



**King George's Medical University U.P,Chowk,
Lucknow, Uttar Pradesh, INDIA - 226003**

E-Tender Notice

Notice No:- 351/G.A

Dated: 14.01.2021

Online E-Tenders are invited under two Bid system (Technical & Financial) for establishment of Urodynamic & Lithotripsy(ESWL) Machine, Ultrasonography (KUB), Digital X-ray Machine 500 MA, Bone Mineral Density Machine, Facility for Analysis of stone composition (Stone Analysis Machine) Fourier transform near infra-red spectroscopy etc. on wet Lease basis in Urology Deptt. **King George's Medical University, U.P, Lucknow.** from the reputed agencies/firm on the terms & condition as per tender document.The details of the Tender will be available on e-portal website <http://etender.up.nic.in>.

Registrar



E-Tender are hereby invited for Urodynamic & Lithotripsy(ESWL) Machine etc. on Lease basis in Urology Deptt. **King George's Medical University, U.P, Lucknow.** AT King George's Medical University, Lucknow 226003(U.P.) India

Ref. No. : 351/G.A Dated 14.01.2021

Publishing Date	:	21.01.2021 at 03.00 PM
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Clarification start date	:	22.01.2021 at 11.00 AM
Clarification End date	:	23.01.2021 at 11.00 AM
Pre-Bid Meeting	:	23.01.2021 at 03.00 PM
Pre-Bid Meeting Place	:	Dy. Registrar Office KGMU Lucknow.
Bid Submission Start date	:	25.01.2021 at 10.00 AM
Last Date of Bid Submission	:	20.02.2021 at 12.00 PM
Technical Bid Opening	:	20.02.2021 at 03.00 PM
Date of opening of price bid	:	To be informed to the qualified bidders

Tender documents may be downloaded from web site <http://etender.up.nic.in>

GENERAL Terms & Condition

- 1- E-Tender in two bids (Technical & Financial) are invited on KGMU, Lucknow from interested agencies, reputed firm.
- 2- Bids shall be submitted online only at website **www.etender.up.nic.in**
- 3- At the submission of tender document in the shape of DD from any nationalized bank is to be enclosed by the tenderer as tender fee for Rs.3,000/+ (18%GST extra as per applicable). The demand draft should be drawn in favor of Finance Officer KGMU Lucknow payable at Lucknow. Tenderer has to send DD in original to the Registrar office, KGMU,(G.A Section) Lucknow in separate envelopes.
- 4- **Earnest money (EMD) Rs. 4,00,000/-(Four Lac) as specified shall be paid in shape of FDR for Five year duration drawn in favour of the "Finance Officer, KGMU" and payable at Lucknow (UP) India. Tenderer has to send FDR (EMD) in physical form to the University Registrar office, KGMU,(G.A Section) Lucknow in separate envelopes.**
- 5- Hard copy of original technical bid must be submitted to Registrar office, KGMU,(G.A Section) Lucknow on or before last date/time of Bid submission as mentioned in the tender .
- 6- The bid without EMD and Tender fee will be summarily rejected.
- 7- The tender must be submitted on line in two parts (technical bid & financial bid) All the pages of bid being submitted must be signed and sequentially numbered by the bidder irrespective of nature of content of documents before uploading Bid shall be considered only if uploaded given on website (pdf.).
- 8- Any query/grievance regarding tender terms and conditions etc. by the tenderer has to be submitted till 18.01.2021 at 03.00 PM to the HOD, Urology, KGMU Lucknow in written.
- 9- Regarding any query /grievances, the pre-bid conference is as on above date . All firm's representatives who are attending the pre bid meeting shall produce an authorization letter from their firm on the firm's letter head. They are required to put their query in writing before the committee and submit the same in writing on its letter head. The competent Authority of KGMU (Hon'ble V.C) reserves all right to accept or reject any/ all tenders without assigning any reason. It can also impose/relax any administrative term and conditions etc. of tender enquiry after due discussion in pre bid conference. This will be communicated through website of KGMU. No representation will be considered after pre-bid meeting and bidders may ensure putting up their grievances only in Pre-bid meeting.
- 10- Any future clarification and corrigendum shall be communicated through C.M.S K.G.M.U, Lucknow on the NIC website **www. etender.up.nic.in**
- 11- Recovery of breakages/damages caused by the patient/patients attendant will be responsibility of the contractor.
12. A penalty of Rs.1000/-shall be levied for non-observance of good behavior with the public and the staff or for over charging for each complaint/incident if found true.
13. The "University" authorities shall also reserve the right to cancel the contract at anytime by giving one-month prior notice. Vice Chancellor of the "University", shall also be empowered to cancel the contract or alter the terms and conditions in favor of the University, forthwith without any notice for reasons to be recorded.

