



**DIRECTORATE OF HEALTH & FAMILY WELFARE SERVICES  
PUDUCHERRY**

**Common tender for Purchase of Whole Body  
Multi Slice CT Scanner (64 Row Multi  
Detector CT) and Whole Body Multi Slice CT  
Scanner (16 Slices/ Rotation)**

LAST DATE FOR SUBMISSION OF TENDER : 02.07.2012 (4.00 P.M.)

DATE FOR OPENING OF TENDER (Technical Bid) : 03.07.2012 (10.00 A.M.)  
(in the Conference Hall of DHFWS, New Saram, Puducherry)

NAME OF THE TENDERER :

**PRICE Rs.675/-**

**GOVERNMENT OF PUDUCHERRY**  
**DIRECTORATE OF HEALTH & FAMILY WELFARE SERVICES**

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Terms and Conditions of tender for the supply of **“Whole Body Multi Slice CT Scanner (64 Row Multi Detector CT) and whole Body Multi Slice CT scanner (16 slices)”** as detailed in the schedule for use in Indira Gandhi Govt. General Hospital and Postgraduate Institute and Rajiv Gandhi Govt. Women and Children Hospital of the Union Territory of Puducherry.

1. Notice is hereby given that sealed tenders in duplicate under **two bid system - Part-I Technical bid and Part-II price bid** will be received upto 02.07.2012 at **4.00 PM** by the Chairman, Tender Committee, Directorate of Health & Family Welfare Services, Puducherry. Tenders received thereafter will not be accepted. **The cost of the Tender Schedule Rs.675/- (incl. of VAT 12.5%) should be enclosed along-with the Technical Bid.**

2. Telegraphic Tender/Tender through FAX will not be considered

3. Tenders will be opened by the Tender committee on 03.07.2012 at **10.00 AM in the Conference Hall of Directorate of Health and Family Welfare Services, Puducherry Housing Board Complex, New Saram, Puducherry-13** in the presence of the Tenderers or their authorised representatives.

4. a) The Chairman, Tender Committee (Director of Health & Family Welfare Services) is competent to accept a tender in whole or in part.

b) The Chairman, Tender Committee shall have the right to reject any/all the tenders without assigning any reason thereon.

5. Every tenderer must go through the terms and conditions carefully and understand them before submitting his tender. No excuse that the conditions have not been read or understood will be entertained later.

6. **The tenderer shall be the manufacturer of the item offered. Authorised Dealer of the manufacturer and Direct Importer may also offer. The Authorised Dealer shall enclose to the tender a copy of the letter of appointment as authorised dealer issued by the manufacturer. The Direct Importer shall enclose to the tender a copy of the letter of appointment issued by the manufacturer and also a copy of the import licence issued by the competent authority. The licensee shall be the Direct Importer.**

7. **Company participating in the tender should have 5 years standing in the supply, erection/commissioning of the equipment. Similar equipments should have been supplied to a reputed hospital/medical college having more than 500 beds. List of Colleges/Hospitals where such equipments have been supplied in the last five years should be enclosed along-with performance certificate from such Hospital/College on the satisfactory maintenance of the equipment supplied / commissioned /maintained. In case of imported equipment, third party inspection report must be produced along-with the supply of the equipment.**

8. **The Company offering the quote should undertake the maintenance and supply of spares during the warranty and Comprehensive Annual Maintenance Contract period.**

9. **Tender should be submitted only for the Equipment asked for.** Specification is given in the schedule. When the offer is for an item having different specifications/features functions, the difference between the item called for and the one offered by

the tender shall be **highlighted** in the offer itself. The advantages shall also be mentioned.

10. The equipment called for gives only estimated requirement for Indira Gandhi Govt. General Hospital and Postgraduate Institute, Puducherry and Rajiv Gandhi Govt. Women and Children Hospital, Puducherry . Notwithstanding the estimate, the Chairman, Tender committee/the indenting officers of Directorate of Health & Family Welfare Services has the right to order any quantity from time to time or not to order any quantity or any number of any such articles at all during the period of contract.

