

**Amendment No. 1**

**Date: 28/11/2014**

**Sub: Amendment to Tender Enquiry Document.**

**Ref: NIT No. HLL/PCD/GNCTD/21/RGSSH/14-15 dated 07/11/2014**

The following changes have been incorporated in the referred NIT.

**Section – VII**

**Technical Specification**

**Item No.01**

**3T MRI Machine**

**1. Existing:**

Whole Body 3.0 Tesla Magnetic Resonance Imaging System optimized for maximal performance in Whole Body and Vascular examinations with superconducting magnet, high performance gradients and digital Radio Frequency System. The vendor should quote the latest model. Any up gradation / new features launched prior to the installation of the equipment should be part of the supply, even if not quoted at the submitting the bid. The vendor should quote the highest channel available with them. Please mention the year of launch of quoted model.

**Read as:**

Whole Body 3.0 Tesla Magnetic Resonance Imaging System optimized for maximal performance in Whole Body and Vascular examinations with superconducting magnet, high performance gradients and digital Radio Frequency System. The vendor should quote the latest model. **Any update / standard features** launched prior to the installation of the equipment should be part of the supply, even if not quoted at the submitting the bid. The vendor should quote the highest channel available with them. Please mention the year of launch of quoted model.

**2. Existing Para.**

**4: RF SYSTEM**

- A) A fully digital RF system capable of transmitting power of at least 25 KW or more (Single/ dual) with a combination of RF power amplifiers. System should be capable of Multi Transmit with Multi amplifier driving /true shape for better B1 homogeneity. Specify transmitter frequency range (10-86 MHz)**
  
- C) It should support Parallel acquisition techniques with a factor of up to 12 or more. Highest PAT factor to be quoted.**

**Read as:**

**4: RF SYSTEM**

- A) A fully digital RF system capable of transmitting power of at least 25 KW or more (Single/ dual) with a combination of RF power amplifiers. System should be capable of Multi Transmit with Multi amplifier driving /true shape/**True Form** for better B1 homogeneity. Specify transmitter frequency range (10-86 MHz).
- C) It should support Parallel acquisition techniques and Highest PAT factor to be quoted.

**3. Existing:**

**5: PATIENT TABLE**

- A) The table should be fully motorized & **dockable** with computer controlled table/trolley movements in: vertical and horizontal directions. Position accuracy should be +/- 1.0 mm or better.
- E) Table Technology – Bolus chasing with automatic/continuous moving table should be offered and should be available with fluoro triggered MR angiography for manual and fast switch over in less than 1 sec for CE-MRA. Latest table technology available with the vendor should be quoted eg. TIM-CT

**Read as:**

**5: PATIENT TABLE**

- A) The table should be fully motorized with computer controlled table/trolley movements in: vertical and horizontal directions. Position accuracy should be +/- 1.0 mm or better.
- E) Table Technology – Bolus chasing with automatic/continuous moving table should be offered and should be available with fluoro triggered MR angiography for manual and fast switch over in less than 1 sec for CE-MRA. Latest table technology available with the vendor should be quoted eg. TIM-CT/**Smart prep/Mobile track**.

**4. Existing:**

**6: COMPUTER SYSTEM/ IMAGE PROCESSOR/ OPERATOR CONSOLE**

- E) The main console should have facility for music system for patient in the magnet room. The system should have DVD/CD/flash drive archiving facility. Supply 5000 DVDs along with the system. The system should be provided with auto DVD writer. It should be possible to record multiple sessions on one DVD

**Read as:**

- E) The main console should have facility for music system for patient in the magnet room. The system should have DVD/CD/flash drive archiving facility. Supply 5000 DVDs along with the system. The system should be provided with auto DVD writer.

**5. Existing:**

**7: MEASUREMENT SYSTEM**

- A) Largest Field of View should be at least 48 cm in all three axis. Specify the highest FOV and minimum FOV.

**Read as:**

**7: MEASUREMENT SYSTEM**

- A) Largest Field of View should be **at least 45 cm** in all three axis. Specify the highest FOV and minimum FOV.