14. The contractor shall issue photo identity cards to his employees and they will display identity cards while on duty. He will also deposit police verification certificates of all the employees engaged by him to "University".
15. The contractor will not sublet the contract to any other party. In case it is found that the contract has been subletted or assigned to any other party, the contract will be cancelled and EMD/ Bid Security deposited by the contractor shall stand forfeited & firm will be debarred from the "University" for participation in the future tender.
16. That the overall control of the Lithotripsy & Urodynamics etc shall remain vested with the CONTRACTOR, whose supervisors or authorized representative shall have access to at all hours to the said premises or any part thereof.
17. The firm/contractor should not have been blacklisted in past from any other organization, if this information found false, action as deemed fit shall be taken against the firms like cancellation of contract, debar from University for future tenders for a period of 5 years and forfeiture of Security/performance money.
 - (a) The Successful Tenderer shall provide details of personnel through which the Services will be rendered by Successful Tenderer to the University or committee identified by University, and keep such details up-to date.
 - (b) The Successful Tenderer shall issue identity card to its employees, carrying the following particulars;
 - i. Name of the company/firm/Society of the Successful Tenderer and its monogram (if any).
 - ii. Name of the employee in bold capital letters
 - iii. Designation of the employee
 - iv. Mobile No. of the company/firm/Society of the Successful Tenderer
 - (c) All personnel deployed for the Services shall wear the dress as specified by the University from time to time.
 - (d) In case any worker is not found in proper uniform as mentioned above, a penalty of Rs.500/-per person per day shall be charged.
18. The Firm produce the Record in every month to the University authority that he has deposited the E.P.F & E.S.I as per law of every employing in agency whenever demand.
19. The Firm shall produce character Certificate of two class I Gazetted officer.

COMMENCEMENT OF WORK:-

The Successful Tenderer shall start the work within 30 (Thirty) days from the date of agreement. In case it is found that the work has not been taken up within Thirty days from the date of order, the Institute at its sole discretion may cancel the same and forfeit the Security Deposit.

STAMP DUTY:-

Stamp duty, Rs.100/- leviable on Agreement to be executed between University and Successful Bidder, shall be borne by the Successful tenderer as per rule.

DAMAGES TO PERSON & PROPERTY:

- a. The University shall not be responsible for any loss, breakage, damage or theft of the materials of Successful Tenderer.
- b. The University shall not pay any compensation in respect of any injury or death caused to the workers/personnel of the Successful Tenderer. It will be the sole responsibility of the Successful Tenderer and shall keep the University indemnified from all liabilities.

Condition:-

1. **Duration of lease will be 5 years from the date of agreement and it will be renewed every year as per extended report of all faculty of department of Urology.**
2. For installation of machines space will be provided by Department of Urology.
3. Charges of procedures will be fixed by the committee members nominated by competent authorities (on basis of prevailing rates at SGPGI, Lucknow, RML, Lucknow & Present rates in Department of Urology).
- 4. Minimum 45% share amount should must go to KGMU augmentation account. The tender will be decided on basis of maximum University share offered by the tender.**
5. The patients will be enrolled both as OPD or as IPD patient as per the need of patient and as per the decision of Urology consultants.
6. All rights of use of clinical data generated from all the services rendered (including Lithotripsy, Urodynamic etc.) shall solely rest with the Department of the Urology, King George's Medical University Lucknow and its Consultants. Only the Department of Urology or their representative will be allowed to present/ publish this data, nationally or internationally.
7. Apart from installing the machines with all its necessary accessories (as per written approval/ recommendation of HOD Urology/ Vice Chancellor, K G's Medical University) and interior development of the Building which is going to house the machines, the following will also be provided by the company on recurring basis.
 - a. Arranging mechanism for data collection & maintenance (including pre-procedure and post procedure advice)
 - b. Stationary for the units (including putting banners, hoisting public-awareness meetings etc.).
 - c. Publicity and business promotion.
 - d. The maintenance services of all the machines and all the consumable shall be borne by the company.
 - e. Necessary staff required to run all the services including Lithotripsy, Urodynamic and others unit shall be engaged by the company at their own expenses and the number and qualification will be decided by the Head of the Department of Urology.

