GLOBALTENDER ENQUIRY DOCUMENT

FOR PURCHASE OF MEDICAL EQUIPMENT

FOR& ON BEHALF OF

Ministry of Health and Wellness, Republic of Mauritius, Mauritius

On E-Tender Basis

HSCC (INDIA) LTD

(A GOVERNMENT OF INDIAENTERPRISE)

Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) – 201 301, INDIA
PHONE: +91-120-2540153,
FAX: +91-120-2542447
URL: www.hsccltd.com
E-mail:proc.cancer.mauritius@gmail.com

INDEX

SECTION- I

NOTICE INVITING TENDERS (NIT)
For GLOBAL TENDER ENQUIRY DOCUMENT
HSCC (INDIA) LTD
(A GOVERNMENT OF INDIA ENTERPRISE)
Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) – 201 301, INDIA

PHONE: +91-120-2540153
FAX: +91-120-2542447
URL: www.hsccltd.co.in
Ministry of Health and Wellness,
Republic of Mauritius, Mauritius

Tender Enquiry No.: HSCC/PUR/Mauritius/New Flacq Teaching Hospital/2023/01 Dated 21.11.2023

Senior Chief Executive, Ministry of Health & Wellness, Republic of Mauritius through their Project Management Consultant (PMC) HSCC (India) Ltd Govt. of India invites **On-line bids** from eligible bidders, in single stage two bid system for supply, installation, testing, commissioning & handing-over of **Medical Equipment for New Flacq Teaching Hospital, Mauritius, Mauritius**:

NAME OF EQUIPMENT		Qty.	EMD (MUR)	EMD (INR)	EMD (US $)
I	**RADIOLOGY**				
1.	256 Slice CT Scanner Machine	1	840,000	1,436,400	18,480
2.	Digital Mobile X_Ray	2	180,000	307,800	3,960
3.	Digital Panoramic X-Ray System	1	70,000	119,700	1,540
4.	Direct Digital Remote - Controlled Radiography with Fluroscopy (R/F) System	1	450,000	769,500	9,900
5.	Full Field Digital Mammography Unit	1	240,000	410,400	5,280
6.	Digital Radiography System	2	280,000	478,800	6,160
7.	3D/4D High End (Premium) Echocardiography Machine	2	160,000	273,600	3,520
8.	Digital 1.5T MRI	1	1,340,000	2,291,400	29,480

The bidders are required to be registered at HSCC e-tender portal **https://hscc.enivida.com**. Please log on to **https://hscc.enivida.com** only for down loading bid document and for participation through E-tendering basis. For submission and other details please refer HSCC e-tender portal https://hscc.enivida.com. For submission of the bids, the bidders are required to have Type-II Digital Signature Certificate (DSC) from the authorized Certifying Authorities.

Complete set of Bid Documents has been made available at E-Tender portal https://hscc.enivida.com, CPPP Portal for downloading from 21.11.2023 to 21.12.2023. Prospective bidders are advised to regularly scan through HSCC E-tender portal https://hscc.enivida.com and www.hsccltd.com as corrigendum/modification/amendments, if any, will be notified on this portal only and no separate advertisement will be made for this..

(2) **Tender Enquiry No.: HSCC/PUR/Mauritius/New Flacq Teaching Hospital/2023/01 Dated 21.11.2023**

Sl. No.	Description	Schedule
i.	Dates of sale of tender enquiry documents	21.11.2023 to 21.12.2023, 10.00 hrs to 1400 hrs IST
ii.	Place of sale of Tender Enquiry Documents	HSCC(India)Ltd,PlotNo.6-A,Block-E,Sector-1,Noida(U.P)-201301, India.
iii.	Pre Tender Meeting Date &Time	29.11.2023, 14.00 hrs. IST (Indian Standard Times)
iv.	Pre Tender Meeting Venue	**Pre Bid Meeting Date & Time to be held through video conferencing as mentioned below link–** https://meet.google.com/cji-izth-wkx
v.	Closing date &time for receipt of Tender	21.12.2023, 14:30 hrs IST
vi.	Time and date of opening of Techno–Commercial tenders	21.12.2023, 15:00 hrs IST
vii.	Venue of Opening of Techno Commercial Tender	Same as 2(ii)

LINK OF VIDEO CONFERENCING: PRE BID MEETING

https://meet.google.com/cji-izth-wkx

2. Interested renderers may obtain further information about this requirement from this office inviting the tenders.

3. The prospective bidders who have not registered can register with E-procurement system of NIC by paying necessary registration charges. The bidders may prepare a banker cheque/Draft in favour of HSCC (India) Ltd. Office at Noida, payable at Noida/Delhi and deposit it. In order to submit the bids electronically bidders are required to have type-II Digital Signature Certificate. Digital Signature can be obtained from any of the certifying agency.

The tenderer shall submit all the necessary documents and in physical form (with respect to few documents as mentioned in the SIT) in parts/covers as mentioned below:

Part-I, In Original Offline (In separate Envelope) & its scanned Copy Online

(i) EMD
(ii) Affidavit as per Section XIX
(iii) Technical compliance for the quoted goods vis-à-vis the Technical specifications and with all related brochures/catalogues in the tender enquiry, technical bid.
(NOTE: Submit: "Compliance report should be in a tabulated and point wise manner clearly highlighting the parameters in technical literature/data sheets /brochure/ Certificates.)

Part-II, Online

(i) Scanned copy of EMD
(ii) Power of Attorney

(iii) Tender Form as per section X.
(iv) Manufacturers Authorization Form
(v) Affidavit as per Section XIX
(vi) Proforma A

(vii) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
(viii) Technical compliance for the quoted goods vis-à-vis the Technical specifications
(NOTE : Submit : *"Compliance report should be in a tabulated and point wise manner clearly highlighting the parameters in technical literature/data sheets /brochure/ Certificates.)*
(ix) Name, address and details of account with respect to bidder and/or beneficiary of L/C. Copy of PAN. Certificate of Incorporation/Declaration being a proprietary firm.
(x) Audited Annual report of last 3 completed financial years (Balance sheet and Profit & Loss Account). Certificate of Regn. Issued by Directorate of Industries/NSIC, if SSI unit.
(xi) Quality Control Requirements as per Section VIII

Price Bid (Only online).
- Price Schedule
- CMC Price Schedule
- Turnkey Price Schedule

4. All prospective tenderers may attend the Pre Tender meeting. For all the above tender IDs, Pre-bid meeting shall be held as mentioned above.

5. To participate in the submission against the tender, it is mandatory for the Applicants to get digital signature and get themselves registered with e-tendering system.

6. Complete set of Bid Documents has been made available at E-Tender portal https://hscc.enivida.com, www.hsccltd.com, health.govmu.org for downloading. Tenderer may download the tender enquiry documents from the website and submit its tender online after logging in to their user ID. The bidders are required to be registered at HSCC e-tender portal https://hscc.enivida.com. Please log on to https://hscc.enivida.com only for uploading its tender on-line for participation through **E-Tendering basis**. For submission and other details, please refer HSCC e-tender portal https://hscc.enivida.com.

7. Tenderers shall ensure that their tenders, complete in all respects, are submitted online and desired hard copies in original dropped in the Tender Box located at **HSCC (India) Ltd., E-6A, Sector-1, Noida, U.P.-201301, India** on or before the closing date and time indicated above, failing which the tenders will be treated as late and rejected.

8. In the event of any of the above mentioned dates being declared as a holiday /closed day for the purchase organisation, the physical form of tenders will be received/opened on the next working day at the appointed time. Bidders are requested to regularly visit website https://hscc.enivida.com &www.hsccltd.com for corrigendum/amendments etc., if any, as these there no separate advertisement for them.

9. Purchaser/HSCC reserves the right to annul the tendering process at any stage without assigning any reason thereof. Further, Client has the right to omit any one or all of the equipment.

Senior Chief Executive,
Ministry of Health & Wellness,
Republic of Mauritius

SECTION - II

GENERAL INSTRUCTIONS TO TENDERERS (GIT)
CONTENTS

25	Opening of Tenders	
F	**SCRUTINY AND EVALUATION OF TENDERS**	
26	Basic Principle	
27	Preliminary Scrutiny of Tenders	
28	Minor Infirmity/Irregularity/Non-Conformity	
29	Discrepancy in Prices	
30	Discrepancy between original and copies of Tender	
31	Qualification Criteria	
32	Conversion of Tender Currencies to Indian Rupees	
33	Schedule-wise Evaluation	
34	Comparison of Tenders	
35	Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders	
36	Tenderer's capability to perform the contract	
37	Contacting the Purchaser	
G	**AWARD OF CONTRACT**	
38	Purchaser's Right to Accept any Tender and to Reject any or All Tenders	
39	Award Criteria	
40	Variation of Quantities at the Time of Award	
41	Notification of Award	
42	Issue of Contract	
43	Non-receipt of Performance Security and Contract by the Purchaser/Consignee	
44	Return of EMD	
45	Publication of Tender Result	
46	Corrupt or Fraudulent Practices	

GENERAL INSTRUCTIONS TO TENDERERS (GIT)

A. PREAMBLE

1. Definitions and Abbreviations

1.1 The following definitions and abbreviations, which have been used in these documents shall have the meanings as indicated below:

1.2. Definitions:

(i) "Purchaser" means the organization purchasing goods and services as incorporated in the Tender Enquiry document, i.e. Senior Chief Executive, Ministry of Health & Wellness, Republic of Mauritius
(ii) "Tender" means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder.
(iii) "Tenderer" means Bidder/ the Individual or Firm submitting Bids / Quotation / Tender.
(iii) "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract.
(iv) "Goods" means the instruments, machinery, equipment, medical equipment, etc. which the supplier is required to supply to the purchaser under the contract.
(v) "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
(vi) "Earnest Money Deposit" (EMD) means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
(vii) "Contract" means the written agreement entered into between the purchaser and/or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
(viii) "Performance Security" means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
(ix) "Consignee" means New Flacq Teaching Hospital, Mauritius person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of despatch to another person as provided in the Contract then that "another" person is the consignee, also known as ultimate consignee.
(x) "Specification" means the document/standard that prescribes the requirement with which goods and service has to conform.
(xi) "Inspection" means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
(xii) "Day" means calendar day.

1.3 Abbreviations:

(i) "TE Document" means Tender Enquiry Document
(ii) "NIT" means Notice Inviting Tenders.
(iii) "GIT" means General Instructions to Tenderers
(iv) "SIT" means Special Instructions to Tenderers
(v) "GCC" means General Conditions of Contract
(vi) "SCC" means Special Conditions of Contract
(vii) "LC" means Letter of Credit
(viii) "DP" means Delivery Period
(ix) "BG" means Bank Guarantee
(x) "CD" means Custom Duty

(xi) "VAT" means Value Added Tax
(xii) "CST" means Central Sales Tax
(xiii) "FOB" means Free on Board
(xiv) "FCA" means Free Carrier
(xv) "CIF" means Cost, Insurance and Freight
(xvi) "CIP (Destinations)" means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
(xvii) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening
(xviii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
(xix) "MUR" means Mauritius Rupees

2. Introduction

2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *interalia,* the required delivery schedule, terms and place of delivery.

2.2 This section (Section II - "General Instruction Tenderers") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.

2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.

2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

3.1 Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

4. Language of Tender

4.1 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in the English language, unless otherwise specified in the Tender Enquiry. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail**.**

4.2 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, may also be written in the English language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender etc, the English translations shall prevail.

5. Eligible Tenderers

5.1 This invitation for tenders is open to all suppliers who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term "origin" used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

7. Tendering Expense

7.1 The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc regardless of the conduct or outcome of the tendering process.

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

8.1 In addition to Section I – "Notice inviting Tender" (NIT), the TE documents include:

- Section II – General Instructions to Tenderers (GIT)
- Section III – Special Instructions to Tenderers (SIT)
- Section IV – General Conditions of Contract (GCC)
- Section V – Special Conditions of Contract (SCC)
- Section VI – List of Requirements
- Section VII – Technical Specifications
- Section VIII – Quality Control Requirements
- Section IX – Qualification Criteria
- Section X – Tender Form
- Section XI – Price Schedules
- Section XII – Questionnaire
- Section XIII – Bank Guarantee Form for EMD
- Section XIV – Manufacturer's Authorisation Form
- Section XV – Bank Guarantee Form for Performance Security/CMC Security
- Section XVI – Contract Forms A & B
- Section XVII – Proforma of Consignee Receipt Certificate
- Section XVIII – Proforma of Final Acceptance Certificate by the consignee
- Section XIX – Affidavit
- Section XX – Check List
- Section XXI – Consignee

8.2 The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers are expected to examine all such details etc to proceed further.

9. Amendments to TE documents

9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.

9.2 Such an amendment will be notified in the referred website only.

9.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

10. Clarification of TE documents

10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser **in writing on or before the due date of pre-bid meeting**. No queries will be entertained later on. The purchaser will respond in writing to such request as per the schedule.

C. PREPARATION OF TENDERS

11. Documents Comprising the Tender

11.1 The bids shall be submitted online and in physical form in three parts/covers as mentioned below:
(i) EMD, Pre-qualification as per Tender Terms and referred in checklist at section XIX and as mentioned in para A below.
(ii) Technical Bid
(iii) Price Bid (Only online).

Tenderers are requested not to submit the hard copy of Price Bid along with the physical form of tender. In case the hard copy of price bid is submitted in physical form, the tender shall be straightway rejected. Also, uploading of the price bid in prequalification bid or technical bid will result in rejection of the tender.

A) Techno – Commercial Tender (Un priced Tender)

i) Earnest money furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.
ii) Tender Form as per Section X (without indicating any prices).
iii) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.
iv) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form **(for all Items except for Items 59 & 60)**
v) Power of Attorney in favour of signatory of TE documents.
vi) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
vii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate/Installation Reports.
viii) Certificate of Incorporation in the country of origin.

B) Price Tender:

1. Prices are to be quoted in the attached Price Bid format online as per the directionson the official website.

2. The price should be quoted for the accounting unit indicated on the website.

The bidder shall not submit hard copy of financial bid otherwise his tender shall be straightway rejected. Also, uploading the price bid in prequalification bid or technical bid will result in rejection of the tender.

Note:

It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any.

11.2 A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalfof another shall be deemed to warrantee that he has authority to bind such other personsand if, on enquiry, it appears that the persons so signing had no authority to do so, thepurchaser may, without prejudice to other civil and criminal remedies, cancel the contractand hold the signatory liable for all cost and damages

11.3 A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

11.4 Tender sent by fax/telex/cable shall be ignored.

12. Tender currencies

12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in MUR.

12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP, CHF or Yen. Commission for Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in MUR.

12.3 Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

13 Tender Prices

13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified as "NA" by the tenderer.

13.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules and, also, to offer special discount for combined schedules. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.

13.3 The quoted prices for goods offered from within Mauritius and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI. Bidders must quote the prevailing taxes and duties as applicable.

13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

13.4.1 For domestic goods or goods of foreign origin located within Mauritius, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) the price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like GST/Applicable Tax, Custom Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
b) charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
c) the price of Incidental Services, as mentioned in List of Requirements and Price Schedule;
d) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
e) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;
b) the price of goods quoted CIP (name port of destination) as indicated in the List of Requirements, Price Schedule and Consignee List;
c) the charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
d) the charges for Incidental Services, as in the List of Requirements and Price Schedule;
e) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
f) the Total tender price of goods quoted CIP basis at consignee site in Mauritius as indicatedin the List of Requirements, Price Schedule and Consignee + Insurance + Local Transportation & Storage + quoted custom duty
g) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 **Additional information and instruction on Duties and Taxes:**

13.5.1The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. Agent

14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:

a) The complete name and address of the Agent.
b) The details of the services to be rendered by the agent for the subject requirement.
c) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CMC period.
d) Copy of the agreement between Agent & their principal detailing the scope of work/services during warranty & after sales periods.

15. Firm Price

15.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

15.2 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIT clause 13 will apply.

16. Alternative Tenders

16.1 Alternative Tenders are not permitted.

16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.

17 Documents Establishing Tenderer's Eligibility and Qualifications

17.1 Pursuant to GIT clause 11, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.

17.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:

a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document except for Items 59 & 60)
b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
c) in case the tenderer is not doing business in Mauritius, it is duly represented by an agent stationed in Mauritius fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

18. Documents establishing Good's Conformity to TE document.

18.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender.

18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity and provide the same along with its tender.

18.3 If a tenderer furnishes wrong and/or misguiding data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition toother remedies available to the purchaser in this regard.

19. Earnest Money Deposit (EMD)

19.1 Pursuant to GIT clauses 8.1 and 11.1 the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.

19.2 The earnest money shall be denominated in Indian Rupees/MUR/US $ as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:

i) Account Payee Demand Draft
ii) Banker's cheque and
iii) Bank Guarantee
iv) FDR

19.3 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the **"HSCC (India) Ltd"** payable at New Delhi/Noida. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.

19.4The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from the **original last date** for submission of the tender/bid.

19.5 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.

19.6 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.

19.7 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalised bank in India by way of back-to-back counter guarantee.

20. Tender Validity

20.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 120 days (One hundred and twenty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.

20.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

21. Signing and Sealing of Tender

21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11.

21.2 The original and other copies of the tender shall either be typed or written in indelible ink and the same shall be signed by the tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender.

21.3 The tender shall be duly signed at the appropriate places as indicated in the TE documents and all other pages of the tender including printed literature, if any shall be initialled by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialled by the person(s) signing the tender.

D. SUBMISSION OF TENDERS

22. Submission of Tenders

22.1 The tender shall be submitted online and in physical form (except price bid) in three parts/covers as mentioned below:

(i) EMD (Both online and physical)

(ii) Pre-qualification and Technical compliance as per following documents (Online submissions for all the documents and physical submission only for affidavit as per point i) below and original Technical brochures/catalogues against point j):

a) Manufacturer's authorization (for all schedule except for Items 59 & 60) in case bid is submitted by an agent (A declaration must be attached here in case quoted by anagent).
b) Tender Form as per section X.
c) Certificate of Incorporation/Declaration being a proprietary firm.
d) Annual report of last 3 years (Balance sheet and Profit & Loss Account)
e) Name, address and details of account with respect to bidder and/or beneficiary of L/C.
f) Quality Control Requirements as per Section VIII
g) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
h) Affidavit as per Section XIX
i) Technical Bid along with clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications in the tender enquiry (online and physical).

(NOTE : Submit : "Compliance report should be in a tabulated and point wise manner clearly highlighting the parameters in technical literature/data sheets /brochure/ Certificates.)

(iii) Price Bid (Only online).

Bidders are requested not to submit the hard copy of Price Bid along with the physical form of tender. Uploading of the price bid in prequalification bid or technical bid will result in rejection of the tender. Unless otherwise specified, the tenderers are to submit its tender online and deposit the physical form of tenders in the tender box kept for this purpose at**HSCC (India) Ltd., E-6A, Sector-1, Noida-201301, ((UP), India.**

22.2 The tenderers must ensure that they deposit their tenders not later than the closing time and date specified for submission of tenders. It is the responsibility of the tenderer to ensure that their Tenders whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time. In the event of the specified date for physical submission of tender falls on /is subsequently declared a holiday or closed day for the purchaser, the tenders will be received up to the appointed time on the next working day.

23. Late Tender

23.1 A tender, which is received after the specified date and time for receipt of tenders will be treated as "late" tender and will be ignored.

24. Alteration and Withdrawal of Tender

24.1 The tenderer, after submitting its tender, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders. Alterations / modifications to tenders received after the prescribed deadline will not be considered.

24.2 No tender should be withdrawn after the deadline for submission of tender and before expiry of the tender validity period. If a tenderer withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the tenderer in its tender.

E. TENDER OPENING

25. Opening of Tenders

25.1 The purchaser will open the tenders at the specified date and time and at the specified place as indicated in the NIT.

In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day.

25.2 Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening provided they bring with them letters of authority from the corresponding tenderers.

The tender opening official(s) will prepare a list of the representatives attending the tender opening. The list will contain the representatives' names & signatures and corresponding tenderers' names and addresses.

25.3 The **Techno - Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document.

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

26.1 Tenders will be evaluated on the basis of the terms & conditions already incorporated in the TE document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

27. Scrutiny of Tenders

27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.

27.2 Purchaser will determine the responsiveness of each Tender to the TE Document without recourse to extrinsic evidence.

27.3 The tenders will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the TE document. The tenders, which do not the meet the basic requirements, are liable to be treated as non – responsive and will be summarily ignored.

27.4 **The following are some of the important aspects, for which a tender shall be declared non – responsive and will be summarily ignored;**

(i) Tender form as per Section IX (signed and stamped) not enclosed
(ii) Tender is unsigned.
(iii) Tender validity is shorter than the required period.
(iv) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
(vi) Tenderer has quoted for goods manufactured by other manufacturer(s) without enclosing the required Manufacturer's Authorisation Form as per Section XIV.
(vi) Tenderer has not agreed to give the required performance security.
(vii) Goods offered are not meeting the tender enquiry specification.

(viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, delivery, dispute resolution mechanism applicable law.
(ix) Poor/ unsatisfactory past performance.
(x) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
(xi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
(xii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.

27.5 **The following are some of the important aspects, for which a tender shall be declared nonresponsive during the evaluation and will be ignored;**

(i) The bidder has submitted hard copy of financial bid (only online submission price bids are allowed).
(ii) Tender validity is shorter than the required period.
(iii) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
(iv) Tenderer has quoted for goods manufactured by other manufacturer(s) without enclosing the required Manufacturer"s Authorisation Form (for all Items except Low Value Items 59 & 60) as per Section XIV.
(v) Tenderer has not agreed to give the required performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.
(vi) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, delivery, dispute resolution mechanism applicable law.
(vii) Poor/ unsatisfactory past performance.
(viii) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
(ix) Tenderer is not eligible as per GIT Clauses 5& 17.1.
(x) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.
(xi) Tenderer has not agreed for the delivery terms and delivery schedule.

28. Minor Infirmity/Irregularity/Non-Conformity

28.1 If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser will convey its observation on such 'minor' issues to the tenderer by registered/speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

29 Discrepancies in Prices

29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.

29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and

29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.

29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.

30. Discrepancy between original and copies of Tender

30.1 In case any discrepancy is observed between the text etc. of the original copy and that in the other copies of the same tender set, the text etc. of the original copy shall prevail. Here also, the purchaser will convey its observation suitably to the tenderer by register/speed post/e-mail and, if the tenderer does not accept the purchaser's observation, that tender will be liable to be ignored.

31. Qualification Criteria

31.1 Tenders of the tenderers, who do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.

32. Conversion of tender currencies to Mauritius Rupees

32.1 In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Mauritius Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates for similar transactions, as on the date of '**Techno-commercial Tender**' opening.

33. Equipment-wise Evaluation

33.1 The tenders will be evaluated and compared separately for each equipment. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the tender.

34. Comparison of Tenders

34.1 Unless mentioned otherwise in Section – III – Special Instructions to Tenderers and Section – VI – List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery on CIP basis + Insurance + Local Transportation & Storage at Consignee site basis, inclusive of applicable taxes, duties, incidental services. The quoted Turnkey prices (if applicable) and CMC prices will also be added for comparison/ranking purpose for evaluation.

35. **Additional Factors and Parameters for Evaluation & Ranking of Responsive Tenders**

35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:

i) Government of Mauritius exempts payment of VAT, Legal Taxes, Levies etc.

ii) Government of Mauritius shall provide exemption of Custom Duties and other fees payable to Custom officials.

35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.

36. Tenderer's capability to perform the contract

36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.

36.2 The above-mentioned determination will,interalia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

37. Contacting the Purchaser

37.1 From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.

37.2 In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

38. Purchaser's Right to accept any tender and to reject any or all tenders

38.1 The purchaser reserves the right to accept in part or in full any tender or reject any or more tender(s) without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

39. Award Criteria

39.1 Subject to GIT clause 38 above, the contract will be awarded to the lowest evaluated responsive tenderer decided by the purchaser in terms of GIT Clause 36.

40. Variation of Quantities at the Time of Award/ Currency of Contract

40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to Fifty (50) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded ofto next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.

40.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to Fifty(50) per cent, the quantity of goods and services mentioned in the contract (rounded ofto next whole number) without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract after one year from the Date of Notification of Award.
Further, Purchaser reserves the rights to delete any of the tendered items without assigning any reason whatsoever. Purchaser as deemed fit, out of the total tendered quantity for the tendered items may place Notification of Award for the quantity as per the requirements and may defer the balance quantity of the item(s) to be supplied later.

41. Notification of Award

41.1 Before expiry of the tender validity period, the purchaser will notify the successful tenderer(s) in writing, by registered/speed post/by fax/ telex/cable (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by the purchaser, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to the purchaser the required performance security within thirty days from the date of dispatch of this notification, failing which the EMD will forfeited and the award will be cancelled. Relevant details about the performance security have been provided under GCC Clause 5 under Section IV.

41.2 The Notification of Award shall constitute the conclusion of the Contract.

42. Issue of Contract

42.1 Promptly after notification of award, the Purchaser/Consignee will mail the contract form (as per Section XV) duly completed and signed, in duplicate, to the successful tenderer by registered / speed post.

42.2 Within twenty one days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the Purchaser/Consignee by registered / speed post.

42.3 The Purchaser/Consignee reserves the right to issue the Notification of Award consignee wise.

43. Non-receipt of Performance Security and Contract by the Purchaser/Consignee

43.1 Failure of the successful tenderer in providing performance security and / or returning contract copy duly signed in terms of GIT clauses 41 and 42 above shall make the tenderer liable for forfeiture of its EMD and, also, for further actions by the Purchaser/Consignee against it as per the clause 24 of GCC – Termination of default.

44. Return of E M D

44.1 The earnest money of the successful tenderer and the unsuccessful tenderers will be returned to them without any interest, whatsoever, in terms of GIT Clause 19.6.

45. Publication of Tender Result

45.1 The name and address of the successful tenderer(s) receiving the contract(s) will be mentioned in the notice board/bulletin/web site of the purchaser.

46. Corrupt or Fraudulent Practices

46.1 It is required by all concerned namely the Consignee/Tenderers/Suppliers etc to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

(a) defines, for the purposes of this provision, the terms set forth below as follows:
   (i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and
   (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;

(b) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Sl. No.	GIT Clause No.	Topic	SIT Provision	Page No.
A	1 to 7	Preamble	No Change	26
B	8 to 10	TE documents	No Change	26
C	11 to 21	Preparation of Tenders	No Change	26
D	22 to24	Submission of Tenders	No Change	26
E	25	Tender Opening	No Change	26
F	26 to 27	Scrutiny and Evaluation of Tenders	No Change	26
G	36 to 46	Award of Contract	No Change	26

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below: In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

Submission of Tenders

(i) All the necessary documents as prescribed in the NIT shall be prepared and scanned in different files (in PDF or JPEG format as prescribed) and uploaded for on-line submission of Proposal. However, physical documents as per NIT to be submitted in **"ORIGINAL"** to HSCC (India) Ltd. before the prescribed date & time for submission of physical tender restricted to the following documents only.

a) Demand Draft towards Tender Fee in favour of HSCC (India) Ltd.
b) EMD in the prescribed format in favour of HSCC (India) Ltd.
c) Technical Data Sheet and original technical literature/ Brochure (if any)
d) Affidavit as per Section XIX

(ii) All document(s)/ information(s) other than above including the Financial Proposal (i.e. FORMAT FOR SUBMISSION OF PRICE BID/FINANCIAL PROPOSAL) should be **uploaded online only** in the prescribed format given in the website. No other mode of submission shall be acceptable.

(iii)The prospective bidders may scan the documents in low resolution **(75 to 100 DPI)** instead of 200 DPI. The documents may be scanned for further lower resolution (if possible). This would reduce the size of the Cover and would be uploaded faster.

(iv) The prospective bidders may upload Drawing files, if any, in **".dwf" format** so that the size of document is less. This is a generic format and all software supports this format.

(v) At the time of cover content creation, the prospective bidders would have to define the document type as**".rar" format**.

(vi) The prospective bidders should be asked to zip all the .dwf files to a .rar file & upload it

SECTION - IV
GENERAL CONDITIONS OF CONTRACT (GCC)
TABLE OF CLAUSES

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Application

1.1 The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract prescribed under Section V, List of requirements under Section VI and Technical Specification under Section VII of this document.
All documents submitted physically or uploaded as scanned copies must be self-attested, legible and numbered.

2. Use of contract documents and information

2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.

2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

3. Patent Rights

3.1 The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trade marks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

4. Country of Origin

4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of Mauritius has trade relations.

4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

4.3 The country of origin may be specified in the Price Schedule

5. Performance Security

5.1 Within fifteen (15) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations of 2 year,from the date of Notification of Award.

5.2 The Performance security shall be denominated in Mauritius Rupees or in the currency of the contract as detailed below:

a) It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in Mauritius or Bank Guarantee issued by a Scheduled bank in Mauritius, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.

5.3 In the event of any failure /default of the supplier with or with out any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.

5.4 In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.

5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with consignee, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.

5.6 Subject to GCC sub – clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Purchaser/consignee as per the format in Section XV.

6. Technical Specifications and Standards

6.1 The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' and 'Quality Control Requirements' under Sections VII and VIII of this document.

Please ensure the following compliances are met for the Medical equipment:

1. For Radiology equipment i.e. X-Ray, Ultrasound, MRI & CT-Scan etc.
   a. Equipment should be DICOM (Digital Imaging and Communications in Medicine) enabled DICOM provides reliable protocols for integration of image data between imaging, non-imaging modalities, devices and systems.
   b. Equipment complied with HL7 (Health Level Seven) standards
   c. Capable to link with PACS & HMIS. Any Hardware/lock/software license required for interfacing with PACS & HMIS should be supplied with the equipment/device.
2. For Laboratory Equipment/device:
   a. Equipment communicates in one of the following ways:
      A. TCP/IP
      B RS-232
      C. USB

   Any type of cable/hardware/lock/software/license required for integration with HMIS system should be provided.

   Please provide configuration parameters to connect with HMIS successfully.

   b. Data accepted/send by the device/equipment should be readable as standard data Type in ANSI C/C++.

   c. Comprehensive list of all data structures imported and exported by the device should be documented with examples.

   d. API of equipment should be provided.

   e. Technical interface specification should be provided.

Above standards are required for interfacing of equipment with PACS (Picture Archiving & Communication System) & HMIS (Hospital Management & Information System) during the computerization of the Hospital.

7. Packing and Marking

7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transhipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.

7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following-g with indelible paint of proper quality:

a. contract number and date
b. brief description of goods including quantity
c. packing list reference number
d. country of origin of goods
e. consignee's name and full address and
f. supplier's name and address

8. Inspection, Testing and Quality Control

8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such pre-dispatch inspections, inspections and, also the identity of the officials to be deputed for this purpose. The cost towards the transportation, boarding & lodging will be borne by the purchaser and/or its nominated representative(s).

8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.

8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.

8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.

8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.

8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.

8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

8.9 Third Party Inspection to include only Physical & Relevant records Inspection of the Ordered Goods. However, Dispatch Clearance Certificate is issued without prejudice to the Purchaser's right to accept/reject the Ordered Goods after it's arrival at site/destination, if not found in accordance with the Purchase Order during the installation and testing at site and during the performance guarantee period. This dispatch clearance certificate will not absolve manufacturer from his responsibility to ensure that the Ordered Goods supplied are totally in accordance with the Purchase Order/Notification of Award.

8.10. The stores (both Indian & Import origin goods) should be dispatched only after the equipment inspected by recognized/reputed agency like SGS, Lloyd, TUV & Bureau Veritas prior to dispatch prior to dispatch at the supplier's cost and furnish necessary Certificate from the said agency in support of their claim.

To enable HSCC to issue Dispatch Clearance Certificate, supplier/manufacture is to furnish following documents:

1. Copy of supplier's invoice showing contract number, goods description, quantity, unit price & total amount.
2. Country of Origin Certificate
3. Quality & Quantity Certificate
4. Packing List with Complete contents.
5. Internal Factory Inspection Report
6. Warranty Certificate
7. Inspection certificate for the dispatched equipments issued by recognized/reputed agency like SGS, Lloyd, TUV & Bureau Veritas, prior to dispatch.

All such Invoice/Documents/Certificates/Reports mentioned above shall be addressed as:

Senior Chief Executive,
Ministry of Health & Wellness,
Republic of Mauritius,
through HSCC (I) Ltd., Noida, UP, India.

After scrutiny, if the documents found in order, **Dispatch Clearance Certificate** shall be issued to the supplier.

No goods (both Indians & Import origin goods) shall be dispatched before issue of Dispatch Clearance Certificate by Ministry of Health & Wellness, Republic of Mauritius.

9. Terms of Delivery

9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the contract.

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transhipment without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate

space in Indian flag vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.
In case of airlifting of imported goods offered from abroad, the same will be done only through the National Carrier i.e. Air India wherever applicable. In case the National Carrier is not available, any other airlines available for early delivery may be arranged.

10.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:

In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

11. Insurance:

11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:

i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.

ii) in case of supply of the imported goods on CIP Named port of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from ware house to ware house (consignee site) on all risk basis.

If the equipment is not commissioned and handed over to the consignee within 3 months, the insurance will be got extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and

b) In case the production of the spare parts is discontinued:

i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and

ii) Immediately following such discontinuation, providing the Purchaser/Consignee, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Purchaser/Consignee.

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are supplied to the Purchaser/Consignee promptly on receipt of order from the Purchaser/Consignee.

13. Incidental services

13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.

i) Installation & commissioning, Supervision and Demonstration of the goods
ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
iii) Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
iv) Supplying required number of operation & maintenance manual for the goods

14. Distribution of Dispatch Documents for Clearance/Receipt of Goods

The supplier shall send all the relevant despatch documents well in time to the Purchaser/Consignee to enable the Purchaser/Consignee clear or receive (as the case may be) the goods in terms of the contract.

Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows.

A) For Domestic Goods, including goods already imported by the supplier under its own arrangement

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract):

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVI in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Certificate of origin;
(vi) Insurance Certificate as per GCC Clause 11.
(vii) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11.
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch
(vii) Manufacturer's own factory inspection report;
(viii) Certificate of origin
(ix) Port of Loading;
(x) Port of Discharge and

(xi) Expected date of arrival.

15. Warranty

15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

15.2 The **warranty** shall remain valid for **24months** from the date of installation & commissioning followed by a **CMC for a period of 8 (Eights) Years** for all the equipments after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser/CONSIGNEE in terms of the contract, unless specified otherwise in the SCC.

a. No conditional warranty will be acceptable.
b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work and it will also cover the following:-
   - X-ray and CT tubes and high-tension cables.
   - Helium replacement
   - Any kind of motor.
   - Plastic & Glass Parts against any manufacturing defects.
   - All kind of sensors including oxygen sensors.
   - All kind of coils, probes and transducers
   - All kind of flat panel sensors and cassettes for DR & CR systems and patients handling trolleys etc
   - Printers and imagers including laser and thermal printers with all parts.
   - UPS including the replacement of batteries.
   - Air-conditioners

c. Replacement and repair will be under taken for the defective goods.
d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.

15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods there after. The penalty clause for non rectification will be applicable as per tender conditions

15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended to a further period of twelve**(24) months** from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.

15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 3 months commencing from the date of the installation for preventive maintenance of the goods

15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.

15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.

15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. Assignment

16.1 The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

17. Sub Contracts

17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

17.2 Sub contract shall be only for bought out items and sub-assemblies.

17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification of contract

18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:

a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
b) Mode of packing,
c) Incidental services to be provided by the supplier
d) Mode of despatch,
e) Place of delivery, and
f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.

18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

19.1 Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender and incorporated in the contract except for any price adjustment authorised in the SCC.

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until final acceptance of the contracted goods to the purchaser. However, for goods directly imported shall be guided by the INCOTERM.

20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and Mode of Payment

21.1 Payment Terms

All Payments shall be released by the Purchaser. All such Invoice/Documents/ Certificates/Reports as mentioned above shall be addressed as stipulated in Clause GCC8.10. Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

A) Payment for Domestic Goods or Foreign Goods Located within India/Mauritius.

Payment shall be made in Mauritian Rupees as specified in the contract in the following manner:

a) On delivery:

80% payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVI in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(vi) Certificate of origin.

(vii) Dispatch Clearance Certificate issued by HSCC.

b) On Acceptance:

Balance 20% payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise.Final acceptance certificate will be released by the consignee on completion of installation, commissioning, training, successful running of equipment (at least 2-3 weeks) and handing over the equipment to the consignee.

B) Payment for Imported Goods:

Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:

a) On Shipment:

80% of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection certificate issued by the nominated inspection agency, if applicable as per contract;

(vii) Manufacturer's own factory inspection report and
(viii) Certificate of origin by the chamber of commerce of the concerned country;
(ix) Inspection Certificate for the despatched equipments issued byrecognized/ reputed agency like SGS, Lloyd, TUV &BeauruVaritus, prior to despatch.
(x) Dispatch Clearance Certificate issued by HSCC.

b) On Acceptance:

Balance payment of 20% of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVII to be issued by the consignees through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any.Final acceptance certificate will be released by the consignee on completion of installation, commissioning, training, successful running of equipment (at least 2-3 weeks) and handing over the equipment to the consignee.

c) **Payment of Incidental Costs** till consignee site & Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Mauritian Rupees to the Indian Agent on proof of final installation, commission and acceptance of equipment by the consignee.

d) **Payment of Indian Agency Commission:** Indian Agency commission will be paid to the manufacturer"s agent in the local currency for an amount in Mauritian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation.

C) Payment of Turnkey, if any:

Turnkey payment will be made to the manufacturer's agent in Mauritius rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation.

D) Payment for Annual Comprehensive Maintenance Contract Charges

The consignee will enter into CMC with the supplier at the rates as stipulated in the contract. The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the consignee on receipt of bank guarantee for an amount equivalent to 2.5 % of the cost of the equipment as per contract in the prescribed format given in Section XV valid till 2 months after expiry of entire CMC period.

21.2 The supplier shall not claim any interest on payments under the contract.

21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.

21.4 Irrevocable & non – transferable LC shall be opened by the respective consignees. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.

21.5 The payment shall be made in the currency / currencies authorised in the contract.

21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.

21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.

21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:

(a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
(b) Delay in supplies, if any, has been regularized.
(c) The contract price where it is subject to variation has been finalized.
(d) The supplier furnishes the following undertakings:

"I/We, _____ certify that I/We have not received back the Inspection Note duly receipted by the consignee or any communication from the purchaser or the consignee about non-receipt, shortage or defects in the goods supplied. I/We _____ agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment.

22. Delivery/Delay in the supplier's performance

22.1 The supplier shall deliver of the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract.The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.

22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

(i) imposition of liquidated damages,
(ii) forfeiture of its performance security and
(iii) termination of the contract for default.

22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, interalia contain the following conditions:

(a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
(b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
(c) But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction which takes place after the expiry of the date of delivery stipulated in the contract.

22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

22.6 Passing of Property:

22.6.1 The property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the conditions of the contract.

22.6.2 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.

22.6.3 Unless otherwise agreed, the goods remain at the supplier"s risk until the property therein is transferred to the purchaser.

23. Liquidated damages

23.1 Subject to GCC clause 26, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

23.2 Deleted

23.3 Deleted

24. Termination for default

24.1 The Purchaser/Consignee , without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.

24.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser/Consignee.

26. Force Majeure

26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, acts of the Purchaser/Consignee either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.

26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its

obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.

26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

27.1 The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee 's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.

27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:

a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

28.1 The contract shall be written in English language following the provision as contained in GIT clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

29. Notices

29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.

29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of disputes

30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.

30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier of Mauritius relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to arbitration in accordance with Laws of Government of Mauritius. In case of a dispute or difference arising between the Purchaser/consignee and a foreign supplier it shall be settled by arbitration in accordance with UNCITRAL Arbitration Rules.The award of the arbitrator shall be final and binding on the parties to the contract.

30.3 Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., Mauritius.

30.4 **Jurisdiction of the court shall be Mauritius.**

31. Applicable Law

The contract shall be governed by and interpreted in accordance with the laws of Mauritius for the time being in force.

32. Withholding and Lien in respect of sums claimed

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim. It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above,by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be,and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. General/ Miscellaneous Clauses

33.1 Nothing contained in this Contract shall be constructed as establishing or creating between the parties, i.e. the Supplier/its Agent/CMC Provider on the one side and the Purchaser on the other side, a relationship of master and servant or principal and agent.

33.2 Any failure on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.

33.3 The Supplier shall notify the Purchaser/Consignee /the Government of Mauritius of any material change would impact on performance of its obligations under this Contract.

33.4 Each member/constituent of the Supplier/its Agent/CMC Provider, in case of consortium shall be **jointly and severally liable** to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.

33.5 The Supplier/its Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under CMC or the Contract.

33.6 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee/Government of Mauritius against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its employees or agents or by any other third party resulting from or by any action, omission or operation conducted by or on behalf of the supplier/its associate/affiliate etc.

