"समृद्ध, समावेशी र सुखी बेनीघाट रोराङ आधार: कृषि, शिक्षा, स्वास्थ्य, उद्योग सुशासन र पूर्वाधार"

बेनीघाट रोराङ गाउँपालिका

गाउँ कार्यपालिकाको कार्यालय

विशालटार, धादिङ

बागमती प्रदेश, नेपाल

प.सं. २०८२/०८३

च.नं. २४४३

मितिः- २०८२/१२/३०

श्री जो जससँग सम्बन्धित छ,

विषयः <u>दरभाउ उपलब्ध गराउने सम्बन्धमा</u>।

उपरोक्त विषयमा यस बेनीघाट रोराङ गाउँपालिका वडा नं. ३ मा रहेको राजमार्ग सामुदायिक अस्पतालमा आवश्यक अल्ट्रासाउण्ड (यु.एस.जी.) मेशिन खरिद कार्यको लागि लागत अनुमान तयार गर्ने प्रयोजनार्थ दरभाउ आवश्यक रहेकोले यस कार्यालयमा मौजुदा सूचीमा सूचिकृत भएका/नभएका इच्छुक फर्म/कम्पनीहरु यसै साथ संलग्न स्पेशिफिकेशन बमोजिम अल्ट्रासाउण्ड (यु.एस.जी.) मेशिनको प्रचलित बजार मूल्यमा फरक नपर्ने गरी प्रति एकाई दरभाउ उल्लेख गरी पत्रको मितिले ७ (सात) दिन भित्र दररेट पेश गर्नुहुन अनुरोध गरिन्छ ।

<u>पुनश्चः</u> *कार्यालयमा मौजुदा सूचिमा सूचिकृत नभएका फर्म/कम्पनीहरुले सूचिकृत गरी दरभाउ पेश गर्नु पर्नेछ ।*

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रामबाबु पौडेल

प्रमुख प्रशासकीय अधिकृत

रामबाबु पौडेल
प्रमुख प्रशासकीय अधिकृत

S.N	SPECIFICATION OF USG MACHINE	YES/NO	PAGE NO.	REMARKS
	COLOR DOPPLER ULTRASOUND			
	Manufacturer:			
	Brand:			
	Type / Model:			
	Country of Origin:			
1.	**Description of Function**			
	A fully digital high-end Color Doppler Ultrasound DICOM compatible system with digital broadband/wide band beam forming capable of performing imaging application in Fetal/Obstetrics, Abdominal, Gynecology, Pediatric, Small Organ, Trans-rectal, Trans-vaginal, Urology, Cardiac Adult, Cardiac Pediatric and Peripheral vessel etc.			
2	**General Requirement**			
2.1	It shall operate on Mains AC power supply.			
2.2	Power supply: 220-240 VAC, 50Hz fitted with appropriate plug.			
2.3	The system MUST come with DUAL battery system design as standard that support system operating at least 80 minutes scanning without power supply. The dual-battery system design can supply power independently, the lithium battery can be plugged and replaced, and the screen is displayed with a battery power icon			
3.	**System Configuration**			
3.1	System shall be supplied with main unit, 3 probes, 1 unit of black and white thermal printer.			
3.2	1 unit of broad bandwidth of approx. 1-7 MHz, convex array probe for OB/GYN and abdominal application.			
3.3	1 unit of broad bandwidth of approx. 3-12 MHz, linear array probe for small part and superficial scanning application.			
3.4	1 unit of broad bandwidth of approx. 1-5 MHz, Phase array Probe for Clinical Application: Cardiac application.			
4.	**Technical Specifications**			
4.1	System should have automatic and user programmable software for 2D Imaging, and advanced and easy 3D imaging and 4D imaging applications.			

