

All Bidders**Amendment -V**

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.

Sr. No.	Bidder's Query	Clarification/Amendment
1.	<p>2.0 Pre Qualification Criteria 2.1 Pre qualification will be based on meeting all the minimum criteria for prequalification and other qualification criteria regarding the Applicant's work experience, personnel and equipment capabilities and financial position as demonstrated by the Applicant's responses in the forms attached to the Letter of Application.</p> <p>Requesting you to kindly amend it to the Manufacturer/Bidder/Applicant to meet the Pre-Qualification criteria.</p>	Tender Terms & Conditions prevails.
2.	<p>Clause 2.2 Prequalification Criteria The applicant should meet the following minimum criteria for pre-qualification</p> <p>Kindly amend it to the Manufacturer/Bidder/Applicant instead of Applicant to meet the pre-qualification criteria.</p> <p>ii) Experience of having successfully completed similar work during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following :</p> <p>Three similar* completed works costing not less than the amount equal to 40% of the estimated cost. or</p> <p>Two similar* completed works costing not less than the amount equal to 50% of the estimated cost. or</p> <p>One similar* completed work costing not less than the</p>	Tender Terms & Conditions prevails.

	<p>amount equal to 80% of the estimated cost.</p> <p>Kindly amend it to the Manufacturer/Bidder/Applicant instead of Applicant to meet the pre-qualification criteria.</p>	
3.	<p>Tender Specification</p> <p>Audio Visual Communication System</p> <p>2.2 The Audio/Video Router systems should have the minimum following outputs. It should be able to integrate HD signal (eg. Room Camera) if available inside OT. It should have digital surgical time out verification check list .It should be able to manage the following input and outputs.</p> <p>We request you to kindly amend the same to be more specific in terms of configuration. It should be read MINIMUM 8x7 Input/Output to be provided .Current requirement can be realized as it asks to manage the given sources and named destinations.</p>	Tender Terms & Conditions prevails.
4.	<p>2.6 An HD 1080 P (Mobile/stationary) Videoconferencing system – The conferencing system should be controlled via the touch screen of the integration system from the OT. An HD 1080P (Mobile/stationary) Video Conferencing system along with wireless Mic and speaker system should be offered for external communication from operating room in the Operation Room Complex. The system should be able to transfer high quality real time images and audio signals from multi point at a minimum speed of 6-7 Mbps. The system should be compatible to both NTSC and PAL system with resolution up to XGA for transmission over the ISDN lines or IP Service. The conferencing system should be controlled via the touch screen of the integration system from the OT. Suitable Number/Sets of Transmitters, Receivers and Cables, connectors and accessories should be offered as per requirement.</p> <p>It is requested that kindly delete this line – “ The conferencing system should be controlled via the touch screen of integration system from the OT”.</p> <p>We request to understand the use case : and recommend if this is a mobile VIDEO CONFERENCE Solution, it is much better not bound by the Integrated OT (sole used in the Integrated OT violates the meaning of mobility of VC system), so request to have independent VC, which can be put to maximum utilization.</p>	Tender Terms & Conditions prevails.
5	<p>Central Control System</p> <p>3.1 Medical Grade touch screen or tablet (10’ or more) for controlling the AV communication, documentation and review/perview of Live images and video sequences from the OT (eg. Images from C-arm, endoscope, OR light camera and Microscope).</p> <p>Kindly specify the location of Touch screen. Is it on Pendent in surgical area or on a table in a non sterile zone?</p>	At the non sterile zone
6	<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</p>	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