33.7 All claims regarding indemnity shall survive the termination or expiry of the contract.

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses.
Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

SECTION - VI
LIST OF REQUIREMENTS

Part I

	NAME OF EQUIPMENT	Qty.
I	**RADIOLOGY**	
1.	256 Slice CT Scanner Machine	1
2	Digital Mobile X_Ray	2
3	Digital Panoramic X-Ray System	1
4	Direct Digital Remote - Controlled Radiography with Fluroscopy (R/F) System	1
5	Full Field Digital Mammography Unit	1
6	Digital Radiography System	2
7	3D/4D High End (Premium) Echocardiography Machine	2
8	Digital 1.5T MRI	1

Part II: Required Delivery Schedule:

a) For Indigenous goods or for imported goods if supplied from Mauritius:

90 daysfrom date of Notification of Award. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

b) For Imported goods directly from foreign:
90 daysfrom date of opening of L/C. The date of delivery will be the date of Bill of Lading/Airway Bill. (Tenderers may quote earliest delivery period).

c) Installation & commissioning within 60 days of receipt of goods at site.

Note: Indigenous goods or imported goods if supplied from Mauritius (offered in MUR) which arelinkedwith supply of directly imported goods are to be supplied within the contractual delivery period asstated in para b) above.

For delayed delivery and/ or installation and commissioning liquidated damages will get AppliedAsper GCC clause 23.

Part III: Scope of Incidental Services:
Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13

Part IV:
Turnkey (if any) as per details in Technical Specification.

Part V:
Warranty &Comprehensive Maintenance Contract (CMC) as per bid document.

Part VI:
Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:

At Consignee Site – Specified in the List of Requirements

Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP Named Port of Destination Basis giving break up of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on Consignee site basis.The shipping arrangements shall be made by the supplier accordingly.

Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.

Consignee/destination details as mentioned in Section-XXI.

Turnkey Works:

The Tenderer shall examine the existing site where the equipment is to be installed to assess the site condition for Equipment placement and installation. Whether the scope of Turnkey Works is mentioned in the Technical Specifications or not, the bidder's offer should be on a "Turn Key" basis including all costs associated with the supply, installation and commissioning of the equipment.

For equipment, the major Turnkey work to be carried out are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Turnkey Job of Hospital/Institution/Medical College. The Turnkey costs to be quoted will be added for Ranking Purpose. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later. The Turnkey Work should completely comply with rules and regulations of Government of Mauritius, if any.

Bidders must take into consideration in its bid, the costs to be incurred for any additional work pertaining to civil, Electrical, Plumbing, sanitary, HVAC, IT requirements, Radiation protection as per rules and regulations of Government of Mauritius, furniture, servo stabilizers, U.P.S. etc. required for successful installation testing and commissioning of the Medical Equipment and the "All inclusive lump sum price" should include all such costs, each **schedule/package** is to be considered a package in itself and suppliers to execute the order package on a "turn key basis" including all civil, electrical, air – conditioning & allied requirement for the equipment, at the site.

For X-Ray and related equipment, bidders who have Type Approval/NOC of as per rules and regulations of Government of Mauritius**/concerned regulatory authorities wherever applicable** shall only be considered with documentary evidence. It shall be bidder's responsibility to get the equipment installed and commissioned as per rules and regulations of Government of Mauritius and installed and commission on "Turn Key basis".

Bidders must take into consideration in its bid the costs to be incurred for any additional work viz. Electrical cabling, plugs of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning, Radiation protection/shielding, mechanical & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the quoted "All inclusive lump sum price" should include all such costs.

Section – VII
Technical Specifications

The following features related to safety and Security for radiology department are to be incorporate in the equipment during delivery/installation by bidders:

1. **2mm lead-Lining on walls and doors for Fluoroscpy room and X-ray room**
2. **Appropriate warning signages within the radiology department**
3. **QC/QA tools for weekly/monthly/yearly tests of equipment**
4. **Access control doors (passcode/passcard)**
5. **Interlocking systems/door interlocks**
6. **Warning lights(machine on x-ray on)**
7. **All the turkey jobs for Medical Equipment should be as per the requirement of RSNSA**

Attached in last page along with Site layout PDF / Drawing

Section – VIII
Quality Control Requirements

(Proforma for equipment and quality control employed by the manufacturer(s)

Tender Reference No.
Date of opening
Time
Name and address of the Tenderer:
Note: All the following details shall relate to the manufacturer(s) for the goods quoted for.

01 Name of the manufacturer
- a.full postal address
- b. full address of the premises
- c. telegraphic address
- d. telex number
- e. telephone number
- f. fax number

02 Plant and machinery details
03 Manufacturing process details
04 Monthly (single shift) production capacity of goods quoted for
- a. normal
- b. maximum

05 Total annual turn-over (value in Rupees)
06 Quality control arrangement details
- a. for incoming materials and bought-out components
- b. for process control
- c. for final product evaluation

07 Test certificate held
- a . type test
- b . BIS/ISO certification
- c . any other

08 Details of staff
- a. technical
- b. b skilled
- c. c unskilled

Signature and seal of the Tenderer

Section – IX
Qualification Criteria

1. The tenderer must be a manufacturer or it's authorized Agent. They mayauthorise their agent as per proforma of Manufacturer authorization form as given in the tender enquiry document to quote and enter into a contractual obligation.

2. The Manufacturer / bidder should have supplied and installed in last Five years from the date of Tender Opening, at least 33% of the quoted quantity of the similar equipment meeting major parameters of technical specification which is functioning satisfactorily. anywhere in the World of the same manufacturer.

Note

1. The tenderer shall give an affidavit as per Section-XIX of the TE document.

2. In support of 2, the Tenderer shall furnish Performance statementin the enclosed Proforma 'A'.

The manufacturer/Agent as Tenderer shall furnish Satisfactory Performance Certificate/Installation Reports in respect of above, duly notarized in the country of origin, alongwith the tender.

The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality Control in the enclosed Section VIII.

3. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer's capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.

4. Tender shall submit audited balance sheets for the last three years. Annual Turnover statements should be certified by chartered accountant bearing their membership No.

5. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.

PROFORMA 'A'
PROFORMA FOR PERFORMANCE STATEMENT

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

Order placed by (full address of Purchaser/Consignee)	Order number and date	Description and quantity of ordered goods and services	Value of order (Rs.)	Date of completion of Contract		Remarks indicating reasons for delay if any	Have the goods been functioning Satisfactorily (attach documentary proof)**
				As per contract	Actual		
1	2	3	4	5	6	7	8

We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.

Signature and seal of the Tenderer

Bidders should submit copies of the supply orders as mentioned in the past five year's performance statement in their Techno-commercial bid. However, HSCC/Purchaser can ask for the past 05 years Order Copies from the bidder from the date of tender opening not mentioned in the past Performance Statement.

**** The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished.**

Section – X
TENDER FORM

Date_____

To

Senior Chief Executive,
Ministry of Health & Wellness,
Republic of Mauritius

Ref. Your TE document No. _____dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____, the receipt of which is hereby confirmed.

We now offer to supply and deliver_____ *(Description of goods and services)* in conformity with your above referred document for the sum as shown in the price schedule(s), attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.
We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.

We agree to keep our tender valid for acceptance as required in the GIT clause 20, read with modification, if any in Section - III – "Special Instructions to Tenderers" or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.
We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.
We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum if any

(Signature with date)

(Name and designation) Duly authorised to sign tender for and on behalf of

SECTION – XI PRICE SCHEDULE

A) PRICE SCHEDULE FOR DOMESTIC GOODS or GOODS OF FOREIGN ORIGIN LOCATED WITHIN MAURITIUS

1	2	3	4	5					6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)					
				Ex - factory/ Ex - warehouse /Ex-showroom /Off - the shelf (a)	Taxes & Duties if Applicable (b)	Inland Transportation, Insurance for a period including 3 months beyond date of delivery, loading/ unloading and Incidental costs till consignee's site (c)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site (d)	Unit Price (at Consignee Site) basis (MUR) (e) =a+b+c+d	Total Price (at Consignee Site) basis (MUR) 4 x 5(e)

Total Tender price in MUR: _____

In words:

_____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section – XI – Price Schedule C
3. Government of Mauritius exempts payment of VAT, Local Taxes Levies etc.
4. Government of Mauritius shall provide exemption of Custom Duty and other fees payable to Custom Office.

Name_____

Business Address_____

Place: _____ **Signature of Tenderer**_____

Date: _____ **Seal of the Tenderer**_____

SECTION – XI PRICE SCHEDULE

B) PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5						6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Currency)						Total Tender price:CIP Port of destination + Extended Insurance+ local transportation and storage at consignee site) 4X 5 (f)
				FOB/FCA price at port/ airport of Lading (a)	Carriage &Insurance (port of loading to port of destination) and other Incidental costs (b)	CIP Price (Mauritius) (c)	Loading & unloading at name place/port of entry + local transportation and storageto the consignee site + Extended Insurancefor a period including 3 months beyond date of delivery (d)	Incidental Services (including installation, commissioning, supervision, demonstration & training) at consignee's site (e)	Unit Price on CIP Port of destination + Extended Insurance+ local transportation and storage at consignee site) (f)=c+d+e	

Total Tender Price in words: _____

Bidder must specify Applicable Custom Duty : .....

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section – XI – Price Schedule C
3. The Tenderer will be fully responsible for the safe arrival of the goods at destination (consignee site) in good condition as per CIP at Consignee's site
4. Government of Mauritius shall provide exemption of Custom Duty and other fees payable to Custom Office.

Agency Commission - ___% of FOB/FCA.

Name_____

Business Address_____

Place: _____

Signature of Tenderer_____

Date: _____

Seal of the Tenderer_____

SECTION – XI PRICE SCHEDULE (TO BE QUOTED IN MAURITIUS LOCAL CURRENCY)

C) PRICE SCHEDULE FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD

1	2	3	4								5
Schedule No.	**BRIEF DESCRIPTION OF GOODS**	**QUANTITY. (Nos.)**	**Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*(MUR)**								**Total Annual Comprehensive Maintenance Contract Cost for 3 Years (MUR) [3 x (4a+4b+4c)]**
			1st	**2nd**	**3rd**						
			a	**b**	**c**						

*** After completion of Warranty period**

NOTE:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 3 years on yearly basis for complete equipment and Turnkey (if any).
3. Government of Mauritius exempts payment of VAT, Local Taxes, Levies etc.
4. Cost of CMC will be added for Ranking/Evaluation purpose.
5. The payment of CMC will be madeas per clause GCC clause 21.1 (D).
6. The uptime warranty will be 98 % on 24 (hrs) X 7 (days) X 365 (days) basis or as stated in Technical Specification of the TE document.
7. All software updates should be provided free of cost during CMC period.
8. The stipulations in Technical Specification will supersede above provisions
9. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Name_____

Business Address_____

Place: **Signature of Tenderer**_____

Date: _____ **Seal of the Tenderer**_____

SECTION XI– PRICE SCHEDULE
D) PRICE SCHEDULE FOR TURNKEY

Schedule No.	BRIEF TURNKEY DESCRIPTION OF GOODS	CONSIGNEE	Turnkey price (MUR)

Note: -

1. The cost of Turnkey as per Technical Specification (Section VII) may be quoted on lumpsum. Government of Mauritius exempts payment of VAT, Local Taxes, Levies etc.
2. Cost of Turnkey will be added for Ranking/Evaluation purpose.
3. The payment of Turnkey will be madeas per clause GCC clause 21.1 (c).
4. The stipulations in Technical Specification will supersede above provisions

Name_____

Business Address_____

Place: _____ Signature of Tenderer_____

Date: _____ Seal of the Tenderer_____

Section XI-Price Schedule

E -Price Schedule for Optional items/Spare Parts/Consumables

Name of Bidder		Name of Manufacturer	
Item no.		Equipment Model no.	
Name of Item		IFB No.	

Srno.	Name of item	NameofPart	Qty	Unit cost(Rs.)	GST		Unit cost included GST(Rs.)	Total cost Included GST
					%	Amount(Rs.)		
			a	b		c	d=b+c	dXa
1			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
2			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
3			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
4			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
5			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
6			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
7			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
8			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
9			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
10			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
11			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
12			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
13			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
14			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
15			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00
16			0	₹0.00	0.00%	₹0.00	₹0.00	₹0.00

1.BiddershallmentionedpresentrateofGST,failingwhichitwillpresumedthatthesameisinclusiveinthetotalpriceandnothingwillbepaidonthisaccountextra.

SECTION – XII
QUESTIONNAIRE

Fill up the Section XX – Check List for Tenderers and enclose with the Tender

1. The tenderer should furnish specific answers to all the questions/issues mentioned in the Checklist. In case a question/issue does not apply to a tenderer, the same should be answered with the remark "not applicable".

2. Wherever necessary and applicable, the tenderer shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.

3. In case a tenderer furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its tender will be liable to be ignored.

SECTION – XIII
BANK GUARANTEE FORM FOR EMD

Whereas _____ (hereinafter called the "Tenderer") has submitted its quotation dated _____ for the supply of _____ (hereinafter called the "tender") against the purchaser's tender enquiry No. _____ Know all persons by these presents that we _____ of _____ (Hereinafter called the "Bank") having our registered office at _____ are bound unto _____ (hereinafter called the "Purchaser) in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____. The conditions of this obligation are:

(1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

(2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-

a) fails or refuses to furnish the performance security for the due performance of the contract.
or
b) fails or refuses to accept/execute the contract.
or
c) if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of forty-five days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorised officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

SECTION – XIV

MANUFACTURER'S AUTHORISATION FORM

To

Senior Chief Executive,
Ministry of Health & Wellness,
Republic of Mauritius.

Dear Sirs,

Ref. Your TE document No _____, dated _____

We, _____ who are proven and reputable manufacturers of_____(*name and description of the goods offered in the tender*) having factories at_____, hereby authorise Messrs_____(*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. _____ (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

Yours faithfully,

[*Signature with date, name and designation*]
for and on behalf of Messrs_____

[*Name & address of the manufacturers*]

Note: 1. This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent to legally bind the manufacturer.
2. Original letter may be sent.

SECTION – XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

To
Senior Chief Executive,
Ministry of Health & Wellness,
Republic of Mauritius

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no_____ dated _____ to supply (description of goods and services) (herein after called "the contract").
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;
AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of. _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to _____ (indicate date)

.....
(Signature with date of the authorised officer of the Bank)
.....
Name and designation of the officer
.....
.....
Seal, name & address of the Bank and address of the Branch

SECTION – XVI
CONTRACT FORM - A

CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS

(Address of the Purchaser's/Consignee's
office issuing the contract)

Contract No_____ dated_____

This is in continuation to this office's Notification of Award No_____ dated _____

1. Name & address of the Supplier: _____
2. Purchaser's TE document No_____ dated_____ and subsequent Amendment No_____, dated_____ (if any), issued by the purchaser
3. Supplier's Tender No_____ dated_____ and subsequent communication(s) No_____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this tender.
4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as integral part of this contract:

   (i) General Conditions of Contract;
   (ii) Special Conditions of Contract;
   (iii) List of Requirements;
   (iv) Technical Specifications;
   (v) Quality Control Requirements;
   (vi) Tender Form furnished by the supplier;
   (vii) Price Schedule(s) furnished by the supplier in its tender;
   (viii) Manufacturers' Authorisation Form (if applicable for this tender);
   (ix) Purchaser's Notification of Award

   Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 1 of Section II – 'General Instructions to Tenderers' of the Purchaser's TE document shall also apply to this contract.
5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
   (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

Schedule No.	Brief description of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price	Terms of delivery

Any other additional services (if applicable) and cost thereof: _____
Total value (in figure) _____ (In words) _____

2. Delivery schedule
(iii) Details of Performance Security
(iv) Quality Control
   (a) Mode(s), stage(s) and place(s) of conducting inspections and tests.
   (b) Designation and address of purchaser's inspecting officer
(v) Destination and despatch instructions
(vi) Consignee, including port consignee, if any
3. Warranty clause

4. Payment terms
5. Paying authority

_____

(Signature, name and address
of the Purchaser's/Consignee's authorised official)
For and on behalf of_____

Received and accepted this contract

(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)
For and on behalf of _____
(Name and address of the supplier)

(Seal of the supplier)
Date: _____

Place: _____

SECTION – XVI
CONTRACT FORM – B
CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT

Annual CM Contract No._____ dated_____
Between

(Address of Head of Hospital/Institute/Medical College)
And

(Name & Address of the Supplier)

Ref: Contract No_____ dated_____ (Contract No. & date of Contract for supply, installation, commissioning, handing over, Trial run, Training of operators & warranty of goods)

In continuation to the above referred contract

6. The Contract of Annual Comprehensive Maintenance is hereby concluded as under: -

1	2	3	4			5
Schedule No.	**BRIEF DESCRIPTION OF GOODS**	**QUANTITY. (Nos.)**	**Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.**			**Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c)]**
			1st	**2nd**	**3rd**	
			a	**b**	**c**	

Total value (in figure) _____ (In words) _____

b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from_____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)

c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 3 years as contained in the above referred contract on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, _____ & _____) and Turnkey (if any).

d) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.

e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/ technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

f) All software updates should be provided free of cost during CMC.

g) The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the

Purchaser/Consignee.

h) If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.

i) **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Mauritian currency.

j) **Paying authority:** _____ (name of the consignee i.e. Hospital/ Institute /MedicalCollege's authorised official)

_____

(Signature, name and address of Hospital/Institute/Medical College's authorised official)
For and on behalf of_____

Received and accepted this contract

(Signature, name and address of the supplier's executive duly authorised to sign on behalf of the supplier)
For and on behalf of _____
(Name and address of the supplier)

(Seal of the supplier)
Date: _____
Place: _____

SECTION – XVII
CONSIGNEE RECEIPT CERTIFICATE
(To be given by consignee's authorized representative)

The following store (s) has/have been received in good condition:

1) Contract No. & date :_____

2) Supplier's Name :_____

3) Consignee's Name & Address with telephone No. & Fax No. : _____

4) Name of the item supplied :_____

5) Quantity Supplied :_____

6) Date of Receipt by the Consignee :_____

7) Name and designation of Authorized Representative of Consignee :_____

8) Signature of Authorized Representative of Consignee with date :_____

9) Seal of the Consignee :_____

SECTION – XVIII

Proforma of Final Acceptance Certificate by the Consignee

No_____

Date_____

To

M/s _____

_____

_____

Subject: Certificate of commissioning of equipment/plant.

This is to certify that the equipment(s)/plant(s) as detailed below has/have been received in good conditions along with all the standard and special accessories and a set of spares (subject to remarks in Para no.02) in accordance with the contract/technical specifications. The same has been installed and commissioned.

(a) Contract No_____ dated_____

(b) Description of the equipment(s)/plants: _____

(c) Equipment(s)/ plant(s) nos.:_____

(d) Quantity: _____

(e) Bill of Loading/Air Way Bill/Railway Receipt/ Goods Consignment Note no_____ dated _____

(f) Name of the vessel/Transporters:_____

(g) Name of the Consignee:_____

(h) Date of commissioning and proving test:_____

Details of accessories/spares not yet supplied and recoveries to be made on that account.

Sl. No.	Description of Item	Quantity	Amount to be recovered No.

The proving test has been done to our entire satisfaction and operators have been trained to operate the equipment(s)/plant(s).

The supplier has fulfilled its contractual obligations satisfactorily ## or

The supplier has failed to fulfil its contractual obligations with regard to the following:

He has not adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specifications'.

He has not supervised the commissioning of the equipment(s)/plant(s)in time, i.e. within the period specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

The supplier as specified in the contract has not done training of personnel.

The extent of delay for each of the activities to be performed by the supplier in terms of the contract is

The amount of recovery on account of non-supply of accessories and spares is given under Para no.02.

The amount of recovery on account of failure of the supplier to meet his contractual obligations is_____ (here indicate the amount).
Signature
Name
Designation with stamp

Explanatory notes for filling up the certificate:

i.He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.

ii.He has supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the time specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

iii.Training of personnel has been done by the supplier as specified in the contract

iv.In the event of documents/drawings having not been supplied or installation and commissioning of the equipment(s)/plant(s) having been delayed on account of the supplier, the extent of delay should always be mentioned in clear terms.

SECTION – XIX
AFFIDAVIT/UNDERTAKING

I/ We have read and understood the instructions and the terms and conditions contained in the document. I/We accordingly accept all terms and conditions of the tender enquiry document including the essential conditions specially incorporated in the tender enquiry like terms of terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law. I/ We confirm that we do not stand deregistered/debarred/banned/blacklisted by any Govt. Authorities. I/ We do hereby declare that the information furnished/ uploaded is correct to the best of my/our knowledge and belief.I/We hereby certify thatthe prices offered by us in this tender is not higher than the prices we had offered to any other Govt. of India Organisation(s)/PSU(s) during the last one year and shall provide the justification for reasonableness of our offered price whenever asked during evaluation of our submitted bid. I/ We also hereby certify that if at any time, information furnished by us is proved to be false or incorrect; I/ We are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.

