Re-Tender Notice No. ULT/RAD/RIMS-11 **Dated 1st February, 2012**

TECHNICAL SPECIFICATIONS FOR HIGH END ULTRASOUND SYSTEM FOR UROLOGY DEPARTMENT.

1. Description of Function
ADVANCED 2D FACILITY.

2. Operational Requirements:
2.1 Latest generation Electronic Phased array system with Minimum 1000 Electronic independent channels, and desirably 4000 Electronic independent channels. System should be DICOM ready and capable of being interfaced with HIS/RIS/PACS.
2.2 Should be field up gradable to next generation system on site. All new software should be upgraded free of cost for at least 3 years
2.3 Frequency compounding or better technology for better resolution and penetration.

3. Technical Specifications
3.1 Latest generation Electronic Phased array system with Minimum 1000 Electronic independent channels, and desirably 4000 Electronic independent channels.
3.2 256 gray shades for sharp contrast resolutions
3.3 Probe to be supplied which should be latest generation wide band transducer.
3.4 Harmonic Imaging- System should have Harmonic with separate setting for:
3.5 Trapezoidal Image
3.6 Automated Gain control for additional level of flexibility to image quality control.
3.7 Real time high frequency 2D for higher
3.8 Frame rate should be 1000 FPS or more
3.9 High-definition acoustic zoom for enlarging sections of 2D with more acoustic information for greater clarity and detail while maintaining an optimal frame rate.
3.10 Modes –2D, M-Mode.
3.11 Monitor should be 15" or more, high-resolution colour Monitor.
Tilt and Swivel monitor should be able to view in all angles and all light conditions.
3.12 Cine loop memory- more than 1000 frames.
a. High Frame rate review for better clarity of playback images study in slow motion.
b. Quad loop with memory for pre and post image comparison of any procedure.
c. Memory- 256 frames or more in quad loop
d. Frame grabber facility for post analysis.
3.13 Various maps for pre and post processing.
3.14 User defined system and application presets for multi-user department.
3.15 Minimum 4.8 GB optical disc drive for image storage and retrieval. (Standard with system)
3.16 Two transducer ports.
3.17 Facility for high definition digital acquisition, review and editing of complete patient studies.

4. System Configuration Accessories, spares and consumables
4.1 Convex probe 2 – 5 MHz with Biopsy – 01
4.2 Endocaviy for TR applications, 5-9 MHz (TRUS guided biopsy enabled) -01
4.3 B/W thermal printer of latest model
4.4 DVD/CD Recorder with DICOM media transfer.

5. Environmental factors

5.1 The unit shall be capable of operating continuously in ambient temperature of 30 deg C and relative humidity of 80%.

5.2 Pre Requisites should be clearly spelt out in terms of room requirements.

6. Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Resettable over current breaker shall be fitted for protection

6.3 Suitable Servo controlled Stabilizer/CVT

6.4 Online UPS of suitable rating with voltage regulation and spike protection for 30 Minutes back up.

7. Standards, Safety and Training

7.1 Should be FDA or CE approved product

7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

7.3 The product shall comply to IEC 60601-2-37 ed1: Medical Electrical Equipment - Part 2-37: Particular Requirements for the Safety of Ultrasonic Medical Diagnostic and Monitoring Equipment

7.4 Type of protection against electric shocks -- Class I Degree of protection against electric shocks for ultrasound probes Type "BF" For ECG electrodes Type 'CF"

7.5 Manufacturer/Supplier should have ISO certification for quality standards.

8. Documentation

8.1 User manual in English.

8.2 Service manual in English.

8.3 List of important spare parts and accessories with their part number and costing available in stock with the supplier.

9. Maintenance and Serviceability

9.1 Remote Service Network Connectivity

9.2 Optional Service agreement

9.3 Online phone Support

9.4 Clinical application support