	<p>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 & 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 & other surgical devices.</p> <p>More suggestions:</p> <ol style="list-style-type: none"> 1) The recorder should have two inputs of DVI, HD-SDI, Composite video & S-video inputs for recording from various sources on 2 channels. 2) The recorder should have one output each for DVI, HD-SDI, Composite Video & S-video for routing the image if required. 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. 	<p>operations without interfering with camera & other surgical devices.</p> <ol style="list-style-type: none"> 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 of 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.
7	<p>3.5 It should have at least 2 TB or more internal Hard Disk Drive (HDD) for in system archiving. Also, it should have a feature of real time in procedure DVD burning besides at the end procedure DVD burning.</p> <p>We request same to be amended to 500 Gb internal storage and 2 TB external storage HDD for archiving. Also requesting to add compatibility to Network attached Storage (NAS) in the specs. for more storage of huge data.</p>	<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.</p>
8	<p>3.6 WHO surgical safety check list should be provided. We request you to kindly specify that why it has been asked for? We also suggest that “ OT light control by touch screen, diming of OT light” to be part of the same tender.</p>	<p>The recorder should have two inputs of DVI, HD-SDI, Composite video & S-video inputs for recording from various sources on 2 channels.</p>
9	<p>PQ (2.2ii) One completed work of any nature (either part of 2.2, (ii) or separate one costing not less than the amount equal to 40% to the estimated cost with some Central/State Government organization/Central Autonomous body/Central Public Sector Undertaking. This should be changed to 30% of the estimated cost. Justification:-This would ensure maximum participation.</p>	<p>Tender Terms and conditions prevail.</p>
10	<p>Point 1.3- The monitor 1 should be on ceiling suspended boom arm and monitor 2 on top shelf of surgical pendant.</p>	<p>Both Monitors on boom arm will enable greater movement and placement of the Monitors in the line of sight of Surgeon and Assistants and will</p>