Date: (Signature of the bidder)
NAME & ADDRESS OF THE BIDDER

NOTE: To be submitted on non-judicial stamp paper of Rs. 10/- duly certified by Public Notary

SECTION – XX
CHECKLIST
Name of Tenderer:
Name of Manufacturer:

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
1. a.	Have you enclosed EMD of required amount for the quoted schedules?			
b.	In case EMD is furnished in the form of Bank Guarantee, has it been furnished as per Section XIII?			
c.	In case Bank Guarantee is furnished, have you kept its validity of 165 days from Techno Commercial Tender Opening date as per clause 19 of GIT?			
2. a.	Have you enclosed duly filled Tender Form as per format in Section X?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
3. a.	Have you enclosed clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			
4. a.	Have you submitted satisfactory performance certificate/ Installation Reports as per the Proforma for performance statement in Sec. IX of TE document in respect of all orders?			
b.	Have you submitted copy of the order(s) and end user certificate/ Installation Reports?			
5.	Have you submitted manufacturer's authorization as per Section XIV?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
6.	Have you submitted prices of goods, turnkey (if any), CMC etc. in the Price Schedule as per Section XI?			
7.	Have you kept validity of 120 days from the Techno Commercial Tender Opening date as per the TE document?			
8.	Have you intimated the name an full address of your Banker (s) along with your Account Number			
9.	Have you fully accepted payment terms as per TE document?			
10.	Have you fully accepted delivery period as per TE document?			
11.	Have you submitted the certificate of incorporation?			
12.	Have you accepted the warranty as per TE document?			
13.	Have you accepted terms and conditions of TE document?			
14.	Have you furnished documents establishing your eligibility & qualification criteria as per TE documents?			
15.	Have you furnished Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening duly certified by chartered accountant bearing their membership no.?			
16.	Have you enclosed the Affidavit as per Section XIX of the TE Document?			

N.B.

1. All pages of the Tender should be page numbered and indexed.
2. The Tenderer may go through the checklist and ensure that all the documents/confirmations listed above are enclosed in the tender and no column is left blank. If any column is not applicable, it may

be filled up as NA.

2. It is the responsibility of tendered to go through the TE document to ensure furnishing all required documents in addition to above, if any.

(Signature with date)

(Full name, designation & address of the person duly authorised sign on behalf of the Tenderer)
For and on behalf of

(Name, address and stamp of the tendering firm)

Section – XXI
Consignee List

Medical Institutions/Consignee	Purchaser Contact Address.
New Flacq Teaching Hospital, Mauritius, Mauritius	The Senior Chief Executive, Ministry of Health and Wellness 5th Floor, Emmanuel Anquetil Building SSR Street, Port Louis Republic of Mauritius

NB: The Purchaser/consignee will ensure timely issue of CDEC, Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, to the suppliers.

SPECIFICATIONS FOR SUPPLY, INSTALLATION AND COMMISSIONING OF 256 ~~264~~-SLICE COMPUTED TOMOGRAPHY SCANNER

FOR RADIOLOGY DEPARTMENT, NEW ~~CANCER~~ (Placed) HOSPITAL 11.04.23

ESTIMATED COST: Rs 40,000,000

Each of the following requirements must be shown and highlighted in the brochure/technical specifications by the bidder. In case the information required is not found in the brochure/technical specifications, authentic documentations, signed by the manufacturer, must be submitted by the bidder to provide evidence of compliance and/or details of non-compliance and degree of deviation from the specifications.

Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation
GENERAL DESCRIPTION		
1. The system must be a top-of-the-line spiral multi-slice CT scanner capable of acquiring ~~264~~ 256 slices/images per 360° rotation for comprehensive routine scans, as well as, advanced lung, cardiac, neuro, chest and abdomen, musculoskeletal, vascular and angiographic examinations.		
2. Bidder to specify:		
a) Make of equipment		
b) Model of equipment		
c) Country of Manufacture		
3. Original Certificate from manufacturer specifying the release date of the model quoted to be specified.		
4. Original manufacturer certified brochure including full technical specifications including release date of the model to be submitted. The original brochures and technical specifications must bear the seal of the manufacturer. In case the catalogue is a copy of the original, the bidder must certify the copy by writing 'Certified to be a true copy of the original seen by me' on each page of the document, signing it, dating it, printing their name under the signature and adding their occupation.		
5. Should have US FDA approval and European CE mark Certification. Original certificates of compliance to be submitted with manufacturer's name and model of equipment.		
6. Equipment should appear as a current product on manufacturer's website. Bidder to submit website with the appropriate links.		
7. Bidder to submit 10 reference sites worldwide including Europe and USA where the CT scanner proposed is used. An obsolete system will not be accepted.		

8. GANTRY		
a) Rotate-Rotate slip-ring designed gantry technology.		
b) Scan time of 0.4 sec or less for full 360 degree rotation.		
c) Aperture size of at least 70 cm.		
d) Tilt of at least ±30 degrees.		
e) Scan Field of View should be up to at least 50 cm.		
f) Gantry tilt controls from console and dual control panel on gantry.		
g) 3D laser positioning system.		
h) ECG gating hardware.		
i) Emergency stop switch on gantry for patient safety.		
9. PATIENT TABLE		
a) Load carrying capacity at least of 200 kg		
b) Lowest table height should be in the range of 400 ~ 600 mm.		
c) The scan range of the table-top must at least 1700 mm.		
d) Table top width to be at least 42 cm.		
e) Accuracy of table positioning ±0.5mm at any speed.		
f) Operation of table from left and right of gantry		
g) Patient positioning accessories to include headrest support, table leg extender, security straps, infant immobilizer, flat table-top, arm support, knee support and immobilizing straps		
10. DETECTORS		
a) Solid-state detector technology using low-dose with high-resolution acquisitions.		
b) 264 rows of independent detectors in the Z-axis.		
c) Multi-slice detector technology capable of acquiring 264 slices per 360 degree gantry rotation.		
11. X-RAY GENERATOR		
a) Mounted on slip-ring yoke in gantry.		
b) High frequency generator of at least 80 kW.		
c) kV range 80 – 140 kV or more.		
d) Variable mA settings up to at least 600 mA with increment steps of 10 mA.		
12. X-RAY TUBE		
a) High-speed rotating anode tube with dual focal spot size.		
b) Anode heat storage capacity of at least 8.0 MHU.		
c) Should include computer controlled monitoring of tube heat		

including warnings at the console.		
13. OPERATOR CONSOLE		
a) Modern user interface with logical and intuitive operation.		
b) The operator must have the possibility to start a scan, pause and re-start or cancel a scanning session at any time.		
c) 3D post processing functionality must be available on the operator console.		
d) At least 300 pre-programmed scan protocols required.		
e) Dual operator console with independent monitor, keyboard and mouse.		
f) Should support simultaneous scanning, reconstruction, viewing, archiving and printing		
g) Clinical grade monitor at least 20 inch TFT LCD colour with 2640 x1024 display resolution.		
h) Integrated intercom with pre-recorded voice messages for patient monitoring and communication.		
i) Emergency stop switches for patient safety.		
j) Should be supplied with one professional grade console desk and one ergonomic chair.		
14. COMPUTER SYSTEM/RECONSTRUCTION		
a) Real time reconstruction speed: At least 20 images per second at 512 x 512 matrix.		
b) Display matrix: 1024 x 1024 or more.		
c) Reconstructed slice thickness range should be less than one mm (<1) to 10mm.		
d) HU scale:-1000 to +3000 absorption range.		
15. SPIRAL MODE PERFORMANCE		
a) Minimum slice thickness should be 0.625 mm or less.		
b) Pitch factor (volume pitch): Variable between 0.5 to 1.5 or more and should be user selectable.		
c) Spiral length should be at least 150cm.		
d) Single continuous 'spiral-on time' should be at least 100 seconds.		
e) Facility of multi-spiral, bi-directional spiral scans including tilted-spiral scans		
f) Bolus triggered spiral acquisition should be available.		
16. IMAGE QUALITY		
a) High contrast resolution should be at least 15 lp/cm for axial and spiral scan at 0% MTF with full FOV.		
b) Low contrast resolution – 5mm or less at 3.0 HU using 20 cm CATPHAN phantom on 10 mm slice thickness.		
c) International CATPHAN performance phantom should be supplied.		

d) All QA tools and other phantoms for calibration should be supplied.		
17. IMAGE STORAGE		
a) Storage capacity of at least 500,000 images in 512 x 512 format.		
b) At least 1 TB for raw scan-data storage.		
c) CD-R/DVD Drive for image archiving.		
d) Recorded CD should include DICOM viewer for viewing on any PC.		
e) A spare CD/DVD writer should be supplied.		
f) Mini PACS Archiving system ~ 6 Terabytes should be supplied.		
18. IMAGE EVALUATION		
a) Parallel evaluation of multiple ROI		
b) ROI shapes including point, rectangular, polygonal, elliptical and irregular shapes.		
c) Measurement of distance, angle, surface and volume Image filters		
d) Image rotation, mirroring, roaming, subtraction and averaging.		
e) Image filters: Edge enhancement, low contrast enhancement, smoothing.		
f) Image annotation and labelling		
g) Statistical evaluation: area/volume, standard deviation, mean value, min/max values and histogram.		
19. DOSE REDUCTION TECHNIQUES		
a) Should have a dose management and reduction technique including low dose protocols for paediatric and infant scanning.		
b) Bidder to state and detail the iterative reconstruction technique and latest software used to reduce dose.		
20. DICOM 3.0 COMPLIANCE		
a) DICOM 3.0 compliant to send, receive, query, retrieve, print, store work list, HIS (Hospital Information System), RIS (Radiology Information System), body part examined.		
b) Seamless connectivity with all DICOM 3.0 imagers and other DICOM 3.0 workstations.		
21. SOFTWARE APPLICATION PACKAGES		
a) Dedicated software for Neuro CT examinations, including advanced brain perfusion functionality.		
b) Dedicated software for Lung CT examinations, including lung nodule evaluation.		
c) Dedicated software for Cardiac CT examinations, including cardiovascular morphology and function, calcium scoring, and coronary package.		
d) Dedicated software to allow for Virtual Endoscopy/Colonoscopy – Insufflator to be included.		

e) Dedicated software for Oncology CT examinations.		
f) Dedicated software for Osteoporosis CT examinations.		
g) Automatic Bone Removal facility.		
h) CT Angio and vascular package for whole body angiography.		
i) The equipment should provide for Remote Diagnostic facility to be connected to the manufacturer's **Technical Support Centre** to enable a technical specialist from the manufacturer to dial-in the equipment, at any time, via Ethernet connection to troubleshoot any fault encountered during operation of same.		
22. CONTRAST MEDIA INJECTOR		
a) Compatible dual-head microprocessor-controlled contrast injector should be supplied for use with disposable syringes.		
b) Bidder to specify:		
i. Make of injector		
ii. Model of injector		
c) Should have US FDA approval and European CE mark Certification. Original certificates of compliance to be submitted with manufacturer's name and model of equipment		
d) Should be ceiling mounted with telescopic arms.		
e) Should trigger automatic start of spiral scan.		
f) Should allow multiple boluses during examination.		
g) To be supplied with 500 syringes and tubings.		
23. POST-PROCESSING WORKSTATION		
a) A separate professional grade computer system must be supplied with at least 16 GB RAM, 1 TB hard-drive or larger, network card, suitable graphics card and at least one 20 inch flat panel LCD clinical grade monitor (supporting 2640 x 1024 resolution).		
b) Bidder to specify:		
i. Make of workstation		
ii. Model of workstation		
c) Should have US FDA approval.and/or European CE		
d) Should have the following processing tools: 3D reconstruction, surface and volume rendering capabilities, Multi Planar Reconstruction, Minimum and Maximum Intensity Projections.		
e) All post processing facilities and software application packages listed above must also be available at the workstation.		
f) DICOM 3.0 compliant.		
g) Should be supplied with one professional grade computer desk and one ergonomic chair.		

24. COMPATIBLE DRY LASER PRINTER		
a) Bidder to specify:		
i. Make of dry laser printer		
ii. Model of dry laser printer		
b) Should have US FDA approval and/or European CE mark Certification. Original certificates of compliance to be submitted with manufacturer's name and model of equipment		
c) Selectable 50/100 micron printing on 35 x 43 cm film size		
d) Throughput of at least 120 films/hour is required for 35 x 43 films		
e) 14-bit pixel depth with at least 16000 levels of gray		
f) Floor-mounted and heavy duty type		
g) Film size: 35 x 43 cm		
h) Daylight loading film magazines to be used with at least 100 films per magazine		
i) Automated image quality control technology for image optimisation		
j) Built-in calibration tools		
k) DICOM 3.0 compliant with connectivity to CT scanner and post-processing workstation		
25. TRAINING AND DOCUMENTATION		
a) Three sessions of two weeks (six weeks in total) local application training for Imaging Technologists. i. Training to be conducted by a qualified application specialist with a minimum of 5 years' experience in CT training and familiar with the line of CT scanner proposed. ii. Training to be delivered in three major sessions: one prior to commissioning. The two remaining trainings to be delivered in two separate sessions – timing to be arranged with the user department.		
b) Three sessions of two weeks (six weeks in total) local application training for Radiologists. i. Training to be conducted by a Radiologist with a minimum of 10 years' experience in CT training and familiar with the line of CT scanner proposed. ii. Training to be delivered in three major sessions: one prior to signing of commissioning certificate. The two remaining trainings to be delivered in two separate sessions – timing to be arranged with the user department.		
c) One week technical training for Biomedical Engineers and Biomedical Engineering Technicians by a factory trained Service Engineer. The training should include the following: i. Description and functions of all sub-stations of the system.		

ii. Description and functions of each component of sub-stations. iii. Troubleshooting of all common faults that may occur and their solutions. iv. Should provide a troubleshooting guide/manual to each participant in the training sessions.		
d) Full sets of documentation – user manuals, technical and service manuals.		
26. WARRANTY CONDITIONS		
1. Two-year warranty on **whole equipment** – covering transport, labour, spare parts (including X-ray tube and detector), tool kit for calibration and image quality assurance, full set of tools to service the equipment, including tools required for tube change, and workmanship as from date of commissioning.		
a) The warranty must include scheduled preventive servicing/maintenance as per manufacturer's recommendations.		
b) Should supply **Permanent licenses** for all software licences– system, application, diagnostic and calibration. No temporary licenses for required software will be accepted.		
c) Free software upgrade for at least 2 years.		
d) Bidders should quote separately, with full details of scope of work, for a maintenance contract for five consecutive years, renewable on a yearly basis, after warranty period **for labour only**.		
27. GENERAL REQUIREMENTS		
a) The bidder must have an **established service facility** at the time of the bid. This must include: i. A workshop equipped with diagnostic tools. ii. Qualified and trained staff with at least one Biomedical Engineer and two Engineering Technicians. Proof of qualifications must be submitted. iii. One of the Engineers/Technicians must have at least 3 years' experience on repair and maintenance of CT scanners. Proof of factory training on the proposed make of CT scanner must be submitted. iv. Availability of spare parts within 5 working days. v. Ability to supply spare parts and to maintain the equipment as and when required during the life expectancy of the equipment. Failure to submit evidence for this established service facility will result in an automatic rejection of the bidder.		
b) It is mandatory for the bidder to submit a letter of authorization, appropriately dated, from the manufacturer certifying that the equipment which they are proposing can be sold in Mauritius.		
c) Acceptance tests should include all required dosimetric measurements.		

d) Original certificates from manufacturer specifying date of manufacture, make, model, serial number, software version, place of manufacture or assembly, and acceptance test certificate. These documents should be submitted at time of commissioning.		
28. SITE REQUIREMENTS: The successful bidder shall bear the cost of all the works listed below including lead linings, rooms (control and examination) finishes, exterior corridors lining if damaged during installation, all electrical and lighting works in the rooms. The successful bidder should also be responsible to obtain all necessary permits, authorisations and papers required to enable the smooth installation of the equipment.		
a) It is the responsibility of every bidder to carry out a pre-bid survey at the site, where the equipment will be installed at New Cancer Hospital, and ensure that the whole system will fit in the room before submitting their bids.		
b) The bidder must propose a floor layout for the equipment with respect to the new room plan prior to installation for vetting by Radiology department.		
c) The potential contractor must make sure that the examination room's wall be properly lined with at least 3 mm of lead from the floor up to a minimum of 7 feet in order to meet the requirements of the Radiation Safety and Nuclear Security Authority.		
d) A lead glass of appropriate lead equivalent should be supplied and fitted in the existing opening between examination room and console room.		
e) All existing doors in the examination room must be replaced with new fully leaded 3 mm lead sheet doors.		
f) All doors joints and openings should be fitted with overlapped 3mm lead sheets to prevent radiation leakage.		
g) A plan of the lead lining of the CT examination room must be submitted to the Radiation Safety and Nuclear Security Authority for approval.		
h) All lead lining must be supplied and installed by the bidder.		
i) Appropriate floor and ceiling ducting required to accommodate cables for the new CT scanner shall be done by the supplier.		
j) Application of new antistatic flooring in the examination and console room.		
k) The potential contractor will be responsible for the lighting installations inside the examination and control rooms, ensure with the users if dimmers are required and subsequently make good.		

l) The potential contractor should carry out all making-goods related to the floor, ceiling, walls of the examination and console rooms.		
m) The potential contractor should provide cupboards inside the examination room for the storage of accessories, phantoms, calibration tools, etc. related to the C.T Scanners. Cupboard sizes and placement to be confirmed with the users during prebid visit.		
ELECTRICAL REQUIREMENTS		
29. GENERAL		
a) Successful bidder shall provide the following:		
i. Surge Suppressor		
ii. Isolating Transformer		
iii. Power Conditioner (spike suppressor, voltage stabilizer, UPS with back up)		
b) Air Conditioner and Ventilation System		
c) New earthing system shall be provided.		
d) Emergency items and other security/safety Items		
e) Lighting and communication cable		
f) Existing electrical cables and other cables shall be disconnected. All existing electrical items (electrical distribution board, surge suppressor, UPS) shall be disconnected and removed.		
g) The location of the Electrical/UPS Room shall be decided and finalised during the pre-bid survey/meeting.		
30. ELECTRICAL POWER		
a) Mains Power: 3-phase 400V ± 6%, 50Hz ± 1.5%.		
b) Before installation of the equipment, the bidder shall submit to ESD the schematic drawings of the electrical distribution board.		
c) The Electrical Room / UPS Room shall consist of the electrical distribution board, power conditioner, surge suppressor and all other electrical accessories.		
d) Apart from the main earthing, the successful bidder shall make provision for any other earthing installation required for the equipment to be installed.		
31. DISTRIBUTION BOARDS WITH ALL CABLINGS		
a) All distribution boards shall be to IP55 and polyester type. It shall be of suitable dimension to accommodate all switchgears and 30% spare capacity shall remain.		
b) All cabling should be neat with proper labelling and to IET regulations.		
c) All final circuits shall be protected by a residual circuit breaker rated at 30mA.		

d) Circuit breakers shall be of make Legrand or equivalent either 2 poles or 4 poles. One pole is not acceptable.		
32. SURGE SUPRESSOR		
a) It shall be of at least 40 kA, 3-phase with protection on all 3 phases and neutral. The earth connection shall be included in the scope of works.		
33. ISOLATING TRANSFORMER FOR EQUIPMENT		
a) The rated power shall be suitable for the whole CT equipment and starting of the UPS.		
b) It shall be 3-phase K-rated (>13) dual shielded isolating transformer to completely isolate the mains power supply and neutral.		
c) All earthing and associated electrical installation shall be included.		
d) It shall have double insulation and K rated at least 13 and air cooled.		
e) Common noise attenuation shall be at least 100dB.		
f) It shall be installed in the Electrical/UPS Room.		
34. POWER CONDITIONER		
To supply, install, test and commission a complete power conditioning equipment having the following main features:		
a) Spike suppression		
b) Voltage Stabilizer		
c) Uninterruptible Power Supply with Back-up		
The power conditioning equipment shall have the following specifications:		
d) It shall be a True Online Type (Double Conversion Topology) with efficiency of up to 95% and capacity of at least 130 kVA.		
e) Suitable for 400V ± 10% and 50Hz ± 8% power input.		
f) Input current Total Harmonic Distortion at input less than 3%.		
g) Input Power Factor 0.85.		
h) Output voltage 400V ± 3% or as per requirement of CT scanner.		
i) Output frequency 50Hz or as per requirement of CT scanner.		
j) Output Voltage regulation ±0.5%		
k) Output voltage total harmonic distortion on non-linear load less than 1%.		
l) Maximum load crest factor; 3:1.		
m) Backup time/Battery autonomy of at least 15 minutes at 70% of load.		
n) Guarantee of 2 years on power conditioner.		
o) It shall enable teleservice: remote monitoring via modem.		
p) To include installation of telephone line to PABX and testing and commissioning of remote monitoring.		

q) Complete with Bypass Switch.		
r) Normal and Common Noise Reduction.		
s) Load Regulation Response less than 1.5ms.		
t) Operating Temperature range up to 45°C.		
u) Suitable for relative humidity 95% non-condensing.		
v) CE conformity and to EN standards.		
w) In case of power failure in the CT examination Room and the CT scanner is working on the power conditioning unit, a remote alarm both visual and buzzer shall be installed in the console room.		
35. AIR CONDITIONER AND VENTILATION EQUIPMENT		
a) A complete air conditioning system shall be provided by the successful bidder to control the temperature and humidity of the		
i. CT Scan equipment room		
ii. Control Room		
iii. Electrical/UPS Room		
b) The air conditioning and ventilation system shall be able to maintain the optimum environmental conditions for the equipment to operate normally and maintain temperatures between 18°C and 23°C and maintain the relative humidity in above mentioned rooms at 20-50%.		
c) Compressors of the air conditioning systems shall be guaranteed for 3 years.		
36. EMERGENCY STOPS		
a) At least 3 Emergency Stops shall be installed.		
37. EQUIPMENT LAYOUT, CONSOLE ROOM AND ELECTRICAL/UPS ROOM		
a) Prior to the start of installation, the successful bidders shall submit the layout of the equipment, console room and technical room indicating the position of all electrical accessories to ESD Engineer for approval.		
38. ELECTRICAL, LIGHTING AND DATA WIRING LAYOUT		
a) The contractor shall carry out any lighting and data installation required for the proper working of the CT scanner. All lighting fixtures shall be European Standards. All sample of electrical accessories such as light fittings, sockets, circuit breakers, switches, distribution boards, trunking, emergency stops etc. shall be submitted to ESD for approval prior to order. Trunking shall be of the make Legrand or Tehalit or equivalent.		
b) To make provision for three indicator lamps in the Console Room to give the following information:		
i. GREEN coloured indicator lamp: CEB Power available		
ii. ORANGE coloured Indicator Lamp: Generator supply ON		

iii. RED coloured indicator Lamp: Equipment on UPS		
39. EARTHING INSTALLATION		
a) Successful bidder shall carry out all associated interior works including electrical floor ducting and openings required for the successful completion of the installation of all equipment.		

