	EQPT/MC/CT-MR-001.					
Section	Clause No.	Existing clause	Amended Clause			
		This guarantee will remain in full force up to and	This guarantee will remain in full force up to and			
		including [insert: the date that is 30 days after the	including [insert: the date that is 45 days after the			
		period of bid validity 1, and any demand in respect	period of bid validity], and any demand in respect			
		thereof must reach the Bank not later than the above	thereof must reach the Bank not later than the above			
VI	Annexure 3	date.	date.			
	Consignee					
IV	List	3.0 Tesla MRI	1.5 Tesla MRI			
			The supplier shall be entirely responsible for all taxes,			
12			duties, octroi, license fees etc. Incurred until delivery			
		The supplier shall be entirely responsible for all taxes,	of goods to the purchaser. Road permit shall be			
		duties, octroi, road permit, license fees etc. Incurred	provided by the purchaser upon written request from			
11	30.1	until delivery of goods to the purchaser.	the supplier.			
		The cost of spares shall be discounted @ 15% over				
1.1		warranty/ AMC period (if there is a provision for AMC				
		in the contract) to arrive at the final price of the	All spares required for maintenance with spare part			
11	27.3f	equipment for the purpose of tender evaluation.	nos and current cost shall be provided.			
		TECHNICAL SPECIFICATIO	NS			
		2 years guarantee of complete MRI system along	3 years guarantee of complete MRI system along			
		with all equipment supplied i.e Camera, AC,	with all equipment supplied i.e Camera, AC,			
IV	Guarantee	Chiller, UPS etc	Chiller,UPS etc			
	Special					
IV	Conditions	offered unit must be FDA approved	offered unit must be FDA and CE approved.			
		Activity shielded Gradient System with strength of				
	1	at least 40 mT/m with slew rate of 200 T/ m/ sec.	Activity shielded Gradient System with minimum			
		The rise time should be at least 250 Microsecond	strength of at least 40 mT/m or more and			
111	Gradient	or Faster to reach the maximum gradient strength.	minimum rise time with highest possible slew rate			
IV	system		shall be offered.			
		It should also have at least minimum of 16	It should also have at least minimum of 32			
		independent RF channels with each having	independent RF channels with each having			
	RF SYSTEM	bandwidth of 1MHz or more along with necessary	bandwidth of 1MHz or more along with necessary			
IV	b	hardware to support Quadrature/ CP array coils	hardware to support Quadrature/ CP array coils			
			Head coils- phased array for cranial application			
		Head coils- phased array for cranial application	including paediatric head. Maximum channels			
IV	RF COILS	including paediatric head.	available compatible with 32 channel system			
			Neck phased array coil Maximum channels			
IV	RF COILS	Neck phased array coil	available compatible with 32 channel system			
			Spine phased array coil for thoracic and lumber			
		Spine phased array coil for thoracic and lumber	spine imaging {Maximum channels available			
	1.1	spine imaging {8 channel. Maximum achievable	compatible with 32 channel system. Maximum			
		FOV should be mentioned NV coil should be	achievable FOV should be mentioned NV coil			
		combinable with the spine coil to provide	should be combinable with the spine coil to			
IV	RF COILS	complete coverage of brain and spine.	provide complete coverage of brain and spine.			
10-10-10		HNS Coil : A suitable 16 Channel coil to image	Maximum channels available compatible with 32			
		the Head to Sacrum without repositioning the	channel system to image Head to sacrum without			
IV	RF COILS	patient to be quoted as standard.	repositiong the patient to be quoted as standard			
			Phased array Body coil with Maximum channels			
		Phased array Body coil with 12 channels, or more,	available compatible with 32 channel system,			
		capable of doing whole abdomen, pelvic (prostate.	capable of doing whole abdomen, pelvic (prostate.			
		rectum and cervix), MRCP etc. The coil should	(rectum and cervix), MRCP etc. The coll should			
		cover the heart, abdomen and pelvis. in case this	cover the heart, abdomen and pelvis. in case this			
		cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to	cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to			
		rectum and cervix), MRCP etc. The coil should cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to cover at-least 48cm FOV on Z axis should be	cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to cover at-least 48cm FOV on Z axis should be			
		rectum and cervix), MRCP etc. The coil should cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to cover at-least 48cm FOV on Z axis should be given. Please specify the time reduction factor	cover the heart, abdomen and pelvis. in case this is not available additional coils and packages to cover at-least 48cm FOV on Z axis should be given. Please specify the time reduction factor			

(24).



