

# **TENDER DOCUMENT**

FOR

**THE INSTALLATION OF MRI SUIT IN AYUB  
TEACHING HOSPITAL – MEDICAL TEACHING  
INSTITUTION ABBOTTABAD ON PUBLIC  
PRIVATE PARTNERSHIP MODEL**

## **Open Tender Notice**

### **Terms & Conditions for PROCUREMENT, INSTALLATION AND**

### **OPERATION of Magnetic Resonance Imaging (MRI) facility**

**AYUB TEACHING HOSPITAL – MEDICAL TEACHING INSTITUTION ABBOTTABAD**

invites sealed tender (**One stage two envelopes Bid**) for installation & operation of a round the clock MRI facility having a brand new latest state of art **1.5 Tesla MRI system** in the Department of Radio diagnosis & Imaging at **Ayub Teaching Hospital**. Reputed and financially sound agencies/ firms / parties / institutions interested in ‘Public Private Partnership’ model are requested to submit their offers in **sealed envelopes** on terms and conditions given in the prescribed Tender form.

<b>Name of the Equipment</b>	<b>Earnest Money in the form of DD in favor of  HOSPITAL DIRECTOR AYUB TEACHING HOSPITAL</b>	<b>Tender Fee in the form of DD in favor of Hospital Director Ayub Teaching Hospital</b>
<b>1.5 Tesla MRI UNIT</b>  (as per specifications)	<b>Rs.2.5 Lakhs</b>	<b>RS: 2000</b>

**Conditional tenders shall not be considered and shall be rejected.** The Purchase Committee

Would have the right to accept or reject any tender fully or any part of it as per KPPRA rules, without assigning any reason. No correspondence in this regard shall be entertained

1. Tenders shall be submitted in TWO (Technical & Financial) Separate Sealed Envelopes along with the specifications as mentioned.

**(A) Technical Bid:**

a) Earnest Money **Rs. 2, 50,000.00** (Rupees Two lakhs and fifty thousand only)

in form of demand draft drawn in favor of Hospital Director, Ayub Teaching Hospital Abbottabad

b) Past performance certificates from a hospital or medical center and detail of engineering services

c) Specifications given by ATH of the machine given by the ATH which will be installed by the firm.

d) Tender form duly signed and stamped by Authorized Signatory of the bidder in All respect.

e) Taxation details via FBR certificates

**(B) Financial Bid:**

a) Rate chargeable for MRI scan as given in a table in terms and conditions section.

b) Revenue sharing pattern as given in a table in terms and conditions section.

c) Bank statement of having RS 150M

Other financial terms & conditions should be mentioned as per the scheme detailed for **accounting procedure and revenue computation** (ref. clause 6

below of the terms and conditions).

2. Tenders shall be submitted in one stage two **sealed** envelopes, separately marked A) '**technical bid**' and (B) '**financial bid**' kept in a sealed cover, otherwise tenders will not be considered and shall be rejected.

Financial Bids of responsive bidder will be opened on being qualified in the Technical Bid. Technical terms and conditions, technical specifications of 1.5 Tesla MRI Equipment, tests to be performed on the 1.5 Tesla MRI equipment, etc. should be included in technical bid. Financial rates of the examinations (to be performed on the 1.5 Tesla MR systems), revenue sharing pattern and financial terms and conditions to be submitted in financial bid. Financial bids shall be opened only of those tenders who shall qualify technically assessment.

Technical specifications of **1.5 Tesla MRI equipment** are enclosed in  
Tender document.

3. The specifications of the 1.5 Tesla MRI equipment to be installed shall not be in anyway of lower specification / configuration as mentioned in the tender otherwise the bid shall be rejected.

<b>BID REFERENCE</b>	<b>MRI in ATH on PPP Model</b>
<b>DATE OF COMMENCEMENT OF SALE OF BIDDING DOCUMENT</b>	Given in advertisement
<b>LAST DATE TIME FOR SALE OF BIDDING DOCUMENTS</b>	Given in advertisement
<b>LAST DATE AND TIME FOR RECEIPT OF BIDS</b>	Given in advertisement
<b>ADDRESS FOR COMUNICATION</b>	Procurement Cell Ayub Teaching Hospital

**Time schedule**

<b>Variables</b>	<b>Date &amp; Time</b>	<b>Venue</b>
Last Date of Receiving Tenders		Procurement Cell Ayub Teaching Hospital
Opening of Technical Bid		<b>Office of the Hospital Director Ayub Teaching Hospital Abbottabad</b>

**TERMS AND CONDITIONS**  
**For installation and operation of M.R.I SERVICES**

## **1. INTRODUCTION**

- This ‘Public Private Partnership’ represents the agreement between Ayub Teaching Hospital contracting authority (Contracting authority ’) and a private party, to be selected from the bidders, on the basis of an tender as per Government of PAKISTAN specified procedure concessioner (Concessionaire’) for the provision of services concerning 24x7x365(/366) hours (hereby ‘round the clock’) Magnetic Resonance Imaging facility at the premises of the ATH. This arrangement is intended to provide a framework for establishing a cooperative and productive working relationship between *contracting authority and concessionaire*. Selection shall be done looking into overall merit of the project proposal and not on any single criteria alone. In nutshell, *contracting authority* would provide the space for installation of the said facility and high-level technical expertise (both as per pre-designated and mutually agreed upon terms & conditions), in order to achieve the under-mentioned ‘goals’ and ‘objectives’ while concessionaire would be obliged to bear all other expenses and damages, if any. This agreement defines the terms and conditions under which *contracting authority* and concessionaire will interact with each other. It is anticipated that this arrangement will result in more efficient operations and improved utilization of resources.