11. **The brochures/leaflets of products, shall also be enclosed with the tender.**

12. Any attempt on the part of the tenderer or their agent to influence the department will disqualify such tender.

13. **The tenderer should produce attested photocopy of the current manufacturing licence issued by the competent authority including its period of validity.**

14. a) Each tender must be accompanied by an Earnest Money Deposit at 2.5% of the total cost of the equipments (Rate per unit X No. of units in the schedule X 2.5/100) subject to a maximum of Rs.1.00 lakh per item. Otherwise, the tender will be rejected without notice. Bank guarantee or payment in any other form will not be accepted for E.M.D. The amount should only be paid either by demand draft/banker's cheque payable to **the Senior Accounts Officer, Directorate of Health and Family Welfare Services, Puducherry** on State Bank of India, Puducherry-1. [CODE NO:0900]. **The Demand Draft / Bankers cheque towards EMD should be furnished along with Technical Bid. Non enclosure of EMD with the Technical Bid will result in rejection of the bid without further scrutiny.**

b) The earnest money will be returned to the unsuccessful tenderers but retained in the case of successful tenderer to be adjusted towards security deposit required to be paid by the successful tenderer for due fulfilment of the contract.

15. The tenderer, whose tender is accepted should remit security deposit within 10 days from the date of receipt of intimation of acceptance of his tender. An amount equal to 5% of the value of estimated quantity of the selected items should be paid as security deposit. The Security Deposit will be rounded off to the next hundred rupee. Non-payment of security deposit by means of **Demand Draft drawn on SBI, Puducherry-1 [CODE NO:0900] in favour of the Senior Accounts Officer, Directorate of Health & Family Welfare Services, Puducherry** within the stipulated period will result in the forfeiture of E.M.D. Interested parties can furnish Bank Guarantee from a Nationalised Bank for the appropriate amount towards Security Deposit valid for a period of **40 months** from the date of issuance of the Bank Guarantee. In respect of foreign companies 10% Bank guarantee on the basis of L.C covering the warranty period of minimum 3 years should be produced towards Security Deposit. The successful tenderer should convey acceptance of the approved tender within 15 days from the date of receipt of approval intimation from the Department.

16. In the case of firms which are registered with the DGS&D, attested photostat copy of the certificate issued by the DGS&D should be furnished along with the tender for exempting them from payment of security deposit/E.M.D. **Exemption will be admissible only for those items which are approved by the DGS&D. It may be noted that as registered firm, the tenderer is expected to abide by the general conditions of the contract governing the DGS&D rate contract as well as this Department's terms and conditions, as amended from time to time. Failure on the part of**

tenderer to abide by the terms and conditions may result in the cancellation of the contract.

**NOTE : Exemption from payment of E.M.D./S.D. is not admissible to Direct Importer irrespective of registration with the DGS&D.**

17. No interest will be allowed on E.M.D./Security Deposit. The Security Deposit will be returned only after the expiry of the warranty period. If the contractor fails to supply (including installation and commissioning wherever necessary) the equipments within the delivery period prescribed or comply with all or any of the terms and conditions of the agreement it shall be lawful for the Chairman, Tender Committee, or any person authorised by him on his behalf to purchase the equipment elsewhere and from person or persons other than the contractor and to collect from the contractor the difference of cost between the price of equipment purchased and the price or prices payable under the contract for such equipments.

**18. Permanent Account Number (PAN) of Income Tax should be furnished.**

**19. In the case of imported item, the price quoted should be inclusive of Freight and Insurance charges.** The Indian customs tariff number under which the customs duty or excise duty has been assessed should also be indicated. The Customs Duty Exemption Certificate will be issued by the competent authority of the Union Territory of Puducherry towards the exemption from the payment of Customs Duty in respect of Medical Equipments to be supplied to the Health Institutions in the U.T. of Puducherry. Basic Customs Duty and Special Additional duties if any to be payable shall be mentioned clearly in the Price Bid. The tenderer should note that the Government do not undertake to provide import licence and the acceptance of any tender shall not imply such an undertaking on the part of the Government.

**20 (i) In case of imported items, the supplier should arrange for Customs Clearance at his/their expense.**

**(ii) Demurrage charges and incidental charges if any shall be borne by the supplier.**

**(iii) The consignment shall be transported to the place of installation/commissioning at the risk and expense of the supplier.**

21. The firms should quote the basic price of the items separately and the other taxes and duties in seriatim in the ascending order only as mentioned in the Tender Schedule.

22. The rate should be quoted both in figure and in words. Special care should be taken to write the rate in figure as well as in words in such a way that interpolation is not possible.

