

Amendment No. 1**Sub: Amendment to the referred tender enquiry****Ref.: Tender Enquiry HITES/PCD/PMSSY-III/06/CAD/2017-18 dated 08-06-2017**

The following changes are being incorporated in the above referred Tender Enquiry Document

**Section VII
Technical Specification**

SCH 1. BI-Plane Cardiovascular & Neuroangiography System with DSA		
Para	Existing Tender Specification	Read As
1.3	All movements of the gantries should be controlled from the joystick on the table-side as well .	All movements of the gantries should be controlled from the joystick on the table-side as well as console room
1.4	Both gantries should have fast speed for angulations and positioning. The frontal system should have a speed of at least 15 degree/sec for all positions and lateral plane should have a speed of at least 8 degree/sec	Both gantries should have fast speed for angulations and positioning. The frontal system should have a speed of at least 10 degree/sec for all positions and lateral plane should have a speed of at least 8 degree/sec
5.1	The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes from 0.2 mm to 0.9 mm. Please list the special filters available.	Accepted & ammended as: The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes from 0.2 mm to 0.9 mm in fluro and acquisition mode . Please list the special filters available.
6.2	Digital system with acquisition and processing in 1024x1024 matrix upto 25/30 fps with 10/12 bit digitization.	Digital system with acquisition and processing in 1024x1024 matrix upto 25/30 fps with 10/12 bit digitization with latest image processing software and hardware .
6.5	System should have facility for ECG triggered fluoroscopy, display and archive.	System should have facility for ECG /auto triggered fluoroscopy, display and archive.
6.8	The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 6 frames/sec or more.	The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 6 frames/sec or more 2D roadmapping capabilities

7.1	The monitor display should be offered with single TFT monitor of 56" or minimum 8 megapixel resolution. Facility of simultaneously display of at least 8 images source inputs (analog/digital) should be available to display reference image, patient hemodynamic monitoring, 3D acquisition imaging and images from other sources like CT/MR. The monitor display system should be ceiling suspended and should allow flexibility in having different image layouts of desired sizes.	The monitor display should be offered with single TFT monitor of 56" or minimum 8 megapixel resolution. Facility of simultaneously display of at least 8 images source inputs (analog/digital) should be available to display reference image, patient hemodynamic monitoring, 3D acquisition imaging and images from other sources like CT/MR. The monitor display system should be ceiling suspended and should allow flexibility in having different image layouts of desired/different format sizes.
9.2.a	The acquisition should preferably be ECG gated to plan and complete ablations is visualizing the actual state of cardiac anatomy and physiology e.g. coronary signs etc. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross-sectional & 3D images should have processing capabilities in the examination room.	The acquisition should preferably be ECG gated/angle triggered method to plan and complete ablations is visualizing the actual state of cardiac anatomy and physiology. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross-sectional & 3D images should have processing capabilities in the examination room.
10.5	The system should have 128 bipolar channels or more of intracardiac ECG recording for Electrophysiology and interfaces for RF ablation system and simulator.	The system should have at least 64 bipolar channels of intracardiac ECG recording for Electrophysiology and interfaces for RF ablation system and simulator.
	Site Modification works	
14.1	The Supplier should inspect the proposed site offered by the Consignee Institute in which the Cath Lab system has to be installed and they are required to submit the plan for the complete Cath Lab Centre. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.	The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.
	BOQ	
3	Wide screen Medical grade Monitor : 2 No.	Wide screen medical grade control room monitor : 2 nos
		Added Para:
		The system must have latest generation software/hardware packages for radiation safety of operator and patient with documentation of radiation dose per fluoroscopy/cine time