	<p>This should be changed to Both the Monitors should be on ceiling suspended boom arm.</p> <p>Justification:- Both Monitors on boom arm will enable greater movement and placement of the Monitors in the line of sight of Surgeon and Assistants and will improve viewing capability and ergonomics of the OT.</p>	improve viewing capability and ergonomics of the OT.																																																																																																																												
11	<p>Point 2.2-The audio/video router should have the following outputs.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>I/P (Source)</th> <th>Signal Type</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Endoscopic Camera/Operating Microscope</td> <td>DVI</td> </tr> <tr> <td>2.</td> <td>In-Light Camera</td> <td>DVI/HD-SDI</td> </tr> <tr> <td>3.</td> <td>Room Camera</td> <td>S-Video/DVI</td> </tr> <tr> <td>4.</td> <td>C-Arm/Navigation System</td> <td>VGA/DVI</td> </tr> <tr> <td>5.</td> <td>Microscope</td> <td>DVI</td> </tr> <tr> <td>6.</td> <td>Patient vital sign</td> <td>VGA</td> </tr> <tr> <td>7.</td> <td>Archiving System-1</td> <td>DVI</td> </tr> <tr> <td>8.</td> <td>Free for Future Use</td> <td>DVI/VGA</td> </tr> <tr> <td>9.</td> <td>Free for Future Use</td> <td>DVI/VGA</td> </tr> <tr> <td>10.</td> <td>Archiving System-II</td> <td>DVI</td> </tr> </tbody> </table> <p>The above system should be change as below:-</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>I/P (Source)</th> <th>Signal Type</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Endoscopic Camera</td> <td>DVI/HD-SDI</td> </tr> <tr> <td>2.</td> <td>In-Light Camera</td> <td>S-Video/DVI</td> </tr> <tr> <td>3.</td> <td>Room Camera</td> <td>VGA/DVI</td> </tr> <tr> <td>4.</td> <td>C-Arm</td> <td>DVI</td> </tr> <tr> <td>5.</td> <td>Navigation System</td> <td>VGA</td> </tr> <tr> <td>6.</td> <td>Microscope</td> <td>DVI</td> </tr> <tr> <td>7.</td> <td>Patient vital sign</td> <td>DVI/VGA</td> </tr> <tr> <td>8.</td> <td>Archiving System-1</td> <td>DVI/VGA</td> </tr> <tr> <td>9.</td> <td>Free for Future Use</td> <td>DVI</td> </tr> <tr> <td>10.</td> <td>Free for Future Use</td> <td>DVI</td> </tr> <tr> <td>11.</td> <td>Archiving System-II</td> <td>DVI/S- Video</td> </tr> <tr> <td>12.</td> <td>Conferencing Solution (Polycom)</td> <td>DVI/S- Video</td> </tr> </tbody> </table>	S. No.	I/P (Source)	Signal Type	1.	Endoscopic Camera/Operating Microscope	DVI	2.	In-Light Camera	DVI/HD-SDI	3.	Room Camera	S-Video/DVI	4.	C-Arm/Navigation System	VGA/DVI	5.	Microscope	DVI	6.	Patient vital sign	VGA	7.	Archiving System-1	DVI	8.	Free for Future Use	DVI/VGA	9.	Free for Future Use	DVI/VGA	10.	Archiving System-II	DVI	S. No.	I/P (Source)	Signal Type	1.	Endoscopic Camera	DVI/HD-SDI	2.	In-Light Camera	S-Video/DVI	3.	Room Camera	VGA/DVI	4.	C-Arm	DVI	5.	Navigation System	VGA	6.	Microscope	DVI	7.	Patient vital sign	DVI/VGA	8.	Archiving System-1	DVI/VGA	9.	Free for Future Use	DVI	10.	Free for Future Use	DVI	11.	Archiving System-II	DVI/S- Video	12.	Conferencing Solution (Polycom)	DVI/S- Video	<table border="1"> <thead> <tr> <th>S. No</th> <th>I/P (Source)</th> <th>Signal Type</th> <th>Output (Destination)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Endoscopic Camera</td> <td>DVI/HD-SDI</td> <td>DVI Monitor -1</td> </tr> <tr> <td>2.</td> <td>In-Light Camera</td> <td>S-Video/DVI</td> <td>Monitor -2</td> </tr> <tr> <td>3.</td> <td>Room Camera</td> <td>VGA/DVI</td> <td>Conference Room</td> </tr> <tr> <td>4.</td> <td>C-Arm</td> <td>DVI</td> <td>Monitor – 3</td> </tr> <tr> <td>5.</td> <td>Navigation System</td> <td>VGA</td> <td>Archiving System</td> </tr> <tr> <td>6.</td> <td>Microscope</td> <td>DVI</td> <td>Monitor -I</td> </tr> <tr> <td>7.</td> <td>Patient vital sign</td> <td>DVI/VGA</td> <td></td> </tr> <tr> <td>8.</td> <td>Archiving System-1</td> <td>DVI/VGA</td> <td></td> </tr> <tr> <td>9.</td> <td>Free for Future Use</td> <td>DVI</td> <td></td> </tr> <tr> <td>10.</td> <td>Free for Future Use</td> <td>DVI</td> <td></td> </tr> <tr> <td>11.</td> <td>Archiving System-II</td> <td>DVI/S-Video</td> <td></td> </tr> <tr> <td>12.</td> <td>Conferencing Solution (Polycom)</td> <td>DVI/S-Video</td> <td></td> </tr> </tbody> </table>	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 vital sign	DVI/VGA		8.	Archiving System-1	DVI/VGA		9.	Free for Future Use	DVI		10.	Free for Future Use	DVI		11.	Archiving System-II	DVI/S-Video		12.	Conferencing Solution (Polycom)	DVI/S-Video	
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	<p>Justification:-The above change would ensure that a separate input port is provided for C-Arm and Navigation system and for Video Conferencing Solution.</p> <p>So minimum desired Input/Output Matrix should be 12*12 Inputs/Outputs as per above explanation. Free for Future use ports are also very important so that in future PACS or HIS or Robotics integration or integration of any other medical device can happen smoothly and OR's future ready.</p>	
12	<p>Point 6- OT Light</p> <p>1. The OT Light should have an outer arc of 40 cm. This should be changed to at least 75 cm because a circular dome of OT Lights having good laminar flow compatibility by leading OT Lights manufactures is 75 cm or more in diameter.</p> <p>2. Each Arm having 5 heads cluster (open structure).</p> <p>This line should be removed as it is not an open structure but a closed single manufacturer LED placement technique.</p> <p>Instead Reflection + Lens Technology to be used in the Dome shall be added in the specs.</p> <p>3. Head Size: 8 cm each. This word shall be removed from specs. This is not an open specification.</p> <p>4. No. of LED's in each Head 12 (60 in each cluster). This should be changed to at least 90 LED's per Dome. A good light shall have more no. of LED's to produce illuminance so that power consumption per dome is reduced.</p> <p>5. Light Field Size 26-40 cm.</p> <p>This should be changed to 16-29 cm because a focused spot size is needed for deep wounds and a good OT Light should be able to create smaller spot size as well.</p> <p>6. Certifications like SKWI DIN 1964 for laminar flow compatibility and IP 53 for Ingress protection should be asked for from Manufactures of OT Lights.</p> <p>Justification:</p> <p>b) OT Light Camera System:-</p> <p>The optical zoom mentioned in the tender is 25-30X.</p> <p>This should be changed to 10X because 10X value for an optical zoom is in the best viewing abilities and most of the OT Light Camera Manufacturer has Optical Zoom 10X or less. So this change</p>	OT light specification is amended.(see the amended specification at the end of this amendment).

