



वी.पी.कोइराला स्वास्थ्य विज्ञान प्रतिष्ठान धरानको
कोटेशन माग गरिएको सूचना ।
(प्रकाशित मिति: २०८१।०८।१४)

यस प्रतिष्ठानको लागि आवश्यक संलग्न Specification बमोजिमको High-End Ultrasound Machine- ३ थान खरिद गर्न लागत अनुमान तयार गर्नुपर्ने भएकोले सो प्रयोजनको लागि ईजाजत प्राप्त प्रतिष्ठानमा सुचिकृत फर्म, संस्था, कम्पनीबाट अद्यावधिक फर्म दर्ता प्रमाणपत्र, मु.अ.कर दर्ता प्रमाणपत्र, आ.व. २०७९/०८० को कर चुक्ताको प्रमाणपत्रको प्रतिहरू संलग्न गरी यो सूचना प्रकाशित मितिले ७ (सात) दिन भित्र कोटेशन तथा क्याटलगहरू पेश गर्नुहुन सुचित गरिन्छ । माग गरिएको कोटेशन तथा क्याटलगहरू तोकिएको म्यादभित्र प्रतिष्ठानको दर्ता, चलानी फाँटमा दर्ता गर्नुहुन वा quotation.procurement@bpkihs.edu मा email मार्फत पेश गर्नुपर्नेछ ।

S.N..	Product Name	Qty.	Unit	Description/Brand
1	High- End Ultrasound Machine	3	Set	As per attached Technical Specification

Date: 2081-08-09

Technical Specification of High-End Ultrasound Machine – 3 Qty.

S.N.	Purchaser's Technical Specification	Bidder's Offer/ Statement of Compliance
	High-End Ultrasound Machine	
	Manufacturer:	
	Brand:	
	Type/Model:	
	Country of Origin:	
1	Description of Function	
1.1	System should be Top of the Line Color Doppler Equipment with Realtime 2D Shear Wave Elastography.	
1.2	The system should support various modes such as B-mode, M-mode, Color flow Doppler, Power Doppler, and 4D imaging. It must include advanced 2D Shear Wave Elastography, Contrast-enhanced ultrasound (CEUS), and high-resolution imaging capabilities.	
2	Operational Requirements	
2.1	The system should utilize transducers with advanced technology, offering high penetration and clarity for all applications, alongside integrated measurement and quantification packages.	
2.2	It must feature AI-based Auto Doppler and automatic lesion detection to enhance workflow efficiency through automated focus, zoom, and measurements.	
3	Technical Specification	
A.	User Interface & Ergonomics	
3.1	The console should provide height and rotation adjustments for improved operator ergonomics.	
3.2	The display should be a 23" or large high-definition monitor, offering superior image quality.	
3.3	A 12" or large touch panel should be included, providing easy access to features and controls.	
B.	Productivity	
3.4	The system must offer extended field-of-view imaging up to 160 cm, with real-time image construction	
3.5	Advanced image management features should allow cloud connectivity and retrieval of past images for comprehensive patient data handling.	
3.6	AI-powered features for Doppler studies should enable automatic placement of color boxes for vascular flow and lesion identification.	
C.	Workflow	
3.9	The system should have the capability for the upgradation to include Fusion Imaging, enabling simultaneous display of real-time ultrasound and prior CT or MRI images for interventional procedures.	
3.10	It should support Shear Wave Elastography and acoustic radiation force-based quantification for assessing liver stiffness and fibrosis.	
3.11	Auto Lesion Segmentation and Auto Doppler should help in automating complex assessments such as vascular evaluations and lesion tracking.	
3.12	AI-assisted measurement tools should automatically calculate lesion sizes and other key metrics for enhanced workflow.	
D.	Data Processing	
3.14	The system should use a real-time data processing platform that optimizes image quality by using extensive data from every pixel to form highly detailed images.	
3.15	Post-storage image manipulation features must allow adjustments like B-mode gain, dynamic range, and speckle reduction for improved image clarity.	

