

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-29
STORES SECTION (DO)

Ref. No. 15/Stores(DO)/G.I.Surg/PAC/2021-22/FSC

Dated- 22/01/2022

Sub:- Purchase of "**Radiology Workstation for liver surgery planning - 01 No.** for the Department of G.I.Surgery, at AIIMS, New Delhi-110029, on proprietary basis inviting comments thereon.

The Institute is in the process to purchase "**Radiology Workstation for liver surgery planning - 01 No.** at AIIMS, New Delhi from M/s. Intrasense, France through M/s. **Modi Medicare, Mumbai.** The PAC Certifications by M/s. Intrasense, **France** as well as the user department are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within 15 day from the date of issue/uploading of the notification giving reference No. 15/Stores(DO)/G.I.Surg/PAC/2021-22/FSC. The comments should be received in office of Stores Officer (FSC), Store Section (DO), Animal House Building, Near Biotechnology Building at AIIMS on or before 15/02/2021 upto 12.30 p.m. failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

Yours faithfully,


STORES OFFICER (DO)

Encl: Related documents enclosed.

04

Technical Specifications for Radiology Workstations for liver surgery planning

The system configuration required is per below:

Architecture:

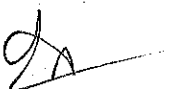
- ≡ The Workstation should be on true vendor neutral, multimodality platform, with DICOM 3.0 (Digital Imaging and Communications in Medicine 3.0) compatibility for image transfer and storage.
- ≡ The system must be HIPAA standard compliant. It should also comply with CFR21 part 11 compliance for "electronic signature" mechanism and verification.
- ≡ The system must be able to support up to 5 monitors/ viewing terminals.
- ≡ The system must support displays up to or above 2MP.
- ≡ The system should work on Windows 64 bit OS(Operating System) which supports multicore process.
- ≡ The system licenses must be configurable as standalone or Floating (single floating).
- ≡ Different user profiles(administrator, user or observer) with different access rights must be configurable.
- ≡ There must be a display of available 2TB disk space for the database. The work station/s should have 16 GB RAM, 2 GB graphic card with windows OS, mother board should be Intel dual core generation i7 or above
- ≡ Automatic Cleanup and manual cleaning of database, based on available disk space should be possible.
- ≡ Reporting database must be linked with patient database.
- ≡ The interface must have user-defined workspace layout.
- ≡ Full image view (hiding all buttons and overlays) to allocate the whole workspace to review of images must be possible.

Patient DICOM Details:

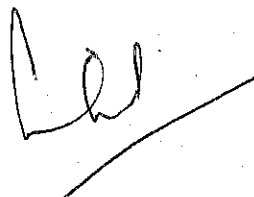
- ≡ The system should be DICOM 3.0 compliant
- ≡ There should be a possibility to display or hide DICOM tags, customize the tags to be displayed
- ≡ Image pixel smoothing and processing must be selectable (None, delayed, immediate)
- ≡ It must have user-defined filter & sorting mode based on any DICOM Tags
- ≡ DICOM Q/R(Query/Retrieve) C-find SCU(Service Class User) and C-Move SCU must be supported for remote patients query and retrieve
- ≡ Import and export of the patients must happen in background
- ≡ Smart Creation of new DICOM series: any MPR (Multi-planar reformat) based frame can be reformatted & be saved as a new individual series. The reformatted series must take into account the slice thickness and rendering mode
- ≡ Customizable DICOM tag editing must help in Patient data display and edition and classification for Teaching files
- ≡ Automatic sub-series detection of multiple phase acquisitions must be possible.
- ≡ User defined filter and sorting modes must be available based on any DICOM tags

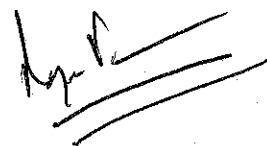
Image Processing Properties:

- ≡ Preview of Thumbnail of images before opening series, intuitive selection of range of images to be displayed