NOTE: All the turnkey jobs for Medical Equipent should be as per the requirement of RSNSA

Specifications vetted by:			
Signature			
Name	D. Subdhar	Dr S. SOOKMANEE	Dr S. SOOKMANEE
Designation	***Advisor Biomedical Engineering Unit***	***ESD Engineer***	***Consultant-in-Charge***
Date	11/04/2023	11	11.04.23

R-tc-Shamlall
Principal Medical Imaging Technologist
11/04/2023

Digitally signed by ASHOK KUMAR JAIN
Date: 2023.11.21 10:54:52 IST

SUPPLY, INSTALLATION AND COMMISSIONING FOR DIGITAL MOBILE X-RAY FOR RADIOLOGY DEPARTMENT	
ESTIMATED COST PER UNIT: Rs 4,500,000	
QUANTITY: ~~1 UNIT~~ 2 units	
INTENDED LOCATIONS: New Flacq Hospital	
Each of the following requirements must be shown and highlighted in the brochure/technical specifications by the bidder. In case the information required is not found in the brochure/technical specifications, authentic documentations, signed by the manufacturer, must be submitted by the bidder to provide evidence of compliance and/or details of non-compliance and degree of deviation from the specifications.	
TECHNICAL SPECIFICATIONS	
1.GENERAL DESCRIPTION	
1.1	Bidder to specify:
1.1.1	Make of equipment
1.1.2	Model of equipment
1.1.3	Country of Manufacture
1.2	Original Certificate from manufacturer specifying the release date of the model quoted to be specified.
1.3	Original manufacturer certified brochure including full technical specifications to be submitted. The original brochures and technical specifications must bear the seal of the manufacturer. In case the catalogue is a copy of the original, the bidder must certify the copy by writing 'Certified to be a true copy of the original seen by me' on each page of the document, signing it, dating it, printing their name under the signature and adding their occupation.
1.4	Equipment should conform to at least one of the following international regulatory standards for medical devices: US FDA, European CE, Japanese PMDA. Original valid as at date documents of compliance to be submitted. Submitted certificates should clearly indicate the make and model of equipment quoted.
1.5	Original manufacturer certified brochure including full technical detailed specifications to be submitted. Same should be signed and stamped by manufacturer.
1.6	Certified technical data sheet to be included for evaluation.
1.7	Equipment should appear as a current product on manufacturer's website. Bidder to submit 20 major health centres as reference sites in Europe and USA where the digital mobile X-ray machine proposed is used. An obsolete system will not be accepted.

2.TECHNICAL SPECIFICATIONS	
2.1	The mobile x ray unit should be compact and easily transportable on four wheels with brakes. The unit should be digital with a flat panel detector.
2.2	The system should have a telescopic arm for maximum positioning flexibility in any patient position.
2.3	Tube positioning -maximum horizontal of at least 1200 mm
2.4	Focal point distance from floor at least 2000 mm
2.5	Lateral arm rotation of at least ± 180°
2.6	A hand switch should be available for preparation and exposure.
2.7	The generator should be microprocessor controlled high frequency.
2.8	Maximum power output: at least 30 kW
2.9	Maximum tube voltage: at least 125 kV
2.10	Maximum tube current: at least 400 mA
2.11	Tube current mAs range: at least 0.3 -400 mAs
2.12	The X-ray tube should have dual focus: small focus 0.8 mm or less and large focus 1.3 mm or less.
2.13	Exposure parameters adjustment method mAs & Kv control.
2.14	**COLLIMATOR**:
2.14.1	Collimator lamp should be LED (at least 5 spare LED lamps to be provided)
2.14.2	Adjustment mode: Manual
2.14.3	Tape measure: SID Measurement
2.14.4	Collimator Rotation should be +90 to -90 degrees
2.14.5	Collimator should provide auto shut off lamp facility
2.15	**FLAT PANEL DETECTOR**
2.15.1	Detector type should be of Amorphous silicon with Csi
2.15.2	Bidder to supply two panels of dimesions: Large.35x43 Small 24x30
2.15.3	Image should be of high spatial resolution. Bidder to specify spatial resolution.
2.15.4	Flat Panel detector should have an ingress protection class of at least IPX 4 water resistant.

2.15.5	The X-ray unit should comprise of a detector storage compartment.
2.15.6	Detector weight should not be more than 5 kg.
2.17	**WORKFLOW**
2.17.1	The unit should provide an integrated console for image display and post image processing.
2.17.2	The integrated console should be LCD type with high contrast and brightness.
2.17.3	Image storage up to 3000 images.
2.17.4	The machine should be able to connect to any network and be able to transfer images and patient data from and to hospital network using LAN connectivity or wireless LAN.
2.17.5	Should be able to connect to a dry laser printer.
2.17.6	Temporary storage of patient data.
2.17.7	Fast image preview of minimum 10 s.
2.18	**POWER**
2.18.1	Line connection 230 VAC
2.18.2	Unit should have a built-in battery with a battery indicator level available.
2.18.3	Battery operation time: minimum 3 hours
	WARRANTY
5.1	Warranty: At least two years including labour and spare parts as from date of commissioning. (Including X-ray tube and flat panel detector)
5.2	The warranty must include free of cost schedule preventive servicing/maintenance and applicable software upgrades as per manufacturer's recommendations
6. TRAINING	
6.1	**Training schedule:** A Plan of Training programme shall be submitted at time of delivery of equipment to the respective; Regional Health Director, Consultant-in-Charge and Biomedical Engineer.
6.2	**Application training:** Comprehensive on-site application training regarding operation/functionalities of the equipment for a minimum period of 3 days to be given to end users by a certified application specialist.
6.3	**Technical training:** At least two days' on-site technical training to be given to biomedical staff. Technical training should include: I. Theory and practical training by a factory trained technician/service engineer II. Technical materials (training handbook) to be submitted including troubleshooting procedures.

	II. Technical materials (training handbook) to be submitted including troubleshooting procedures. III. Training should cover troubleshooting with respect to errors, messages and codes, repair and calibration procedures. IV. During technical training, supplier should be equipped with calibrated test tools or defibrillator analyzer to demonstrate performance and functional/output tests as recommended in technical manuals.
7. ACCESSORIES TO BE SUPPLIED PER EQUIPMENT	
7.1	Standard accessories to make the equipment fully functional
8. ADDITIONAL REQUIREMENTS	
8.1	Bidder to state life expectancy of equipment which should be at least ten years. Relevant documents from manufacturer should be submitted at time of bid as proof of equipment lifespan claimed
9. AFTER SALES	
9.1	Ability to supply spare parts and to maintain the equipment as and when required throughout the life expectancy of the equipment. Successful bidder shall be responsible to make arrangements at their end to provide continuous technical support throughout the equipment lifespan even If they lose distributorship of the equipment.
9.2	The bidder must have an **established service facility** at the time of the bid. This must include: i. A workshop equipped with diagnostic tools. ii. At least one Biomedical Engineer/service engineer with relevant experience on medical equipment and two service technicians. Proof of qualifications must be submitted. iii. Trained staff on the type of equipment proposed. Relevant proof of valid technical training certificate must be submitted. iv. Availability /ability to supply spare parts within agreed time by client i.e. within a week. v. Failure to submit evidence for this established service facility will result in an automatic rejection of the bidder.
9.3	Technical support from bidder should be on a 24/7 hour basis during lifetime of the equipment. Response time to attend to technical faults reported by end users/hospital administration/BME staff should be within 3 hours as from the time that the request for repair is made.
9.4	In case that the local contractor's engineers/technician are unable to diagnose a fault locally, remote assistance from the manufacturer's Technical Support Centre should be sought urgently to repair the equipment in the shortest delay.

9.5	During the warranty period, should the physical presence of an overseas engineer be required for troubleshooting and repair of the equipment, same should attend to the repairs of the equipment fully at the contractor's cost.
10. MANUALS/DOCUMENTATIONS/SOFTWARE TOOLS	
10.1	All original installation software, software reload drivers and service diagnostic tools to reconfigure machine or to verify performance and functionality of equipment should be provided either on DVDS or pen drives at the time of commissioning
10.2	Full user manual to be provided (2 hard copies and 1 soft copy per equipment).
10.3	Full service manual with assembly diagrams, including spare parts list (2 hard copies and 1 soft copy per equipment). Errors and malfunction codes should be fully documented in the service manuals.
10.4	Original certificates from manufacturer specifying date of manufacture, make, model, serial number, software version, place of manufacture or assembly, and acceptance test/quality assurance certificate for every equipment should be submitted at time of commissioning.

Specifications submitted by:			
Signature			
Name	D. Kooriu-Sapalya	Dr S. SOOKHAN	A/P Sebastian Ayhar
Designation	**Biomedical Engineer/Senior Biomedical Engineer (Health)**	**CIC Radiology**	**User**
Date	18/04/23	18/04/23	18/04/23

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
1	**SPECIFICATIONS FOR SUPPLY, INSTALLATION AND COMMISSIONING OF DIGITAL PANORAMIC X-RAY SYSTEM** **Location: New Flacq Hospital** **Estimated cost: Rs 3,500,000**		
	Digital Panoramic Dental X-ray system designed for imaging the maxillofacial region using a rotating x-ray beam, which produces a single image of the dental arch as a fixed elliptical shape; and to obtain images of the complete skull (cephalometric radiography) or of a region of interest from various angles. The unit to produce multilayered transverse images of the maxillary and mandibular jaws (cross-sectional tomography).		
1.	**General Description:**		
(a)	Bidder to specify:		
(i)	Make of equipment		
(ii)	Model of equipment		
(iii)	Country of Manufacture		
(b)	Original Certificate from manufacturer specifying the release date of the model quoted to be specified.		
(c)	Original manufacturer certified brochure including full technical specifications including release date of the model to be submitted. The original brochures and technical specifications must bear the seal of the manufacturer. In case the catalogue is a copy of the original, the bidder must certify the copy.		
(d)	Mandatory requirement: Should have US FDA approval and European CE mark (Notified body) Certification. Original VALID certificates of US FDA approval for marketability in the USA and CE certification, duly stamped, to be submitted. The manufacturer's name and model of equipment should be clearly mentioned on the certificates or accompanying documents.		

M/C

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
2.12	Ease of operation as all the functions can be selected from the remote control as well as timer.		
2.13	An excellent output of 60 kV to 80 kV, 0mAs to 15 mAs.		
2.14	Exposure time shall be ≤15 sec.		
2.15	Audible and Visual indication of "X-Ray On" (Radiation indications).		
2.16	Should provide compatible voltage stabilizer (Built in/External).		
2.17	Source to Image Distance (SID) 400-500 mm		
2.18	MAGNIFICATION: 1.2 to 1.5 times		
3	**Software Packages:**		
3.1	Standard: Basic panoramic programs Standard panoramic, Lateral TMJ (closed & open), PA TMJ (closed & open), PA sinus		
3.2	Standard: Child (Paediatric) mode for each standard and optional program to reduce the dose		
3.3	Optional: Horizontal and vertical segmenting for panoramic program		
3.4	Optional: True Bitewing		
3.5	Optional: Advanced panoramic programs: Interproximal panoramic Orthogonal (perio) panoramic Lateral-PA TMJ Lateral multiangle TMJ PA multiangle TMJ PA linear sinus Lateral sinus		
4.	**Power requirements**		
4.1	230V, AC, 50 Hz, 15 Amps, Line resistance < 0.4 ohms		
5.	**Operator Console/Image Processing:**		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
d)	A lead glass shield of appropriate lead equivalence should be supplied in the examination room .		
e)	All existing doors in the examination room must be fully leaded with 3 mm lead sheet.		
f)	All doors joints and openings should be fitted with overlapped 3 mm lead sheets to prevent radiation leakage.		
g)	All lead lining must be supplied and installed by the bidder.		
h)	Appropriate floor and ceiling ducting required to accommodate cables for the new digital radiography system shall be done by the supplier.		
i)	Application of antistatic flooring in the digital radiography room and console room.		
7.	**Dry Laser Printer:**		
(a)	Bidder to specify:		
(i)	Make of equipment		
(ii)	Model of equipment		
(b)	Should have US FDA approval and European CE mark Certification. Original valid certificates duly stamped to be submitted. The manufacturer's name and model of equipment should be clearly mentioned on the certificates.		
(c)	Of heavy duty type and floor mounted.		
(d)	Loading of films to be carried out in daylight		
(e)	Gray scale resolution at least 12 bits.		
(f)	Fitted with automatic self-calibration mechanism		
(g)	A film density correction system must be provided.		
(h)	A high throughput of 120 or more sheets per hour.		
(i)	DICOM compatible.		
(j)	Should hold at least 3 film trays for film sizes		
(k)	Bidder to supply 5000 films of each of the three film sizes		
8.	**Warranty:**		
(a)	Three years warranty on the entire system (whole equipment including X-ray tube, flat panel detector and		

M/C

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(a)	Bidders should specify a maintenance contract (labour only) on a yearly renewable basis for 10 consecutive years after warranty.		
(b)	Bidders are required to submit along with their bids a price list of spare parts for one year after warranty from which purchases of same will be made in case the spare parts will be needed.		
(c)	The successful bidder will thereafter be required to submit price list of spare parts every year, for the same purpose.		
11.	**General Requirements:**		
(a)	The bidder must have the following **service facility** at the time of the bid:		
(i)	A workshop equipped with diagnostic tools. The Ministry reserves the right to carry-out a surprise visit to your workshop with only one day notice by fax.		
(ii)	Qualified and trained staff with at least one Biomedical Engineer and two Engineering Technicians. Proof of qualifications must be submitted.		
(iii)	At least one of the Service Biomedical Engineer/Technicians should have followed a Factory Service Training on the make(s) and model(s) proposed, prior to the commissioning processes. Proof of factory training should then be submitted at time of commissioning. If factory training has been attended before submission of bids, Proof of factory training on the proposed make(s) and model(s) of digital Panoramic system must be submitted. Bidder to state if the factory training will be submitted at the time of commissioning. In addition to the above, one of the Service Engineers/Technicians must have at least 3 years' experience on repair and maintenance on x-ray imaging machines.		
(iv)	Availability of spare parts should be within 5 working days. It is mandatory for the bidders to undertake the responsibility to order spare part(s) on "Test Purposes"		

M/C

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	able to contact a foreign engineer by phone/whatsapp or other medias/email or any communication platform for on-line technical guidance on site.		
(l)	Throughout the duration of the maintenance contract, should the physical presence of an overseas engineer be required for a repair on the equipment installed, same should attend to the repairs of the equipment on the contractor's own account.		
(m)	Original certificates from manufacturer specifying date of manufacture, make, model, serial number, software version, place of manufacture or assembly, and acceptance test certificate. These documents should be submitted at time of commissioning.		
(n)	Commissioning will be effected only after all acceptance tests are completed and the image quality and the functionality of the equipment are deemed acceptable by the Consultant Radiologist, the Biomedical Engineer and the ESD Engineer.		
15.	**Accessories:**		
(a)	Radiation protection Apron of 0.35 mm lead equivalence, two lead aprons with protective neck collar to be supplied including wall hanger.		
(b)	Lead goggles 2 units.		

NOTE: All the turnkey jobs for Medical Equipment should be strictly as per Requirement of RSNSA

Specifications submitted by:			
Signature			
Name	D. Koonjulapalya	Dr. S. Sookmanee	
Designation	**Biomedical Engineer/Senior Biomedical Engineer (Health)**	**Consultant in Charge, Radiology**	**User** PMI
Date	19/05/23	19/05/23	19/5/23