**6. Existing:**

**8: COIL SYSTEM**

- F) Body Array/Matrix coil with at least 48 cm z axis coverage for imaging of abdomen, with at least 32 channels acquisition for body parts angiograms and heart. In case one coil cannot provide this coverage than multiple coils should be offered. (the best available body coil with the vender must be supplied).
- G) Coil for peripheral angiography application of at least 32 channels.
- I) Dedicated knee coils at least 12 channels or more transmit and receive coils.
- M) Carotid coil – price to be quoted separately.
- O) General purpose flexible coils and circular coils. Highest channel to be quoted.
- P) Endorectal coil - 10 nos., (2 packs of 5 each). Also quote price of one pack separately, which would be fixed five years.
- S) The system should continuously monitor the RF coils used during scanning to detect failure modes. RF coils should not require either set up time or coil tuning; Multi coil connection for up to 2 or more coils simultaneous scanning without patient repositioning i.e. like 4GTIM/GEM/FLEXSTREAM stream coil combination should be quoted as standard.

**Read as:**

**8: COIL SYSTEM**

- F) F. Body Array/Matrix coil with at least **45 cm** z axis coverage for imaging of abdomen, with at least 32 channels acquisition for body parts angiograms and heart. In case one coil cannot provide this coverage than multiple coils should be offered. (the best available body coil with the vender must be supplied).

- G) G. Dedicated** coil for Peripheral application with 32 channels.
- I) Dedicated** knee coils at least **8 channels** or more transmit and receive coils.
- M) Dedicated** Carotid coil (**Standard**) .
- O) General purpose flexible coils (Small & Large) and circular coils (Small & Large).**  
Highest channel to be quoted
- P) Endorectal coil - 10 no.s,( 2 packs of 5 each) ( Disposal part only) Must be supplied with the system.** Also quote price of one pack separately ( **Disposal part only**), which would be fixed five years.
- S) The system should continuously monitor the RF coils used during scanning to detect failure modes. RF coils should not require either set up time or coil tuning; Multi coil connection for up to 2 or more coils simultaneous scanning without patient repositioning i.e. like **TIM4G/GEM/ dSTREAM** stream coil combination should be quoted as standard.**

**7. Existing:**

**9: APPLICATION PACKAGE**

- 24.** DTI with MDDW or equivalent with a minimum of 12 and selectable upto 64/256 direction encoding

**Read As:**

**9: APPLICATION PACKAGE**

- 24.** DTI with MDDW or equivalent with a minimum of 12 and selectable upto **32** direction encoding

**8. Existing:**

**9: APPLICATION PACKAGE**

- C. Neuro Applications:** 1. Arterial spin labelling.

**Read as:**

**9: APPLICATION PACKAGE**

- C. Neuro Applications:** 1. **2D** Arterial spin labelling.

**9. Existing:**

**e) Vascular imaging**

- 4.** Time resolved angiography with contrast kinetics like 4D TRACKS/ TWIST/TRICKS 15/TRACS MR angio.

**Read As:**

**e) Vascular imaging**

4. Time resolved angiography with contrast kinetics like 4D TRACKS/ TWIST/TRICKS.

**10. Existing:**

**Para:- h) Spectroscopy - 2-i-** Prostate imaging with parametric cards (ktrans, kep, ve, vp). Please quote whether facility for prostate biopsy is present.

**Read as:**

**h) Spectroscopy - 2-i-** Prostate imaging with parametric cards (ktrans, kep, ve, vp). Please quote whether facility for prostate biopsy is present. **(Should be offer as standard part of the system)**

**11. Existing:**

**E: WORK STATION**

Multimodality Client Server Architecture-Server with three Concurrent Clients (Dexus, Intellispace Portal, Syngo. Via etc. Capable of rendering 20000 images at peak performance. Wokstation hardware should be industry standards, and should be the latest with the vendors, as per their globally launched product catalogue. Please quote separate licenses for all the processing quoted.