- f. Working time of centre will be 8 AM to 5 PM (in future, if working time is increased the number of staff will be increased accordingly).
 - g. The company shall be solely responsible for the running of all the machines with full capacity. Down time should not be more than 5% (number of days in one year) failing which a fine of Rs. 1000/- (Rupees one thousand only) per day may be imposed.
 - h. That if working of any machine is found unsatisfactory it will have to be replaced by a new one without any delay by the company at his own expenses as agreed in the tender (as per decision by committee appointed by Vice Chancellor).
 - i. That the company shall arrange the spare parts of all the machines along with experienced maintenance engineer to repair the machine, if required, at any moment at its own expenses.
 - j. That the hospital administration shall provide and maintain the water supply to these units free of charge.
 - k. The charges of electricity consumed will be borne by the company itself.
 - l. That the company shall pay the lease tax or any other tax/duties levies and insurance premium if required at its own expenses.
 - m. Regular AMC/CMC of all equipment is mandatory.
8. Any gross violation of the part of company shall be referred to a special committee (constituted by the Vice Chancellor KGMU, Lucknow) and any adverse action recommended by that committee will be acceptable to the company without any legal wrangles. The committee is even empowered to cancel the lease agreement in the extraordinary circumstances at any time.
 9. That the Head, Department of Urology, KGMU, Lucknow shall have administrative control over these units and will supervise the working including training and teaching.
 10. That any dispute arising out between the company and the hospital administration will be settled through arbitrator appointed by the hospital authorities with mutual consent and the decision so taken shall be binding on both the parties.
 11. That the hospital administration shall have sole right to impose any penalty on the company if they do not comply the terms of the lease agreement. This agreement may be

cancelled if the company fails to comply the terms and conditions in part or in whole after giving due opportunity of being heard.

12. Only investigation and treatment advised by the faculty/residents of dept. of Urology or of KGMU will be allowed.
13. Direct Investigation/treatment without advice of KGMU doctor will be not allowed.
14. **Company should have an experience of minimum 3 years work at government/Semi-government/Private/Corporate sector.**
15. **Tenderer should have a turn-over of minimum 4 corers per year. (Attach Last Three Year Turn Over)**
16. **Tenderer will have to deposit earnest money of Rs. 04 Lakh in shape of FDR in favour of Finance officer, KGMU, Lucknow.**
17. Earnest money of successful tenderer will be treated as security money for the lease period and EMD of other tenderers will be refunded.
18. **The Tenderer have to attach Solvency of 5 Crore in Any Nationalized Bank.**
19. **The Tenderer Will pay electricity bill on the basis of government norms.**
20. **Following verification of bill (बीजक) by HOD, department of Urology and other higher authority, the payment to the Tenderer (Concerned Party) will be done Finaly by Finance Officer.**

INSTRUCTIONS TO TENDERERS

1. The tenderers submitting their tenders would be deemed to have read and accepted all the terms and conditions of tender. No verbal or written enquiries shall be entertained in respect of acceptance or rejection of the tender.
2. The share of rate filled in financial bid. All rates should be mentioned in words, as well as, in figures. Please note NO Corrections, alterations and overwriting in the Financial Bid will be allowed. In case of
3. Subletting of contract shall be strictly prohibited.
4. All the pages of the Bids and supporting discrepancies in quoted rate between words and figure, the rate quoted in words shall prevail. documents, annexure/enclosures etc. must be numbered serially, signed and stamped by the tenderer and mention the total number of pages on the Technical bid .
5. Only mandatory information and details are required to be provided with the Tender Document. If the tenderer desires to provide additional information the same may be provided separately on A-4 size white paper with proper indexing in above date
6. Irrespective of the number, only those Tenderers who successfully qualify in the Technical Bid will be allowed to participate further in the tendering process.
7. The employees, or Teacher of the University or their Family members shall not be eligible to participate in the tender process. For the purposes of this clause family members includes only Parents, Spouse, Sons, Daughters and dependent brothers and Sisters.
8. In the event of withdrawal by a Tenderer before the validity of offer, Institute shall have right to forfeit the Earnest Money Deposit (EMD).
9. **TENDER/BIDS SHALL BE REJECTED IF:-**
 - (a) Any Tender/Bid received after the prescribed date and time as given in the Notice Inviting Tender.
 - (b) Tenderers fail to submit their Bids on the format prescribed in this Tender Document.
 - (c) CORRECTION, ALTERATION AND OVERWRITING is found in the Financial Bid.
 - (d) Authenticity of any of the supporting document is found to be fabricated.
 - (e) Financial Bid only accepted in E-Tender
 - (f) Tenderers try to influence any official of the Institute in any manner.
 - (g) Tenderer fails to provide Technical Bid and Financial Bid in E-Tender form.
 - (h) Tenderer fails to submit photocopy of G.S.T certificate
 - (i) Tenderer fails to submit the required information/document along with the tender as per the terms and condition of this Tender Document.
 - (j) Tenderer fails to put signature and seal on each page of Technical Bid and Financial Bid.

10. The University reserves its right to cancel or reject in full or in part of all tenders received without assigning any reason.