Pensh Sahni






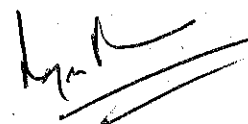


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- ≠ Windowing, Zooming Panning and Navigation together must be available as mouse functions
 - ≠ There must be at least 4 user mouse profile presets for above mentioned functions
 - ≠ There should be possibility to have smart series synchronization between series with different thickness slice number, etc..
 - ≠ Windowing presets. User customizable Windowing presets must be available.
 - ≠ One click cine mode in any viewport must be available
 - ≠ All annotations, texts, arrow, and preset of text annotations must be possible
 - ≠ Basic measurement tools Length, angle surface measurements tools must be available
 - ≠ Image reference line (smart automatic MPR (Multi-planar Reformat) Localization on axial/coronal/sagittal must be possible
 - ≠ **unlimited number of undo and redo must be available**
 - ≠ Flexible anatomical display layout for users must be available. Synchronizations of views on the anatomical center must be available
 - ≠ Scrapbook and print composer with image control of windowing zooming, panning and navigation must be available
 - ≠ The system should support DICOM and WINDOWS printing
 - ≠ Exporting of all images in bmp, jpg, tiff, dcm, and avi formats must be possible
 - ≠ CD / DVD burning with DICOM viewer must be possible. The DICOM viewer must also have MPR mode
 - ≠ Automatic Push to PACS / Auto export to PACS of final images with option to define main PACS should be available
 - ≠ Hanging protocols up to 6 protocols must be possible
 - ≠ Must have facility of MPR / Oblique MPR / MIP(Maximum Intensity Projection), MinIP(Minimum Intensity Projection) with ability to change image thickness
 - ≠ **Rigid registration for series which do not belong to the same study, must be possible to register / synchronize them**
 - ≠ Rendering mode : VR (Volume Reconstruction) (Average / MIP / Tissue Coloration), Average, 3D MIP, 3D color with different tissue templates, 3D MIP - gamma factor adjustments must be possible
 - ≠ 3D VOI (Volume of Interest) to view any area should be available
 - ≠ 3D volume rendering adjustment for average, hard or smooth should be available
 - ≠ 2D / 3D manual bone cutting and bone removal must be available
 - ≠ CPR viewing with navigator must be available
 - ≠ New series creation from existing series in linear, curved or radial mode should be available.
 - ≠ There must be a possibility to create unlimited amount of ROI (Region of Interest)
 - ≠ ROI (Region of Interest) editing tools (draw / erase / fill / inflate / deflate, etc.) must be provided
 - ≠ Generic semi-automatic segmentation ROI tool to work on CT and MRI images must be available
 - ≠ ROI Volume measurement extrusion tool should be available
 - ≠ ROI Histogram for advanced ROI measurement , max diameter, mean density, standard deviation, mean tumor diameter, etc. must be available
 - ≠ Surface ROI: advanced SSD (Shaded Surface Display), display / hide ROI combination of MPR and 3D surfacic ROI, ROI editing in surfacic 3D viewport must be available
 - ≠ ROI 3D reconstruction (3D volume rendering of apply to ROI mode) should be available
 - ≠ Table removal should be available
 - ≠ **ROI transposition : Ability to transpose ROI created in one series to another series must be available.**
 - ≠ Possibility to generate 3D PDF reports with interactive tools to manipulate the 3D objects, also display the volume information



Ranish Sahni







06

Liver Package:

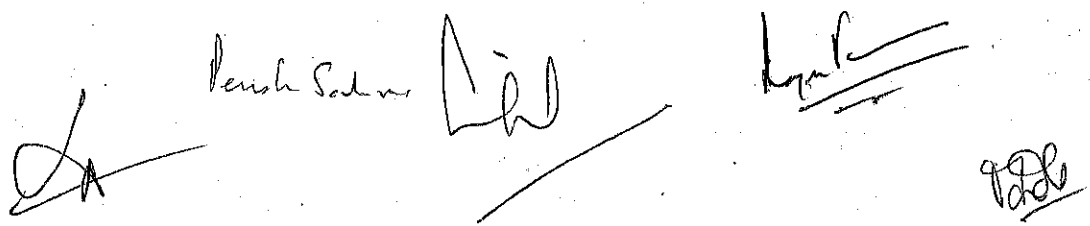
- ≠ Hepatectomy surgical planning must be possible
- ≠ LAI (Liver Attenuation Index) calculation must be easy and ROI copy paste must be available
- ≠ Automatic LAI calculation on selection of 25 ROI must be possible
- ≠ ROI transposition : Ability to transpose ROI created in one series to another series must be available.
- ≠ Liver segments based only on portal vein perfusion must be possible
- ≠ Congestion and drainage volumes based only on hepatic veins must be possible
- ≠ Ability to bend the cutting plane to encompass Left Extended Hepatectomy / Right Extended Hepatectomy along with Caudate lobe should be possible.
- ≠ Automatic segmentation of the PV, HV and HA
- ≠ Ability to translate, deform, stretch the plane of resection. Bending of resection plane is a must
- ≠ Ability to add a missing branch of vascular structure
- ≠ One click segmentation of liver vascular territories, 8 Couinaud segments.
- ≠ Ability for Fusion of ROIs from multiphase series
- ≠ Possibility to generate 3D PDF reports with interactive tools to manipulate the 3D objects, also display the volume information

4D Navigator & Registration package for Liver:

- ≠ Should have the ability for easy navigation through the loaded series in any viewport
- ≠ Should have the ability to navigate through a series both in native and MPR mode
- ≠ Ability to view multiple multiphase series(should support multi-monitor configuration)
- ≠ Should have the contrast uptake quantification tool in multiphase view
- ≠ Should be able to display ROIs segmented of different series in a common viewport
- ≠ Ability for automatic selection of series per pre-defined categories and automatic loading of series in a multiphase view
- ≠ Should be able to synchronize the anatomical center location in multiple series and be able to compensate for patient displacement between acquisitions

Supplier/vendor should also comply with the following conditions:

1. The vendor has the responsibility of integrating the system to the existing PAX system of AIIMS main hospital
2. Provide onsite training / and online support for personnel to use the software/workstation optimally
3. Vendor should provide the requisite software upgrades within the warranty period
4. The Comprehensive annual maintenance contract for support after 5 years of warranty should comply with the rules framed by AIIMS New Delhi (the rate should be < 5% of the total cost of the system).



