

Department of Radiotherapy,  
J.N.Medical College  
Aligarh Muslim University, Aligarh.

TENDER FORM

1. NAME AND ADDRESS OF THE FIRM

.....

2. PHONE NO.....

3. TENDER FEE RS.500/- \*(Non Refundable) Cash receipt/D.D. No.....dated.....

4. E.M.D. @ 3% \*RS.....(Refundable) Cash Receipt/ Bank D.D. No. ....dated.....

5. LAST DATE FOR SUBMISSION OF TENDER. 10.11.2012 by 4.00 PM

3D Treatment Planning System for External Beam Radiotherapy Rs. ....

Any other terms & conditions, if any, may please specify clearly.

Signature & Seal of the Tenderer

Contract No.....

\*Cash Receipt issueable at the Cash Counter of Administrative Block, AMU, Aligarh or Bank D.D. in favour of the Finance Officer, AMU, Aligarh payable at Aligarh failing which the tender will not be acceptable.

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#### INSTRUCTIONS TO SUPPLIERS/TERMS & CONDITIONS

01. Tenders supported with manufacturer's price-list alongwith their literature, leaf-let etc., if any, must be properly sealed in envelop/cover and addressed to the Department of Radiotherapy, J.N.Medical College, Aligarh Muslim University, Aligarh. . The envelope should be superscribed tender for the item(s).....
02. Delivery will be made within the stipulated period as mentioned in the supply order and F.O.R. destination.
03. Supply should strictly be in accordance with the Specifications given in the supply order. The articles not found according to the specification or are damaged, will not be accepted and the supplier will be liable to remove the same from the University Campus, otherwise, University will not be responsible for safe custody of it. The cost of returning of the same shall be borne by the supplier.
04. In case of failure to execute the supply within stipulated period or in case of substandard supply, the University will have the right to black-list such supplier.
05. Supply of goods after the stipulated period a regular sanction of extension of the period by the competent authority is necessary.
06. Any increases in the rate during the course of supply shall not be acceptable.
07. The incidental expenses such as; package, carriage, railway freight, forwarding and insurance etc. will be borne by the firm/supplier.
08. Payment will be as per University Rules.
09. Guarantee/warranty period should clearly be mentioned.
10. Free service after sale should be ensured during warranty period.
11. Maximum rebate/discount to the Educational Institutions, if any may be mentioned.
12. Rates quoted should be net after allowing all discount and inclusive of all Taxes/VAT

etc.

13.All disputes will be settled in Aligarh Court only.

14.The tenders will be accepted from only those suppliers who have valid TIN/S.T. numbers and the copy of the same may also be submitted with the tenders.

15.Tender should be accompanied by EMD 3% (Refundable) of the quoted value of the items and Rs. 500/- (non-refundable) cost of the tender form through Bank

D.D./Cash receipt issueable at the Cash Counter of Administrative Block, AMU, Aligarh in favour of Finance Officer AMU, Aligarh. DOCUMENTS UNACCOMPANIED BY THE EARNEST MONEY/COST OF TENDER FORM SHALL BE OUTRIGHTLY REJECTED.

16.Tender must reach in the office of the Chairman, Department of Radiotherapy, J.N.Medical College Aligarh Muslim University, Aligarh PIN 202002 on or before 10.11.2012 by 4.00 p.m.

17.Tenders shall be opened during the Purchase Committee meeting which will be notified to all the applicants and in the presence of the present tenderers/representatives of the firms.

18.The University reserves the right to accept or reject all or any of the tender(s) without assigning any reason thereof.

19. PREFERNCE WILL BE GIVEN TO THE COMPANIES APPLYING DIRECTLY .

Chairman,  
Department of Radiotherapy,  
J.N.Medical College  
Aligarh Muslim University, Aligarh

Web site: [www.amuregistrar.com](http://www.amuregistrar.com)

### TENDER NOTICE

Sealed tenders are invited from the reputed firms/suppliers for the 3D Treatment Planning System for External Beam Radiotherapy. Each tender should be accompanied EMD 3% (Refundable) of the quoted value of items and Rs. 500/- (Non refundable) cost of the tender form. Tender will be accepted up to 10.11.2012 by 4.00 PM.

Interested Parties may visit at A.M.U website : [www.amuregistrar.com](http://www.amuregistrar.com) to obtain the details & tender form.

Chairman,  
Department of Radiotherapy,  
J.N.Medical College

## Specifications for 3D Treatment Planning System

Quotations are invited for : Latest 3D Treatment Planning System (TPS) for External Beam Radiotherapy planning with treatment planning accessories.

### 1. Description of the system

- 3D Treatment Planning System capable of radiotherapy treatment planning for teletherapy (Photon & Electron beam) and brachytherapy.
- This system should have capability of integration with Simulators, CT scanner/ MRI & Linear Accelerators of any vendor.
- The TPS should be capable of 3D treatment planning with independent workstation for virtual simulation.
- The TPS should have latest state of art hardware & software with following features as described in Technical specifications

### 2. Technical Specifications

#### 2.1 Software

- 2.1.1 Patient registration, record and file management should be user friendly.
- 2.1.2 Patient Data Acquisition through film scanners, digitizer, DICOM 3.0 import facility from CT Scanners/ MRI & Simulator of any vendor.
- 2.1.3 Advanced Contouring tools with patient identity information should be available. Auto segmentation/contouring based on electron density values for different organs should be included & follow ICRU-50 Volume definitions.
- 2.1.4 System should also be capable of showing the combined dose distribution to the target volume resulting from whole treatment received by teletherapy (photon, electron, photon + electron)
- 2.1.5 System must have facility of treatment planning for Photon & Electron beam of all energies in the therapeutic range.
- 2.1.6 The system must be capable of calculating mixed beam treatment with

photon and electron radiation.