23. No insurance charges are payable. The supply should be made at the supplier's own risk for damages and breakages occurring in transit, the articles thereof should be replaced.

24. The equipment shall be installed and commissioned by the trained engineers of supplier-firm, free of cost. The date of supply, installation and commissioning of the machinery and equipments, should be specified.

25. Inter-State sales tax or VAT at the rate admissible in Puducherry, may be levied.

26. The rate quoted should be valid for acceptance for a period of 180 days from the date of opening of the tender and once accepted should be firm and unaltered during the contract period.

- a) **THE FIRMS ARE REQUIRED TO QUOTE THEIR LOWEST RATES COMPARABLE TO THE RATE QUOTED FOR OTHER INSTITUTIONS ELSEWHERE. THE QUOTED RATE, IF FOUND AT A LATER DATE TO BE HIGHER COMPARED TO THE RATES OFFERED TO ANY OTHER INSTITUTION, THE DIFFERENCE IN COST WILL BE LIABLE TO BE RECOVERED/ADJUSTED FROM THE SUBSEQUENT PAYMENTS INCLUDING SECURITY DEPOSIT ETC., TO THE SUPPLIER FIRM.**

27. No contractor shall be allowed at any time and on any ground whatsoever, any claim for revision or modification of the rate quoted by him during the currency of the contract period. Clerical error, typographical error etc., committed by the tenderer in the tender form shall not ordinarily be considered after the opening of the tender. Conditions such as 'SUBJECT TO AVAILABILITY OF STORES' 'SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED ETC.,' will not be considered under any circumstance and the tender containing such conditions shall be summarily rejected without any further correspondence.

28. Tender not stipulating period of delivery and tender with price variation clause/subject to prior sale conditions shall be rejected.

29. **Rate quoted in Indian currency should be firm and no change at a subsequent date will be allowed due to the change in the convertibility of Indian rupees.**

30. Every correction in the tender should invariably be authenticated by the tenderer, failing which the tender will be rejected. Tender should be submitted in duplicate duly authenticated on each page of tender.

31. Test Certificate of the manufacturer should be furnished along with the supply.

32. Supply should be made within the delivery period mentioned in the tender or 2 months from the date of issue of the supply order whichever is earlier. **In case of delayed delivery, penalty at the rate of 1% per week, of cost of the items not supplied will be levied. If the delay exceeds 4 weeks the order will be treated as withdrawn; unless otherwise the delivery time is extended by the indenting officer.**

33. **Demonstration shall be arranged free of cost after installation /supply.**

34. **Training of personnel shall be arranged at the place(s) where such equipment functions, at the expense of the supplier.**

35. **Selection of tenders would very much depend upon the efficacy/quality of the products offered. Demonstration if required, should be produced/arranged before the Chairman at the expense of the tenderer/contractor. The contractor shall be bound to deliver all the articles in such quantity or numbers and within such time as the Chairman, Tender Committee/Indenting Officer shall from time to time direct during the currency of the contract. All articles shall be subject to inspection and acceptance or rejection by the Chairman, Tender Committee/Indenting Officer.**

36. **The price to be quoted shall be "Firm" in all respects and for delivery F.O.R. destination Puducherry, Karaikal and Yanam. Rate quoted should be without SPECIFYING ANY VALUE AND SHOULD COVER EXCISE DUTY, PACKING, FORWARDING. Transportation, all incidental charges and insurance etc. No advance payment will be made except, for import items for which L.C. has to be opened.**

### 37. PAYMENT TERMS

Payment shall be made on receipt of the equipment as follows

	In ordinary case	If installation made within two weeks
a) On installation and in good working condition	80%	85%
b) After one/two months of installation on successful commissioning	20%	15%

38. All items should be supplied strictly in accordance with the approved specifications. The article supplied by the contractor which in the opinion of the Chairman, Tender committee/Indenting Officer is found faulty or unfit for use shall be rejected. The opinion of Chairman thereon in all respects will be final and conclusive and altogether operative and binding on the contractor and shall not be open or subject to question or dispute by the contractor on any ground whatsoever. If the equipments are not satisfactory and do not meet the specification offered by the firm the same will have to be removed from the institution immediately after receipt of intimation at the firm's own expenses. If not the equipment will be sent to the firms by this Directorate and the charges towards transport and other incidental charges will be recovered from Security Deposit amount paid by the firm.