11. Instructions in respect of Technical Bid

- (i) **EARNEST MONEY DEPOSIT (EMD)**
- (ii) **Earnest money deposit of Rs. 4,00,000/- (Rs. four Lac) for the period of 05 years in the form of F.D.R Original form in any Nationalized Bank in favour of “Finance Officer-KGMU, Lucknow”.**
- (iii) Name of the organization/Agency/contractor with full postal address, Fax number, Telephone & Mobile number.
- (iv) An affidavit duly certified by a Notary to the effect that the firm or proprietary firm, Society or company, as the case may be, have never been blacklisted on given format at Technical Bid **(Annexure –I)**.
- (v) An affidavit duly certified by a Notary that there is no ongoing criminal case /vigilance enquiry/labor disputes against the firm/ Partners/ proprietor/ Director of the company Chairman of the Society and he/she has never been convicted or punished by any Hon’ble Court of Law on given format at Technical Bid **(Annexure – II)**
- (vi) Attested photocopy of Certificate of G.S.T, should be submitted along with number.
- (vii) Tenderers should submit notarized affidavit to the effect that the Bidder does not have any relation with the person authorized to evaluate tender technically or evolved in finalization of the tender as per **(Annexure-III)**.
- (viii) Tender Document should be attached with Technical Bid. Each page of the Tender Document shall be signed.
- (ix) The bidder shall furnish an affidavit on non-judicial stamp paper of Rs.10/-duly notarized affirming that the firm/agency has not been blacklisted, debarred and their subject services have not been banned or suspended due to any reason including corrupt and fraudulent practices in the past by any Govt. Organization/Pvt. Institution and there is no any Vigilance/CBI case pending against the firm/agent.

12. Instructions in respect of Financial Bid

- (i) **NO CORRECTION, ALTERATION AND OVERWRITING** in the Financial Bid will be allowed.
- (ii) The Tenderer should ensure that the amounts are written in such a way so that interpolation is not possible. No blank spaces should be left.
- (iii) Break up/Details of Govt. tax & Levies, and as applicable must be provided.
- (iv) Taxes should be paid by tenderer as per rule if applicable.

TECHNICAL BID

Sn.	Particulars	Details	Page no.
1.	Name of Firm		
2.	Name of Proprietor/Partner/Director/Chairman		
3.	Name and address of the person legally authorized to sign the agreement in case of partnership firm/Company/Society.		
4.	Permanent Address:		
5.	Telephone and mobile No. (Head and branch Office)		
6.	Local Address Email id:- Website:-		
7.	Name and mailing address of Proprietor/ partners/ Director/Chairman of the society/corporation/firm/company with their telephone and mobile nos.		
8.	Details of tender fee Rs 3000/- +GST@18% (Non Refundable) DD No. Dt.		
9.	Detail of Earnest Money Deposit Rs 400000/- (three lac only) EMD No. Dt. (Refundable)		
10.	Character Certificate from for Class I Gazetted officer		
11.	An affidavit duly certified by a Notary that the firm / company/ Society have never been blacklisted. (Annexure-I)		
12.	An affidavit duly certified by a Notary that there is no ongoing Criminal case /vigilance enquiry/Labour disputes against the Society/Chairman of & Society/firm/Partners/proprietor/Director of the company and he/she has never been convicted or punished by any Hon'ble Court of Law(Annexure-II)		
13.	Tenderers should submit notarized affidavit to the effect that the bidder does not have any relation with the person authorized to evaluate tender technically or evolved in finalization of the tender as per (Annexure-III)		
14.	G.S.T Registration Certificate.		
15.	Copy of resolution for authorization of signatory to sign the tender along with name and designation.		
16.	Name and address of organization where satisfactory proof of services were rendered. Please enclose satisfactory performance and completion certificate issued by Head /authorized signatory of the organization.		
17-	Tenderer should have a turn-over of minimum 4 corers per year. (Attach Last Three Year Turn Over)		
18-	Company should have an experience of minimum 3 years work at government/Semi-government/Private/Corporate sector.		
19-	The Tenderer have to attach Solvency of 5 Crore in Any Nationalized Bank.		

Note: All the pages of tender document and its enclosures must be numbered and signed with stamp.

**Signature of the Tenderer
With address and seal**

Terms and conditions for installation of following equipments on wet lease agreement basis in Department of Urology, KGMU, Lucknow.