SCH 2. Single plane cardiovascular Catheterisation with digital subtraction angiography lab		
Para	Existing Tender Specification	Read As
A.2	The C arm/G arm should travel both side (right and left) of the patient for head to toe imaging without repositioning of the patient	The C arm/G arm should travel both side (right and left) of the patient and It should be possible to have head to toe imaging without repositioning of the patient
B.4	The table should have floating longitudinal and horizontal movement and motorized vertical movement and head side tilt facility	The table should have floating longitudinal and horizontal movement and motorized vertical movement
E.1	Dynamic flat detector system : Flat detector of current generation for cardiovascular application with excellent spatial and contrast resolution (25cm diagonally) with pixel size smaller than 200Um	Dynamic flat detector system : Flat detector of current generation for cardiovascular application with excellent spatial and contrast resolution (29cm diagonally maximum) with pixel size smaller than 200µm
E.6	The DQE of detector should be > 70%	The DQE of detector should be > 75%
E.7	The system should have capability to acquire the images @ minimum 30 fps for pediatric application: adult cardiology 12.5-25: peripheral angio range (25 to 30fps)	The system should have capability to acquire the images @ minimum 30 fps for pediatric application: adult cardiology 12.5-25: peripheral angio range (1-15fps)
F.6	In control room there should be data entry monitor live monitor and one DICOM based work station capable of all review, post processing and quantification of coronary and ventricular function in the control room. It should be possible to perform simultaneous off line post processing in control room. It should be possible to write DICOM image CD/DVD on this.	In control room there should be data entry monitor, live monitor, hemodynamic monitor and one DICOM based or equivalent suitable work station capable of all review including 3D reconstruction, post processing and quantification of coronary and ventricular function in the control room. It should be possible to perform simultaneous off line post processing in control room.
F.12	On line acquisition & display of DSA images in 1024 x 1024 matrix with DSA post processing from table side control in exam room and control room. All 2D and 3D roadmapping features should be offered	On line acquisition & display of DSA images in 1024 x 1024 matrix with DSA post processing from table side control in exam room and control room. All 2D and 3D roadmapping/remodelling features should be offered
H.1	Cross sectional 3 D images using 3 D reconstruction algorithms for 3D reconstruction of chambers and vessels of heart from projection images of a rotational angiography. Digital rotational angiography facility at a speed of 40 degree/sec. or more with acquisition frame rate of 25 frames/sec. or more in 1k matrix with facility for dynamic display of subtracted images in 10242 matrix should be available. It should be possible to reconstruct 3D of aortic arch, LA etc for structural	Cross sectional 3 D images using 3 D reconstruction algorithms for 3D reconstruction of chambers and vessels of heart should be possible. Digital rotational angiography facility at a speed of 40 degree/sec. or more with acquisition frame rate of 25 frames/sec. or more in 1k matrix with facility for dynamic display of subtracted images should be available.

	heart diseases from this rotational angiographic data.	
H.2	The system should have ECG triggered and untriggered 3D acquisition and processing capability.	The system should have ECG/angle triggered and untriggered 3D acquisition and processing capability.
H.4	3D roadmapping should be available. It should be possible to have TAVI guidance based on this rotational angiographic data for TAVI procedures with landmark marking and overlay. TAVI guidance packages should be included.	3D roadmapping should be available. It should be possible to have TAVI guidance for TAVI procedures with landmark marking and overlay. TAVI guidance packages should be included.
I. 1.	Machine should have capability to acquire CT images of heart chambers and vessel using an angiographic system.	Deleted
I.6	64 Channel Intra cardiac ECG for electrophysiological studies should be available. Separate system or integrated solution may be offered.	Minimum 64 Channel or more Intra cardiac ECG for electrophysiological studies should be available. Separate system or integrated solution may be offered.
23	The system must have all software/hardware packages for radiation safety of operator and patient like CARE & CLEAR/ALLURA Clarity or Equivalent.	The system must have latest generation software/hardware packages for radiation safety of operator and patient with documentation of radiation dose per fluoroscopy/cine time
14.1	The Supplier should inspect the proposed site offered by the Consignee Institute in which the Cath Lab system has to be installed and they are required to submit the plan for the complete Cath Lab Centre. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.	The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.

SCH 4. High End Echocardiography system (4 D ECHO)

Para	Existing Tender Specification	Read As
1	The system must be latest generation, highest & technologically advanced digital 4D (Live 3D) echocardiography system. Any other model other than the highest end and latest version is liable for rejection	The system must be latest generation (not last prior to 2-3 years), highest & technologically advanced digital 4D (Live 3D) echocardiography system. Any other model other than the highest end and latest version is liable for rejection