39. The equipment/article supplied in lieu of or in substitution of rejected equipment shall in like manner be subject to inspection or rejection and removal as often as the Chairman, Tender Committee, shall consider necessary.

40. No article bearing logo gram of any other state/UT other than that of the manufacturer will be accepted.

41. The loss to Government, if any, incurred on account of purchase elsewhere rendered necessary by failure or neglect or refusal on the part of the contractor to supply according to the terms of the agreement will be recovered from him. If the equipment supplied by the contractor has been partially or wholly used in the offices and subsequently found to be inferior in quality or description or are not in accordance with the specification or otherwise faulty or unfit for or unwholesome, then the contract price or prices of the equipment will be recovered from the contractor, if payment had already been made to him. Otherwise contractor will not be entitled to any payment whatsoever. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Chairman, Tender committee and the contractor shall be liable for all losses sustained by the Government in consequence of the termination which may be recovered from the Security Deposit by the Contractor or other money due or to become due to him. In the event of such amount being insufficient, the balance may be recovered personally from the contractor or from his properties as per the provision of the Puducherry Revenue Recovery Act, 1970 in addition to other modes of effecting recovery permissible under the law.

42. The tenderer should be prepared to accept orders subject to the penalty clause for forfeiture of security deposit in the event of default or failure to supply within the stipulated period.

43. The firm (supplier) shall submit bill (in duplicate) along with an advance stamped receipt immediately after execution of the supply order in full for arranging payment. The payment will be made on receipt of said items at site in good condition/commissioning of the equipment and inspection of the Technical Advisory Committee subject to fulfilment of all other terms and conditions of agreement to be entered into subsequently.

44. The tenderer shall invariably furnish the following certificates with their bills for payment : (i) Certified that the goods on which sales Tax have been exempted from the Central Sales Tax Act and or the rules made thereunder and that the amount of charges on account of Sales Tax on those goods are covered under the provision of the relevant act or the rules made thereunder (ii) certified that the firm is registered under Central Sales Tax Registration \_\_\_\_\_.

45. The contract should not be sublet without the permission of the Chairman, Tender Committee. Further the supplier should extend the technical support during the contract period. Undertaking to this effect will also be a condition for evaluating the tender.

46. In case of any difference or dispute arising in connection with this contract, all legal proceedings relating to the matter shall be instituted only in the court within the jurisdiction of the Union Territory of Puducherry.

**47. The tenderers should not impose their own condition. They should abide by the terms and conditions of tender call. No tender with their own condition will be considered at all under any circumstances. All documents catalogue description about the equipment etc. should be furnished along with the technical bid.**

48. The tender should accompany the questionnaire with the undertaking enclosed duly filled and signed. Failure to do so, will lead to non-consideration of the tender.

**49. EVALUATION OF BIDS: The Committee constituted by the Department will evaluate the Technical Bid. The specification offered by the companies will be evaluated based on the specification of the Department and award the ratings as per the technical advancement. Marks will be decided based on the essential components and the components which determine the quality of the Scanner and working pattern of the equipment. Marks fixed for each technical area is 10. Based on the technical evaluation, the companies who have scored more than 50% of marks shall be deemed as short-listed bidders. Based on the Technical Evaluation, the Financial Bid of such short-listed companies will be opened for further evaluation. The technically short-listed bidders shall be called for opening of the Financial Bid and the opening of the Financial Bid will be done in the presence of representatives of those technically short-listed bidders who choose to be present.**

50. Tender in separate sealed covers for **Technical Bid and Commercial bid should be submitted in one single cover superscribing TENDER FOR SUPPLY OF Whole Body Multi Slice CT Scanner (64 Row Multi Detector CT) and whole Body Multi slice CT scanner (16 Slices / Rotation)** should reach Chairman, Tender Committee, Directorate of Health and Family Welfare Services, Puducherry Housing Board Complex, New Saram, Puducherry-13 before 02.07.2012 at **4.00 PM**

**Dr. K.V. RAMAN**  
**(CHAIRMAN, TENDER COMMITTEE)**

## QUESTIONNAIRE

**(To be submitted duly filled in and signed along with Technical Bid)**

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1. Name and Address of the Tenderer/Firm :
  
2. a. Name & Address of the manufacturer :  
(in case the Tenderer is the manufacturer)
  