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
1	**SPECIFICATIONS FOR SUPPLY, INSTALLATION AND COMMISSIONING OF DIRECT DIGITAL REMOTE-CONTROLLED RADIOGRAPHY WITH FLUOROSCOPY (R/F) SYSTEM** **LOCATION: Digital X Ray room 1, Radiology Department, ~~J. NEHRU HOSPITAL~~** Flaca Hospital. 9 11/01/23. **QUANTITY:ONE** **COST ESTIMATE:**		
	High Frequency X Ray Unit with Fluoroscopy (R/F) for Digital Radiography with digital flat panel technology. The system should be capable of both erect and supine radiological examination Each of the following requirements must be shown and highlighted in the brochure/technical specifications by the bidder. In case the information required is not found in the brochure/technical specifications, authentic documentations, signed by the manufacturer, must be submitted by the bidder to provide evidence of compliance and/or details of non-compliance and degree of deviation from the specifications.		
1.	**General Description:**		
(a)	Bidder to specify:		
(i)	Make of equipment		
(ii)	Model of equipment		
(iii)	Country of Manufacture		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(iv)	Date launched on market:		
(v)	Mandatory: Bidder to conduct site visit of existing digital fluoroscopy room (Room 1) located in Radiology department, J.Nehru hospital prior to quote. Bidders should conduct a thorough assessment of existing infrastructureincluding existing power supply and radiation safety civil works. All additional/ re-inforcement electrical, infrastructural, radiation safety works pertaining to safe installation and operation of the equipment as per manufacturer's guidelines to be undertaken by the successful bidder.		
(b)	Original Certificate from manufacturer specifying the release date of the model quoted to be specified.		
(c)	Original manufacturer certified brochure including full technical specifications including release date of the model to be submitted. The original brochures and technical specifications must bear the seal of the manufacturer. In case the catalogue is a copy of the original, the bidder must certify the copy.		
(d)	Should have US FDA approval and European CE (Notified Body) mark Certification. Original VALID certificates of US FDA approval for marketability in the USA and CE certification, duly stamped, to be submitted (mandatory requirement). The manufacturer's name and model of equipment should be clearly mentioned on the certificates or accompanying documents.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(e)	Equipment should appear as a current product on manufacturer's website. The equipment should be the most recent model launched by the manufacturer. Official weblink to verify same should be provided at the time of bid.		
(f)	A digital R/F system with wired flat panel detector technology, designed for universal applications of a general hospital, i.e.:		
(g)	For **Radiography**: Skull, Thorax, Chest, Abdomen, Spine, Pelvis, Upper and Lower extremities.		
(ii)	Should be able to perform erect chest x-ray examination. System to be fitted with erect chest stand and with detector .		
(iii)	For **Fluoroscopy**: Gastro-intestinal Examinations, Venography, Lymphography, Myelography, Paediatrics, Non-vascular as well as Vascular Interventional procedures requiring fluoroscopic guidance.		
(h)	The system must include the High Frequency X-ray generator, the radiotranslucent tube with X-ray tube and collimator, two digital flat panel detectors – one for bucky table and one for erect stand, control panel and a dry laser printer compliant with DICOM 3. Generator should be high frequency constant output.		
(i)	This device consists of three main components - X-Ray Tube, X-ray Generator and Flat panel detector of which two main components should be of the same make. Details and technical datasheet of all these three components should be submitted at the time of bid.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(j)	The system should be floor mounted with Counterbalance Tube Head (Rotatable + 180 Degree), 360 Degree Rotatable; mounted on Floor for convenient movements.		
(k)	Should be fully DICOM 3 Compliant (DICOM send, receive, query, retrieve, print, work list) and should be PACS ready.		
(l)	Shall be fitted with DICOM CD and DVD recorder. The DICOM CD/DVD must be readable on any PC without and special software.		
(m)	Image storage capacity on hard disk: 10,000 images or more (1024 x 1024).		
(n)	The equipment should provide for Remote Diagnostic facility to be connected to the manufacturer's Technical Support Centre to enable a technical specialist from the manufacturer to dial-in the equipment, at any time, via Ethernet connection to troubleshoot any fault encountered during operation of same on regular basis to retrieve information about the system and to correct any software problem.		
(o)	Shall perform customizable pulsed digital fluoroscopy up to 10 pulse/sec or better.		
(p)	Shall perform digital serial radiography up to 6 frames/sec or better.		
(q)	All the movements including the X-Ray tube and detector, X-Ray table should be motorized, to control from operator's console as well as from table side with remote control as well as source control.		
2.	**X-ray Generator:**		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(a)	X- Ray generator should be of microprocessor controlled high frequency type with latest technology having constant output with low ripple frequency		
(b)	High frequency generator – frequency should be at least 80 KHz.		
(c)	Automatic Exposure Control (AEC) with at least 3 measuring chambers.		
(d)	Power at least 50 kW or greater to enable both long time low power fluoroscopy and short time high power spot exposure.		
(e)	Operating Modes: Adjustable kV and mAs in manual mode, and Automatic mode (AEC mode).		
(f)	Tube voltage: 40 - 150 kV or better with 1kV steps.		
(g)	X-Ray Tube current at least 800mA or more		
(h)	mAs: 0.5 - 400 mAs or better.		
(i)	It should have over-loading protection		
(j)	Pulsed Fluoroscopy with a fluoroscopy kV ranging from 40 to 100 kV or better.		
(k)	Automatic X-ray tube calibration.		
3.	**X-ray Tube:**		
(a)	Dual focus X-ray tube with anode heat storage capacity ≥ 300 kHU with thermal protection.		
(b)	High speed rotating anode.		
(c)	Focal spot sizes:		
(i)	Large focus: 1.2 mm or less		
(ii)	Small focus: 0.6 or less		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(d)	Should be air/oil cooled.		
(e)	Rated kV peak ~ 150 kVp.		
(f)	Power at least 80 kW.		
(g)	Bidder to submit tube specifications and characteristics.		
(h)	Date of manufacture should be within last 6 months.		
4.	**Table and Patient Tabletop:**		
(a)	Patient loading on table should be accessible from three sides.		
(b)	System to be both remote controlled from operator's console and locally controlled from table side.		
(c)	Shall have large imaging area from head to feet to minimize patient movements during examinations (radiolucent area must be at least 190 x 50 cm or larger).		
(d)	Shall have motorised elevation function to allow the adjustment of the table top height from a minimum of 60 cm or less.		
(e)	The motorized table should have automatic tube tracking bucky arrangement which will adjust automatically for accurate image captured and smooth exam preparation.		
(f)	If floating table is offered the following should apply: 1) Longitudinal travel range: 80 cm or more at both foot and head ends, motorised. 2) Transversal travel: 15 cm or more to the R and L, motorised.		
(g)	If fixed table top is offered, the tube should be able to travel along the whole table length covering the above specified longitudinal and transversal movements.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(h)	Table tilt of +90°/-30° or better.		
(i)	A footswitch for R/F in the examination room must be provided in addition to the one at the operating console.		
(j)	A tableside control panel must be available.		
(k)	Table to support patients of at least 200 Kg and at least 75 cm table width.		
(l)	Accessories to be included: foot rest, head clamp, hand/shoulder grips, complete set accessories to allow gynaecological and urological examinations.		
5.	**X-ray Tube Stand:**		
(a)	Source to image distance (SID) of 115 up to 180 cm or better with motorised adjustment.		
(b)	The X-Ray tube should be a high speed rotating anode dual focus tube compatible with the generator and will be able to cover the whole table length.		
(c)	Wide range of exposure incidence angles (up to ±40° or better)		
6.	**Collimator:**		
(a)	Should be locally and remotely controlled with automatic shut off of the light beam source. Should have a multi-leaf collimator with auto shut provision for the light, auto collimation and remote controlled.		
(b)	Bidder to supply 5 spare lamps.		
7.	**Digital Flat Panel Detector:**		
(a)	Bidder to specify:		
(i)	Make of detector		
(ii)	Model of detector		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(b)	Should have US FDA approval. Original certificates of compliance to be submitted with manufacturer's name and model of equipment. The US FDA 510(K) premarket approval (with the 510(K) number) should be submitted.		
(c)	Certified technical datasheet from manufacturer to be included for evaluation.		
(d)	Should be of Amorphous Silicon with Csi.		
(e)	Detector size 43 x 43 cm, standard maximum size		
(f)	Pixel size: About 200 µm or smaller.		
(g)	Fitted with grid for scattered radiation.		
(h)	Detector Quantum Efficiency (DQE) should be 60% or more @ Zero lines pairs		
8.	**Operating Console and Displays:**		
(a)	Host computer and Image processing computers should be of **industrial grade** – Non-industrial grade computers will be rejected.		
(i)	Make of host computer/imaging processing computers		
(ii)	Model of host computer/imaging processing computers		
(b)	Two 20" or more, flicker-free TFT/LCD, medical grade monochrome monitor of at least 20" with resolution of 1 mega pixel or more for live image displays in the examination room and operating console. The monitor in the examination room must be fitted on a mobile stand. A desk must be supplied to accommodate the operating console and display.		
(c)	Resolution: 1600 x 1200 or better.		
(d)	Contrast ratio ~ 600:1.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(e)	Should be DICOM compatible and should be PACS ready.		
(f)	System should have auto protocol select		
9.	X-ray examination, technical and Control Rooms Space: (These requirements are machine specific and same need to be determined by the bidder)		
(a)	It is the responsibility of every bidder to carry out a pre-bid survey at the sites, where the equipment will be installed, and ensure that the whole system will fit in the existing room space. All bidders will be invited to carry out a site visit at each installation site. The time and date of the site visit will be communicated to the bidder before the closing of bids.		
(b)	The existing leaded console barrier with leaded glass window in DR room 1 should be inspected. The tabletop size behind the leaded window glass should be verified to assess whether all console peripherals for the new digital x ray system will fit.		
(c)	The successful bidder shall be responsible for the proper dismantling of the existing digital X-ray machine as per the direction of Radiation Safety and Nuclear Security Authority.		
(i)	It is the responsibility of the bidder to seek approval from the Radiation Safety and Nuclear Security Authority and follow the guidelines set by the latter for proper disposal of the equipment.		
(ii)	The bidder shall liaise with the store department of the respective Hospital and abide by the procedures in place for the dismantling of the equipment.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(iii)	The bidder shall be responsible for all transportation of the dismantled pieces of equipment from the dismantling site to the disposal site.		
(d)	The successful bidder should submit a proposed floor layout plans of the control, technical and examination rooms to the Ministry prior to installation, for approval by the Ministry's technical team.		
(e)	An inspection of the existing lead lining in the X-ray examination room must be conducted by the bidder, following which the existing lead lining must be removed, replaced or reinforced by the bidder so as to meet the requirements of the Radiation Safety and Nuclear Security Authority.		
(f)	A plan of the lead lining of the X-ray examination room must be submitted to the Radiation Safety and Nuclear Security Authority for approval, and to amend accordingly to satisfy RSNSA requirements.		
(g)	A lead glass of appropriate lead equivalence should be supplied and fitted in the existing opening between examination room and console room.		
(h)	All existing doors in the examination room must be replaced with new fully leaded 3 mm lead sheet doors.		
(i)	All doors joints and openings should be fitted with overlapped 3mm lead sheets to prevent radiation leakage.		
(j)	All lead lining must be supplied and installed by the bidder.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(k)	Appropriate floor and ceiling ducting required to accommodate cables for the new digital R/F system shall be done by the supplier.		
(l)	Application of new antistatic flooring in the digital radiography and fluoroscopy system room and console room.		
10.	**Dry Compatible Laser Printer** (To be supplied per equipment):		
(a)	Bidder to specify:		
(i)	Make of equipment		
(ii)	Model of equipment		
(b)	Should have US FDA approval and European CE mark Certification. Original valid certificates of FDA and CE approvals to be submitted. The manufacturer's name and model of equipment should be clearly mentioned on the certificates.		
(c)	Of heavy duty type and floor mounted.		
(d)	All operations from film loading to processing are to be carried out in daylight room conditions.		
(e)	Gray scale resolution at least 14 bits.		
(f)	A high throughput of 120 or more 35x43 cm sheets per hour.		
(g)	Fitted with an automatic self-calibration mechanism.		
(h)	A film density correction system must be provided.		
(i)	DICOM compatible.		
(j)	Fitted with at least three film trays of 24x30, 30x40 and 35x43 cm.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(k)	To be supplied with 5000 films for each of the above mentioned sizes.		
(l)	Should enable multi-modality printing.		
11	**Mini Picture Archiving and Communications System(PACS) server :** Bidder to supply a mini PACS server compatible with the digital x ray system quoted above. Mini PACS server should include all necessary computer, networking and display hardware		
(a)	PACS server hardware should be set up as an ergonomic workstation in consultant/ radiologist's room. The set- up of PACS server including any additional requirement for the client should be agreed upon in presence of the users/consultant/hospital engineers and authoritiesduring the pre-bid site visit.		
(b)	For the PACS server, bidder to specify the following information below:- Make/Model Country of origin Software name/version Year released		
(c)	Equipment should have installed DICOM viewer software to allow radiologists to retrieve, edit, archive , store, process, report and transfer digital clinical images.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(d)	Mandatory: Bidder to submit list of all imaging modalities with mention of their make/model that are compatible with the proposed PACS server.		
(e)	Uninterruptible power supply (UPS) of suitable rating to cover all components of the PACS server should be supplied.		
(f)	At least two colour LCD display monitors designed for viewing of diagnostic images should be installed as part of the PACS workstation . Mandatory: Documentary evidence and datasheet for the LCD monitors' suitability for medical diagnostic purpose should be submitted at time of bid.		
(g)	At least two years' warranty on all hardware and software of the PACS server. Free software upgrades and technical support to be provided during warranty provided.		
(h)	Bidder should provide technical and IT support to maintain and manage the PACS server throughout its lifespan which should be atleast ten years from date of commissioning.		
	(i) CPU & MEMORY • At least 4-core / 8-thread Intel Xeon® (minimum). Equivalent technology may be accepted. Minimum processor cache : 8 MB • Minimum memory: 16 GB • In built storage capacity with redundant array of inexpensive disk (RAID) : at least 64 TB Raw or 48 TB Usable) in RAID configurations		
(i)			

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	Equipment to conform to international electrical safety standards as applied to medical electrical equipment i.e. IEC 60601-1 . Bidder to submit valid certified documentary evidence of conformity. Equipment to conform to international safety and electromagnetic compatibility (EMC) standards as applied to Medical Electrical Equipment i.e. IEC 60601-1-2. Bidder to submit valid certified documents as evidence of conformity.		
11.	**Warranty:**		
(a)	Two-year warranty on the entire system (whole equipment including X-ray tube, flat panel detector and dry laser imager and Software) including labour and spare parts as from date of commissioning.		
(b)	The warranty must include scheduled preventive service/maintenance as per manufacturer's recommendations		
12.	**Training (per equipment):**		
(a)	Training: A Plan of Training programme shall be submitted at time of delivery to the respective; Regional Health Director, Consultant-in-Charge and Biomedical Engineer.		
(b)	Three days technical training to be provided to biomedical engineering staff by a factory trained Service Engineer. The following shall be included/provided and should include:		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	I. The training should comprise of one-day classroom training and two-day hands-on training II. Technical materials (handbook) including troubleshooting procedures. III. Training should cover troubleshooting with respect to Errors messages and codes for all sub-systems of the equipment offered. The bidder shall make necessary arrangements to accommodate at least 10 Biomedical Engineering staff for the technical training with proper training facilities.		
(c)	5 working days of local and onsite application training for all of the Medical Image Technologists/ Radiographers by a qualified application specialist with a minimum of 5 years' experience in X-ray training and familiar with the line of digital R/F system proposed.		
(d)	5 working days of local and onsite advanced training for all of the Radiologists by a Radiologist with a minimum of 10 years' experience in X-ray training and familiar with the line of digital R/F system proposed.		
13.	**Maintenance after warranty period:**		
(a)	Bidders should enter into a maintenance contract (labour only) on a yearly renewable basis for 8 consecutive years after warranty.		
14.	**General Requirements:**		
(a)	The bidder must have the following after-sale service facility at the time of the bid:		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(i)	A workshop equipped with diagnostic tools. The Ministry reserves the right to carry-out a surprise visit to your workshop with only one day notice by fax.		
(ii)	Qualified and trained staff with at least one Biomedical Engineer and two Engineering Technicians. Proof of qualifications must be submitted.		
(iii)	At least one of the Service Biomedical Engineer/Technicians should have followed a Factory Service Training on the make(s) and model(s) proposed, prior to the commissioning processes. Proof of factory training should then be submitted at time of commissioning. If factory training has been attended before submission of bids, Proof of factory training on the proposed make(s) and model(s) of digital R/F system must be submitted. In addition to the above, one of the Service Engineers/Technicians must have at least 3 years' experience on repair and maintenance on x-ray imaging machines.		
(iv)	Availability of spare parts should be within 5 working days. It is mandatory for the bidders to undertake the responsibility to order spare part(s) on "Test Purposes" basis within 24 hours (during working days) with a view to get the machine repaired within one week as from the declaration of the needs for spare part(s). Evidences of ordering of spare part(s) together with the Airway Bill number should be submitted by the maintenance contractor to the Biomedical Engineer the earliest possible for follow up. Only the replacement of the confirmed faulty		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	spare part(s) will be charged by the maintenance contractor.		
(v)	Ability to supply spare parts and to maintain the equipment as and when required during the life expectancy of the equipment.		
(vi)	Failure to submit evidence for the above-mentioned service facility will result in an automatic rejection of the bidder.		
(b)	Bidder to state life expectancy of equipment which should be at least 10 years or better. Documentary evidence to be submitted as proof for life expectancy claimed.		
(c)	To supply spare parts and to maintain the equipment as and when required during the lifetime of the equipment installed.		
(d)	All original system (including OS) softwares namely: (i) service software (including system software Installation instructions), (ii) diagnostic software for troubleshooting, performance and functionality check of sub-systems, (iii) Permanent software licences should be supplied on DVDs or/and other media, to the respective Biomedical Engineer/technician of each hospital, prior to commissioning procedures.		
(e)	All licenses should be permanent and service password of the equipment to be handed over to the Biomedical staff signing the commissioning certificate.		
(f)	System should come with the latest software and free software upgrade for a minimum of two years.		
(g)	A tool kit for calibration and image quality assurance including phantom(s) per each hospital.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(h)	Full user manual (2 hard copies and 1 soft copy).		
(i)	Full service manual with assembly diagrams, including spare parts list (2 hard copies and 1 soft copy). Errors and malfunction codes should be fully documented in the service manuals.		
(j)	After sales service: Technical support from bidder should be on a 24/7 hour basis during warranty period and during maintenance contract. For equipment under maintenance contract, the response time expected from the contractor should be within 4 hours as from time of request (either by written request or by phone from the user or the respective hospital Biomedical staff) for repair is launched.		
(k)	In case of the local contractor's engineers/technician are unable to diagnose a fault and require assistance from the manufacturer's Technical Support Centre, they should be able to contact a foreign engineer by phone/whatsapp or other medias/email or any communication platform for on-line technical guidance on site.		
(l)	Throughout the duration of the maintenance contract, if the contractor requires the physical presence of its overseas engineer to attend a repair on the equipment installed, same should attend for the repair at the contractor's cost.		
(m)	Original certificates from manufacturer specifying date of manufacture, make, model, serial number, software version, place of manufacture or assembly, and acceptance test certificate. These documents should be submitted at time of commissioning.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
(n)	Commissioning will be effected only after all acceptance tests are completed and the image quality and the functionality of the equipment are deemed acceptable by the Consultant Radiologist, the Biomedical Engineer and the ESD Engineer.		
15.	**Accessories:**		
(a)	Light Weight Radiation Protection Apron of 0.35 mm lead equivalence, five lead aprons with protective neck collar and back and front protection (full body cover in single piece) to be supplied including wall hanger per hospital.		
(b)	Lead goggles 5 units per machine		

NOTE: All the turnkey jobs for Medical Equipment should be as per requirment of RSNSA

Specifications submitted by:			
Signature			
Name	D. Subchan	Dr S. Sookumar	R.K. Shamlall
Designation	*Advisor in Biomedical Engineering*	*Officer-In-Charge*	*User*
Date	11/04/2023	11.04.2023	11/04/2023

SPECIFICATION FOR FULL FIELD DIGITAL MAMMOGRAPHY UNIT FOR NEW CANCER HOSPITAL

Flaccq 9 11.04.23.

Quantity: *one unit* *Estimated Unit Price: Rs 10 millions*

Mammography unit:

1. ***Purpose***

The Ministry of Health and Wellness intends to invite interested bidders to participate in the competitive bidding for "Supply, Installation, Implementation and Commissioning of Full Field Digital Mobile Mammography Unit (FFDMM) " as per the technical specifications mentioned in this document, to be used for the breast cancer investigation at the New Cancer Hospital.

2. ***General***

2.1 Bidder should ensure that the quoted items are not declared "End of Support/Maintenance" for the next ten years from the date of submission of the bid. If in any case, any of the quoted item/s is/are not available in the market, the bidder will have to supply higher version/replacement of that Item in the quoted cost in the same time duration.
2.2 EUREF certified 2D mammography system
2.3 CE marked
2.4 US FDA approved
2.5 Upgradable to Tomosynthesis
2.6 Optional Upright Biopsy Unit available, both Stereotactic & Tomosynthesis
2.7 Optional Contrast Enhanced Digital Mammography

3. ***Functional & performance requirements***

These specifications call for a full field digital mammography system that employs flat panel detectors.

The FFDM system shall include:

3.1 Should have US FDA approval
3.2 Tube head and detector assemble
3.3 Compression system
3.4 X-ray Generator and tube
3.5 Flat panel detector
3.6 Acquisition cum Review workstation
3.7 Accessories and consumables

3.8 ***Tube head and detector assembly:***

3.8.1 Should have iso-centric rotation for every positioning.

3.8.2 The iso-centric movements should be motorized and the patient compression device should have automated variable multispeed options.

3.8.3 Vertical travel of C-arm assembly should be 70-140 cm.

3.8.4 Angular range of C arm assembly should be 180° -100°.

3.8.5 Movement of C-arm angulations and vertical movement should be motorized.

3.8.6 Should support wheel chair access.

3.8.7 Mention the line per cm of grid and grid should be supplied if required along with the system, preferably removable type. Technology should be explained if the grid is not supplied.

3.9 ***Compression system***

3.9.1. Compression devices which are capable of sensing the breast density and adjusting the compression forces accordingly.

3.9.2. Should have automated variable multispeed capabilities.

3.9.3. Magnification of 1.5 times or more should be provided.

3.9.4. Range of movement of sliding compression plate to be provided in relation to breast support platform should be 30 mm for both left and right. (Bidders to mention the sizes of paddle they are offering).

3.9.5. Spot magnification paddle {mention size and shape} to be provided as standard.

3.9.6. Compression plate of 24 (+/-4) width and 30 (+/-4) in depth to be provided as standard

3.9.7. Special compression paddles capable of conforming to the natural contour of the breast, providing for greater comfort to the patient and more even compression across the entire breast if available to be quoted as optional. Bidders should mention the type and size of paddle .

3.9.8. Digital display of compression -force and thickness should be available on either side of gantry.

3.9.9. Operator selectable compression modes and manual compression option

3.9.10. Compression controls manual and foot switch / pedal options should be available

3.9.11. Emergency release option for compression in case of power failure.

3.9.12. Emergency stop button should be available.

3.9.13. The compression should be extremely smooth and there should be automatic decompression at the end of each exposure.