3	System must have adult cardiology transducer with either single crystal technology or pure wave technology or matrix for excellent greyscale image quality on difficult to image patients. Please mention the technology used in the transducer. Original technical data sheet should be enclosed in technical bid to support the crystal technology.	System must have adult cardiology transducer with either single crystal technology or pure wave technology or matrix or equivalent for excellent greyscale image quality on difficult to image patients. Please mention the technology used in the transducer. Original technical data sheet should be enclosed in technical bid to support the crystal technology.
6	System should be capable of supporting second generation 4D(Live 3D) matrix transducer capable of supporting a minimum of 2000 elements for exceptional 4D (live 3D) Echo,4D(Live 3D) zoom, triggered full volume and triggered 3D colour volume with electro cautery suppression.	System should be capable of supporting second generation 4D(Live 3D) matrix transthoracic transducer capable of supporting a minimum of 2000 elements for exceptional 4D (live 3D) Echo,4D(Live 3D) zoom, triggered full volume and triggered 3D colour volume with electro cautery suppression.
8	Image storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. In built hard disk with capacity of 5TB. System should have extensive image management capability including thumb nail review, Cine loop editing etc.	Image storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. Inbuilt hard disk with capacity of 500 GB. System should have extensive image capability including thumb nail review, Cine loop editing etc.management. System must be supplied with 5TB external hard disk
	System must be the following transducers	Following Transducers (Frequency tolerance +/- 2MHz) should be supplied with the system
		Added Para:
		Paediatric 2D TEE probe 1 no

SCH 5. Echocardiography System with Advanced 2D Facility		
Para	Existing Tender Specification	Read As
2.1	Latest generation Electronic Phased array Colour Doppler system with Minimum 20000 Electronic independent channels. System should be DICOM ready and capable of being interfaced with HIS/RIS/ PACS.	Latest generation Electronic Phased array Colour Doppler system with Minimum 50000 Electronic independent channels. System should be DICOM ready and capable of being interfaced with HIS/RIS/ PACS.
3.1	Latest generation Electronic Phased array Colour Doppler system with Minimum 20,000 Electronic independent channels.	Latest generation Electronic Phased array Colour Doppler system with Minimum 50,000 Electronic independent channels.
4	Transducers	Transucers (frequency tolerance :±2MHz)
4.e	TEE probe for adult and pediatric echocardiography	Separate TEE probe for adult and pediatric echocardiography

9	Frame rate should be 300 FPS or more	Frame rate should be 500 FPS or more
23	Tissue movement colorization with quantification possibly for IHD/CAD/Heart Failure patient	Tissue movement colorization with 2D quatification/2D strain possibly for IHD/CAD/Heart failure patient
27	PC based Peripheral system comprising of dedicated computer of standard make, at least 1TB storage space (Hard disc) with 8 GB RAM or more with a Microprocessor speed of more than 3.00 GHz, frame grabber incorporated (All Software Inclusive) interfaced with the echocardiography machine with DVD writer and a high quality Colour Laser printer.CD/DVD produced should be playable on any system.	PC based Peripheral system comprising of dedicated computer of standard make, at least 5TB storage space (Hard disc) with 8 GB RAM or more with a Microprocessor speed of more than 3.00 GHz, interfaced with the echocardiography machine with DVD writer and a high quality Colour Laser printer.CD/DVD produced should be playable on any system.
		Added Para
		The system should be upgradable to contrast agent imaging
		BOQ
		Paediatric TEE probe 1 no

SCH 6. Portable Echocardiography System		
Para	Existing Tender Specification	Read As
1	It should be minimum 8 kg . Portable machine with proper bag and storage facility	It should be max 8 kg ,Portable machine with proper bag and storage facility
5	Should have flat panel high resolution display monitor minimum 15 inch LED monitor	Should have flat panel high resolution display monitor minimum 15 inch LED/LCD monitor
6	Should have a dynamic range of 200 DB minimum	Should have a dynamic range of 165 DB minimum
10	Should have a large hard disk capacity at least 1 TB to store patient data into the hard drive	Should have a large hard disk capacity at least 500GB to store patient data into the hard drive and 5TB External hard disk to be provided
13	Should be offered with the following transducers without need for frequency selection	Should be offered with the following transducers without need for frequency selection (Transducers frequency tolerance :±2MHz)
	BOQ	BOQ
5	TEE probe for adult & Paediatric echocardiography 1 no	TEE probe for adult & Paediatric echocardiography 1 no each