- b. If the Tenderer is not the manufacturer, whether he is the authorised dealer/authorised stockist (If answer to (b) is yes. Copy of letter of authorisation/dealership to be enclosed) :
  
3. Whether copy of the Manufacturing licence issued to the Manufacture by the competent Authority is enclosed along with the list of items :
  
4. If the Tenderer is the Direct Importer, copy of the Import Licence with list of items imported to be enclosed :
  
5. Please enlist quality control facility available with the firm :
  
6. Are the instruments/equipments manufactured available in the local market? If so give the name of the retail outlet :
  
7. How many people are employed in your firm :
  
8. Name of your bankers and address of the persons on whose name the account is opened :
  
9. Whether registered with DGS&D ? (Enlistment certificate to be enclosed) :
  
10. a) Whether EMD is enclosed ? :
  
- b) If so, details :



11. Are you in the approved list of suppliers to the other Government organisations? If so, give details (Copies of the letters received from those Departments, in which your name has been included) :
12. Any other documents to confirm reliability of the tenderer firm :
13. PAN number of Income Tax :

I/we, the

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do hereby declare that we have carefully, read all the conditions of the Tender Schedule of Directorate of Health and Family Welfare Services, Puducherry for the Tender floated for the supply of Machinery and Equipments to the Govt. Health Institutions in Union Territory of Puducherry and agreed to abide by the terms and conditions prescribed in the tender schedule.

SIGNATURE:  
SEAL OF THE FIRM:

CHECK LIST FOR PAYMENT OF E.M.D.  
(TO BE ENCLOSED ALONG WITH THE TENDER)

NAME OF THE TENDER : -----

NAME AND ADDRESS  
OF THE TENDERER : -----  
(FIRM) -----

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PHONE NO : -----

SL NO. ITEM QUOTED    AMOUNT OF EMD PAID                      DD NO. & DATE

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TOTAL Rs.  
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**Technical Specification for Whole Body Multi Slice CT Scanner**  
**(64 Row Multi Detector CT)**

The Model Offered should be High end model under current production **UPgradable to 128 Slice at Site with Minimum Down Time**, should be Slip Ring Technology, Refurbished – Gold Seal Units will not be accepted. The Offer should meet the Specifications as follows:

**Gantry:**

1. The CT Scanner should have low Voltage Slip Rings incorporated in the Gantry
2. The Minimum scan time for a 360 Degree rotation should **be 0.35 seconds or less**
3. The gantry should have a minimum tilt of 30 degrees on either side and remote tilt should be available as standard.
4. The gantry should be provided with User control panels on either side for easy positioning.
5. The sub millimeter Slice @ 0.63 mm or less in 64 Row acquisition should be available. The system should be in position to perform 64 Slice / Rotation for Cardiac applications and 32/16 Slice / Rotation for normal applications. The Systems should have Independent 64 Row Detectors.
6. The Gantry should have 3 D Positioning Laser lights.
7. The Scan field of view (FOV) in acquisition mode should be at least from 200 mm to 500 mm with intermediate Steps for scanning different anatomies.
8. Aperture should be at least 70 cm diameter.

**X ray Section:**

1. The X-ray Generator should be compact and inbuilt in the Gantry.
2. The System X ray power should be 70 kw and above. **The Systems offered should Adaptive Iterative Dose Reduction or I Dose 4 equivalent attachments as standard to reduce the MA Required for the Scans.**
3. **The MA range available should be between 10 to 600 MA or more with increments in steps of not more than 10 ma.**
4. **The X-ray Tube should be essentially Dual Focus with capacity of at least 7 MHU. Liquid bearing X-ray Tube is desirable. Any special feature of the X ray tube to be highlighted with literature.**
5. Specify the focal Spots of the X ray tube.
6. The X ray tube should have a cooling rate of not less **than 1000 KHU per MIN**
7. The X ray tube Cooler Unit should be in built in the Gantry

**Detectors:**

1. The Detector offered should be Solid State. Specify the Material
2. The Effective Elements/Channels should be at least 650 per row. The 64/32/16 Slice per Rotation should be possible with the detectors in 0.63 mm or less Mode.
3. Specify the Fan Angle of the X rays and the geometry. The detectors should not require frequent calibration.