3.10 ***X-ray Generator and tube***

X-ray generator should be high frequency with the following parameters:

3.10.1. At least 25-35 kV in steps of 1 kV

3.10.2. mAs range: 4 - 500 or more

3.10.3. Power output should be above 4 Kw

3.10.4. Exposures per hour ≥ 60.

3.10.5. Anode heat storage capacity should be at least 150 KHU

The X-ray tube unit should comply with the following parameters:

3.10.6. Dual / Single Rotation Anode Tube Dual / Single Rotation Anode Tube

3.10.7. Anode material should be of molybdenum or tungsten(Preferred).

3.10.8. Single /dual focal spot size of 0.3 mm or better

3.10.9. Total inherent filtration of x-ray tube should not be more than I mm of Beryllium

3.10.10. The filter material used in the system as, for single focus single filter will be used

3.10.11. Filter/ collimation selection: automatic / manual.

3.11 ***Flat Panel detector***

3.11.1. Detector area 24 (± 4) cm width and 30(± 4) cm depth .

3.11.2. Automatic exposure (AEC) control is mandatory.

3.11.3. Pixel Size should be ≤ 100 microns in 2D imaging mode

3.11.4. Image acquisition - display time < 30 seconds.

3.11.5. Minimum Ghosting or lag effect should be present in case of direct x-ray conversion technology based detector and zero in case of indirect x-ray conversion technology based detector; image depth should be at least more than 12 bits.

3.12 ***Acquisition console cum Reporting workstation***

3.12.1. System should come with DICOM compatible Breast density software capable of volumetric computation i.e., displaying individual breast volumes in cc, volumes of fibro glandular density in cc, and percentage density score.

3.12.2. High performance quad core processor with CPU clock speed minimum 3GHz or more and compatible operating system.

3.12.3. Minimum 6 GB high speed RAM.

3.12.4. Min. 1 TB HDD/10000 images for local storage.

3.12.5. MP medical grade gray scale monitor for acquisition and review

3.12.6. On board video resolution of minimum 1024 grey levels {12 bit}

3.12.7. Ethernet port – for connecting to Telemedicine computer

3.12.8. Latest DICOM version {DICOM 3 standard} or newer versions compatible with DICOM viewer.

3.12.9. CD, DVD copying should be possible

3.12.10. Capability to post process, store, print, retrieve, schedule workflow should be possible.

3.12.11. Wireless keyboard and mouse etc.

3.12.13. Provision for Export/Import

The following imaging processing should be possible on the workstation:

3.12.14. Measurements

3.12.15. Zoom, roam, magnification

3.12.16. Brightness and contrast

3.12.17. Image inversion

3.12.18. Contrast enhancement processing

3.12.19. Flip rotate inward

3.12.20. Annotations, measurements

3.12.21. Image evaluation like contrast enhancement histogram display, length measurements before and after comparison etc.,

3.12.22. There should be single 5MP gray scale monitor .

3.12.23. The power requirement for the equipment should be less than 15 KVA, including peak power.

3.13 ***Accessories and Consumables***

3.13.1. Dual function footswitch

3.13.2. Stool with backrest

3.13.3. System should come with vehicle mounting brackets, radiation Shield kit and accessories required as standard.

3.13.6. Should be installed on a telemedicine vehicle, provide supporting vehicle fitment tools

3.14 ***General services***

The successful bidder has to provide all of the needed equipment, software, consultation, installation, support and training for the system presented in this bid.

3.15 **Service & Maintenance**

The Bidder must have knowledgeable and capable man power (fully comprehensive Curriculum Vitae to be produced) for servicing and maintaining the equipment and software proposed. The installation, service, maintenance, and support must include support from the successful bidder and from the equipment manufacturer. Further, the Ministry expects the costs for requested support to be included for all hardware and software proposed. The support shall cover;

- Replacement of hardware components
- Email/Telephonic support for hardware and software from authorised bidder and OEMs
- Maintenance of the equipment

3.16 *Training*

Successful Bidder shall provide certified man power to provide hands-on training for 10 working days to a team of medical staff and engineers.

3.17 *Documentation*

Full documentation of the project is to be included in the deliverables by the successful bidder. Documentation should include fully annotated diagrams and associated detail of equipment utilized in compliance to the scope of this bid. It shall include:

3.17.1. Original user and installation manuals of all proposed system and software.
3.17.2. Installation/ layout plan and connectivity Diagram.
3.17.3. Course material for the training.

3.18 *Testing*

3.18.1 Testing of functionality and all other aspect required to ensure the completeness of the solution as per the requirements in the bid.
3.18.2 Bidder has to prepare Test Plan and procedure in this regard and get it approved by the Ministry

Vetted by:

Signature:			
Name:	D. Subdhan	Dr S. SOOKMANEE	R.K. Shamlall
Designation:	***Advisor in Biomedical Engineering***	***Consultant in Charge***	***Principal Medical Imaging Technologist***
Date:	11/04/2023	11/04/2023	11/04/2023

SPECIFICATIONS FOR SUPPLY, INSTALLATION AND COMMISSIONING OF DIGITAL RADIOGRAPHY SYSTEM

	Estimated unit cost: Rs. 7,000,000 **Quantity: 2 units** **Location: New Flacq Hospital.**
	Each of the following requirements must be shown and highlighted in the brochure/technical specifications by the bidder. In case the information required is not found in the brochure/technical specifications, authentic documentations, signed by the manufacturer, must be submitted by the bidder to provide evidence of compliance and/or details of non-compliance and degree of deviation from the specifications.
1	**General Description:**
(a)	Bidder to specify:
(i)	Make of equipment
(ii)	Model of equipment
(iii)	Country of Manufacture
(b)	Original Certificate from manufacturer specifying the release date of the model quoted to be specified.
(c)	Original manufacturer certified brochure including full technical specifications including release date of the model to be submitted. The original brochures and technical specifications must bear the seal of the manufacturer. In case the catalogue is a copy of the original, the bidder must certify the copy.
(d)	Should have US FDA approval and European CE mark Certification. Original certificates of compliance to be submitted with manufacturer's name and model of equipment. For US FDA, the 510(K) premarket approval (with the 510(K) number) should be submitted along with the US FDA Indications for use Statement.
(e)	Equipment should appear as a current product on manufacturer's website. Bidder to submit website with the appropriate links.
(f)	Bidder to submit **10 reference sites worldwide including Europe and USA** where the digital R/F system proposed is used. An obsolete system will not be accepted.
(g)	An X-Ray digital system with flat panel detector technology, designated for universal application in general hospital, i.e.:
	For **Radiography**: of Skull, Thorax, Chest, Abdomen, Spine, Pelvis, Upper &Lower extremities.
(h)	The system must include the X-ray generator, the radio translucent table with X-Ray tube and collimator, two digital flat panel detectors – one for bucky table and one for erect stand, the control panel and a dry laser printer.
(i)	Floor Mounted.
(j)	The machine should be designed for heavy workload of 300-400 X-ray exposures daily. Should be DICOM
	3.0 compliant (DICOM send, receive, query, retrieve, print, work list) and PACS ready.
(k)	Should have motorized movement for examination table, floating table top and detector arms.
(l)	Should allow for pre-settable positioning of X-ray tube with respect to detectors and table for routine radiographic procedures and should be easily activated.
(m)	Should allow for manual positioning of the detector and automatic positioning of detectors and X-Ray tube to pre-programmed configurations.
2	**X-ray Generator:**
(a)	High frequency generator frequency: at least 50 KHz.

(b)	Power: at least 50 kW.
(c)	Tube voltage: 40 - 125kV or better.
(d)	X-ray Tube current at least 500mA at 100kV.
(e)	mAs: 0.5 - 400 mAs or better.
(f)	Operating Mode: adjustable kV and mAs in manual mode, and Automatic mode (AEC mode).
4	**Flat Panel Digital Detector (Quantity: 2 units – for X-ray table and vertical stand):**
(a)	Bidder to specify:
(i)	Make of detector
(ii)	Model of detector
(b)	Should have US FDA or European CE approval. Original certificates of compliance to be submitted with manufacturer's name and model of equipment.
(c)	Certified technical datasheet from manufacturer to be included for evaluation.
(d)	Fixed type and powered internally – battery only powered detector will not be accepted.
(e)	Detector size at least 35 x 43 cm.
(f)	Should be of Amorphous Silicon with Csi.
(g)	Image Matrix: 1900x2000 or better with pixel size
	160-200um
(h)	Grey scale: 12-bit minimum
(i)	Tube Assembly movement to be automatically synchronised with the detector
5	**X-ray Table:**
(a)	Free floating radio translucent table-top controlled with foot pedal.
(b)	Both longitudinal and lateral movement for table-top.
(c)	Table to support patients of at least 200 Kg.
(d)	All table movement locked by electro-magnetic brakes.
(e)	Bucky fitted with grid.
(f)	Fitted with one digital flat panel detector as per specification above powered from table.
(g)	Shall have motorised elevation function to allow the adjustment of the table top height from a minimum of 60 cm or less.
6	**Column and Cross-Arm:**
(a)	Comprise of one X-Ray tube stand with fully counter balance cross arm.
(b)	Column translation along the length of the examination table and up to 90cm beyond the edge of the table.
(c)	Column to move along a floor rail
(d)	All movements locked by electromagnetic brakes.
(e)	Variable SID with tube head assembly repositioning.
7	**Vertical Detector Stand:**

MK

(a)	Vertical Bucky to be fitted with one digital flat panel as per specification above.
(b)	Bucky properly counter balanced and adjustable height.
(c)	Bucky to have a grid with grid ratio suitable for SID in the range of 150-180 cm.
8	**Operator Console/Image Processing:**
(a)	Host computer and Image processing computers should be of **industrial grade** – Non-industrial grade computers will be rejected.
(i)	Make of host computer/imaging processing computers
(ii)	Model of host computer/imaging processing computers
(b)	Hi-resolution TFT/LCD medical **grade** monitor minimum 20 inch.
(c)	Resolution: 1600 x 1200 or better.
(d)	A desk/table top to be supplied to accommodate the console keyboard and monitor.
(e)	Patient data entry.
(f)	Start and end exposure facility.
(g)	Should store at least 100 last patients cases
(h)	Viewing, processing and filming capability
(i)	Should be DICOM compatible and should be PACS ready.
(j)	The cumulative number of X-Ray exposures should be available on the system.
9	**X-ray Room and Control Space:**
(a)	It is the responsibility of every bidder to carry out a pre-bid survey at the sites, where the equipment will be installed, and ensure that the whole system will fit in before submitting their bids.
(b)	The bidder must propose an on-site layout for the equipment prior to installation for vetting by the Radiology department.
(c)	Lead lining in the X-ray examination room must be supplied and installed by the bidder in accordance with the requirements of the Radiation Safety and Nuclear Security Authority.
(d)	A plan of the lead lining of the X-ray examination room must be submitted to the Radiation Safety and Nuclear Security Authority for approval, and to amend accordingly to satisfy RSNSA requirements.
(e)	A lead glass of appropriate lead equivalence should be supplied and fitted in the opening between examination room and console room.
(f)	All doors in the examination room must be fitted with fully leaded 3 mm lead sheet doors.
(g)	All doors joints and openings should be fitted with overlapped 3mm lead sheets to prevent radiation leakage.
(h)	All lead lining must be supplied and installed by the bidder.

(i)	Appropriate floor and ceiling ducting required to accommodate cables for the new digital radiography system shall be done by the supplier.
10	**Dry Laser Printer:**
(a)	Bidder to specify:
(i)	Make of equipment
(ii)	Model of equipment
(b)	Should have US FDA or European CE approval. Original certificates of compliance to be submitted with manufacturer's name and model of equipment.
(c)	Of heavy duty type and floor mounted.
(d)	Loading of films to be carried out in daylight
(e)	Gray scale resolution at least 12 bits.
(f)	Fitted with automatic self-calibration mechanism
(g)	A film density correction system must be provided.
(h)	A high throughput of 120 or more 35 x 43 cm sheets per hour.
(i)	DICOM compatible.
(j)	Should hold at least 3 film trays for film sizes 24 x 30, 30 x 40 and 35 x 43 cm.
(k)	Bidder to supply 5000 films of each sizes mentioned above.
11	**Warranty:**
(a)	Two-year warranty on the entire system (whole equipment including X-ray tube, flat panel detector and dry laser imager) including labour and spare parts as from date of commissioning.
(b)	The warranty must include scheduled preventive service/maintenance as per manufacturer's recommendations.
12	**Training:**

(a)	5 working days of local and onsite application training for all of the Medical Image Technologists/Radiographers by a qualified application specialist with a minimum of 5 years' experience in X-ray training and familiar with the line of digital radiography system proposed.
(b)	5 working days of local and onsite advanced training for all of the Radiologists by a Radiologist with a minimum of 10 years' experience in X-ray training and familiar with the line of digital radiography system proposed.
(c)	3 full day local and on-site training for the Biomedical Engineering Staff by a factory trained Service Engineer.
13	**Maintenance after warranty period:**
(a)	Bidders should specify a maintenance contract (labour only) on a yearly renewable basis for 8 consecutive years after warranty.
(b)	Bidders are required to submit along with their bids a price list of spare parts for one year after warranty from which purchases of same will be made in case the spare parts will be needed.
(c)	The successful bidder will thereafter be required to submit price list of spare parts every year, for the same purpose.
14	**General Requirements:**
(a)	The bidder must have an **established service facility** at the time of the bid. This must include:
(i)	A workshop equipped with diagnostic tools.
(ii)	Qualified and trained staff with at least one Biomedical Engineer and two Engineering Technicians. Proof of qualifications must be submitted.
(iii)	One of the Engineers/Technicians must have at least 3 years' experience on repair and maintenance of X-ray machines. Proof of factory training on the proposed make of digital radiography system must be submitted.
(iv)	Availability of spare parts within 5 working days.
(v)	Ability to supply spare parts and to maintain the equipment as and when required during the life expectancy of the equipment.
	Failure to submit evidence for this established service facility will result in an automatic rejection of the bidder.
(b)	Bidder to state life expectancy of equipment which should be at least 10 years or better.

(c)	To supply spare parts and to maintain the equipment as and when required during the life expectancy.
(d)	All Installation, software reload and service diagnostic discs to verify performance and functionality of equipment to be provided.
(e)	All licences to be included.
(f)	System should come with the latest software and free software upgrade for a minimum of two years.
(g)	A tool kit for calibration and image quality assurance including a phantom.
(h)	Service laptop complete with laptop bag with latest operating system, Microsoft office, firmware, microprocessor INTEL core i7 preloaded with technical manuals, calibration guidelines and remote assistance software shall be provided to the biomedical technical team.
(i)	Full user manual (2 hard copies and 1 soft copy).
(j)	Full service manual with assembly diagrams, including spare parts list (2 hard copies and 1 soft copy). Errors and malfunction codes should be fully documented in the service manuals.
(k)	Original certificates from manufacturer specifying date of manufacture, make, model, serial number, software version, place of manufacture or assembly, and acceptance test certificate. These documents should be submitted at time of commissioning.
(l)	Commissioning will be effected only after all acceptance tests are completed and the image quality and the functionality of the equipment are deemed acceptable by the Consultant Radiologist, the Biomedical Engineer and the ESD Engineer.

Vetted by:

Specifications submitted by:			
Signature			
Name	D. Koonjul-Supaiya	Dr S. SOOKHANEE	
Designation	**Biomedical Engineer/Senior Biomedical Engineer (Health)**	**Consultant in Charge**	**User**
Date	09/5/23	8.05.23	9/5/23

X-RAY DEPT.
FLACQ HOSPITAL
Date: Time:
Sig:

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
1.	**Specifications for 3D/4D High-End (Premium) Echography Machine for Radiology Department**		
	To specify:		
	• **Make:**		
	• **Model:**		
	• **Country of manufacture/origin:**		
1.0	**General Requirement**		
1.1	Machine to be used by Radiologists and should include the following applications: General abdomen; OB/GYN; Cardiology; Small parts; Urology; Vascular; Pediatrics; Nerve; Emergency and Critical; others.		
1.2	Equipment should be FDA approved and CE marked with respective certificates to be submitted.		
1.3	Bidder to submit at least 10 major Radiology centers as reference sites where the equipment proposed is being used.		
1.4	On-line professional grade UPS with at least 15 minutes power autonomy for the whole equipment. Bidder to submit technical data sheet of proposed UPS.		
1.5	Should be heavy duty machine designed for a daily workload of 40-50 patients.		
1.6	At commissioning, bidder to verify the measurements accuracy and specifications such as resolution using a recommended ultrasound phantom.		
1.7	All bidders should provide evidence that at least one of its engineers or technicians has already had a **Fully Comprehensive Factory Training** on the proposed equipment with same make and model. Their training certificates should still be valid for one year after the commissioning date.		
1.8	The machine should include **Remote Diagnotics Facilities** to enable engineers from manufacturer's Support Centre to dial-in for troubleshooting in case of breakdown.		
2.0	**General Features:**		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
2.1	Ergonomic design of control panel for Operator comfort in standing and sitting positions		
2.2	Supplied on mobile trolley with four swivel lockable wheels		
2.3	TFT colour LCD monitor with 18" or above diagonal & wide screen format		
2.4	Touch display with following facilities: 2.4.1 Anti-glare colour touch screen of 12 inches or better, high sensitivity, resolution 1920 × 1080. 2.4.2 Support multi-touch gesture operations, measurements, zoom in/out, rotate or erase on projected 3D/4D image, freeze, print and save. 2.4.3 Support handwriting with and without gloves.		
2.5	Intuitive control panel keyboard with back light and user-friendly interface to minimize repetitive hand motions .		
2.6	Capable of connecting at least 4 probes simultaneously with minimum 4 probe holders		
2.7	Dynamic Gain greater than 200 dB		
2.8	Date and Time to be set or adjusted only in service mode		
2.9	Should have Digital Beam forming facilities to provide higher image quality, dynamic focusing, dynamic aperture and weighting, etc.		
3.0	**2D Imaging**		
3.1	Frame rate: at least 200 frames/sec		
3.2	Depth selection Range: up to at least 25cm (Transducer dependent).		
3.3	Tissue Harmonic Imaging or equivalent image processing technique to be possible on all probes		
3.4	Scan type: linear sector, trapezoid scan		
3.5	2D Colour Doppler and ability to split the image in B/W and colour, in order to compare both images at the same time		
3.6	High definition pan and zoom on live and freeze modes.		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
3.7	Spectral Doppler–High PRF Pulsed Wave, Continuous Wave & Tissue Spectral Doppler, Color duplex and triplex imaging with B-mode.		
3.8	Tissue Synchronisation Imaging mode or equivalent technology with calculations.		
3.9	Ability in 2D to rotate the image without moving the transducer.		
3.10	Ability to adjust sector width and position during live imaging.		
3.11	Ability to do angle correction.		
4.0	**Live 3D/4D Imaging**		
4.1	3D/4D Imaging with high frame rates at least 30 vol/s		
4.2	Volume Imaging Modes:		
4.3	Full Volume B Mode		
4.4	Live 3D Colour Doppler		
4.5	Thin Volume B-Mode		
4.6	Combined Modes, e.g. B Volume + Colour Doppler Volume		
4.7	Multiple Frequency Imaging settings (B-Mode, Colour Doppler and Spectral Doppler frequencies can be selected independently)		
4.8	Customizable image and exam presets for image optimization		
4.9	Live 3D pan and Zoom		
5.0	**Quantification and Measurements:**		
5.1	Imaging Mode: B, THI, Anatomic M, Colour Doppler, POWER Doppler, PW, CW, TDI, Smart 3D/4D, Panoramic, Strain Elastography, LVO, Zoom, TDI, Contrast QA		
5.2	**Spectral Doppler;**		
5.2.1	**PW/CW Real-time Calculation:** To configure calculations of items, including Heart Rate, PS, PPG		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
5.2.2	**Image Processing:** Display format, duplex/triplex and more.		
5.2.3	**Post Processing:** PW: Base line, wall filter, angle correction and more		
5.3	**Colour Power Doppler;**		
5.3.1	**Image Processing:** Dual live, B/C Align, Invert, smooth		
5.3.2	**Post Processing:** Gain, invert, base line, colour map.		
5.4	**Tissue Doppler;**		
5.4.1	**Imaging Mode:** TEI, TVI, TVD, TVM		
5.4.2	**Image Processing:** Dual live, B/C Align, Invert, smooth, Tissue state		
6.0	**Storage and archiving**		
6.1	Hard Drive capacity on-board(1 Terabyte minimum), DVD/CD-RW		
6.2	Professional patient reports with images on customizable letterheads.		
6.3	Supports the following DICOM 3.0 services : Work list management, storage, Query, Print/Send		
6.4	Ability to export whole studies with images and reports to portable media CD/DVD or USB pen-drives - DICOM 3.0 compliant and PC compatible file(AVI, JPEG) for images and video clips		
7.0	**Post processing and Data Management**		
7.1	In mixed mode (volume imaging mode 3D, 2D/M, 2D/D, 2D/CD, 3D/CD, 3D/D); individual modes can be played back independently		
7.2	Should have inbuilt Image Management facility for direct storage of images and loops in the hard disk drive and to review and edit the images,		
7.3	All real-time post-processing functions are available.		
7.4	Automatic disk management with auto delete		
7.5	**Special Imaging features:**		
7.5.1	Ability of one-key optimization for B, PW/CW images		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
7.5.2	Ability to compare real-time Ultrasound images with previous history of MRI/ CT Scan/ Mammography/ Ultrasound/ X-Ray images through DICOM .		
7.5.3	Ability to display visualization of 3D images of tiny and crossing vessels.		
8.0	**Standard Transducers required**		
8.1	Curved array probe: 2.0 – 6.0 MHz or better		
8.2	Linear array probe: 4.0 – 12.0 MHz or better with mountable biopsy kit		
8.3	Curved Volume probe: 2.0 – 6.0 MHz or better 3D/4D		
8.4	Phased-array probe for neonatal cranial imaging: 7.0 – 10.0 MHz or better		
8.5	Endocavitary (vaginal and/or rectal) probe: 3.5 – 9.0 MHz or better with mountable biopsy kit		
9.0	**Accessories and Peripherals:**		
9.1	Hi-Res Thermal printer		
9.2	Hi-Res Colour Laser printer		
9.3	Foot switch for stress echocardiography		
9.4	Spare set of ECG patient cable complete (in addition to the one unit standard)		
9.5	Supply of 5 litres of ultrasound gel		
9.6	Supply of Ultrasound Phantom equivalent to the Fluke 84-317 complete with the Instruction Manual		
10.0	**Training Requirements:**		
10.1	**1 week** (at least 5 working days) applications training by overseas application specialist to end Users including an Application Training Video and a Workbook for each trainee.		
10.2	**Three** days technical training to be provided to biomedical engineering staff. The following shall be included/provided and should include: I. The training should comprise of one day		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	classroom training and two day hands-on training II. Technical materials (handbook) including troubleshooting procedures. III. Training should cover troubleshooting with respect to **Errors messages and codes** for all sub-systems of the equipment offered. The bidder shall make necessary arrangements to accommodate at least 10 Biomedical Engineering staff for the technical training with proper training facilities.		
10.3	Bidder to quote separately for a comprehensive factory training for one Biomedical Engineer/Technician and to submit the detailed content of the training (Factory training to be effected before the date of commissioning of the equipment). The training should include classroom training and hand-on troubleshooting on a functional demo unit.		
11.0	**Maintenance:**		
11.1	Fully comprehensive Technical documentation including full user and service manuals, parts list and circuit diagrams to be submitted. All manuals should be in original (not copy) and refer to the actual equipment both in terms of hardware and software. All system software, service and diagnostic software, software service packs and patches, all software licenses should be delivered on ***ORIGINAL*** DVDs and on pen drives, at commissioning time.		
11.2	Two years full warranty labour and spare-parts on the whole equipment including all probes.		
11.3	Bidder to quote for 5 years post-warranty annual maintenance, for labour only, services.		
11.4	System should come with the latest software and all future post-commissioning mandatory software upgrade and updates should be free of cost during the lifetime of the equipment.		
11.5	Bidder to submit signed test certificates of equipment and all ultrasound probes supplied with mention of		