## **2. STATEMENT OF PURPOSE**

In view of the exponential expansion of services at ATH, MRI facility seems to be an essential component. The proposed 1.5 Tesla MRI unit at ATH under a Public-Private Partnership Program (hereby ‘PPP’) will provide *contracting authority* with the much needed MRI facility. The prime mandate of the *facility* would be twofold:

- a) To provide un-interrupted services to patients presenting/being referred ATH for treatment.
- b) To provide facility for training and research in the field of ‘MR Imaging’, to the Department of Radiodiagnosis & Imaging (hereby ‘department’) and to all other relevant

units/sections/departments of this *contracting authority*, through the Department of Radiodiagnosis & Imaging.

### **3. AGREEMENT OF TASKS, PERMISSIONS AND COMPETANCIES**

- The sole responsibility and right of concessionaire would be to provide *round the clock* un-interrupted MRI services to patients presenting/being referred to *ATH* for treatment. The *facility* will include comprehensive range of *MRI* based investigations, living up to the cause and quality of a tertiary care teaching hospital. The academic aspect of MR Imaging (i.e. teaching, training, research, and organization of academic activities like conferences, CME, symposia, seminar etc., academic publications in books, journals and conferences and, collaboration with any other academic body/unit/department/section/faculty for the purpose) and *MRI* would however be the prerogative of contracting authority .
- Please be informed that all data generated in the proposed center shall be the ‘Intellectual property’ of contracting authority only.
- The technical features and specifications of *MRI* System, to be installed by concessionaire, shall NOT be of lower configuration as mentioned in the Tender document. The COMMITTEE reserves the right to assess the viability and suitability of each financial bid in terms of the reasonability of rates and the revenue share percentage (of the private party) of *MRI* investigation quoted. No representation shall be entertained on the decision made by contracting authority in this regard.
- Successful bidder shall install a **latest MRI System (as per Annexure VI) with all accessories and facilities necessary for optimum functioning** within **180 days** from the date of signing of the agreement/MOU. For delayed installation beyond the



aforesaid period a penalty of **Rs.20,000/-** per week shall be levied. If the *facility* is not made available to contracting authority within **30 days** from the expiry of the scheduled time period of installation, the order would stand automatically cancelled and security deposit shall stand forfeited.

- The agreement shall be valid initially for a period of **seven years** from the date of commissioning of the *facility*. It could be revoked by contracting authority at any time on account of violation of rules, regulations, terms and conditions of the agreement by concessionaire, after providing due opportunity of hearing to concessionaire. Periodical inspection for performance and observance of terms & conditions including quality of *MRI* investigations, features, facilities, etc. shall be carried out every year by a joint committee with representatives of both parties, appointed by contracting authority. The rates of investigations shall be reviewed only after an initial period of three years (3 Years). Contracting authority (on recommendation of the '*department*') shall issue an annual 'Certificate of Performance' to concessionaire, based on which a further **extension of 2 years may be given to concessionaire. Suitable clause may be proposed by contracting authority at that time, if and when such need arises, and the incumbent second party shall have the 'right of first refusal'.**
- Concessionaire shall arrange a 3<sup>rd</sup> party insurance policy or similar existing scheme in the market, to cover all the patients, subjected to *MRI* investigations, against any mishap at *MRI* centre. Conforming to the provision of the 'Consumer Protection Act' shall be the sole and absolute responsibility of concessionaire and contracting authority will share no liability in this regard. Privacy and other ethical values of

patients under investigation shall have to be maintained in individual cases by concessionaire.

- Concessionaire shall abide by all the guidelines issued by the Federal or Provincial Government of Pakistan and contracting authority from time to time during the lease period.
- Concessionaire status, as a whole or in part, is non-transferable and, the awarded *Second Party* shall not sell or transfer by any mode whatsoever any proprietary right or entrust any other party to run the *MRI / facility*.
- In the best interest of patient management, as far as prompt reporting of MRI scans is concerned, concessionaire would be free to share all MRI scans done after the routine working hours (9 AM to 5 PM) of contracting authority and other pending cases, with a *Third Party* (defined hereby as a person with such reasonable level of experience and expertise so as to report *MRI* scans, either directly or through mass communication modalities). In this case it would be the responsibility of concessionaire to ensure patient privacy and protection of academic data by electronic coding and encryption methods. If in any case contrary is proven later, the same shall be cognized as a breach of contract.
- Please be informed further that the *ATH* is likely to have patients with medico-legal registration as well, hence privacy and protection of data would be of prime importance. The '*department*' would be obliged to offer reasonable co-operation, to the best of it's ability (within the framework of available resources) as far as clinical-radiological evaluation and subsequent documentation of results of the *MRI* scans is

concerned. It would however be the final responsibility of concessionaire to assist contracting authority , in managing the reporting of all *MRI* scans within a reasonable duration (as decided by the patient triage protocol fixed by ATH). Please be informed that the '*department*' may at times or for a period of time be unable to provide any technical support due to existing workload at *ATH*, in such circumstances concessionaire would have to manage the reporting and other technical issues on it's own.

