

**Technical Clarifications for  
3-TESLA MAGNETIC RESONANCE IMAGING AND SPECTROSCOPY SYSTEM @ CNS, IISc**

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Following the pre-bid meeting held with company representatives on 8 July 2016, the following clarifications may be noted towards the purchase of the above system. Items whose technical specifications have changed are **highlighted in red**. **All other specifications and terms/conditions remain unchanged.** **At the request of the vendors the deadline for submission of bids has been changed to 5:00 PM on Friday, 29 July 2016.**

**TECHNICAL SPECIFICATIONS**

<b>Section #</b>	<b>Vendor query</b>	<b>IISc Response</b>
1.2	Can the specifications be changed to include 70-cm bore scanners?	This is not possible because this will compromise magnetic field homogeneity.
2.1	Do the specified maximum gradient strength and slew rate need to be achieved simultaneously?	No.
5.1 & 5.3	Do both head/neck coils need to have at least 32 independent RF channels each?	We have now amended the specifications to the following: <b>“5.1 One head/neck coil with at least 32 independent RF receive channels.</b> <b>5.3 An additional head/neck coil with at least 8 channels that is compatible with third-party EEG-fMRI, TMS-fMRI and TDCS-fMRI systems and the vendor should provide necessary support in terms of hardware, software and labor for integration of all systems when required. Specify the physical dimensions and technical details of this coil.”</b>
5.4-5.7	Could you specify the number of channels required for these coils?	We have now amended the specifications to the following: <b>“5.4 Spine array coil (at least 32 channels)</b> <b>5.5 Volume coil for imaging primate and small animal brains (supply knee coil with at least 8 channels)</b> <b>5.6 Body coil (at least 32 channels)</b> <b>5.7 Surface coil for localized tissues such as visual cortex (at least 4-6 channels)”</b>
6.7	Could you clarify the meaning of “two MR-compatible gating systems for wireless	We have now amended the specifications to the following: <b>“6.7 MR-compatible gating system for monitoring of physiological signals like ECG, pulse, pulse</b>

	monitoring of physiological signals...”	oximeter, respiratory, external signal triggering i.e. interface for triggering input pulse from external source with <b>two sets of measurement accessories</b> ”
6.8	Are two TTL-compatible programmable spare lines required?	We have now amended the specifications to the following: “At least <b>one</b> TTL-compatible programmable spare line to be provided”
9	Are the last three bullet points related to fMRI?	Yes, they pertain to fMRI and diffusion imaging.
11	Bullet points 1-5: are they part of fMRI?	Yes these are standard equipment required to perform any fMRI experiment that requires stimulus presentation and behavioral responses by the subject.
11	Do MR-compatible EEG-fMRI, TMS-fMRI and TDCS-fMRI systems need to be quoted?	No.
11	Please specify how many full sets of software licenses are required in the thin client system.	We have now amended the specifications to the following: “ <b>Integrated thin client system for access to all of the vendor supplied software for 10 virtual workstations with 2 sets of active neuro application licenses. Specify the technical specs of each thin client, and specify the cost of each additional license.</b> ”
12	Please clarify the nature of the personnel required to be posted at the facility.	We have now amended the specifications to the following: “ <b>An on-site MRI physicist/engineer with at least three years of proven experience with MRI technology should be posted exclusively at the facility for the duration of the guarantee period to assist in system maintenance, troubleshooting and research.</b> ”
14	Please clarify the currency in which the financial bid should be provided.	We have now amended the specifications to the following: “ <b>All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees</b> ”.
OPTIONAL ACCESSORIES	Please clarify how many MR-compatible syringes are to be provided.	A total of 1000 syringes must be quoted.

**TERMS AND CONDITIONS**

Section #	Vendor query	IISc Response
1.1	Please confirm the capacity of the generator to be quoted	Please supply a generator with 20% extra capacity in addition to the power requirements of the equipment within the tender scope.
1.7	Can this point be removed since it is subsumed by the vendors' commitment to 95% uptime guarantee?	Yes this is fine and this point (1.7) is no longer a consideration.
13	Can the payment terms be modified to be 80% payment with purchase order and 20% on delivery?	<p>The payment terms have been amended as follows:</p> <p>“13.3 50% of the purchase order value will be released after presentation of the shipping documents &amp; inspection certificate issued by the IISc authority after inspection of the equipment &amp; accessories at the site of installation.</p> <p>13.4 30% of the purchase order value will be paid after the successful completion of the installation and commissioning of the Equipment including Accessories.</p> <p>13.5 20% of the purchase order value will be paid within 6 months from the date of installation &amp; successful operation of the Equipment after commissioning and clearance of inspection note jointly signed by the authorized End-User &amp; by the Vendor.</p> <p>13.6 100% of the building cost will be paid after handing over of the building.”</p>

### ADDITIONAL QUERIES REGARDING MRI FACILITY

Section #	Vendor query	IISc Response
	Number of floors planned in future, above the first floor. This is required for structural designing.	No more floors are planned above the first floor.
	Place for Generator.	The generator will be housed within 100 meters of the proposed site of the MRI facility in adherence to safety guidelines.
	Power load requirement of all equipment other than those mentioned in tender scope.	Please supply a generator with 20% extra capacity in addition to the power requirements of the equipment within the tender scope.
	Should demolition of the existing building be considered in our scope?	Yes, the vendor must demolish the existing building.
	EB room for placing the Main power panels and distribution units.	Please include an EB room in your facility design.
	Source power panel/transformer location, from where we can tap the power for the Main power panel of this new building proposed.	This will be located roughly within 200 meters from the facility.
	Does the institute have an existing drainage facility or do we have to provide the sewage sump near the building?	IISc has an existing drainage system to which the MRI facility can be linked.
	Can water supply be tapped from an existing source?	Yes, water supply is provided by IISc.