**Patient Couch:**

1. The Patient table offered should have a minimum load bearing capacity of at least 180 KG
2. The Minimum table top height should not be more than 45 cms from the floor level for easy transport of trauma patients.
3. The Floating table top width should be atleast 40 cms for better comfort
4. The range of metal free scan should be atleast 165 cms.
5. The vertical range should be atleast 55 cms (max height – min height)
6. Specify the reproducing accuracy of the table.
7. Remote UP/DOWN, FWD/BWD of the Patient Couch should be standard

**Spiral / Helical Section:**

- 1. The system offered should have Spiral Capability of atleast 100 seconds & above. Real Time Spiral @ 10 f/s should be standard.**
2. The range of Spiral facility in Axial Direction should be more than 100 cms.
3. The Reconstruction Time in Spiral scan should not be less than 20 Images / Sec
4. The system should have the Smart Prep or equivalent facility & ability to track Contrast medium to trigger scan with Multiple ROI should be included in the scope of Supply
- 5. System should perform Tilt Spiral scan as standard at any of the chosen angles in Multi Slice Mode.**
- 6. Hi Res Scan package of 0.63 mm or less should be offered as standard.**

**Computer Section :**

1. The Computer offered should be the Latest Multi tasking Processors and a menu driven platform with a RAM size **of at least 5 GB**
2. The Monitor should be the latest Color of at least 18 inches and flat screen. Two Monitor Independent Console preferred. The Twin Monitor system should work on either shared or Common data base.
3. The display matrix should be at least 1024 / 1024.
4. The reconstruction time for a Axial scan should not be more than 50 Milli seconds.
5. The Hard disk Capacity for both Image and Raw data should be more than 1000 GB
6. It should have facility to store at least 500,000 Images
7. The system should be supported with archiving facility of DVD & CD Main Console
8. DICOM facility to send, store, print, receive, Query / Retrieve, MWM, MPPS etc should be standard.
9. PC Based connectivity should be standard for easy transfer of Images & Report.

### **Image Processing section:**

1. The System should have standard software like 3D Volume rendering, MIP, CT Angio, Color Angio Display, Virtual Endoscopy, Colonoscopy, CT Perfusion, Dental scan, Prospective ECG Gated CARDIAC scan, EG Gated Dose Modulation Colon View, CT Based DSA should be available as standard on the System & Work Station. The Software should function independently.
2. The following software should be offered as standard (MPR, ROI, VOLUME CALCULATION, CT NUMBER Measurement of -10,000 to +25,000 Units WINDOW WIDTH, WINDOW LEVEL, TOPOGRAM DISPLAY, CINE DISPLAY, HRCT LUNG, DYNAMIC SCAN)
3. Cardiac Scan Attachment with ECG Gated Segmented Recon, Calcium score, Plaque Analysis, Cardiac Function Analysis, Vessel Flythrough of the Coronaries should be included in the Scope of Supply on the Work Station
4. Automatic display of MPR Images after scan will be preferred.
5. There should be State of the Art Independent Work Station with at least 6 GB RAM, CD / DVD Archival / DICOM Viewer Two work stations included in the Scope of Supply and it should support all the software as listed on the Main Console

### **Resolution:**

1. The System Spatial Resolution should be mentioned with parameters.
2. The low contrast resolution should not be more than 3 mm at 0.5%. Shoulder, Pelvis Streak Artefact suppression Software should be standard. **If better Resolution is available the same will be preferred by the Hospital**
3. Noise Suppression protocols to maintain LCR at low dose should be standard.
4. Special Software (MA ECG Modulation in Routine, 3D Noise Suppression & Prospective Cardiac Mode) to ensure Dose efficiency should be standard.
5. Specify the CT Dose index

### **Accessories:**

1. Multi size Dry Laser Imager of any reputed make.
2. Color Laser Printer of any reputed make.
3. Lead Glass of at least 2 ft by 4 ft
4. Stabilizer for the Entire System of suitable capacity
5. UPS with one hour back up of suitable capacity of handle complete CT Scanner, Laser Imager, Work Stations, Color Printer.
6. Dual Head Pressure Injector of reputed make with 100 No: Syringes & Tubings.

### **Warranty:**

1. Three year for CT Scanner System including X ray tube and all accessories.
2. The offer should be accompanied by Original data sheet/brochure of the product.
3. The Cost of the CMC (Comprehensive Maintenance Contract) inclusive of the X ray tube should be quoted from Fourth year inclusive of labour, spares and X Ray tube. The CMC should cover all vendor items and local accessories. This will be added to the cost for evaluation of the Tender and to arrive at the Lowest Bid.