#### **4. INSTALLATION AND OPERATION OF THE FACILITY**

- Adequate land would be provided by contracting authority in the premises of ATH. Concessionaire shall be solely responsible for the civil work at the allocated space as per specifications by the vendor with no liability on the part of contracting authority . All the civil, electrical, additional air-conditioning provisions (considered essential for installation of *MRI*) shall be the responsibility of concessionaire. Contracting authority will not be responsible for any loss / damage to machine or property due to natural calamity or otherwise.
- Please be advised that *MRI* is a highly specialized equipment with peculiar and specific needs in terms of above mentioned as well as topographical requirements, it is therefore the responsibility of concessionaire to inspect (in minute details) and ensure the suitability of the site/space as provided by contracting authority .
- The space with all the renovations, modifications by concessionaire shall remain the property of contracting authority , after expiry of agreement/MOU period. All expenses on

account of electricity, water, maintenance of premises and the equipments or any other expenses incurred in day to day running of *MRI* system shall be borne by concessionaire.

- The security arrangement and cleanliness of the equipments & house-keeping of the *facility* shall be sole responsibility of concessionaire.
- Concessionaire will have to procure a suitable stand-by source of power (Generator Set), capable of catering the power requirement of *MRI* with all accessories and *facility* as such, so that services remain available un-interrupted round the clock.
- At all instances, where the identity of the *facility* is concerned, the name of the *department* and *First Party* shall precede that of concessionaire.
- Concessionaire may be permitted to use the premises of the *facility* for activities pertaining to medical education (with or without the participation of the *department*). However, for all such activities a written permission would have to be taken from the *Head of the Department* at least 7 days in advance. In case of any conflict of interest over such an issue, the *department* may have a priority position followed by contracting authority and concessionaire in that order.

## **5 .HUMAN RESOURCE**

- The technical staff, recruited by concessionaire, should have the qualification specified by contracting authority (**Annexure IV**), any deviation from the same would be taken as a breach in agreement and be liable for suitable actions.
- Concessionaire shall arrange for the services of an anesthetist and/or an emergency medical officer who would be responsible for the smooth execution of the case/scans and

monitoring of patients while inside the premises of *MRI unit*. The said officer would have the 'right to refusal' to be recorded in writing with supporting reason, for rejecting a patient for scan if he/she feels that a patient is too critical for him to monitor and there is no attending clinician accompanying the patient.

- The staff of *second party* would ensure good medical practice and high ethical values towards patients under overall control of the *department*.
- The poor quality *MRI* scans will have to be repeated at no extra cost. As far as the doubtful observations or incomplete studies are concerned, a repeat scan will only be carried after review by the consultant (radiologist) on duty.
- The *MRI facility* shall allow members (authorized by the *head of the department, Radiodiagnosis & imaging*) of all the faculties to have access to view *MRI* Scans of their respective patients for clinical management.
- When contracting authority starts Hospital Management Information System (HIMS) and Picture Communication and Archiving System (PACS), the patients' data available on *MRI* would have to be made accessible to these systems by concessionaire.
- Concessionaire will have to do 20 (twenty) numbers of FREE cases (noncumulative) per month for indigent class of persons after sanction of the Hospital Director ATH, who would decide the cases of such category.

## **6. ACCOUNTING PROCEDURE / REVENUE COMPUTATION**

- The *MRI facility*, will have to offer professional ambience, uncompromising clinical quality at an acceptable cost and superior service in minimal waiting time. The MRI investigation facility will have to function for patient care round the clock (i.e 24x7x365 days a year) with an uptime of 95% per annum.
- The MRI investigation charges, both from patients referred by ATH and from outside patients would be collected by the ATH on AR-1 Receipts of ATH / Bank Receipt. Service Tax or GST/similar taxes at applicable rates will be charged additionally, if applicable, in future, as per any government guidelines/regulations.
- The approved rates of various MRI investigations to be conducted by concessionaire on MRI machine would include: (i) Cost of Imaging Films and (ii) Cost of disposables of standard & safe brand, and (iii) Eco-friendly carry-bag for keeping MRI films & report and consultant fee.
- Concessionaire would be free to use the MRI machine for outside patients, if any, at the same rates, charges of which will be collected by the Bank (as above). However, priority shall always remain for patients referred from ATH.
- The share of revenue of contracting authority shall not be less than the rate specified by vendor of the scan charges. The respective share of generated revenue would be bifurcated through a ACCOUNT in a scheduled bank. the share of Second Party will be paid on daily basis.
- Division of collected revenue shall be applicable to the MRI investigation charges only, not over the charge obtained for Contrast Media used for particular MRI investigation.

- The scans to be performed under various sub-categories of *MRI* investigation (**Annexure V**), would have to be executed at a pre-decided rate.
- The rate list to be generated as per mutual agreement between contracting authority and concessionaire as per the mentioned categories (**Annexure V**) and would be decided on the basis of the financial bid, for the **‘ordered primary region’** (Please refer to the Table no. 1 and Case Illustration 1). Additional imaging (requested over and above the ‘ordered primary region’) shall be charged as under:
  - A. **Single sequence screening** (i.e. consisting on one MRI sequence considered most suitable to answer a clinical question by the referring clinician) of single anatomically contiguous region would be done at **1/6<sup>th</sup> the cost of ‘ordered primary region’** (and would be performed only along with another ‘ordered primary region’). The question, as to whether adjacent contiguous regions be considered as one or as two, would be addressed by the maximum area reasonably coverable by the equipment (i.e. the relevant coil) without any loss of clinical quality. The billing counter shall have preset directives in the rate list to meet any ambiguity in requisition regarding the same.
  - B. **Special investigations** (consisting of MRCP, non-contrast MRA, MRS, CSF flow, MR Perfusion study, DTI, tractography) would be done **at specified cost of ‘ordered primary region’** (and would be performed only along with another ‘ordered primary region’) (Ref. Table 2). The billing counter shall have preset directives in the rate list to meet any ambiguity in requisition regarding the same.