ALL MACHINES SHOULD BE USFDA APPROVED AS PER ENCLOSED SPECIFICATION

1. Lithotripsy (ESWL) Machine
2. Urodynamic Machine (CMG, EMG Uroflowmetry)
3. Ultrasonography Machine for (KUB)
4. Digital X-ray Machine 500 MA
5. Bone Mineral Density Machine
6. Facility for analysis of stone composition
(Stone Analysis Machine) Fourier transform
near infra-red spectroscopy (FTIR)

Following are the Specification of Machine :-

MACHINE NO. 01

SPECIFICATION OF EXTRA CORPOREAL SHOCK WAVE LITHOTRIPSY

MACHINE (ESWL) (FDA Approved)

- Should be latest generation state of art model, with electromagnetic Shock Wave Technology.
- Should have USFDA approved Technology
- Should have simultaneous imaging and targeting facility with ultrasound localization system.
- Provision for integrated ultrasound localization system should have outline Isocentric arm along with urological calculation package.
- The Ultrasound transducer should be movable is-centrally around the shockwave source as well as over the source in an arc so as to enable monitoring and targeting in different planes.
- Should have an ability to integrate a compatible independent X-ray C-arm for localization and imaging.
- Should have integrated facility to monitor X-ray C-arm integration accuracy continuously during treatment, real time without disturbing the treatment.
- After integration with C-arm, the therapy head should be able to move in Isocentric fashion without disturbing the integration.
- Shockwave head should be adjustable to at least six various Isocentric positions for greater viewing angles/treatment windows for easy, convenient and precise stone imaging, localization and treatment as also for greater patient comfort.
- Treatment should be possible in both over table and under table position of therapy head to facilitate treatment of all patients.
- Shockwave release should be ECG triggered or fixed frequency of 60-120 shocks per minute.
- Should have minimum treatment depth of 150mm.
- Should have transparent coupling cushion to facilitate viewing the quality of the water.
- Should have dynamic pressure coupling facility which will automatically adjust to the patient body contour even on slightest patient movements during the treatment.
- Should have facility of degassing for removal of air bubbles from the water which are generated due to dissolved gases in deionized water.
- Should have facility for water temperature regulation relatively closer to human body temperature.
- Should be suitable for one-man operation with easily operable hand held control panel for control/display of therapy parameters.
- Suitable patient treatment table should be supplied with the system.
- Should have installation within India for spot evaluation, if needed.
- **Attached ultrasound system should have following features- (optional)**
- Should have simultaneous triplex imaging.
- Should support 360 degree scanning transducers
- Transducers should have start stop buttons and should be able to support user defined functions as well.
- Attached ultrasound should have facility to use it independently for other urological procedures and should have option to upgrade with laparoscopic and Robotic transducers.
- Should have Prostate Triplane transducer with should be able to take images in three visionary planes and should have facility to switch between prostate zones at the touch of a button.

MACHINE NO. 02

SPECIFICATIONS OF URODYNAMIC MACHINE

STANDARD URODYNAMIC SYSTEM SPECIFICATIONS - UROMIC JIVE 5 channels (FDA Approved)

The System should be Imported with all Verified latest certificate like CE/ ISO etc.

1. The system should have 3 –Pressure Channels/ 1-Uroflowmetry Ch. / 1- EMG Ch./ 1- Pullar for UPP.
2. The system should have portable & mobile Patient unit.
3. The system should have Cystometry pump plus weight cell to calculate infused volume integrated on same patient unit :
 - Pump range : Changeable upto 1 ml/ min to 100 ml/min
4. The System should have Weight cell based Uroflowmetry with following Specifications:
 - height adjustable Uroflowmetry Stand
 - Flow range : 0-50 ml/s, Measuring capacity : 0-1500ml
5. The System should have Inbuilt Industrial PC with **latest configuration PC with 19” LCD/ LED Monitor & Color Desktop Printer.**
6. Software with Applications : The System should have following Tests :
 - Uroflowmetry
 - Cystometry (Filling & Voiding)
 - EMG (including surface electrodes)
 - All Nomograms : PQ Study & analysis /Schaffer and other

OPTIONAL

 - UPP (Profilometry)
 - Video-Urodynamic Study
7. The system should be available with following software features:
 - The software should have editable tests so that the user can make their own tests with own parameters.
 - Online & Offline Marking facility should be there.
8. Should be supplied with reusable Transducers with cables- 2 nos.
9. Weight cell based Wireless Uroflowmetry sensor : 1 Nos.
10. Other accessories to be supplied: Manometer lines (5Nos.), 3-Way stop cock (5 Nos.), Pump Tube (10 Nos.), 2-Lumen cystometry catheter (5 Nos.), Rectal Balloon Catheter (2 Nos.), Funnel & Measuring beakers – 1 no. each should be supplied .