Item No.	Technical Specification Required	Compliance of Specification Offered	Details of Non-Compliance/ Deviation (if applicable)
A	B	C	D
	Manufacturing dates from the Manufacturer.		
11.6	Certificate of manufacture and software version to be submitted at time of commissioning.		

Signature:			
Name:	D. Subchan	Dr S. SOOKMANEE	R.K-Shamboll
Designation:	Advisor in Biomedical Engineering	Consultant in Charge	Principal Medical Imaging Technologist
Date:	11/04/2023	11/04/2023	11/04/2023

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW ~~CANCER~~ HOSPITAL

Flaca 9 '11.04.23

QUANTITY: 1 UNIT *ESTIMATED COST: Rs 55,000,000*

	GENERAL DESCRIPTION:
1.	A **Digital** Magnetic Resonance Imaging System for whole body diagnostic purposes.
2.	Bidder to specify Make, Model, Software Version of MRI
3.	The Year of introduction of the proposed MRI on the market should be mentioned.
4.	Bidder to state lifetime of the equipment to be 10 years minimum.
5.	Shall be US FDA and CE approved. Certificates of compliance to be submitted.
6.	MRI should appear on the manufacturer's Website as a current product
7.	Shall have superconductive magnet with active shielding
8.	Should be at least 1.5T Magnet.
9.	The new MRI scanner system should fit in the existing MRI facilities, i.e, the existing control room, the technical room and the scan room.
10.	Full DICOM 3.0 compliant (DICOM send/receive, query/retrieve, print, work list (HIS/RIS), storage commitment, body part examined) and PACS ready.
11.	With intercom between patient and console room and automatic voice commands programmable by the user.
12.	System shall be equipped with properly rated UPS with Surge Protection to supply the whole MRI system with autonomy of at least 15 mins.
13.	Supply and installation of an appropriate chiller for the system.
14.	Shall include the following applications:
	• Neuro Imaging
	• MR Angiography
	• Cardiac Imaging
	• Body Imaging
	• Breast Imaging
	• Orthopedics/Musculo-Skeletal Imaging
	• Oncological Imaging
	• Pediatric Imaging
15.	*System shall include:*
	• MRI Compatible Physiological monitor (ECG, SpO2, NIBP) with remote monitor. FDA approved
	• MRI Compatible Contrast Media Injector, FDA approved
16.	*Magnet System:*
	• Magnet type: Latest Superconducting magnet with very high homogeneity. Magnet type to be specified with theoretical description of the technology adopted.
	• Operating Field Strength: At least 1.5T
	• Active Shielding
	• Installation Shim: Active and Passive
	• Magnetic bore of at least 60 cm diameter, with ventilation and illumination and speakers for patient entertainment.

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW CANCER HOSPITAL

	• Large field of view imaging of up to 50 x 50 x 50 cm
	• Zero Helium boil-off, no loss technology
	• Bidders shall specify the amount of helium (in Litres) required to attain a helium level of 100%.
	• The Vessel Helium pressure should be specified.
	• The helium level should be at least 95% full at the time of commissioning of the equipment.
	• Main Field homogeneity of not more than 0.5 PPM for a 40 cm diameter of spherical volume (DSV), Fat Sat, EPI and MR Spectroscopy should always be possible.
	• Should have long term magnet stability.
	• Bidder to specify magnetic field drift and homogeneity drift.
16.	***Cooling System for Helium Compressor***
	• Two Chiller systems shall be installed. Both Chillers will be working alternately and each chiller will serve as a back-up for the other chiller with a view to keep the MRI system running in case of the breakdown of one chiller.
17.	***Gradient System***
	• Minimum Strength: 30 mT/m per axis
	• Minimum Slew rate: 120 T/m/s per axis
	• For gradient systems with several operational modes, the specifications for each gradient mode have to be provided.
	• Duty Cycle: 100%
	• Gradient coils shall use closed loop water cooling system.
	• Gradient coil shall have active shielding system
	• High Noise Reduction Technology
18.	***RF System***
	• Minimum 8 number of Channels in Receiver system.
	• Number of RF Amplifier and output should be stated.
	• The system shall describe the latest technology or techniques used by the manufacturer in regards to data transmission from RF receivers to RF amplifiers with a view to minimise noises during RF signal processing.
19.	***Imaging Techniques***
	• Spin Echo (SE)
	• SE for T1, T2, and proton density (PD) contrast.
	• Dual-echo SE for PD and T2 contrast in one scan.
	• Fast Spin Echo (TSE, FSE)
	• TSE with "flip-back" RF pulse
	• Ultra-Fast (Single Shot) Spin Echo
	• Single shot fast spin echo for MRCP
	• Inversion Recovery (IR)

	• Turbo Inversion Recovery
	• Short TI inversion recovery (STIR),Fast STIR, Fat Sat and other variants
	• Fluid attenuation inversion recovery with long inversion times (FLAIR, DARK Fluid).
	• Dark Blood Technique
	• True IR for High T1 contrast.
	• Gradient Echo (GRE)
	• Spoiled Gradient Echo (FLASH, Spoiled GRASS, T1-FEE)
	• Gradient Echo with partial transverse rephasing (GRASS, FISP, FEE)
	• Gradient Echo with RF-rephasing (CE-FAST, PSIF, T2-FEE)
	• Fast Gradient Echo with preparation pulses (Turbo FLASH, MPRAGE, MPGRASS,TFE)
	• Multi-echo-Fat-water in-phase and out-of-phase imaging and Combined Echo Imaging
	• Fast 3D GRE with quick fat saturation
	• Steady State GRE
	• Contrast enhanced steady state GRE
	• Balanced GRE (True FISP)
	• Arterial Spin Labeling (ASL) 3D GRASE
	• Echo Planar Imaging (EPI),
	• SE-Echo Planar, GRE-Echo Planar,
	• Gradient and Spin Echo (GRASE)
	• Fast Cardiac Imaging Sequence
	• Time of flight Magnetic Resonance Angiography (MRA), MR-DSA, Phase Contrast MRA in 2D and 3D, Contrast Enhanced MRA
	• DWI/ADC/DTI- diffusion technique
20.	***Resolution parameter:***
	• Maximum Matrix Size :1024x1024
	• Minimum field of view: 1 cm or less
	• Maximum field of view: 50 cms or more
	• Minimum slice thickness 3D: 0.2 mm or less
21.	***Imaging options***
	The following imaging options must be possible;
	• Respiratory compensation
	• Respiratory gating
	• Cardiac and peripheral pulse gating
	• Fat Suppression (Fat Sat) and water suppression
	• Volume Imaging
	• Slice location
22.	***Safety Provisions***

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW CANCER HOSPITAL

	• Emergency switches to power off equipment in Emergency situation
	• Oxygen Monitor
	• SAR display for each protocol
	• Device to rundown magnet in Emergency situation
	• Cryogen exhaust
	• Patient alert system to alert Operator at the console.
	• Site plan of the MRI showing clearly the safe area
	• Warning and Cautionary safety signs
23.	***Host Computer***
	• Host Computer should be of Professional Grade and the latest Make and Model used by the manufacturer. Statement from manufacturer stating the same should be submitted.
	• CPU Type, speed, OS, Hard Disk Capacity for images, Software and database of patients
	• With 19-22 in LED/LCD flat screen color monitor and resolution 1280x1024
	• With ergonomic keyboard and mouse.
	• DVD/CD-R disk drive for loading software and archiving
	• Hard Disc with minimum storage capacity of about 200 patient studies
24.	***Image visualization***
	Shall be equipped with latest viewing, analysis and elaboration tools (multiple image display, zoom, measurements, cross examination review, annotate, cine)
	2D Post Processing:
	• Image subtraction
	• Time-Intensity Curves
	• T1 and T2 calculations
	3D Post Processing:
	• Multi Planar reconstructions
	• Maximum Intensity Projection (MIP)
	• Surface Shaded Display (SSD)
	• Cine Mode
	• A package for Regions of Interest (ROI) analysis shall be included.
	• Auto calibrating reconstruction.
25.	***Radiologist Workstation***
	• A separate workstation of latest make and model to allow one radiologist to process images independently of the Host Computer:
	• High performance Professional Grade computer multi-core CPU computer /graphic card
	• Hard Drive Capacity at least 2 TB, RAM of at least 20 GB.
	• Ergonomic Keyboard and mouse
	• Monitor size of at least 19-22 inches TFT LCD color flat screen

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW CANCER HOSPITAL

	• Resolution, pixels: 1280 x 1024
	• Gray scale steps: 256
	• Display matrix up to1024 x 1024
	• All post processing functions from the console /host computer should be available on the workstation.
	• Configured for automatic transfer of raw data from Host Computer following completion of a scan.
	• DVD/CD-R disk drive for loading software and archiving
	• Archiving on external hard drive (an at least 5 TB hard disk to be supplied – 1 unit)
26.	***Patient Table***
	• Maximum patient weight: 150kg including vertical movement.
	• Longitudinal travel: 150cm minimum.
	• Horizontal speed: 10 cm/s minimum.
	• Shall allow manual movement in case of emergency.
	• Shall have digital display of table position.
	• Should allow both Head first and Feet first scan.
	• MRI compatible patient trolley to be supplied if Patient Couch is not undockable.
	• Operation of table from both sides of the magnet gantry.
27.	***Image Reconstruction System***
	• Image Processor shall be of Professional Grade for performance and reliability
	• Offer shall state: CPU type and quantity, CPU Clock rate, Operating system, RAM Capacity, Hard disk capacity.
	• Image reconstruction Speed : Minimum 1000 Reconstructions per second (for 512x512 image matrix, full FOV)
28.	***Console***
	• Patient browser and patient entry.
	• Should allow to plan, start, pause and stop scan.
	• Integrated Intercom for patient monitoring and communication.
	• Display of Specific Absorption Rate (SAR) value for each examination protocol.
	• All functions shall be integrated on a single screen (image, text, scan control, data).
	• Should support simultaneous scanning, reconstruction, viewing, reviewing, archiving and filming.
	• Viewing images in a Cine-loop
	• Reformatting 3D Volume Images
	• Post-processing functionality in 2D and 3D
	• Display of centre frequency.

	• Display of Helium Vessel Pressure and Level.
	• Display of Chiller water temperature and flow.
29.	***Coils (a brief technical description of each coil is required)***
	All requested coils must be dedicated ones and **multi-purpose coils will not be accepted**.
	Coils can be combined to increase the SNR.
	All coils should be at least 8 channels type.
	Coils can also be flexible and embedded in the table.
	The required coils for the following applications shall be included in the system:
	• Head -(dedicated)
	• Neck (Soft Tissue) -(dedicated)
	• Head-Neck coils (coils 1 and 2 can be combined) for Neuro Vascular
	• Cervical Spine
	• Thoracic Spine
	• Lumbar Spine (coils 4,5 and 6 can be one combined CTL coil)
	• Whole Spine (a CTL coil can be offered if it can cover a whole spine scan)
	• Chest, Heart -(dedicated)
	• Whole Abdomen -(dedicated)
	• Pelvis -(dedicated)
	• Whole Torso -(dedicated)
	• Hip -(dedicated)
	• Knee -(dedicated)
	• Ankle & Foot (dedicated)
	• Shoulder…large : diameter / size 15cm. -(dedicated)
	• Elbow -(dedicated)
	• Wrist -(dedicated)
	• Temporo Mandibular Joint -(dedicated)
	• Peripheral MR Angiography -(dedicated)
	• Breast -(dedicated)
	• Prostate, Colon, Cervix -(dedicated)
	• Pediatric Imaging -(dedicated)
	• A minimum of 18 distinct coils should be supplied.
30.	***Dry Laser Printer: one unit to be supplied***
	• Of heavy duty type and floor mounted.
	• All operations from film loading to processing are carried out in daylight room conditions.
	• Gray scale resolution: at least 14 bits.
	• Pixel size: both 100 and 50 microns for standard and high resolution printing respectively and for all film sizes.

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW CANCER HOSPITAL

	• A high throughput of at least 100 films (size 35 x 43cm) per hour.
	• Fitted with an automatic self-calibration mechanism.
	• A film density correction system must be provided.
	• DICOM 3 Compliant with connectivity to MR and Radiologist Workstation
	• Fitted with a film tray of 18x24, 24x30 and 35x43 cms.
	• Should be supplied with 50 boxes of 35x 43 films each box containing 100 films.
31.	***TRAINING:***
	Local:
	• 3 full day's technical local training for Biomedical Engineers/Technicians by an Overseas Factory Trained Engineer on the proposed MRI.
	• 12 weeks of local training given in 6 sessions of 2 weeks. The first session to be dedicated for general imaging. The remaining five sessions to be dedicated for abdominal, breast and cardiac imaging: Arrangement to be made with the consultant in charge for the planning of these training sessions.
	Overseas:
	• Two weeks overseas training in a recognized centre for 5 radiologists and 5 officers from the medical imaging cadre, all working at VICTORIA hospital. To be given prior to the installation of the equipment.
	• Overseas Factory Service Training for one Biomedical Engineer and one Biomedical Technician on the same model of machine as quoted in the bids. Schedule of training should include the following :
	• MRI equipment basics including MRI safety
	• Routine Servicing and follow-up maintenance work
	• Front line troubleshooting and reporting of faults
32.	***Warranty:***
	• Two years warranty on the whole system as from date of commissioning. Warranty should include labour, all spare parts and helium refill if required.
	• The warranty must include schedule preventive servicing/maintenance as per manufacturer recommendation.
	• Computers and software updates/upgrades shall be free of charge during the whole lifetime of the equipment.
	• A schedule of maintenance should be submitted at time of commissioning
	• Cold Head, Compressor and Helium Lines to be replaced or serviced at the end of their rated life-time as recommended in the service manual

SPECIFICATION FOR DIGITAL 1.5 T MAGNETIC RESONANCE IMAGING (MRI) FOR NEW CANCER HOSPITAL

33.	***Maintenance after warranty period:***
	• Bidders should quote separately ,with full details of scope of work, for a Maintenance Contract on a yearly renewable basis for 10 consecutive years after warranty period for:
	Labour only basis. The cost should include, any special tools or Engineers from overseas (if required) to maintain the MRI Machine
	• Bidder to submit a comprehensive **Price List** of spare parts for the whole MRI system including all of the major Electronic Modules, cold head and replacement of Coils, Helium compressor, for two years post-warranty period. The price list shall be updated on a yearly basis during the 12 years expected life time of the machine. *NOTE: The price list shall be binding and will be considered during evaluation.*
	• Bidder to supply spare parts within 5 days during the lifetime of the equipment following a purchase order from the VICTORIA Hospital/Ministry of Health and Quality of Life.
	• Any spare parts required to correct a fault that may result in loss of Helium, should be ordered on test purposes and dispatched within 48 hours after the fault diagnosis.
34.	***SITING REQUIREMENT:***
	• Magnetic Shielding to be provided as required.
	• RF Shielding: Existing RF cage should be first removed. The building should be inspected for integrity and then a new RF cage of copper should be installed and tested.
	• Door to scan room to be replaced
	• MRI Compatible Glass Window assembly to be replaced
	• All pre-installation work to be performed as per instructions from the Site Preparation manual from manufacturer
	• After installation of the MRI the contractor should carry out all making goods related the floor, ceiling, walls of the examination, technical and console rooms.
	• Complete resurfacing of the floor and walls of the MRI Scan room.
	• The bidder should cater for the installation of gases outlets (oxygen, nitrous oxide, vacuum and compressed air) in the scan Chillers for cooling the MRI cold head to be supplied as per manufacturer recommendation
	• Provisions to accommodate the existing Anesthetic Machine and monitor.
35.	***GENERAL REQUIREMENTS:***
	• Bidders to carry out a pre-bid survey at proposed location site at Victoria Hospital to ensure that the room dimensions meet their installation specifications.
	• Every supplier must have a locally "**Established Service Facility**" at the time of their bid. This must include:

	a) A workshop equipped with diagnostic tools.
	b) Qualified & trained staff with at least One Engineer and Two Technicians with at least one technician having three years of experience on repair and maintenance of MRI
	Failure to submit evidence for this Established Service Facility will result in an automatic rejection of this supplier.
	• Every supplier must submit evidence of a list of Twenty Five Established Centers in the European Union countries or USA / Canada or Japan where their equipment have been installed.
	• It is mandatory for all bidders to submit a letter of authorization from their manufacturers certifying that the equipment that they are proposing can be sold in Mauritius.
	• A tool kit for calibration and image quality assurance including all phantom(s) to be supplied.
	• A full set of non-magnetic (MRI compatible) tools including spanners and screwdrivers to service the proposed MRI to be supplied.
	• All tools and accessories to refill the Compressor and the Magnet to be kept on site.
	• At time of commissioning, supplier must submit an original certificate from manufacturer specifying: (1) the date of manufacture, (2) make & model, (3) serial number, (4) software version, (5) place of manufacture or assembly of all the devices.
	• Full sets of Documentation (2 sets)-user manuals, technical and service manuals. All relevant software CDs for all the devices should be available at time of commissioning.
	• Should include all System, application, Diagnostic and Calibration softwares. All licenses should be included at no extra costs and valid during life-cycle of the MRI
	• Acceptance tests and Quality Assurance tests to be completed and a full report to be submitted at commissioning.

Vetted by:

DATE	NAME	DESIGNATION	SIGNATURE
11/04/23	Dr S. JOKHAN	Consultant in Charge	
11/04/23	D. Subchan	Advisor in Biomedical Engineering	
11/04/23	R.K. Shamlall	Chief Medical Imaging Technoligist For /	