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4.2	System should support broadband probes spanning a frequency of approx. 1 MHz to 19 MHz, with 5 fundamental + 5 harmonics depending on the probes.			
4.3	Should have, High resolution 21 inch or more LCD/LED Color flat panel monitor with resolution 1920 x 1080 or better mounted on articulating arm with tilt and swivel function.			
4.4	Should have additional 14 inch or more with touchscreen monitor and resolution of 1,920 x 700 or better for better user control and 20 degree tiltable.			
4.2	The systems shall capable to customizable user defined menu on touch screen			
4.3	Smart OB & Smart NT must come as standard configuration as shared system purpose in Obstetrics application			
4.4	The latest model system must built in with eLearn Instruction software to improve the scanning technique and coaching scanning procedure for doctor, minimum at least 4 specialty and MUST include with Nerve Block Learning software with tips.			
4.5	The Scanning Tutorial must include Transducers Position, Scan Technique, Reference standard ultrasound images, Anatomy, Needle Guide and tips for more efficiency coaching and training (clearly mentioned on datasheet)			
4.6	Multiple beams forming processor for the system with at least 8 Beam former as standard			
4.7	The system should capable of enhancing the needle tips during perform any ultrasound procedure			
4.8	Full Calculation package and real time Auto Doppler Measurement (PI, RI, TAMAX, HR) as standard.			
4.9	The system shall capable for Image Compare as standard.			
4.10	Real time Doppler Auto measurement for imaging applications			
4.11	The system shall come with auto detection of Nuchal Translucency as standard imaging measurement for Early Pregnancy purpose.			

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4.12	The system should come with Auto IMT measurement as standard			
4.13	System must provide integrated Image Management for digital acquisition, storage and review of complete ultrasound studies.			
4.14	System should have minimum 5 active probe ports with electronic switching facility from keyboard with the capability of connecting any of the probes in any port.			
4.15	The system shall accept most of the common probe types of: convex array, linear array, phased array, TVS and 3D/4D volume probes.			
4.16	System must be offered with a frame rate of minimum 1500f/s for B-mode.			
4.17	System must be offered with a minimum of 1350000 digital channels and 64 physical channels.			
4.18	System should have higher Dynamic range 300 db and above			
4.19	System should have tissue adaptive imaging to improve scan efficiency.			
4.20	The system should have Adaptive Speckle Reduction Imaging with multiple level of speckle resolution ability to enhances borders, reduces speckle artifact and improves detail and contrast resolution in gray scale.			
4.21	Adaptive Spatial Compound Imaging must be available as standard with at least supporting ≥9 angles and Frequency Compound Imaging must be capable in the system			
4.22	System should have Harmonic Imaging and Trapezoid Imaging in all linear probes			
4.23	Should have Panoramic Imaging with real-time speed indicator.			
4.24	Measurement and calculation should be supported on each image.			
4.25	The system should have complete with Raw Data for flexibility and simplicity to doctors and patients			
4.26	The system should ready of operating following advance imaging mode but not limited to: - a. 3D/4D Imaging b. ECG Synchronization c. Tissue Doppler Imaging			

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4.27	Must have Spot Zoom feature in the system to magnify the original image without sacrificing pixels			
4.28	The System shall include Raw Data Analyst function as standard that support post processing.			
4.29	The system shall capable to perform extended field of view imaging for up to at least 120cm			
4.30	Support images and report of the exam and cine clips.			
4.31	Should have Base line shift, Spectrum inversion, Angle correction, Dynamic range adjustment should be possible.			
4.32	Support export images as BMP, JEPG, TIF, DICOM and should have dicom 3 connectivity.			
4.33	Must have cardiac measurement technique of MVA AND AVA also .			
4.34	Real time panoramic imaging up to 1.2m length with 360-degree rotation.			
4.35	Display should have articulated arm allows 90-degree swivel, tilt adjustment and foldable			
4.36	Should have feature of auto trace, manual trace, velocity, HR, time, volume flow.			
4.37	Onboard database and management of patient information shall come with the system as standard			
4.38	System should have up to 140 body mark graphics and also support separate body mark in dual and quad.			
4.39	Image storage facility on in build HDD/SSD should be minimum with capacity of 1TB			
4.40	System should have minimum inbuilds 540 or more predefined comment.			
4.41	Cine playback: B mode Maximum: ≥100000 frames, Color: Maximum: ≥30000 frames			
4.42	The system shall capable to perform Needle Visualization Technology to provide a clearer visualization of biopsy needles during ultrasound procedure.			
4.43	The system shall capable perform Elastography Imaging. The system shall come with software to display the elastography or density of lesion and displaying the relative stiffness of soft tissue.			