	<p>would ensure maximum participation.</p> <p>c) Flat Panel Monitor Arm OT light should be supplied along with a spring arm ac 3000 or more. This should be changed to Acrobat 2000 spring arms or more.</p> <p>Justification: Acrobat 2000 spring arm offers 330 degree of movement of Swivel Arms and is designed for a load up to 21 kgs suitable enough to suspend single Monitor on arm. Acrobat 3000 spring arms have load bearing capacity of 30 kgs and are mainly used to suspend two monitors beside each other on a single arm which is not required as per the tender specifications. Also having Acrobat 2000 Spring arms would enable maximum participation from bidders and more competition.</p>	
13	<p>2. AUDIO-VISUAL COMMUNICATION SYSTEM. Para 2.4 - 2.6 of technical specification Whether</p> <ul style="list-style-type: none"> i. Each OT is to be equipped with its respective Wireless head wearing microphone along with speaker and amplifier inside the OT? ii. Wireless Head wearing microphone shall be used with Full High Definition Video Conferencing and speaker/amplifier shall be used for play back of any audio sources inside the OT? iii. Full High definition (1080p) Video Conferencing system should be integrated with head wearing microphones of the surgeon along with amplifier - speaker of the OT for Audio from the far-site? iv. Each OT should have its own Video Conferencing set up or what is the exact numbers of VC's to be shared between multiples OT's? v. Static IP along with LAN network in the OT & seminar hall will be provided by the hospital? vi. Dedicated one number of Full High 	<ul style="list-style-type: none"> i. Each OT is to be equipped with its respective Wireless head wearing microphone along with speaker and amplifier inside the OT. ii. Wireless Head wearing microphone shall be used with Full High Definition Video Conferencing and speaker/amplifier shall be used for play back of any audio sources inside the OT iii. Full High definition (1080p) Video Conferencing system should be integrated with head wearing microphones of the surgeon along with amplifier - speaker of the OT for Audio from the far-site. iv. Tender terms prevail v. Static IP along with LAN network in the OT & seminar hall shall be provided by the contractor. vi. Dedicated one number of Full High Definition