		Suitable coil for peripheral angiagraphy	Suitable coil for peripheral angiography
IV	RF COILS	applications.	applications. Maximum channels available
			High Resolution Knee coil: Maximum channels
IV	RF COILS	High resolution knee coil	available compatible with 32 channel system
-	1.1.1.1.1.1		Breast coil- Maximum channels available
IV	RF COILS	Breast coil- 4 channels or more	compatible with 32 channel system
		Transmit /receive extremity coil (high resolution	
		knee coil, if available should be quoted	Transmit /receive extremity coil: Maximum channels
IV	RF COILS	optionally).	available compatible with 32 channel system
		The table should be fully motorized. computer	The table should be fully motorized. computer
		controlled table movement in vertical and	controlled table movement in vertical and
	12.2	horizontal directions Position accuracy should be	horizontal directions Position accuracy should be
	Patient	+/- 1.0 C mm or better	+/- 1.0 mm or better. Load capacity of 180 Kg.
IV	Table		Horizontal travel of atleast 200cm.
	Computer	One color console for acquisition. all calculations,	
	System &	post processing etc Console must have full colour	
	Image	touch screen with user define protocols with	One color console for acquisition. all calculations,
IV	Processor	programmable interscan delay	post processing etc.
	1	All necessary software in including post-	All necessary software in including post-
		processing software for all offered applications	processing software for all offered applications
	1.00	(point no. 9,10) including FMRI, pertusion,	including FMRI, perfusion, diffusion DTI. cardiac
6050		diffusion D11. cardiac evaluation, and other	evaluation, and other associated post processing
N/	Marketetien	associated post processing like MIP, MPR,	like MIP, MPR, surface reconstruction should be
10	workstation	Surface reconstruction should be provided	provided
		dual evan processor with at least 2 CD DAM	One work station with 19 IF I/LCO monitor with
		separate hard disk with image starses of at least	dual exam processor with at least 2 GB RAM,
-		2.5 loss images in 258y256 motering with C DDW	separate hard disk with image storage of at least
IV	Workstation	or DVDRW	2.5 lacs images in 256x256 matrix with C DRW
1.	Workstation	The workstation should have display of Cardian	of DVDRW.
		cine images in movie mode with rapid are	cine images in movie mode with repid erroy
IV	Workstation	creation.	creation
		EPI optimized sequences for Ti T2 PD imaging	EPI optimized sequences for Ti T2 PD imaging
		perfusion, regular diffusion values (5b, 3	perfusion regular diffusion values (5b, 3
		directions), EPI-FLAIR, CPI-IR, IPI-FLAIR	directions) FPL-FL AIR FPL-IR FPL-FL AIR
		diffusion tensor. EPI-MT-FLAIR, tensor diffusion	diffusion tensor EPI-MT-FLAIR tensor diffusion
		(5b values in minimum in six directions) for	(5b values in minimum in six directions) for
		diffusion studies. Suitable artifact/fat suppression	diffusion studies. Suitable artifact/fat suppression
		techniques to be incorporated in the sequence to	techniques to be incorporated in the sequence to
		have optimum image quality. There should be	have optimum image quality. There should be
		capability of generation of ADC map (isotropic	capability of generation of ADC map (isotropic
		and anisotropy from the regular diffusion and	and anisotropy from the regular diffusion and
	Imaging	tensor data). Facility of online generation of ADC	tensor data). Facility of generation of ADC map
IV	Sequences	map should be there.	should be there.
		The camera and color printer both must be	
	Documentat	DICOM compatible (attach conformance	The camera and must be DICOM compatible
IV	ion	statement)	(attach conformance statement)
		The system must have at least three online film	The system must have at least three film sizes, and
	Documentat	sizes, and should be capable to print on any of the	should be capable to print on any of the 8 x 10,
IV	ion	8 x 10, 10x 12, 11x 14, 14x14x17 sizes.	10x 12, 11x 14, 14x17 sizes.
		Frederic III I a 1992 .	
	Post	Evaluation and display of diffusion images, fMRI	
N/	Processing	reference of EPI optimized sequence as described	Evaluation and display of diffusion images, fMRI
IV	& Evaluation	111 9.5	reference of EPI optimized sequence.
		not mentioned	