SCH 7.TMT Machine (Stress test system)		
Para	Existing Tender Specification	Read As
2.1	complete system with latest PC , Storage,& Software, TMT and necessary cables required with digital wireless ECG transmission module	Amended as: complete system with latest PC , Storage,& Software, TMT and necessary cables required with digital Wired/wireless ECG transmission module
3.11	Heavy Duty Treadmill: Noise free Treadmill with speed ranging from 0.5 to 20 kmph and grade of 0 – 22%. Treadmill manufacturer not mentioned	Heavy Duty Treadmill: Noise free Treadmill with speed ranging from 0.5 to 20 kmph and grade of 0 – 22%. The system and treadmill should be from the same manufacturer
		Added Para
		System should be capable of being interfaced with HIS/RIS/ PACS.

SCH 8. Holter system with work station		
Para	Existing Tender Specification	Read As
2	The system should have the capability to acquire/analyse 12 lead ECG derived out of 3 Channel using 5 electrode for 48 Hrs. With facility to display/print 12 lead ECG at any point of time.	The system should have the capability to acquire/analyse 12 lead ECG derived out of 3 or more Channel using 5 or more electrodes for 48 Hrs. With facility to display/print 12 lead ECG at any point of time.
		Added para:
		System should be capable of being interfaced with HIS/RIS/ PACS.

SCH 09.12 Channel ECG Machine		
Para	Existing Tender Specification	Read As
1	12 channel digital ECG machine with simultaneous acquisition of all leads and preferably an LCD/TFT display prior to printing with alarm message	12 channel digital ECG machine with simultaneous acquisition of all leads and preferably LCD/TFT display (7 inches or more) prior to printing with alarm message
3	The unit should be light weight, it must be less than 5 Kg and portable, preferably be capable of storing at least 20 electrocardiograms and allow for USB/LAN transfer of this data to a computer	The unit should be light weight, it must be less than 5 Kg and portable, preferably be capable of storing at least 100 electrocardiograms and allow for USB/LAN transfer of this data to a computer
		Added Para
		Product should have European CE with 4 digit notifying body no/USFDA Approved certificate to be provided.
		System should be capable of being interfaced with HIS/RIS/ PACS.

SCH 10. 3D Mapping System		
Para	Existing Tender Specification	Read As
5	System should be based upon open Platform allowing the use of any make of regular EP catheters form multiple manufacturers for both 3D Mapping & Ablation.	System should be based upon open Platform /closed platform
6	Intuitive Graphical representation of catheters & upto 256 Shadows to identify previous Position	Intuitive Graphical representation of catheters & 60 or more shadows to identify previous Position
7	System should offer both Contact & Advanced Non-Contact Mapping for multiple arrhythmias.	System should offer Multielectrode mapping for multiple arrhythmias
8	Should have the capability of Single Beat Non-Contact Mapping to treat Non-sustained arrhythmias & create Voltage Map from a SINGLE PVC beat.	Deleted
10	Must have the capability to record simultaneously up to 3000 Virtual Unipolar Electrograms & display them as selected by user	Must have the capability to record simultaneously up to 60 Virtual Unipolar Electrograms & display them as selected by user
15	Should offer Fly Eye mode to check the electrode signals & impedance.	Deleted

All other contents of the tender enquiry including terms & conditions remain unaltered.

Note:

- i. Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of bids**

Prebid-Representations (Pre-Bid date: 19.06.2017)