- C. **Procedure based MRI investigations** (like MR Arthrography, contrast enhanced MR Angiography, MR Enteroclysis) would be considered as an ‘ordered primary region’, but would attract **an additional cost as procedure charges**. In case the same are requested along with another ‘ordered primary region’, an added cost of single region screening (i.e. 1/6<sup>th</sup> the cost) plus procedure charges (i.e. 1/10<sup>th</sup> the cost) would be incurred (Ref. Table 3). The billing counter shall have preset directives in the rate list to meet any ambiguity in requisition regarding the same.
- Still, in case of an un-foresighted ambiguous situation (regarding charges), the matter shall be amicably sorted out by the *head of the department* and concessionaire.

#### 7. **DISPUTE RESOLUTION CLAUSE**

- In the event of any question, dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by mutual consent of both the parties herein. The provisions of the Arbitration and Conciliation Act will be applicable and the award made there under shall be final and binding upon the parties hereto, subject to legal remedies available under the Law.
- Further any matter of dispute shall be put on trial in the local court.



## Price Evaluation Proforma

### Table 1

SL No.	Part to be examined	Charges
1.	Ordered primary region	<b>Rs.</b> _____ = <b>(A)</b>
2.	Single anatomically contiguous region	<b>Rs</b> _____ <b>+A/* to 1.</b>
3.	Another Single anatomically contiguous region	<b>To add another</b> <b>Rs.</b> _____ <b>+A/* to 1.</b>
4.	Another Single anatomically contiguous region	<b>To add another</b> <b>Rs.</b> _____ <b>+ A/ to 1.</b>
5	MRI Contrast media	A +Contrast Media =
6	Special Investigations eg.MR Angiography	RS: : A+
7	<b>PROCEDURE BASED INVESTIGATION</b>  i. MR Arthrography ii. CE-MRA III MR Enteroclysis	RS:. A+

**\*P.S: A/6 means 1/6<sup>th</sup> amount of Rs. A**

#### NOTE:

- The above cited scheme is a broad formula to facilitate the framing of the final rate list in terms of actual anatomical regions and technical procedures. All bidders/vendors are free to discuss the schema with the technical committee to work out the implications and to discuss any ambiguity one has **(with suitable examples)**. The technical committee welcomes any suggestions to cover up an inadvertent omission, if any, in this aspect.

### **Case Illustration 1**

If doctor refers a patient for *MRI of Brain (or any other part as a matter of fact)*, he is charged **Rs. A**. Now if he also wants to get a screening (as defined above) of *cervical spine* also, the patient pays an additional **Rs. A/5**. Now if he also wants to get a screening (as defined above) of *dorsal spine* also (along with cervical spine), the patient pays an additional **Rs. A/5 (i.e. add Rs. A+A/5+)**

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- The MRI Scans of bonafide staff and their dependents, as well as bonafide Students (both to be verified by the head of the department) shall be done free of cost initially. There would be arrangement made by contracting authority to reimburse the charges collected daily in this category by concessionaire.
- Approved *second party* shall have to provide a Bank Guarantee of Rs.3 million ‘performance security’ in favor of HD ATH. (as per the annexure II).
- Contracting authority shall support and provide all necessary statutory documents and certifications as and when required (in the format of a nationalized financial institution) to the bankers involved in the financing of the project.
- Contracting authority intends to establish a ‘Joint Monitoring Committee’ consisting of members from both parties for day-to-day monitoring of the working of center. The committee shall be chaired by the *head of the department*.
- Credibility and eligibility of second party would have to be proved along with necessary documents like –
  - 1) Self Attested copy of certificate of incorporation, issued by Registrar of Companies/ registration certificate of partnership firm/limited liability partnership(LLP).
  - 2) Self attested copy of the PAN allotment.
  - 3) Self Attested copy of TIN/service tax registration.
  - 4) Self attested copies of any quality certification held. Eg. ISO.
  - 5) Status: whether Proprietary / Partnership firm / Pvt. Ltd. etc.

- 6) List & addresses along with contact land line and mobile phone no. of Partners / Directors/proprietors.
- 7) Name, address and contact no. of the auditors of company/firm/LLP.
- 8) Solvency certificate issued by the banker of the firm/company/LLP.
- 9) Copy of resolution of Board of Directors / Partners expressing interest to bid in present project.
- 10) Details of existing other business / PPP of the firm on the letter head.
- 11) Memorandum and Articles of Association / Partnership agreement related to the party.
- 12) Name, address / phone no. of Authorized Signatory with written approval of the board / partner of bidding firm.
- 13) Attested copy of audited balance sheet and profit and loss account in support of annual turnover of the last three years preceding the year of commissioning.
- 14) Certification of experience of running such/or similar facility for 5 years or more. Give details of experience as below :
  - a) Date of establishing MRI centre, with total no. years of operation, configuration, model and make of the machine run. The name & address of the institution where this model is running. Name, address and contact nos. of the management head of that institution.
  - b) Financial Turnover : FY 2013 to 16.
  - c) No. of MRI scans conducted in last 3 years :  
2010-11.....scans, 2011-12.....scans, 2012-13.....scans

ANNEXURE I

Form No. ....

