



बी.पी. कोइराला स्वास्थ्य बिज्ञान प्रतिष्ठान, धरानको कोटेशन माग गरिएको सुचना

सुचना प्रकाशित मिति: २०८०/०७/२०

यस प्रतिष्ठानलाई आवश्यक तपशिलका उल्लेखित High End Echocardiography Machine खरिद गर्नुपर्ने भएकोले इजाजत प्राप्त प्रतिष्ठानमा सुचि दर्ता गरेको फर्म, संस्था, कम्पनीबाट अद्यावधिक फर्म दर्ता प्रमाणपत्र, मु.अ.कर दर्ता प्रमाणपत्र, आ.व.२०७८/०७९ को कर चुक्ताको प्रमाणपत्र प्रतिहरु संलग्न गरी यो सुचना प्रकाशित मितिले ७ दिन भित्र कोटेशन पेश गर्नुहुन सुचित गरिन्छ । माग गरिएको कोटेशन तोकिएको म्याद भित्र प्रतिष्ठानको दर्ता चलानी फाँटमा खामबन्दि दर्ता गर्नुहुन वा quotation.procurement@bпкиhs.edu मा email मार्फत पेश गर्नुपर्नेछ ।

SN.	Product Name	Qty.	Unit
1	High End Echocardiography Machine	1	Nos

Technical Specification for High End Echocardiography Machine with TEE Probe

S.N	Technical Specification	Bidders Offer			
	Manufacturer				
	Brand				
	Model				
	Country of Origin				
A	Description	Yes	No	Page no in brochure / catalogue	Remarks
1	The system must be latest generation, highest & technologically advanced digital 4D (Live 3D) echocardiography system and must be quoted in such a way that full functionality of the machine can be achieved for echocardiography examinations. Any other model other than the highest end and latest version is liable for rejection				
2	System must be offered with a minimum of 7000000 digital processed channels. Original technical data sheet should be enclosed in technical bid to support the number of channels on the systems. If not mentioned, Please attach a letter from manufacturer along with the technical bid clearly stating the digital processed channels of the offered system				
3	System must have adult cardiology transducer with either single crystal technology or pure wave technology or matrix or equivalent for excellent grayscale 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.				
4	System should have minimum if 280 dB dynamic range for better resolution.				
5	System must be offered with a 2D frame rate of atleast 1900 frames / second. Acquisition frame rate should be clearly mentioned in the technical quote, if not mentioned please attach a letter from manufacturer along with the technical bid clearly stating the frame rate of the offered system.				
6	Should have advanced Tissue Doppler Imaging with high frame rate acquisition of more than 200 frames per second.				
7	Operating modes: B-mode, M-mode, Doppler mode, color flow, power Doppler, B/color flow, PW Doppler, 2D boost imaging, CW Doppler. System should have high resolution 2D imaging, flow imaging, colorized M mode, Duplex & triplex modes, software for CRT optimization.				
8	System must be offered with a minimum 21 inch high resolution LED display monitor with infinite position adjustments. Company should provide wider monitor if available				