	<p>Definition Video Conferencing system shall be deployed in the seminar hall by the bidder?</p> <p>vii. In addition to the Full High Definition Video Conferencing set up, separate Audio set up for Bi-directional Audio communication between Operation Theater & Seminar hall to be provided?</p> <p>a. It shall include Digital Signal Processor with 6 or more number of inputs for echo & feedback cancellation along with mixing of audio from each OT & transmitting it to the auditorium?</p> <p>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>c. All the necessary Audio cable, speaker cable both within Operation Theater& outside which is necessary for Bi-directional Audio communication between OT & Seminar Hall shall be within the scope of the bidder?</p> <p>viii. Seminar Hall will be having its own Audio Visual set up which is to be integrated with audio signal from respective Operation Theaters& Digital Signal Processor?</p> <p>ix. Along with Full High Definition VC, dedicated Full HD transmission from respective OT's to the seminar hall is to be provided by the bidder?</p> <p>a. <u>Necessary Full High Definition Video switcher along with Full HD cabling</u> with required transmitters/receivers for transmission from each OT to the seminar hall to be provided by the bidder?</p>	<p>Video Conferencing system shall be deployed in the seminar hall by the contractor.</p> <p>vii. Tender terms prevail</p> <p>a. Tender terms prevail</p> <p>b. All the necessary Audio cable, speaker cable both within Operation Theater& outside which is necessary for Bi-directional Audio communication between OT & Seminar Hall shall be within the scope of the bidder</p> <p>c. All the necessary Audio cable, speaker cable both within Operation Theater& outside which is necessary for Bi-directional Audio communication between OT & Seminar Hall shall be within the scope of the bidder</p> <p>viii. Seminar Hall will be having its own Audio Visual set up which shall be integrated with audio signal from respective Operation Theaters& Digital Signal Processor.</p> <p>ix Along with Full High Definition VC, dedicated Full HD transmission from respective OT's to the seminar hall shall be provided by the bidder.</p> <p>a. Necessary Full High Definition Video switcher along with Full HD cabling with required transmitters/receivers for transmission from each OT to the seminar hall shall be provided by the bidder.</p>
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	<u>PRE-QUALIFICATION CRITERIA</u>	
14	<p>Volume I, Para 2, 2.2 (iv) The Company should have positive Net Worth and should not have incurred loss in more than Two years in last Five years ending 31st March 2015 duly certified by the Chartered Account.</p> <p>Bidders Query:- The Company should furnish Annual Report (Balance Sheet and Profit & Loss Account) for last three years ending March 31, 2015</p>	Tender Terms and conditions prevail.
	<p><u>Technical Specifications</u> Volume IV <u>2.AUDIO-VISUAL COMMUNICATION SYSTEM</u></p> <p>2.1-The operating rooms should be connected to the Conference room for video conferencing and live transmissions. Suitable cable should be laid accordingly.</p> <p>Bidders Query:- The operating rooms should be connected to the Conference room for HD (1080p) video conferencing and live transmissions. Suitable cable should be laid accordingly.</p> <p>2.4 -A pair of high quality echo cancellation active loudspeakers shall be installed within the Operating room along with wireless Mic Suitable Audio mixer and Audio equalizer should be installed at a most suitable place. Suitable cable material and a patch panel should be offered as per the position of the Loudspeaker.</p> <p>Bidders Query:- A pair of high quality echo cancellation active loudspeakers shall be installed within the Operating room along with wireless Mic Suitable Audio mixer and Audio equalizer should be installed at a most suitable place. Suitable HD-SDI/ Fiber cable material and a patch panel should be offered as per the position of the Loudspeaker. The system should be independent of the Video Conferencing system and Hospital LAN/ IP. It should not use the CODEC of the video conferencing system.</p> <p>2.6- An HD 1080P (Mobile/stationery) Video Conferencing system along with wireless Mic and speaker system should be offered for external communication from operating room in the Operation Room Complex. The system should be able to transfer high quality real time images and audio signals from multipoint at a minimum speed</p>	<p>A pair of high quality echo cancellation active loudspeakers shall be installed within the Operating room along with wireless Mic Suitable Audio mixer and Audio equalizer should be installed at a most suitable place. Suitable HD-SDI/ Fiber cable material and a patch panel should be offered as per the position of the Loudspeaker. The system should be independent of the Video Conferencing system and Hospital LAN/ IP/PACKS/HMIS. It should not use the CODEC of the video conferencing system.</p> <p>An HD 1080P (Mobile/stationery) Video Conferencing system along with wireless Mic and speaker system should be offered for external communication from operating room in</p>