MACHINE NO. 03

MID SEGMENT CART BASED ULTRASOUND COLOR DOPPLER FOR UROLOGY / TRUS APPLICATIONS

TECHNICAL SPECIFICATION

S. No.	Description
1	The equipment should be cart based system with latest software.
2	System should be capable of supporting broad band transducers with frequency range from 1- 22 MHz.
3	System should have touch panel control for ease of operation.
4	System should have 3 active universal transducer ports.
5	User interface control panel should be available which is 180 degrees rotating and height adjustable for user comfort.
6	System should have following modes as standard -
6a	B Mode, B+B Mode, B+M Mode, M Mode (Including Colour M-Mode)
6b	Colour Doppler, Power Doppler, Pulse Wave Doppler, HPRF, Continuous Wave Doppler.
6c	Duplex and Triplex Mode, Tissue Harmonic Imaging.
6d	3D/4D Scanning software with MPR view, multiple tomographic slices. Volume rate > 40 V/sec
7	System should have following software ready -
7a	- Speckle Noise Reduction
7b	- Compound Imaging to acquire several coplanar scans of an object from different views
8	System should have 19'' or more High Resolution LCD Display Monitor with Articulating feature, swivel and tilt facility and height adjustment.
9	Transducers / Accessories to be supplied -
9a	Multifrequency Convex Probe with frequency range of 1-7 MHz or more with Biopsy Guide.
9b	Multifrequency Endocavity Probe with frequency range of 3-9 MHz or more with FOV more than 190 degrees with Biopsy Guide.
9c	Multifrequency Linear / Vascular Probe with frequency range of 3-13 MHz or more.
9d	1 KVA Online UPS of Reputed Brand
9e	Thermal Printer of Reputed Brand
10	Measurement & Calculation Features -
10a	Trackball with multiple sets of callipers for measurements
10b	Standard measurements like depth, distance, area, circumference, volume, ratio, angle, slope, time, velocity, heart rate, etc. At least six distance measurements should be possible on one image with auto repeat of measurement function
10c	Comprehensive measurement and calculation packages for all the clinical applications.
10d	Automatic waveform trace in Doppler mode with display of calculated values and indices in real time and frozen images
11	Control Panel Software & Other Features -
11a	At least 256 gray scale levels in displayed images
11b	System dynamic range of 210 Decibels or more.
11c	System should have 2D Frame Rate of 1000 fps or more.
11d	System should have Colour Doppler Frame Rate of 200 fps or more.
11e	Automatic optimisation function that optimizes system parameters for B- Mode and Doppler Mode. This should be in addition to the preset for various examinations
11f	System Operating depth should be 34 cm or more
11g	Application specific programmable annotations and body marks with image plane orientations
12	Certifications
	System should be USFDA & European CE Approved.
13	Warranty
13a	System should be supplied with Five years warranty along with probes.
13b	Comprehensive annual maintenance for the system to be quoted for the next 5 years after expiry of warranty periods
13c	Any software upgrade should be free within warranty period.

MACHINE NO. 04**SPECIFICATIONS OF DIGITAL X-RAY MACHINE**

DIGITAL RADIOGRAPHY SYSTEM WITH DUAL FLAT PANEL DETECTOR

System should be capable of performing exposure in vertical, horizontal and oblique position to perform all skeleton body (upright and lying down) radiographs.

Unit should be completely integrated (integrated generator and Image acquisition).

It is possible to do all the general radiological imaging like abdomen, musculoskeletal, joints, PNS, Skull and Spine etc.

Unit should be High frequency Digital Radiography system with rotating anode. Floor to ceiling tube stand, 2 separate fixed detectors one fixed in table bucky and another detector fixed in vertical bucky each.

System should have following features.

A. HIGH FREQUENCY GENERATOR:

- Generator should be of latest technology with high frequency 40KHz or more X-Ray generator.
- Power output of 50KW.
- KV range should be 40 to 150KV in 1KV/step.
- mA output: 700 mA or more.
- mAs range should be 1 to 200mAs or more.

B. X-RAY TUBE:

- A Dual focus Rotating anode X-ray tube with focal spot of 0.6 & 1.2 or less
- Anode Heat storage capacity 250KHU or more.
- Multi leaf collimator having halogen lamp / bright light source and auto shut provision of the light.
- HV Cable: 1 Pair of 8 meters or more HV cable.

C. TUBE STAND:

Floor to Ceiling Stand with Counter Balanced Tube Head (Rotatable \pm 180 Degree), 360 Degree Rotatable column; mounted on Floor Ceiling Rails for convenient movements should be provided.

D. TABLE:

- Horizontal 4-way table with floating tabletop should be provided
- Table should be provided with Inbuilt FPD (FLAT PANEL DETECTOR) beneath the tabletop having motorized movement.
- Transverse and longitudinal movements of the tabletop should be locked by electromagnetic locks.
- Movements of table should be: Transverse movements: 18cm or more, longitudinal movements: 45cm or more.
- Maximum weight carrying capacity for the table should be more than 180Kg.

E. VERTICAL BUCKY STAND

Floor mounted Motorized Vertical bucky stand should have inbuilt FPD (FLAT PANEL DETECTOR) for lung and skeleton x-ray examinations. It should have user friendly design and handling.