AYUB TEACHING HOSPITAL ABBOTTABAD

OFFICE OF THE HOSPITAL DIRECTOR

Reference No. /...../...../

Dated: .....

TENDER FORM

FOR MRI system

1- Name and full address of Tenderer .....  
.....  
.....

2- Address to: The Hospital Director, Ayub Teaching Hospital Abbottabad

3- Reference: Tender Notice No. .... / dated .....

4- Tender fee Rs. \_\_\_\_\_ deposited vide demand draft no. .... dated  
..... of ..... (Name and address of  
Banker)

5- We ..... (Name of Firm) agree to abide by all the terms & conditions as  
mentioned in (i) Tender Notice No. .... dated .....

6- All tender documents are complete in all respect and have been duly signed.

7- We have enclosed Earnest Money Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) in form of demand  
draft no. .... dated ..... of ..... (Name of  
Banker) in favour of **The Hospital Director, Ayub Teaching Hospital Abbottabad**

**Signature of tenderer with stamp**

**ANNEXURE II**

**FORMAT OF BANK GUARANTEE FORM**

1. This guarantee should be furnished by a Nationalized Bank / Scheduled Bank, authorized to issue a Bank Guarantee.
2. The bank guarantee should be furnished on stamp paper of Rs. \_\_\_\_\_
3. The stamp paper should have been purchased in the Name of the Bank executing the Guarantee.
4. In the case of foreign bidder the B.G. may be furnished by an international reputed bank acceptable to the PURCHASE countersigned by any National / Scheduled Bank in PAKISTAN authorized by Reserved Bank of PAKISTAN.

-----  
DATE

BANK GUARANTEE NO.:

Ref.: .....

To

**The Hospital Director, Ayub Teaching Hospital Abbottabad**

Dear Sirs,

In accordance with your 'Invitation to Bid' under your Tender No. ....

M/s: ..... herein after called concessionaire, with the following Directions on their Board of Directors / partners of the firm.

1. .... 2. ....
3. .... 4. ....

agree for the contract.

As an irrevocable Bank Guarantee for an amount of Rs. .... (in words and figures) valid for ..... days from ..... is required to submitted by the Contractor/Supplier which amount is liable to be forfeited by the purchaser in the event of

- 1) the withdrawal or revision of the offer by the Bidder as a condition within the validity period.

2) Non-acceptance of the Letter of Intent / Purchase order by the bidder when issued within the validity period.

3) Failure to furnish the valid contract performance guarantee by the bidder within one month from the receipt of the purchase order and

4) On the happening of any contingencies mentioned in the bid document.

We, the ..... Bank at ..... having our Head office at ..... (Local address) Guarantee and undertake to pay immediately on first demand by **The Hospital Director, Ayub Teaching Hospital Abbottabad** at the amount of .....(in figure and words) without any reservation, protest, demur and recourse. Any such demand made by the Purchaser shall be conclusive and binding on the Bank irrespective of any dispute or difference raised by the purchaser.

The guarantee shall be irrevocable and shall remain valid up to .....

(This date should be 6 months after execution of the order). If any further extension of this guarantee is required the same shall be extended to such required period (not exceeding one year) on receiving instruction from M/s. .... On whose behalf this guarantee is issued. In witness whereof the Bank, through its authorized officer has set its hand and stamp on this ..... day of ..... at ..... witness ..... (Signature)

WITNESS

(Signature) .....

Name in (Block letters)

Designation .....

(Staff Code No.) .....

(Bank's common seal)

Attorney as per power of Attorney No.

Official address:

Date:

**ANNEXURE III**

**UNDERTAKING**

We solemnly affirm that the technicians deployed by our firm \_\_\_\_\_

\_\_\_\_\_ do

possess the requisite qualification of B.Sc. (CT technology / Medical radiography with upto 3 years certified experience in MRI) and are competent to run the 1.5 Tesla MRI system and its accessories. Any consequent loss / damage to the machine or the patient due to improper handling of the equipments will be solely our responsibility and the Ayub Teaching Hospital Abbottabad shall in no way held responsible for it.

Sd.  
(Authorized Signatory of the firm)  
With stamp

**ANNEXURE IV**

**QUALIFICATION FOR THE POST OF MRI TECHNICIAN**

**Qualifications & Experience :** 1. B.Sc. (Radiography/Radiology) – **3 Years Course** with certified exposure in cross sectional imaging (CT Scan, MRI); an additional certified work experience especially in an institution/ hospital/ center having MRI would be preferred

**OR**

2. Diploma (Radiography/Radiology) – **2 Years Course** with certified experience in cross sectional imaging (CT Scan, MRI): Additional certified exposure in **MRI of 3 Years** is a must for this qualification

**OR**

3. Diploma (CT Scan and/or MRI) – **2 Years Course**

With certified experience of **3 years in MRI** if the candidate holds a Diploma (CT Scan & MRI) or Diploma (MRI)

or

With certified experience of **5 years in MRI** if the candidate holds a Diploma (CT Scan Technology)

**The above qualifications would be treated to be “in order of preference” (as above).**

**Candidates with higher work experience would have added advantage.**

**Open interview shall be conducted by concessionaire in conjunction with the *department* for the recruitment of technicians. All candidates shall be assessed by a pre-interview written module (Multiple Choice Questions) of 15 minutes, to assess their knowledge about M.R.I Technology & Technique. This module would not however be for any kind of short listing and the marks obtained (by this module) would be presented for discretion of the selection committee (comprising of the *head, head’s nominee, second party owner*).**