			Echo friendly autostart DG Set of 150 KVA or
IV		not mentioned	more to be supplied with the system
		The system should have the Hydrogen, Single	The system should have the Hydrogen, Single
		Voxel spectroscopy, Multivoxel, multislice 2D,	Voxel spectroscopy, Multivoxel, multislice 2D,
	Imaging	3D Spectroscopy and also the Chemical shift	3D Spectroscopy and also the Chemical shift
IV	Sequences	imaging in 2D/3D.	imaging in 2D/3D for brain breast and prostate.
			A scan time reduction factor of 4 or more for
	Imaging	A scan time reduction factor of 8 for head, body,	head, body, cardiac, angio and ortho application is
IV	Sequences	cardiac, angio and ortho application is required.	required.
	Documetati	The system must have contrast resolution of	The system must have contrast resolution of 14
IV	on	16bits/pixel or more	bits/pixel or more
		The scan time for one gantry rotation of complete	The scan time for Gantry rotation of one complete
IV	1a	360° rotation should be 0.35 sec or less.	360° rotation should be 0.4 sec or less
			Rotation time of Cardiac Application should be
			0.4 sec or less. Cardiac application has to be
2 - P			demonstrated to experts during inspection and
		Rotation time of Cardiac Application should be	experts reserve the right to reject if application is
IV	1c	0.35 sec or less.	not found satisfactory.
			Basic Angiography, Advanced Angiography,
		Basic Angiography, Advanced Angiography,	Advance Vessel Analysis, Auto Bone Removal,
	1.2	Advance Vessel Analysis, Auto Bone Removal,	Small Volume Quantification, Lung Nodule
	12. Clinical	Small Volume Quantification, Lung Nodule	Assessment, Virtual Endoscopy, bronchoscopy
	Application	Assessment, Virtual Endoscopy and Colonoscopy,	and Colonoscopy, complete Coronary CT
IV	Software	complete Coronary CT Angiography Software.	Angiography Software.
IV	6a	X ray generator Power output: 100 KW or more	X Ray Generator Power output: 70 KW or more.
IV	6d	mA range: 700 mA or more	mA Range 600 mA or more
IV	7	Anode Heat Storage capacity- minimum 7.5 MHU	Anode heat sorage capacity- 6 MHU or more
		Anode Heat Dissipation: 1200 KHU/minute or	
IV	7	more with latest technology	Anode Heat Dissipiation : 800 KHU/min. or more.
	13 Dry		
	LASER	Resolution: 16 bits/500 dpi or more with	Resolution: 14 bits/500 dpi or more with
IV	CAMERA	minimum three ports.	minimum three ports.
		c) The detectors shall have multiple rows with	c) The detectors should have atleast 64 rows with
IV	4c	each row having more than 600 detector elements.	each row having more than 600 detector elements.

The experts were also of the view that clinical application training of minimum 30 days for MRI and for 15 days for CT scanners to 2 doctors each from all medical Colleges shall be provided in English speaking country preferably UK/USA after the confirmation of award of contract.

The experts were also of the opinion that 1 CT Technician and 1 MRI technician at each location on the pay roll of the bidder shall be made available after installation of the equipment for one year

Turnkey Requirements: The vendors were of the view that specifications do not mention the site for turnkey and different vendors might quote different rates considering different areas. Also minimum quality standards for material to be used in interior and exterior work shall be mentioned for proper evaluation. The committee is of the view that the vendors may visit all the site locations and submit a report latest by 30th MAR 2012, based on which the Scope of work for turnkey requirements shall be made and Delivery and payment schedules can be adjusted depending upon the turnkey requirements. In view of the time required for assessing turnkey requirement and to provide sufficient time to the bidders, the last date for sale of tender documents is extended to 10th April 2012 upto 1700 Hrs and the last date for submission of Bids is extended to 20th April 2012 upto 1200Hrs and technical bids will be opened on 12th April at 1400 Hrs.

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allow MILL