9	System should have at-least four Imaging universal active probe ports with electronic switching facility from key board / touch screen without probe adapter.				
10	System should be capable of supporting second generation 4D(Live 3D) matrix transthoracic transducer capable of supporting a minimum of 2200 elements for exceptional 4D (live 3D) Echo,4D(Live 3D) zoom, triggered full volume and triggered 3D color volume with electro cautery suppression.				
11	System should support board band probes spanning a frequency of 1-18MHz.				
12	Image storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. Inbuilt hard disk with capacity of 1TB. System should have extensive image capability including thumb nail review, Cine loop editing etc. management.				
13	System must be offered with speckle reduction Imaging: Image processing technique to remove speckles and clutter artifacts.				
14	System should have 4D (Live 3D) Echocardiography capability with color flow imaging with single beat				
15	System should be capable of scanning depth of 30cm. Scanning Depth should be clearly mentioned in the technical quoted If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the scanning depth of 30 cm in the offered system.				
16	System should have 2D strain quantification for LV, RV and LA with auto tracking.				
17	System must be offered with user friendly high resolution user interface touch panel of minimum size of atleast 12.0 inch.				
18	The system should have the facility of displaying the three planes of the 3D data set.				
19	Contrast Imaging should be offered as standard on the system, with optimization for LOW and HI MI applications. Should also have facility of LOW MI with triggered replenishment Imaging.				
20	Integrated stress Echo facility to perform Stress Echo exams.				
21	Should have the state of the art Transmit real time compound Imaging Technology with Multiple transmitted lines of sight, wherein multiple coplanar Images from different viewing angles are obtained and combined into a single compound Image at real-time frame rates for improved visualization. Should demonstrate and show multiple transmitted lines of sight in linear probes.				
22	B mode & B color simultaneous should be available side by side real time display of B mode & Color flow. Digital zoom facility for region of interest in real time and frozen images. Should have real time compound imaging technology.				
23	Should be able to perform multi-planner views for Quantification from 3D Imaging.				
24	Image storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. In built hard disk with capacity of atleast 500GB. System should have extensive image management capability including thumb nail review, Cineloop editing etc.				
25	Cine loop as well as cine scroll facility in B mode with storage of 800 or more images should be available. Cineloop frames should also be available for abdominal contrast applications				
26	Auto trace & automatic Doppler calculations should be available in Live & frozen images.				
27	Should have the state of the art Transmit Real Time Compound Imaging Technology with Multiple transmitted lines of sight, wherein Multiple Coplanar Images from different viewing angles are obtained and combined into a single compound Image at real-time frame rates for improved visualization. Should demonstrate and show multiple transmitted line of sight in linear probe.				
28	System should have Dynamic Resolution System (DRS). Should be able to adjust nearly 40 parameters simultaneously for user preference of spatial and temporal resolution during clinical procedures. Should have onboard workstation for storage and review of all exams, 2D, 3D, Images, loops, etc. An licensed offline workstation with similar capabilities. The System should have Panoramic imaging / Sie-scape and extended field of view for 2D imaging. System should have Time Gain compensation (TGC) and Lateral gain compensation (LGC) System should have one touch image optimization feature. Auto scan for continuous real time adjustment of system gain and TGC to achieve balance contrast of tissue.				

29	Should have advanced image processing algorithms.				
30	System should have THI & should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality. The system shall offer Tissue Harmonic Imaging in Power Doppler imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.				
31	Automatic real time & frozen tracing of instantaneous peak velocity & instantaneous mean velocity (or frequency) should be available. Triplex Imaging should be standard on the system.				
32	System should be capable for fusion imaging with echo tissue information directly on fluoroscopy imaging combining the best from the two modalities, Echo imaging automatically aligned with C-arm orientation to simplify imaging interpretation and helpful in completing procedures like device closure and valvular procedures. Should be upgradable to Pediatric 4D Xmatrix Transducer or equivalent.				
33	Availability of Stress Protocols and both Pharmacological stress Echocardiography and Exercise Stress Echocardiography.				
34	The system should be DICOM 3.0 ready. System should have capability of HIS and RIS connectivity and should also be connected to the dry chemistry printer available in the department (CR/DR system/ CT/MRI/Mammography). Should provide advanced DICOM connectivity to an enterprise data management system or PACS with advanced DICOM features: DICOM Store, Modality Worklist, Performed Procedure Step and Structured Reporting. Please specify the advance DICOM features available on the quoted system.				
35	System should have storage facility images, loops in the hard disk drive of atleast 1 TB.				
36	System should have off cart software for analyzing and quantification of image data.				
37	Off Cart workstation with permanent license software for analyzing and quantification.				
38	System should be upgradable with compatibility for 4D fetal echo probe with STIC feature.				
39	System should be upgradable with compatibility for 4D matrix linear transducer for doing vascular examination.				
40	Latest PC (off-cart workstation) with permanent license software for analyzing and quantification of 2D and 3D data sets like Strain and Strain rate imaging, Tissue Motion Annular Displacement, Mitral valve 3D data sets, 2D Speckle tracking. CD/DVD writer with Image management software and color laser Printer. PC should be offered with a flat panel 15" display monitor. (hardware essential for OFF cart quantification)				
41	System should be capable for fusion imaging with echo tissue information directly on fluoroscopy imaging combining the best from the two modalities, Echo imaging automatically aligned with C-arm orientation to simplify imaging interpretation and helpful in completing procedures like device closure and vascular procedures. Should be upgradable to Pediatric 4D Xmatrix Transducer or equivalent.				