**Age of the candidate shall not be a bar for recruitment, as the university would like to have candidates with maximum work experience**



**ANNEXURE V**

<b>Sl. No.</b>	<b>Name of MR Investigation</b>	<b>Charges (Rs.)</b>
1.	<b>ORDERED PRIMARY REGION</b>  i. Head (Brain)  ii. Spine  a) Cervical b) Dorsal c) Lumbo Sacral  iii. Thorax  iv. Abdomen  v. Pelvis  vi. Joint (Single)  vii. Limb (Soft Tissue) Single	
2.	<b>NAME THE REGION FOR SCREENING</b>	
3.	<b>SPECIAL INVESTIGATION</b>  i. MRCP  ii. MRA  iii. MRS  iv. MRU  v. MR Perfusion  vi. DTI  vii. Tractography  viii. CSF flow study	
4.	<b>PROCEDURE BASED INVESTIGATION</b>  iii. MR Arthrography  iv. CE-MRA  v. MR Enteroclysis	

**Note:** In no way, contracting authority intends to or is in a position to offer a commitment or surety as far as the case load/distribution is concerned on day to day basis.

**ANNEXURE VI**

**Technical specifications for**

**A New State-of-the-Art, Top-of-the-Line,**

**LATEST 1.5-Tesla MRI System**

**with latest generation of gradient and other systems (as specified)**

**on PPP Model for the Hospital Director, Ayub Teaching Hospital Abbottabad  
Department of Radio diagnosis & Imaging,**

**1.5T MAGNETIC RESONANCE IMAGING (MRI) SYSTEM**

**TECHNICAL SPECIFICATIONS**

**PRE-REQUISITE:**

- A. THE QUOTED EQUIPMENT MUST BE MANUFACTURED IN USA, EUROPE OR JAPAN ONLY.
- B. THE MEDICAL EQUIPMENT MUST COMPLY WITH 510(K) FDA (FOOD & DRUG ADMINISTRATION), AND EUROPEAN MDD (MEDICAL DEVICE DIRECTIVE)
- C. THE FOLLOWING ARE THE KNOCKOUT CLAUSES AND THE FIRMS NOT FULFILLING THESE CLAUSES, WILL BE NOT CONSIDERED:
  - (a) THE QUOTING FIRM SHOULD HAVE PROPER INFRASTRUCTURE TO HANDLE AND EXECUTE THE COMPLETE PACKAGE WITH PREVIOUS EXPERIENCE OF MRI SYSTEMS.
  - (b) THE QUOTING FIRM MUST HAVE INSTALLED AT LEAST 1-UNITS OF THE SIMILAR MRI SYSTEMS IN PAKISTAN AND MUST BRING SATISFACTORY RECOMMENDATION LETTERS FROM AT LEAST 3 LOCAL USERS ALONG WITH INSTALLATION CERTIFICATES.
  - (c) These specifications can be discussed in a pre bid meeting and adjustments can be made.

SN	ITEM SPECIFICATIONS
1	<b>MAGNET</b>
1.1	Type: Super Conductor Zero Boil Off
1.2	Field Strength: 1.5 Tesla
1.3	Shielding Method: Active/ passive
1.4	Shimming Method: Active
1.5	Bore Opening: 60cm or more
1.6	Magnet Length: 160cm or less with covers.
1.7	Magnet Filed Stability: 0.1 Ppm/Hr
1.8	FOV: 50 cm minimum. Larger will be preferred. Less than 50cm not acceptable.
1.9	Cryogen Boil-Off Rate: Zero boil off.
1.10	Other features: operating panel on both sides of the gantry is essential requirement with patient positioning display, laser light localization, lighting, In Bore ventilation system.
1.11	Guaranteed Magnet Homogeneity at 50cm field of view: 2 ppm or less using 24 plane method with 24 points per plane using VRMS method.
2	<b>RF SYSTEM</b>
2.1	Transmitter type: Digital
2.2	Transmitter Power: 10KW or more
2.3	System should be capable of 16 channel coil connectivity using optic fiber transmission or latest technology.
3	<b>EXAMINATION COILS</b> All following coils must be compatible with the system
3.1	Whole Body: Gantry integrated whole body imaging coil.
3.2	Head: 11 elements or more, Array Head Coil for Head Imaging.
3.3	Spine: 12 elements or more, Array Spine Coil. Must be integrated in patient table and slideable to ensure patients head is out of magnet when doing feet first imaging.
3.4	Torso: 16 elements or more, Array Torso Coil/Coil Combination. 45 cm or more coverage
3.5	Peripheral Vascular Imaging: Lower Limb Coil or Coil Combination.
3.6	16 elements flex coil for imaging of small parts, wrist, ankle, knee joints and shoulder.
3.7	Coil for bilateral Breast imaging.
3.8	System must be capable of feet first imaging for all body organs to eliminate claustrophobia.
3.9	Combination of Coils: System must be capable of connecting 3 coils simultaneously; head, neck and spine as well as torso, spine and flexible coils must be connected at the same time.