HITES/PCD/PMSSY-III/06/CAD/17-18

SCH 1. BI-Plane Cardiovascular & Neuroangiography System with DSA

Para	TENDER SPECIFICATION	RESPRESENTATION RECEIVED FROM THE BIDDERS	COMMITTEE RECOMMENDATION
1.3	All movements of the gantries should be controlled from the joystick on the table-side as well .	Request you to amend as "All movements of the gantries should be controlled from the joystick on the table-side as well as console room "	Accepted
1.4	Both gantries should have fast speed for angulations and positioning. The frontal system should have a speed of at least 15 degree/sec for all positions and lateral plane should have a speed of at least 8 degree/sec	Please clarify the frontal plane speed is asked for single plane mode or biplane mode. Incase if the same is asked for Biplane mode then we request you to kindly amend the speed of frontal plane from 15 deg/sec to 10 deg/sec for biplane mode. So we request you to kindly amend the spec as both gantries would have fast speed for angulations and positioning. The frontal system should have a speed of at least 10 deg/sec for all positions and lateral plane should have a speed of at least 8 deg/sec	Accepted Ammended as: Both gantries should have fast speed for angulations and positioning. The frontal system should have a speed of at least 10 degree/sec for all positions and lateral plane should have a speed of at least 8 degree/sec
5.1	The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes from 0.2 mm to 0.9 mm. Please list the special filters available.	Request you to amend as "The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes from 0.2 mm to 0.9 mm in fluro and acquisition mode . Please list the special filters available.	Accepted & ammended as: The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes from 0.2 mm to 0.9 mm in fluro and acquisition mode . Please list the special filters available.
6.1	Both planes should have flat panel detectors with diagonal size of at least 42 cm for the frontal plane and 24 cm for the lateral plane. Please mention pixel size. The smaller pixel size will be preferred.	<p>It is better to have same size of detectors for both the planes, hence we request you to amend the size of both the plane so we request you to kindly amend the spec as "both planes should have flat panel detectors with diagonal size of at least 42cm for the frontal plane and 42cm for the lateral plane. Please mention the pixel size. The smaller pixel size will be preferred</p> <p>Both planes should have flat panel detectors with diagonal size of at least 25cm . Please mention pixel size. The smaller pixel size will be preferred Justification: - Bigger detectors are not recommended for cardiac procedures as it significantly increases radiation due to the use of higher magnification and also causes difficulty in achieving steep angulations which are very common during cardiac procedures</p>	No Change

Para	TENDER SPECIFICATION	RESPRESENTATION RECEIVED FROM THE BIDDERS	COMMITTEE RECOMMENDATION
6.2	Digital system with acquisition and processing in 1024x1024 matrix upto 25/30 fps with 10/12 bit digitization.	Request you to amend as "Digital system with acquisition and processing in 1024x1024 matrix upto 25/30 fps with 10/12 bit digitization with latest image processing software and hardware. "	Amended as: Digital system with acquisition and processing in 1024x1024 matrix upto 25/30 fps with 10/12 bit digitization with latest image processing software and hardware.
6.5	System should have facility for ECG triggered fluoroscopy, display and archive.	We request you to kindly amend the same as system should have facility for ECG triggered/auto triggered pulsed fluoroscopy @1FPS to 30FPS display and archive	Amended as: System should have facility for ECG /auto triggered fluoroscopy, display and archive.
6.8	The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 6 frames/sec or more.	Request you to amend as "The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 6 frames/sec or more with all 2D roadmapping capabilities . "	Amended as: The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 6 frames/sec or more 2D roadmapping capabilities
7.1	The monitor display should be offered with single TFT monitor of 56" or minimum 8 megapixel resolution. Facility of simultaneously display of at least 8 images source inputs (analog/digital) should be available to display reference image, patient hemodynamic monitoring, 3D acquisition imaging and images from other sources like CT/MR. The monitor display system should be ceiling suspended and should allow flexibility in having different image layouts of desired sizes.	We request you to kindly amend the spec as the monitor display should be offered with single TFT monitor of 56" or minimum 8 Mpixel resolution. Facility of simulataneous display of at least 8 images source inputs(analog/digital) should be available to display reference image, patient hemodynamic monitoring, 3D acquisition imaging and images from other sources like CT/MR. The monitor display system should be ceiling suspended and should allow flexibility in having different image layouts of desired/different format sizes	The monitor display should be offered with single TFT monitor of 56" or minimum 8 megapixel resolution. Facility of simultaneously display of at least 8 images source inputs (analog/digital) should be available to display reference image, patient hemodynamic monitoring, 3D acquisition imaging and images from other sources like CT/MR. The monitor display system should be ceiling suspended and should allow flexibility in having different image layouts of desired/different format sizes.
		Minimum of four 19 inch high resolution monitors in the exam room for live, reference, Hemodynamic & EP waveform and 3D Justification: - For better up time	No Change
8.1	System for recording images on DVD/CD_R with DICOM Viewer in DICOM 3 format having capability of receive and transfer of images from cath lab to remote review station. A separate 18/19 inch monitor for this to be supplied. -1 Nos	Request you to amend as "System for recording images on DVD/CD_R with DICOM Viewer in DICOM 3 format having capability of receive and transfer of images from cath lab to remote review station." Justification: In order to make the specifications more generic and broad based request to delete separate monitor as with our system it is integrated.	No Change
9.2.a	The acquisition should preferably be ECG gated to plan and complete ablations is visualizing the actual state of cardiac anatomy and physiology e.g. coronary signs etc. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross-sectional & 3D images should have processing capabilities in the examination room.	We request you to kindly amend the spec as the acquisition should preferably be ECG gated/angle triggered method to plan and complete ablation is visualizing the actual state of cradiac anatomy and physiology eg coronary signs etc. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross sectional & 3D images should have processing capabilities in the examination room The acquisition should be available for ablation in visualizing the actual state of cardiac anatomy especially for pulmonary veins with left atrium. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross-sectional & 3D images should have processing capabilities in the examination room.	Amended as The acquisition should preferably be ECG gated/angle triggered method to plan and complete ablations is visualizing the actual state of cardiac anatomy and physiology. Capability to merge/fade live images with 3D segmentation should be available on the 3D workstation in the control room and a parallel display in the exam room. The cross-sectional & 3D images should have processing capabilities in the examination room.
10.E	The system should have 128 bipolar channels or more of intracardiac ECG recording for Electrophysiology and interface for RF ablation system and	The system should have minimum 120 intra cardiac channels or more of intra cardiac ECG recording for electrophysiology and interfaces for RF ablation system and simulator	Amended as: The system should have at least 64 bipolar channels of intracardiac ECG