	<p>of 6-7 Mbps. The system should be compatible to both NTSC and PAL system with resolution up to XGA for transmission over the ISDN lines or IP Service. The conferencing system should be controlled via the touch screen of the integration system from the OT. Suitable Number / Sets of Transmitters, Receivers and Cables, connectors and accessories should be offered as per the requirement.</p> <p>Bidders Query:- An HD 1080P (Mobile/stationery) Video Conferencing system along with wireless Mic and speaker system should be offered for external communication from operating room in the Operation Room Complex. The system should be able to transfer high quality real time images and audio signals from multipoint at a minimum speed of 6-7 Mbps. The system should be compatible to both NTSC and PAL system with resolution up to XGA for transmission over the ISDN lines or IP Service. The conferencing system should be controlled via the touch screen of the integration system/ Remote Control of the Video Conferencing system from the OT. Suitable Number / Sets of Transmitters, Receivers and Cables, connectors and accessories should be offered as per the requirement.</p>	<p>the Operation Room Complex. The system should be able to transfer high quality real time images and audio signals from multipoint at a minimum speed of 6-7 Mbps. The system should be compatible to both NTSC and PAL system with resolution up to XGA for transmission over the ISDN lines or IP Service. The conferencing system should be controlled via the touch screen of the integration system/ Remote Control of the Video Conferencing system from the OT. Suitable Number / Sets of Transmitters, Receivers and Cables, connectors and accessories should be offered as per the requirement.</p>
15	<p><u>HIGH DEFINITION MONITOR FOR IMAGE DATA MANAGEMENT SYSTEM</u></p> <p>4.1- Should have individual high definition medical grade 42” or more wall mounted LED monitor, wall mounted (to display images from PACS)</p> <p>Bidders Query:- Should have individual high definition medical/ Professional grade 42” or more wall mounted LED monitor, wall mounted (to display images from PACS)</p>	<p>Should have individual high definition medical/ Professional grade 42” or more wall mounted LED monitor, wall mounted (to display images from PACS)</p>
	<p>5.- CAMERA (PTZ) INSIDE OT’S</p> <p>5.2- It should be high speed cameras, with 25X zoom lens, with pan tilt with power supply and reliable strong mounting assembly.</p> <p>Bidders Query:- It should be high speed cameras, with 20 - 25X zoom lens, with pan tilt with power supply and reliable strong mounting assembly.</p>	<p>It should be high speed cameras, with 20 - 25X zoom lens, with pan tilt with power supply and reliable strong mounting assembly.</p>
16	<p><u>OT LIGHT(LED) WITH CAMERA AND MONITOR</u></p> <p>6.1OT Light</p>	<p>OT Light specification is amended and mentioned at the last page.</p>

	<p>a) The most compact LED surgical lights with the lowest air shielding area and the best laminar flow index. The LED surgical lights are with an outer arc of merely 40 cm and the lowest air shielding area (max. 400 cm²)</p> <p>Bidders Query:- The most compact LED surgical lights with the lowest air shielding area and the best laminar flow index.</p> <p>b) Each Arm having 5 heads cluster (open structure)</p> <p>Bidders Query:- -Deleted (<i>since specific to one company</i>)</p> <p>c) Head Size : 8 cm each</p> <p>Bidders Query:- Diameter of Light Fixture: 70 - 90 cm</p> <p>d) Number of LED in each head : 12 LEDs (60 in each cluster).</p> <p>Bidders Query:- Number of LED in each head : 60 or more in each dome.</p> <p>e) Light field Size : 26-40 cm</p> <p>Bidders Query:- Light field Size : 20-30 cm</p> <p>f) Lighting Depth L1+L2 : 1100mm</p> <p>Bidders Query:- Lighting Depth L1+L2 (20% E_C): 1100mm</p>	
	<p><u>BILL OF QUANTITIES</u></p>	
<p>17</p>	<p>Item No 6.0 OT LIGHT (LED) with camera and monitor. Complete with all accessories as per technical specifications.</p> <p>Bidders Query:- OT Light (LED) with HD camera & spring arm ac 3000 or more with VESA 100 or more adaptation for mounting the surgical flat panel.</p>	<p>OT Light specification is amended and mentioned at the last page.</p>
<p>18</p>	<p>Volume IV TECHNICAL SPECIFICATION OF MODULAR OPERATION THEATRE Technical Specifications 11. ADJUSTABLE MOVABLE BOOM ARM SYSTEMS</p> <p>a) Equipment Boom System with boom suspension (Surgeon Pendant) for Progressive Scan Flat Panel.</p> <p>Bidders Query:- Equipment Boom System with boom suspension (Surgeon Pendant) for Progressive Scan Flat Panel.</p>	<p>ADJUSTABLE MOVABLE BOOM ARM SYSTEMS is not the item of the above said works.</p>