4	<b>GRADIENT SUBSYSTEM</b>
4.1	Gradient Strength: 33mT/m or more.
4.2	Duty Cycle: 100%.
4.3	Slew Rate: 125 mT/m/mSec or More.
5	<b>ACQUISITION PARAMETERS</b>
5.1	2D Minimum Slice Thickness: 0.5mm or less.
5.2	3D: 0.1mm or less.
5.3	Acquisition Matrix: 64 to 1024 Parallel Imaging for Speeding Up Acquisition.
6	<b>PATIENT COUCH</b>
6.1	Type: Fully motorized/hydraulic table.
6.2	Weight Bearing Capacity: Min 200kg or more.
6.3	Min. Height: 0.7 meter or less.
6.4	The couch should be capable to support peripheral angiography.
7	<b>OPERATING CONSOLE</b>
7.1	Standard Console: Standard Console with keyboard and mouse.
7.2	Display Monitor: High Resolution 23'' or more TFT/LCD.
7.3	Hard Disk Capacity: Minimum Storage capacity of 400,000 uncompressed images at 256 x 256 matrix.
7.4	DVD/CD/R/W: DVD (PC format compatible) / CD Read / Writeable DVD.
7.5	Connectivity / Networking: DICOM 3.0 Query / Retrieve, Import /Export, Storage & DICOM Print and work list.
8	<b>RECONSTRUCTION ENGINE</b>
8.1	Image Reconstruction CPU: Intel Xeon Quad Core / AMD Opetaron, with clock speed of 2.66GHz or more.
8.2	Reconstruction Speed: minimum 10,000 images per second (256 x 256 matrix) at full FOV in 2D.
8.3	RAM: 12GB RAM or more.
8.4	Hard Disks: 300GB or more.
9	<b>PATIENT COMFORTS</b>
9.1	Lighting: In-bore lighting and ventilation.

9.2	Intercom: Integrated Two way communications between patient and operator.
9.3	Patient Observation: CCTV Camera to observe patient during examination.
9.4	Safety/Emergency run down, safety switches for emergency ramp down. And patient call system for patient to signal emergency.
9.5	Hardware and software for noise reduction in all sequences for patient comfort.
9.6	System should have power down mode to conserve electricity, and gradients. Should be capable to be shut off at night to conserve electricity.
9.7	Built in patient monitoring on gantry LCD Monitor.
9.8	System should have power down mode to conserve electricity and gradients and should be capable to be shut off at night to conserve electricity.
10	<p><b>Imaging Sequences / Techniques</b>  <b>All standard packages including:</b>  Spin Echo, Fast Spin Echo, Gradient Echo, Inversion Recovery  Fast Inversion Recovery, FLAIR, STIR/TURBO, STIR, and EPI  Time Of Flight 2D &amp; 3D and phase contract and quantitative flow, Contrast Bolus Tracking, 2D and 3D MRCP,  MR Myelography, MRA AND MRV  Fat Suppression  Echo Planer Imaging (Single &amp; Multi Shot)  Contrast enhanced MRA  Dynamic Liver Imaging, Brain Volume Imaging  Bilateral Breast Imaging  Diffusion Imaging With ADC Maps  Functional Imaging  Cardiac Imaging  Enhancement for peripheral vascular rum-offs  Interactive Vascular Imaging for quick post processing &amp; removing backgrounds  MPR-Multi Planar Reconstructions  High resolution 3D studies for joints and inner ear examination.  Parallel-Imaging Acceleration techniques for reducing scan time and increasing resolution.  Wireless Cardiac Gating System  Wireless Peripheral Pulse and Respiratory Gating System  Advanced Cardiac, Neuro, Breast, Ortho, Oncology, Body and Pediatric packages.  Magnetization Transfer  Diffusion Tensor Imaging  Spectroscopy  Fast Protocols for Uncooperative patients  Motion correction in all direction.  Non contrast imaging for cerebral shunt studies, kidneys, peripheral vessels, dynamic angiography without contrast and other body organs.  At least 5 non-contrast imaging techniques should be provided.</p> <p><b>Energy-saving design to reduce power requirements:</b>  Total power requirement should be 25 kVA or less of MRI including water chiller to reduce the running cost The system should have Eco / Standby / Sleep mode to automatically turns off a part of the system while it is not been used and the power consumption should reduce to 5 kVA or less in this mode. The system should be able to recover from Eco mode within 1 second to be ready</p>

	for scanning.
11	<b>ACCESSORIES</b>
11.1	All Standard Quality Control Phantoms as per requirement of complete MRI System
11.2	Film Printer DICOM Compatible Laser Imager for film sizes 14'' x 17'' and 8'' x 10''. (Kodak, Agfa, Fuji, Konica).
11.3	RF room, chiller, compatible UPS, and compatible diesel generator for complete MRI
11.4	MRI Compatible Wheel Chairs, Trolley & IV Pole
11.5	MRI Compatible Automatic Injector is of any of these two companies (Medrad-Bayer/Medron).
11.6	Hand Held Metal Detector
12	<b>INSTALLATION</b>
12.1	Complete installation of MRI system will be responsibility of the supplying firm.
12.2	Installation of RF Room, Chiller, Compatible UPS, Distribution Board, Diesel Generator, Air Conditioning of MRI Suite and electrical wiring will be responsibility of the supplying firm.
13	<b>WARRANTY</b>
13.1	Warranty with all parts of complete MRI for five years from the manufacturer. Local vendors' warranty will not be accepted.
13.2	The supplier will provide all application manuals, service manuals, operating & application software CDs with permanent licenses and passwords, and technical drawings both in hard copy and in soft copy form.
14	<b>TRAINING</b>
14.1	Local training for doctors, technicians and engineers.
15	<b>CONTRY OF MANUFACTURE AND ORIGIN:</b>
15.1	CONTRY OF MANUFACTURE AND ORIGIN OF MRI SYSTEM INCLUDING MAGNET AND COILS SHOULD BE USA / EUROPE / JAPAN
16	<b>SEFETY &amp; QUALITY STANDARDS:</b>
16.1	FDA 510K Approval and CE Marked, equipment should be USA, Europe or Japanese manufactured with corresponding CE and FDA approvals showing manufacturing site.