4. All compliance to the Tender should be in the form of Original Data sheet or Original Certificate from the manufacturer. Items under Work in Progress will not be considered.
5. On Site Training for the CT Technicians for a period of Two Weeks, Training for Two Doctors (Radiologists) for a period of Two Weeks on applications of the System
6. Specify if Upgrade to 128 Slice CT Scanner is available & its Cost separately.
- 7. All the Software should be offered on Direct Sale to the Hospital and NOT by way of Internet Rental basis.**
8. AERB Type Approval should be enclosed for the offered Model. In addition if CE / FDA Certificate is available the same must be enclosed in the Tender. Please attach User Certificate from at least Five Reputed Hospitals in the Tender.
9. It shall be the responsibility of the Bidder to survey the site, prepare a Site plan, alter the site and install the System on Turn Key basis.
10. Country of Origin should be USA / Europe / Japan, the Third Party Pre shipment verification certificate should be enclosed to certify the date of manufacture of the System.

**Technical Specification for Whole Body Multi Slice CT SCANNER**  
**( 16 Slices / Rotation )**

The Model offered should be the latest High end model under current production , should be Slip Ring Technology .Refurbished, Gold Seal Units will not be accepted. The Offer should meet the Specifications as follows

**Gantry :**

1. The CT Scanner should have low Voltage Slip Rings incorporated in the Gantry
2. **The Minimum scan time for a 360 Degree rotation should be Sub Second & not more than 0.8 Seconds.**
3. The gantry should have a minimum tilt of **30 degrees on either side and remote tilt** should be available as standard.
4. The gantry should be provided with User control panels on either side for easy positioning
5. **The sub millimeter Slice @ 0.63 mm or less in 16 Row acquisition should be available .**
6. The Gantry should have 3D Positioning Laser lights.
7. The Scan field of view ( FOV ) in acquisition mode should be at least from 200 mm to 500 mm with intermediate Steps for scanning different anatomies.
8. Aperture should be at least 70 cm diameter.

**X ray Section :**

1. The X ray Generator should be compact and inbuilt in the Gantry.
2. The System X ray power should be 40 kw and above
3. **The MA range available should be between 10 to 300 MA or more with increments in steps of not more than 10 ma .**
4. **The X ray Tube should be essentially Dual Focus with capacity of at least 3.5 MHU. Liquid bearing X ray Tube is desirable. Any special feature of the X ray tube to be highlighted with literature.**
5. Specify the focal Spots of the X ray tube.
6. The X ray tube should have a cooling rate of not less than **700 KHU per MIN**
7. The X ray tube Cooler Unit should be in built in the Gantry

**Detectors :**

1. The Detector Offered should be Solid State. Specify the Material
2. **The Effective Elements/ Channels should be at least 650 per row. The 16 slice per Rotation should be possible with the detectors in 0.63 mm Mode .**
3. Specify the Fan Angle of the X rays and the geometry The detectors should not require frequent calibration.
4. Specify the Number of Rows & the Total Number of Detector Cells..

## MDCT 16 / Slices / Rotation

### Patient Couch :

1. The patient table offered should have a minimum load bearing capacity of at least 170 KG.
2. The Minimum table top height should not be more than 55 cms from the floor level for easy transport of trauma patients.
3. The Floating table top width should be atleast 38 cms for better comfort.
4. The range of metal free scan should be atleast 165 cms.
5. The vertical range should be atleast 55 cms ( max height – min height )
6. Specify the reproducing accuracy of the table.
7. Remote UP/DOWN , FWD/BWD of the Patient Couch should be standard

### Spiral / Helical Section :

1. **The system offered should have Spiral Capability of at least 100 seconds & above. Real Time Spiral @ 8 f/s should be standard. The System should be able to perform at least 60 Seconds of Continuous Helical / Spiral Scan @ 120 KV / 200 MA without Drop in MA to maintain the Low Contrast Resolution.**
2. The range of Spiral facility in Axial Direction should be more than 100 cms.
3. The Reconstruction Time in Spiral scan should not be more than 130 Milli seconds. ( **At least 8 Images / second** )
4. The system should have the Smart Prep or equivalent facility & ability to track Contrast medium to trigger scan should be included in the scope of Supply. More than 2 No:s ROI is required for such Contrast Chase & Exposure Trigger facility.
5. **System should perform Tilt Spiral scan in Multi Slice Mode is preferable to avoid direct Eye ball radiation top children at any of the chosen angles in Multi Slice Mode.**
6. **Hi Res scan package of 0.63 mm or less should be offered as standard**