B	Following Transducers (Frequency tolerance +/-1MHz) should be supplied with the system				
1	4D (Live 3D) Echo matrix transducer for adult 4D (Live 3D) with frequency ranging from 1-5±1 MHz . This probe must support a minimum of 2500 elements for exceptional 4D (Live 3D) image quality on the matrix array transducer to simultaneous display of two real-time live high-quality image planes. This transducer should have either single crystal technology or pure wave technology for excellent Image quality on difficult to image patient. Please mention the crystal technology used in the transducer. System offered with normal transducers for adult 4D (Live 3D) will be rejected.				
2	1-5±1 MHz Broadband adult echo transducer for adult cardiology imaging. Must have Tissue harmonic Imaging, must have either single crystal technology or pure wave or matrix technology for excellent Image quality on difficult to image patients. Must attach original technical data sheet of transducer to specify the above technology used in the transducer. This adult probe must be of the smallest foot print. System offered with normal transducers for adult echo will be rejected.				
3	3-8 MHz Broadband pediatric echo transducer for pediatric and small adult cardiology imaging.				
4	2-7 MHz 4D Adult TEE Echo imaging. Should be single crystal technology transducer.				
5	4-12 MHz Broadband Neonate TTE transducer.				
6	3 to 8 MHz Broadband Pediatric TEE transducer				
7	1 to 5 MHz broadband convex transducer				
8	3 to 12 MHz broadband linear transducer				
C	OPERATING ENVIRONMENT				
1	The product offered should be designed to be stored and operate normally under the condition of purchaser country (Electrical & Environmental Conditions)				
D	STANDARDS AND SAFETY REQUIREMENTS				
1	The offered unit must have and submit USFDA and European CE approved Certificate.				
2	Must submit ISO 9001 or ISO 13485:2003/ AC:2007				
E	TERMS AND CONDITIONS				
1	The bidder must submit a recent manufacturer authorization letter				
2	Complete Unit including transducer must have 2 years comprehensive service / maintenance / replacement warranty / guarantee covering complete parts including battery, software up gradation & labor from the date of complete installation (delivery & installation of the machine of all the items as per tender).				
3	The principle company should be responsible of fulfilling warranty/ guarantee, in case local authorized agent is not able to achieve the same. Letter from the manufacturer should be made available with commitment of responsibility for after sales support within and after warranty/guarantee.				
4	Commitment letter from the bidder as well as from the manufacturer regarding the availability of letter of spare parts, accessories, any consumables and service support for minimum 10 years from the date of installation.				
5	During the warranty/guarantee period the supplier must station a factory trained service engineer to attend the service call and to minimize the downtime				
6	During the warranty/guarantee period the supplier must ensure at least four preventive maintenance done per year. The report of the same must be submitted with equipment status for release of performance bond after warranty period.				
7	Should avail the rate of comprehensive maintenance contract for complete unit with transducers along with stationed service engineer after the expiry of warranty/guarantee and which should not exceed 5% of the bid value.				
8	Hands on Training to Doctors and Nurses for operational, calibration, safe use, day to day routine check up and maintenance etc for the proper use of the supplied machine.				
9	The system must have inbuilt battery backup.				

10	A suitable online UPS for echo machine and workstation must be provided separately with a battery backup of at least 30 mins.				
F	INSTALLATION AND COMMISSIONING				
1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.				
2	The machine supplied must be brand new with the date of manufacture and the country of origin should be mentioned clearly.				
G	DOCUMENTATION				
1	User (Operating) and Service manual in English must be made available				
2	List of important spare parts and accessories with their part numbers and costing.				
3	Certificate of calibration and inspection from factory.				
4	Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.				