- a. All items in the supply order should be supplied during the time of installation. No exceptions will be allowed.
  
- b. Software upgrades (where hardware upgrades are not required) like new pulse sequence, new application package, etc, should be provided within 6 month after release worldwide (any country, viz. North America / Europe / Germany, etc). In case, the same is not provided in time, the parent company should undertake the responsibility to implement the same. This is to make sure that the machine stays updated with similar products **for at least five years**.

## EVALUATION CRITERIA FOR TENDER

S. No.	Criteria	Marks
1.	Past experience	15
	1 Years.....5	
	2-3 Years.....10	
	4-5 years.....15	
2.	Tax Payer	5
3.	Financial Status (RS: 150 Ms)	20
	a. Building Construction..... 10	
	b. Machine according to given specifications.....10	
	<b>Total</b>	<b>40</b>



**ANNEXURE V**

<b>Sl. No.</b>	<b>Name of MR Investigation</b>	<b>Charges (Rs.)</b>
1.	<b>ORDERED PRIMARY REGION</b>  viii. Head (Brain)  ix. Spine  d) Cervical e) Dorsal f) Lumbo Sacral  x. Thorax  xi. Abdomen  xii. Pelvis  xiii. Joint (Single)  xiv. Limb (Soft Tissue) Single	
2.	<b>NAME THE REGION FOR SCREENING</b>	
3.	<b>SPECIAL INVESTIGATION</b>  ix. MRCP  x. MRA  xi. MRS  xii. MRU  xiii. MR Perfusion  xiv. DTI  xv. Tractography  xvi. CSF flow study	
4.	<b>PROCEDURE BASED INVESTIGATION</b>  vi. MR Arthrography  vii. CE-MRA  viii. MR Enteroclysis	

## **TORs FOR THE PROJECT**

1. **Decisions Making:** The construction, installation and operation will be supervised by the hospital steering committee. All matters concerned with this project will be decided by the steering committee. In case of discrepancy among members, chairman has the final authority to decide the issue.
  
2. **Land & Building:** The Hospital will provide land for construction of building. The contractor will construct a facility sufficient to serve the purpose. He will have to provide a map which will be examined and approved by the steering committee before start of the construction. Following spaces should be available.

(A) Console & Control Room.                      B) Reporting Room                      (C) waiting area

(D) Reception    (E) Two washrooms                      (F) Manager office                      (G)  
Cooling, heating mechanism, Wi-Fi, drinking water and generator back-up, fire extinguishing equipment.

(H) Store

The contractor will have to construct the facility within 3 months and will install the functional machine in next 3 months.

- 3 **Specifications** of the MRI machine are attached in annexure. Machine will be owned by the hospital only after the approval of inspection committee which will ensure that machine is according to specifications, installed and operational. The 1.5 Tesla MRI machine to be installed should be of reputed brand like Philips/Siemens/GE.
  
- 4 **Maintenance of the machine** will be the responsibility of the contractor. In case machine is out of order, after telephonic call from hospital administrator/steering committee/head

of radiology department, service will be mandatory for the contractor with 3 days in order to ensure patient care. Such costs will be paid by the contractor.

5 **Staff:** Hospital will provide reporting radiologist. The receptionists and technicians will be arranged by the contractor. Hospital staff will be paid by the hospital while private staff will be paid by the contractor.

6 **Utility bills** will be paid by the contractor.

7 **Charges:** The bidders will quote their prices per scan and it will be the main factor for bid wining. From this amount, specified amount will be paid to the hospital including radiologist while rest will be taken by the contractor. A case will be considered paid/Commercial when full charges are paid by the patient. Radiologist share should be given on monthly basis. For free cases, no share will be given to the radiologist.

8 **Free cases:** One case will be done free of cost on daily basis. The hospital HD ATH and MD ATH will be having this authority.

9 **Mass Emergency/Catastrophe/Disaster:** This investigation must be done free of cost in such situations. The emergency will be decided by the hospital authority.

10 **Working Hours: 8:00 Am To 8:00 PM.**

The contractor and hospital administration will ensure the presence of staff necessary for the operation.

11 **Discipline:** The staff will have to obey hospital discipline in terms of timing, uniforms and other manners.

- 12 **Environment and staff safety:** The facility should be safe both for patients and staff. It should be registered with the national agency for radiation safety.
  
- 13 **Time period:** This contract will be for a period of 7 Years. After this period, building will be handed over to the hospital. The machine will be the property of the contractor. The same contractor can be given extension for the work.
  
- 14 **Reporting design:** It should be computerized and should be delivered in a proper file highlighting hospital and department. There should be an envelope for the scan.
  
- 15 **Teaching purpose:** Service Provider has to permit in his MRI unit, the under graduate and post graduate medical students of the attached Medical college and hospital for training purposes. For Medical education this Unit will be considered the integral part of The Hospital.