- Motorized Tilting should be -30 degree to + 90 degree.
- Vertical up Down Movement should be 1200mm or more.

F. FLAT PANEL DETECTOR (One NO. EACH FOR TABLE BUCKY AND VERTICAL BUCKY):

Specifications:

- The detector should be flat panel type with A-Si (amorphous silicon) and CSi as scintillator.
- Size of detector must be 43cm x 43cm.
- Active Image matrix 3K x 3K.
- Image depth should be 14bit.
- Pixel size should be 150um or less (Smaller pixel size is preferred)
- Detector resolution should be more than 3.3 lp/mm.
- DQE (Detector Quantum Efficiency) should be more than 65%.

G. OPERATING STATION/WORK STATION:

a. X-RAY/IMAGE CONTROL CONSOLE

Fully integrated system with following features:

- Digital Display of KV & mAs.
- KV & mAs increase and decrease control on G.U.I (Graphical user interface).
- Ready and X-Ray ON indication on G.U.I (Graphical user interface).
- Self diagnostic Program for error code display of faults such as Earth fault error, KV error, Filament error & Tube's Thermal Overload.
- An Inbuilt overload protection device.
- Anatomical Programming Radiography (i.e. APR): Preprogrammed parameters of human Anatomy which helps the user to select exposure parameters based on body part, examination view and size of the patient. Since it is a computer based system (full system integration) so any number of Organ programming combinations is possible. User can define his own Organ parameters and can edit the existing parameters to his satisfaction and comfort level.
- APR programs: More than 1000 programs. (Expandable as per user's requirement).

A dual action hand Switch with Retractable cord for Radiation Protection of Operator.

b. IMAGE ACQUISITION SOFTWARE

SOFTWARE CHARACTERISTICS:

Software provides complete control of all image capture functions within the examination room. It enhances the entire workflow by delivering diagnostic images instantly. It also allows user to transfer X-Ray images electronically to remote workstations, image archives, and printers, also has an excellent performance on image quality control such as:

MAIN FEATURES

- Digital image processing technology
- Preview image in less than 5 seconds.
- *Exam Specific Algorithms image processing for consistent image quality of all body parts.*
- Image processing tools for different anatomy
- Image cropping
- Image mirror, rotate.
- Image annotation
- Add image accept/reject comments
- *Rejected images archival with provision of converting them to Accepted images.*
- *Separate log for Rejected, Accepted and Printed images.*
- True size for printing.
- Hard disc capacity for image storage >3000 images.
- Inbuilt CD/DVD writer facility
- Remote online system diagnosis
- Remote online software upgrade
- Image quality control tools
- Easy and quick Offset and gain calibration with bad pixel removal algorithm.

EXCELLENT MAINTAINABILITY

FULL DICOM 3.0 COMPATIBILITY

- Get DICOM work list
- DICOM Print
- DICOM Store
- Support DICOM MPPS

H. MONITOR: 1 No. 19” LCD monitor should be provided.

I. POWER SUPPLY REQUIREMENT:

3 Phase, 400Volts AC 50Hz with line resist less than 0.4 Ohms. Line Regulation $\pm 10\%$.

J. Other Requirements:

- The company should be ISO & EN ISO certified.
- The unit should be approved by AERB.
- The company should have proven track record in Govt. sector.
- The unit should be European CE from notified body should be provided.

MACHINE NO. 05

TECHNICAL COMPLIANCE STATEMENT OF BMD MACHINE (FDA Approved)

(A) Scanner hardware and acquisition technology

1 Isocentric or Linear fan beam acquisition.

2 Energy switching technique.

3 Internal reference system for pixel by pixel data calibration (either automated or by phantom)

4 Multi-element solid state detector array at least 16 Detectors.

5 Oil cooled /Air cooled high capacity X ray tube.

6 Computer aided re-positioning.

7 Cross hair style laser for patient positioning

8 High scan table for easier patient accessibility

9 Controls on C-arm or on the side of patient table for user convenience.

(B) Quality assurance

1 Multiple system checks with pass/fail results

2 Whole body research phantom for quality assurance. Also quote small animal phantom or equivalent for small animal studies is optionally.