### Computer Section :

1. The Computer offered should be the Latest Multi tasking Processors and a menu driven platform with a RAM size of at least 3 GB
2. The Monitor should be the latest Color of at least 18 inches and flat screen. There should be Console with One Monitor & a Separate Independent Work Station .
3. The display matrix should be at least 1024 / 1024.
4. The reconstruction time for a Axial scan should not be more than 120 Milli seconds .
5. The Hard disk Capacity for both Image and Raw data should be more than 100 GB
6. It should have facility to store at least 100,000 Images
7. The system should be supported with archiving facility of DVD & CD Main Console
8. DICOM facility to send , store , print , receive, Query / Retrieve , MWM , MPPS etc should be standard .Remote Diagnosis & Fault detection should be standard.
9. PC Based connectivity should be standard for easy transfer of Images & Report.



## MDCT 16 Slices / Rotation

10. An Advanced Work station with at least 4 GB RAM , Archival on DVD / CD with CT Angio graphy , Colonoscopy , 3D VRT , SSD , CT / MRI Fusion as well as DICOM Print should be included in the Scope of Supply. DVD / CD Archival is Required.

### Image Processing section :

1. **The Main Console should have standard software like 3D Volume rendering , MIP , CT Angio, .Color Angio Display, 3D ArtefactSuppressions , Pre set 3D Reconstruction & Display Protocols, Auto Bone Removals , CT Based DSA Attachment**
2. **All softwares as above and Specialized Softwares such as Virtual Endoscopy, Colonoscopy, CT Perfusion , Dental scan , CT DSA , CT Angio graphy , Bone Removals , CT / MRI Fusion should be available on the Work Station .**
3. The following soft ware should be offered as standard ( MPR , ROI , VOLUME CALCULATION , CT NUMBER Measurement of between -10, 000 to + 25,000 , WINDOW WIDTH , WINDOW LEVEL , TOPOGRAM DISPLAY , CINE DISPLAY , HRCT LUNG, DYNAMIC SCAN )
4. **Direct Display of MPR Images immediately after scan is preferable.**

### Resolution :

1. The System Spatial Resolution should be mentioned with parameters.
2. The low contrast resolution should not be more than 4 mm at 0.3 % . Shoulder , Pelvis Streak Artefact suppression Software should be standard.
3. Noise Suppression protocols to maintain LCR at low dose should be standard.
4. Special Softwares ( Like MA Modulation in Routine ) to ensure Dose efficiency should be standard.
5. Specify the CT Dose Index

### Accessories :

1. Multi size Dry Laser Imager of any reputed make.
2. Color Laser Printer of any reputed make.
3. Lead Glass of at least 2 ft by 4 ft
4. Stabilizer for the Entire system of suitable capacity
5. UPS with One hour back up of suitable capacity to handle CT Computer , Laser Imager , Work Stations , Color Printer .
6. **Dual Phase Contrast Injector of reputed make with 100 No: Syringes & Tubings.**

**Warranty :**

1. Three Years for CT Scanner System including X ray tube and all accessories.
2. The offer should be accompanied by Original data sheet/brochure of the product .
3. The Cost of the CMC ( Comprehensive Maintenance Contract ) from 4<sup>th</sup> to 10<sup>th</sup> year inclusive of labor, spares and X Ray tube. The CMC Should cover all vendor items and local accessories.. This will be added to the Cost for evaluation of the Tender and to arrive at the Lowest Bid.

**Others but Mandatory :**

The Systems & the Configuration as mentioned above are Mandatory & no item as asked above shall be treated as Optional in the Offer

All compliance to the Tender should be in the form of Original Data sheet or Original Certificate from the manufacturer. Items under Work in Progress will not be considered.

On Site Training for the CT Technicians for a period of Two Weeks.

As there is continuous Development of Technology , the latest Model available with the Manufacturer shall be offered in the Tender.

AERB Approval or Type NOC for the Quoted Model is Required to be submitted in the Tender.

FDA / CE approval is Required to be submitted in the Tender.