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4.44	One-key Optimization for Gain, DR or Scale/Baseline, user configurable			
4.45	**Imaging Mode:**			
I)	**B-Mode**			
a.	Quick scanning mode: Detail/General/Penetration selectable Scanning mode can be selected to improve image quality according to tissue characteristics.			
b.	Depth : at least 45cm or better			
c.	Maximum Frame rate: at least 1500 frames/sec or better			
d.	Gray Scale : 256 levels or better.			
e.	System Dynamic Range : at least 320dB or more.			
f.	Gain : 0-260 dB			
g.	Digital Zoom: x 0.5 - x 16.0 adjustable or better			
h.	B Colorization: can be on and off selectable			
i.	Tint: at least 20 types selectable or better.			
j.	Should have Lateral gain control and time gain compensation.			
II)	**M-Mode Imaging**			
a.	Gain: at least 0-260 dB range or better			
b.	Sweep Speed: Minimum 10 selectable steps			
c.	Frequency: should be at least 19MHZ or more			
d.	Anatomic M-mode cursor should be adjustable up to 3 linear sample lines.			
e.	Display mode should have 1:2, 1:1, 2:1 (up/down split screen), 1:1 (left/right split screen), full screen			
III)	**Color Flow / Power Doppler / Directional Power Doppler**			
a.	Image Type: High Flow / Mid Flow / Low Flow selectable capable to perform Dual Live			
b.	Frequency should be At least 5 levels adjustable			
c.	Color map should be at least 30 types and Threshold must be 0 -100 adjustable			
d.	Panorama color must be on and off selectable with real-time speed indicator, at least 120cm.			
e.	Color Gain should be 0 - 100dB adjustable , 1dB/step			

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f.	Baseline Shift: at least 25 levels adjustable			
g.	Independent Steering Angle: up to ±30° adjustable			
h.	Power Doppler Imaging with Directional Mapping should be available			
i.	Auto Trace shall capable to perform for the measurement. This should be applicable on all recalled images.			
5	**Accessories, Spare Parts and Consumables**			
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer.			
5.2	The bidder shall submit, along with the technical bid, a recommended list of critical and consumable spare parts including price.			
5.3	The supplier/manufacturer shall guarantee the availability of all essential spare parts required for preventive and corrective maintenance of the offered equipment for a minimum period of ten (10) years from the date of final acceptance of the equipment.			
6	**Standards & Safety Requirements**			
6.1	Must submit CE and USFDA approved product certificate			
6.2	Must submit certificate of IEC 60601-2-37: Ultrasonic Medical Equipment Safety, IEC 60601-1: Medical Equipment Safety, & IEC 60601-1-2: Medical Device Electromagnetic Safety			
6.3	Must submit certificate of IEC 62304: Medical Device Software Life-cycle Process, EN ISO 14971: Medical Device Risk Management, & ISO 10993-1 Biological evaluation of medical devices —Part 1: Evaluation and testing within a risk management process sheet			
6.4	Must submit ISO 13485: 2003/AC: 2007 for Medical Devices			
7	**Warranty**			
7.1	Comprehensive warranty for 2 years after installation and acceptance at site.			
8	**Maintenance During Warranty Period**			
8.1	During the warranty period supplier must ensure preventive maintenance and			

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	corrective/breakdown maintenance whenever required.			
9	**Installation and Commissioning**			
9.1	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.			
10	**Documentation**			
10.1	User (Operating)/Service manual in English			
10.2	Installation manual			

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.

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