<p>b) Should have at least 3 shelves of minimum 750 mm size for various medical devices having a load bearing capacity of minimum 200 Kg.</p> <p>Bidders Query:-</p> <p>1. Should have at least 4 shelves of minimum 750 mm size for various medical devices having a load bearing capacity of minimum 200 Kg.</p> <p>2. Should have 01 Service head mounted monitor holder for 26" Surgical Monitor with load bearing capacity of upto 15 kg.</p> <p>3. Should have 01 Side rail mounted monitor holder for touch screen of Integration system with load bearing capacity of upto 2 kg.</p>	
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Specification of OT light is amended as following:

Double combination OT Ceiling Light with LED Technology and Centrally Mounted HD Camera System, Medical Grade Monitor Double combination OT Ceiling Light with LED Technology and Centrally Mounted HD Camera System, Medical Grade Monitor

1) Should have the following Features:

One major and two satellite Dome/lighthead with difference LH dimensions

Single Colour Pure White LED's

Reflector based LED technology

Arrangement or LED in such a way that Shadow Free/Deep Cavity illumination is achieved special design to maximum the field of illumination and optimized illumination depth

Should have good laminar flow properties

Easy service access of electronics on the light head dome surface

Efficient heat management system through heat sink and low power consp. (alum. Housing)

ESG safety glass for simple and fast disinfection process

360 deg rotation of domes/lightheads/arms for unlimited positioning of light heads

MIS lighting Feature on domes

Should have a third arm for mounting the monitor

Full Cardanic Arms

Wall controls

Technical Data of Light Heads:

	Major	Satellite
Intensity Range (Lux)	50000-160000	45000-140000
Life time of light source (h)	>50,000	>50,000
Light Field Diameter (mm)	200-330	200-320
Depth of Field L1+L2 (mm)	1100	1200
CRI (Ra)	96	
R9	96	
Colour Temp (K)	4500	
Rated Power Output	Less or equal to 65 W at 24 V DC	
Light Head Power Consumption	200 VA+/-10%	
Radiant Energy	around 3,4m W/m21x	
Temp increase	<1 deg	
Certification	US FDA	US FDA
Power Supply-Primary Voltage (V AC)	90-240	90-240

Rotation 360 deg 360
deg

2) Centrally Mounted HD Camera PAL for displaying real time Image during surgery

Technical Data:

Features

Sensor	1/3"
Video standards	HDTC 1.080i 1.920x 1.080=2.0736
Pixels	million HD-SDI 2x, DVI 1.080i 2x, F-Bas 1x (PAL/NTSC), Y/C 1x (PAL/NTSC)
Video outputs	LAN, RS232, RS485
IT Port	10x optical zoom
Zoom	Electronic
Image rotation	Via OP lighting
Power connections	Yes
Image stabilizer	Auto, Manual
Focus	Auto, Manual
Iris	Auto, Manual
White balance	Auto, Manual

3) Carrier/Monitor Arm for Mounting Single Monitor 19" or more (upto 14 KG)

4) High Definition Flat Screen Color video Monitor:

Medical grade flat Screen LED monitor of 26" or more size

Should have a full HD resolution of 1920x1080 pixels or more

Aspect ratio of 16.9, progressive Scan

PAL system

Multiple Video Outputs: DVI, SVHS, HDMI, Direct fiber optic output etc.

Should be table top model with provision for wall hanging.

Bidder should follow the tender terms & condition for the unanswered queries.

The bid submission date is extended from 12.05.2016 to 26.05.2016 and bid security should be valid for 180 days from the date of bid submission ie. from 26.05.2016.

All other terms & conditions remain unchanged.

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