------|----------------------------|---|--|--|--|--|--|
|  |               |                            |   |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  | 1st Year      | Job                        | 1 |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  | 2nd Year      | Job                        | 1 |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  | 3rd Year      | Job                        | 1 |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  | 4th Year      | Job                        | 1 |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  | SUB TOTAL Rs. |                            |   |  |  |  |  |  |
|  |               |                            |   |  |  |  |  |  |
|  |               | <b>TOTAL (PART I + II)</b> |   |  |  |  |  |  |