- 2.1.7 System must have facility of machine data acquisition through RFA/scanner, etc.
- 2.1.8 The system must support regular & irregular fields for all types of beam modifiers such as Bolus, Blocks, MLCs, tissue compensator, wedges, dynamic wedge, asymmetric beams, etc.
- 2.1.9 System must be capable of conformal radiotherapy planning and multiple isocentre calculations.
- 2.1.10 System should be capable of making tissue inhomogeneity correction (as per electron density), irregular point dose calculations and auto-contouring as per CT data. Accuracy of dose calculations must be as per TG-23 Bench Mark Tests.
- 2.1.11 Facility of advanced comprehensive plan and display tools, drawing and margining tools, multiplan comparison and summation.
- 2.1.12 Provision of 3-D display of entire anatomical volume with sources, dose points, different body organs, isodose distribution with different color coding.
- 2.1.13 Display of dose to any defined point or volume. Isodose display in percentage as well as in cGy/MU
- 2.1.14 System should be able to store all unit and source data separately.
- 2.1.15 Facility of creating user's defined templates for various situations.
- 2.1.16 It should have capability of Virtual Simulation feature and multi-planar reconstruction in sagittal, coronal and oblique planes from CT data set.
- 2.1.17 TPS should show DVH, Beam's Eye View at any depth, shielding area, etc.
- 2.1.18 It should have capability of importing image from CT, MRI, Gamma camera via networking (DICOM compatible)
- 2.1.19 Specify the algorithm (pencil beam/collapsed cone convolution/Monte Carlo) used for calculations in the TPS.
- 2.1.20 System should have image registration and fusion facility for the images acquired from different imaging modalities.
- 2.1.21 System should have separate password for physics area, clinical area and system administrator.
- 2.1.22 Optional Software (Price must be quoted separately)
  - 2.1.22.1 IMRT planning
  - 2.1.22.2 SRS and SRT Treatment planning
  - 2.1.27.3 Radiobiological Plan Evaluation for teletherapy, brachytherapy, combined

## 2.2 Hardware

2.2.1 Latest high end PC available at the time of supply with DVD Writer of latest technology, Hard

Disk, USB Pen Drive, external hard disk, Digitizer and/or A3 size Flat Bed Color Film Scanner for CT / MRI and X-Ray Radiographs, 19" /21" LCD Color Display Unit, Laser Printer A4 size and Color Inkjet Printer of A3 size. The model, dpi and the make of scanner should be mentioned.

2.2.2 Appropriate port Hub W/BNC connector and necessary hardware for network connection should be provided.

2.2.3 Reputed brand supporting furniture, storage for hardware must be supplied with the system.

2.2.4 Complete installation of the system to the user' s satisfaction.

2.2.5 Optional Hardware (Price must be quoted separately) : Separate one contouring station connected with TPS and the CT/MRI available in the hospital.

## 3. User manuals and certificates

3.1 User/Technical/Maintenance manuals to be supplied in English.

3.2 Operators, physics, configuration and utility programme manuals.

3.3 Certificate of calibration and inspection.

3.4 License for Operating system and software must be supplied along with the system to the Hospital.

3.5 List of important spare parts and accessories with their part number and costing

3.6 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

3.7 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.

## 4. Environmental factors

4.1 The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%

4.2 The unit shall be capable of operating continuously in ambient temperature of 10 – 40 deg C and relative humidity of 15-90%.

## 5. Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

5.2 Reputed brand online UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up for the system and room.

#### 6. Quality Certificate & training

6.1 TPS should support all the recommendations made by AAPM, ESTRO, ICRU, etc.

6.2 Comprehensive training for designated professional staff and support services till familiarity with the system.

#### 7. Terms & Conditions

7.1 Warranty – The supplier should give minimum comprehensive warranty of two years.

7.2 Separate price must be quoted for extended comprehensive warranty for another three years after expiry of two years of warranty.

7.3 During the warranty period any new application software up-gradation will be provided free of cost and without any extra charges.

7.4 Separate price must be quoted for annual maintenance contract/Comprehensive maintenance

contract for three years after expiry of warranty.

7.5 Various upgradation modules available and price must be quoted separately.

7.6 Quote your detailed specifications supported by original manufacturer brochure and product catalogue (photocopy or computer print will not be accepted).

7.7 Provide the list of new users in the last five years.

7.8 The price must be quoted FOR up to the Dept. of Radiotherapy, AMU, Aligarh.

7.9 Insurance of the equipment en-route up to the department till commissioning is responsibility of supplier.

7.10 All information asked for must be provided in the same order as in the specifications. Incomplete and ambiguous information will not be accepted.