**v** - Each client to have at least 19 inch LCD TFT 2MB pixel color monitor, with hard disk of at least 120 GB for at least 100, 000 image storage in 256 matrix, and 4 GB RAM capacity- Total seven clients hardware and software to be provided.

**Read as:**

**WORK STATION:**

Multimodality Client Server Architecture-Server with **Seven** Concurrent Clients (Dexus, Intellispace Portal, Syngo. Via etc. Capable of rendering 20000 images at peak performance. Wokstation hardware should be industry standards, and should be the latest with the vendors, as per their globally launched product catalogue. Please quote separate licenses for all the processing quoted.

**v** - Each client to have at least 19 inch LCD TFT 2MB pixel color monitor, with hard disk of at least **One TB** for at least 100, 000 image storage in 256 matrix, and 4 GB RAM capacity- Total seven clients hardware and software to be provided.**(Dell Or HP Make)**

**12. Existing:**

**H) UPS** - The system should be provided with UPS for the complete MRI unit with chiller & emergency light and for all accessories mentioned in the tender document with at least 30 minute back up, preferably 150 KVA or more (Specify KVA). Gensets of adequate wattage to support the ACs and chiller to be provided.

**Read as:**

UPS - The system should be provided with UPS for the complete MRI unit with chiller & emergency light and for all accessories mentioned in the tender document with at least 30 minute back up, of capacity **200 KVA or more**. Gensets of **250KVA** to support complete system, ACs, lighting system and chiller to be provided (**Price of Generator sets to be offered separately**).

**13. Existing:**

**J) ACCESSORIES**

**XV** - Two PCs of reputed make, having latest configuration at the time of the installation with 19" LCD/TFT monitors with UPS . They should be preloaded with latest windows operating system , latest edition of MS office software and Radiology reporting software.

**XX** - Electronic subscription to three Radiology journals for a period of five years. Five MRI text books (hard copies), latest editions available. Titles of journals and textbooks to be decided in consultation with department.

**Read as:**

**XV** - Two PCs of reputed make, having latest configuration at the time of the installation with **24" LED monitors** with UPS . They should be preloaded **with licences** latest windows operating system , latest edition of MS office software and Radiology reporting software. (**Dell/HP Make**).

**XX – Deleted.**

**14. Existing:**

Turnkey Specification:

Approx. Area for turnkey - 13500 X12000.

**Read as:**

Turnkey Specification:

Approx. Area for turnkey - 13500 X12000 **mm**

**Item sl. no. 2**  
**3D Mapping system**

1. **Existing Para 12:** Should have Respiration compensation facility by measuring actual change by impedance & modest patient movement should not affect the procedure

**Read as:** Should have Respiration/**gating** compensation facility by measuring actual change by impedance & modest patient movement should not affect the procedure

**Item sl. no. 3**  
**EP Lab with RF generator**

1. **Existing Para 8:** Operating system must be Windows XP based having HDD minimum 500 GB, 4GB RAM, High end VGA card, Data storage in standard HDD, Patient data writable DVD/CD

**Read as:** Operating system must be Windows **with licensed software** based having HDD minimum 500 GB, 4GB RAM, High end VGA card, Data storage in standard HDD, Patient data writable DVD/CDS

2. **Existing Para 30:** Only one keyboard to control the complete system.

**Read as: Deleted.**

**Item sl. no. 6**  
**INTRA-AORTIC BALLOON PUMP**

1. **Existing Para 27:**

**System should be supplied with the following accessories:**

- Intra-Aortic Balloon catheter for pediatrics, Size: 25cc Qty: 20nos.

**Read as: Deleted.**

**Item sl. no. 7**  
**TMT Machines**

**Added Para:-**

1. **The system should be USFDA/ European CE approved**
2. **The treadmill should be imported and should be USFDA/ European CE approved.**

**Item sl. no. 8**  
**Ambulatory BP Monitors**

**1. Existing Para: Performance specifications:-**

Should be CE Marked

**Read as: The system should be USFDA/ European CE approved**

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

**Note:**

Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of tenders.