3 Automatic trending graph of QA variables

4 Should have provision to print QA results

5 Radiation Dose: Scatter dose less than 0.1 cGy/hr at 1 meter

(C) Clinical Applications

1 Facility for supine or decubitus positions

2 Second spine and hip scan acquisition or by dual energy scanning in spine and hip.

3 Express exam productivity tools or express exam protocol grouping programme.

4 Patient call back list

5 Greater than 1.0% in vivo precision

6 L1-L4 standard spine analysis

7 L1-L4 standard spine analysis (Trochanteric, Trochanteric, wards triangle

8 Automated dual femur

9 Onscreen help graphically displays proper patient positioning

10 Automatic BMD spine and hip analysis

11 Scoliosis spine analysis

12 Pediatric spine and hip and whole body analysis

13 Whole body analysis

14 HD IVA or IVA or Equivalent vertebral analysis

15 Small animal

16 Infant

17 Body composition

18 Pediatric whole body

19 Fracture risk indication with IVA

20 Hip structure analysis (HAS)

21 Standardize BDM reporting

22 Single/dual energy image display

23 Context sensitive help software

24 Serial scan comparison

(D) Connectivity/Reporting tools

1 Reporting software with fracture risk indication

2 Standardized BDM reporting

3 Extended spine reporting

4 Extended proximal femur rate of change reporting

(E) Reference Data

1 Reference data n> 8000

2 Default NHANES III standardized database

3 Age, sex and ethnic matched reference data

(F) Computer hardware

1 APEX / Windows based operating system

2 4GB RAM minimum

3 1TB Hard drive recommended

4 CD R/W Drive)

5 128 MB Video Board

6 Network interface card

7 High resolution monitor

8 Laserjet color printer along with consumables supplied for initial start up all consumables Price to be quoted separately price to be fixed for 5 years.

G. Weighing scale & height measurement device to be supplied

H. Suitable Online UPS with 30 min backup for the entire system including computer and printer.

I. Quoted model should be US FDA approved or European CE and AERB type approved product.

MACHINE NO. -06

STONE ANALYSIS MACHINE (FDA Approved)

- For clinical analysis of kidney, ureter stones

The performance certificate to be attached by the bidder from the organization(s) should be on its letter head as per format given below:

FORMAT FOR PERFORMANCE CERTIFICATE

It is certified that M/s. _____ (name of the agency) had provided Urological Services to _____, (name of the organization) [at this premises] located at _____ (address of the organization) vide contract/agreement/MOU bearing No. _____ dated _____ and performance of the firm was satisfactory during the Period.

(Signature of the Organization or its authorized signatory)
With name, designation, date and seal

Affidavit to be furnished by the Tenderer
(on Rs.10/- stamp paper duly notarized)

ACCEPTANCE

I ----- son of ----- resident of -----
-----who is Proprietor/Partner/Director/Chairman of M/s-----
----- have read and understood the contents of the foregoing sections with sound
mind and without any pressure from any quarter. If any document or information furnished
with tender is found forged or fabricated at any time, the Institute has full right to forfeit
my/our EMD and Security Deposit and cancel the agreement.

I am putting my signature and seal of the organization, as a token of acceptance to the
above.

Signature.....

Name.....

Designation.....

Seal.....

Date
Place

(Annexure – I of Technical Bid)

Affidavit to be furnished by the Tenderer
(on Rs.10/- stamp paper duly notarized)

Affidavit

I ----- s/o ----- resident of -----
--Owner/Partner/Proprietor/Director/Chairman of M/s -----
-- having its registered office at ----- do hereby solemnly
affirm and declare the following: -

That our Firm/organization/company/Society/ namely M/s -----
has never been black listed by any of our clients or by any government department.

Deponent

Verification

Verified at ----- on the ----- date ----- that the contents
of the above affidavit are true and correct to the best of my knowledge and belief.

Deponent

Affidavit to be furnished by the Tenderer
(on Rs.10/- stamp paper duly notarized

1

I/Firm.....Son/daughter/wife
of.....aged about.....years, resident of
.....do hereby solemnly affirm/state oath as under:-

1. I/ The Firm am/is not accused of any offence(s) punishable with imprisonment for two years or more in a pending case (s) in which a charge(s) has/have been framed by the court(s) of competent jurisdiction. I/The Firm have been/has not been convicted of an offence and sentenced to imprisonment for one year or more.

Placed.....

Date

Signature of Deponent

I/the Firm, the above named deponent, do hereby verify and declare that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therein.

Verified at.....this.....days of.....201

Signature of Deponent

(Annexure-III).

Affidavit to be furnished by the Tenderer
(on Rs.10/- stamp paper duly notarized

Reference : Tender No./KGMU/.....

I, (Name of the Signatory), S/o (Father's Name), (Designation of the Signatory) with (Name of the Company/firm), with its office at (Address of the Head office of the Company), do solemnly affirm and declare as under:-

The bidder does not have any relation with the person authorized to evaluate technically or involved in finalizing the tender.

Place:

Date:

Deponent

Verification:

Verified that the contents of the above affidavit of mine are true and correct to the best of my knowledge and no part of it is false and nothing has been concealed therein.

Verified at (Place), on this (Date) day of (Month) 2019.

Deponent