Para	TENDER SPECIFICATION	RESPRESENTATION RECEIVED FROM THE BIDDERS	COMMITTEE RECOMMENDATION
10.5	recording for Electrophysiology and interfaces for RF ablation system and simulator.	Request you to amend as "The system should have 96 bipolar channels or more of intracardiac ECG recording for Electrophysiology and interfaces for RF ablation system and	recording for Electrophysiology and interfaces for RF ablation system and simulator.
12.9	ACT machine Bicuvette– 1 No.	Request you to clarify Bicuvette .	No Change
12.10	12 Channel ECG machine with A4 size format.-1 No	Request you to clarify ECG machine with A4 size format .	No Change
Site Modification works			
14.1	The Supplier should inspect the proposed site offered by the Consignee Institute in which the Cath Lab system has to be installed and they are required to submit the plan for the complete Cath Lab Centre. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.	Request you to kindly specify the consignee wise Biplane sites to make the inspection of site possible. Also provide site layout.	Amended as: The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of Cath Lab Centre.
	Ductable package air conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface. . The Air conditioning should be designed with standby provision to function 24 hours a day. Ventilation is required in toilet.	Kindly amend as – Ductable package, Ductable split air conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface. The Air conditioning should be designed with standby provision to function 24 hours a day There is no public health service (Toilets) mentioned in the room specification of tender, you are requested to kindly clarify where plumbing work is required.	No Change
Furniture			
c	Wall mounted shelves for catheter and other procedural hardware – 4 Nos.	Request you to amend as " Customized Wall mounted shelves for catheter and other procedural hardware – 4 Nos. as per cath lab examination room requirement ".	No Change
d	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 NO.S	You are requested to kindly specify the size of cupboard	No Change
i	Knee controlled hand free scrub station with disinfectant/ soap dispenser.-1 Nos	You are requested to kindly specify the scrub material i.e. SS or RCC with Granite cladding.	No Change
BOQ			
3	Wide screen Medical grade Monitor : 2 No.	Request you to amend as " Wide screen Medical grade Monitor : 1 No. "	Amended as Wide screen medical grade control room monitor : 2 nos
Point to be added			
		Point to be added under Imaging section: The system must have all software/hardware packages for radiation safety of operator and patient like CARE & CLEAR/ALLURA Clarity or Equivalent. Radiation protection package is required for radiation safety of operator and patient. Nowadays radiation protection is of utmost importance and should be asked standard with cath lab. Same has been asked standard in Single plane cardiovascular Catheterisation tender and 6 AIIMS cardiology tender.	Para to be added The system must have latest generation software/hardware packages for radiation safety of operator and patient with documentation of radiation dose per fluoroscopy/cine time
		You are requested to kindly specify the Fire detection system requirements like it should Comprises of fire panel for Cath Lab center along with smoke/heat detectors, hootor and response indicators.	No Change