3.16	It should allow comparison of real-time scans with stored patient data for better diagnostics.	
E.	Scanning Parameters	
3.17	The system must have unlimited processing channels, providing high resolution for deep tissue imaging.	
3.18	Scanning depths should range from 0 to 100 cm, with high penetration transducers.	
3.19	The system should support high frame rates exceeding 9000 fps, enabling smooth imaging for fast-moving anatomy.	
3.20	It should feature 256 gray shades for optimal B-mode and M-mode imaging quality	
3.21	Color flow Doppler, microvascular flow, and 3D Power Doppler should all be supported for detailed vascular imaging.	
F.	Measurements & Calculations	
3.22	The system should provide automatic vascular flow measurements, and also include comprehensive packages for renal, obstetric, and gynecological assessments.	
3.23	It should include automatic liver fat quantification tools, along with other advanced measurement capabilities for in-depth analysis	
G.	Image Archive & Networking	
3.24	The system must have 1TB internal storage and the capability to save images in DICOM, JPG, WMV, and AVI formats.	
3.29	USB and SSD external storage options should be available for easy data transfer.	
H.	Transducers	
3.31	The system should be compatible with high-frequency transducers ranging from 1-24 MHz, supporting various clinical applications.	
3.32	The system should include probes suitable for abdominal, vascular, and neonatal imaging, ensuring comprehensive coverage	
3.33	The system should be supplied with at least 5 Transducer's	
4.	Following Transducers Should be Available :	
4.1	1-6 MHz Broadband Single Crystal or XD Clear Convex Transducer for Abdomen Imaging with Shearwave Elastography & Strain Elastography	
4.2	5-9 MHz Broadband Single Crystal or XD Clear Linear Transducer for Abdomen, Vascular, Small parts with Shearwave Elastography	
4.3	2-9 MHz Broadband Single or XD Clear Transducer for Abdomen, Vascular, Neonates & Paediatrics	
4.4	4-9 MHz. Broadband Single or XD Clear Tvs Transducer	
4.5	2-8 MHz. Broadband Single or XD Clear 3D/4D Convex Transducer	
5.	Accessories, Spare Parts, Consumables	
5.1	Thermal B/W Printer – 1 Unit	
5.2	All standard accessories, consumables and spare parts required for the proper operation of the above item shall be included in the offer.	
5.3	Bidder shall specify in a separate document/sheet the quantity and details of any items included in this offer which have not been specified in this Technical Specification.	
5.4	Biopsy Bracket for TVS Transducer	
5.5	Motorized High Quality Ultrasound Couch & Height Adjustable Chair to be supplied with each USG machine.	
5.6	Energy Efficient (5 star rated) premium brand Split Air Conditioner of 2 Ton for each USG machine to be supplied, installed & covered under comprehensive warranty of 2 years along with the USG machine.	
6.	Power Supply	
6.1	Power Supply: 220 – 240 VAC, 50 Hz Single Phase, 50 Hz fitted with appropriate 3 pin plug Flat.	
6.2	The power cable must be at least 3 meters in length.	

Date: 2081-08-09

6.3	Online UPS with minimum 30 minutes battery back up of suitable rating to be provided with each USG machine.	
7.	Standard and Safety	
7.1	Should be ECE & USFDA certified product with valid certificate.	
7.2	Must submit ISO9001 or ISO 13485: 2003/AC: 2007	
8.	Warranty	
8.1	Comprehensive Warranty for at least 2 years with all the spares & accessories must be provided after the installation and hand-over of the equipment. Provide any up-gradation & update of system, database & software (if any) free of cost during warranty.	
8.2	Letter of warranty must be submitted by the bidder as well as the manufacturer.	
8.3	The equipment should have 95% up-time (functional) during the warranty period, if failing to do so double the time of breakdown shall be added to the warranty period. The bidder must ensure prompt service & repair in case of breakdown preferably within 48 hrs.	
9.	Maintenance Service During Warranty Period	
9.1	During warranty period the bidder must provide the preventive maintenance as per schedule and corrective/breakdown maintenance whenever required.	
9.2	Bidder must submit letter for the rate of cmc after the expiry of warranty which shouldn't exceed more than 5% of the bid amount (excluding tax).	
9.3	Letter of assurance/commitment from the manufacturer itself for the after sales and service support if bidder fails to do so.	
10.	Guarantee	
10.1	The bidder and principal must ensure the service and complete spare parts support for at least 10 years of the system, including accessories.	
10.	User Training	
10.1	Must provide on-site user training including how to operate, use and maintain the equipment. Application Training to end user's a must for atleast one week and certificate of level of training should be provided to the trained individual end user'	
10.2	Must provide service/maintenance training to the Electro-Biomedical Staff and certificate of level of training should be provided.	
	Installation and Commissioning	
11.	Installation & Commissioning of the Equipment at designated site is the sole responsibility of the bidder. Its hand-over to the concerned after the specification verification & functionality is also the responsibility of the bidder.	
12.	Documentation and Condition	
12.1	User (Operating) manual in English both printed form and CD.	
12.2	Service (Technical/Maintenance) Manual in English to be submitted.	
12.3	Certificate of calibration and inspection from the factory must be submitted during the time of installation.	
12.4	If required, the bidder must arrange for the physical demonstration of the quoted equipment at bidder's own cost	
12.5	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.	