(09)

Proprietary Article Certificate (PAC) (Machinery & Equipment)

INTRASENSE SA (FRANCE)

- (i) The indented goods are manufacture by M/s... **JIGISHA MODI**
MODI MEDICARE, MUMBAI-400075
- (ii) Item Name: **MYRIAN XP LIVER PACKAGE**
(RADIOLOGY WORKSTATION FOR LIVER SURGERY PLANNING)
- (iii) Model No: **MYRIAN XP LIVER PACKAGE**
- (iv) Vital Technical Performance Parameters required which makes the requirement
UNIQUE (PATENTED) SEGMENTATION AND 3D ALGORITHMS FOR
CT/MRI BASED IMAGE PROCESSING FOR LIVER SURGERY PLANNING
 proprietary **ALLOWING SEGMENTATION/VOLUMETRIC COMPUTATION/CONGESTION ZONE**
MAPPING/SIMULATED SURGERY PLANNING/SURGICAL PLANE PLANNING
WITH BENDING AND 3D MODELLING.
- (v) No other make or model is acceptable for the following
EASE OF HANDLING THE SOFTWARE USER INTERFACE &
PERFORMING COMPLEX RADIOLOGICAL IMAGE PROCESSING IN 3D/2D
 reasons: **MODE, ALLOWING EASY INTEGRATION WITH EXISTING PACS**
SYSTEM & LIVER SURGERY SIMULATION & ACURATE VOLUMETRY
DATA WILL ALLOW US TO DO ACCURATE PREOP LIVER SURGERY
PLANNING AND IMPROVE SAFETY OF PATIENT UNDERCLOING

It is certified that market survey has been done and found that no other
 manufacturer is manufacturing similar/equivalent specifications which can fulfill
 the vital requirements of end user. **HEPATECTOMIES**

Dr. Madhusudan KS, MD, FRCA, MAMS
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 अखिल भारतीय आयुर्विज्ञान संस्थान / All India Institute of Medical Sciences
 अ.भा.आ.सं., नई दिल्ली / A.I.I.M.S., New Delhi - 110029

Dr. RAJESH PANWAR
 Assistant Professor
 Deptt. of GI Surgery & Liver Transplantation
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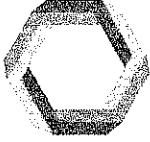
[Signature]
 Signature of TSEC

Dr. PEUSH SAHNI
 अपर आचार्य / Professor & Head
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Note: 1: TSEC should clearly mention the vital functional parameters
requirements which end user essentially require and are manufactured by only
one manufacturer mentioned in serial no. (i).

Dr. Anand
 Associate Professor
 अखिल भारतीय आयुर्विज्ञान संस्थान / All India Institute of Medical Sciences
 अ.भा.आ.सं., नई दिल्ली / A.I.I.M.S., New Delhi - 110029



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Attn. to
The Director
All India Institute of Medical Sciences
Ansari Nagar, New Delhi - 110029
INDIA

PROPRIETARY CERTIFICATE

We, Intrasense who are established and reputable Software developers and manufacturers of MYRIAN SOFTWARES having office at - 1231 Avenue du Mondial 98 – 34000 Montpellier (France).

This is to confirm that Myrian® is a registered trademark of Intrasense's medical imaging review and aided diagnosis software solutions.

The suite of **proprietary software** applications developed and marketed by Intrasense, under the name of Myrian® include unique segmentation and 3D algorithms, in particular for the liver module Myrian® XP-Liver for Liver Surgery and Transplant Planning & are **proprietary in nature**. Those algorithms are protected by a series of patents filed in major countries of Europe, Americas and Asia.

Yours Faithfully,

Nicolas REYMOND – CEO

June 25th 2021

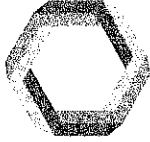
Nicolas REYMOND, CEO

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MANUFACTURER'S AUTHORISATION FORM

To

Whoever it May Concern

Dear Sirs,

We, Intrasense who are proven and reputable manufacturers of Myrian®, 3D volumetry segmentation software, having factories at Montpellier (France), hereby authorise Messrs Jigish Modi, Modi Medicare, 341, KAILAS PLAZA, VALLABHBAUG LANE, GHATKOPAR(E), MUMBAI - 400 075 (India) to submit a tender / offer, process the same further and enter into a contract with client against your requirement for the above goods manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. Jigish Modi, Modi Medicare, 4/102 Deep Sunil, Garodia Nagar, Ghatkopar (E), Mumbai 400 077 (India) is authorized to submit a tender/offer, process the same further and enter into a contract with client for the above goods manufactured by us.

Yours faithfully,

Nicolas REYMOND – CEO

June 25th 2021

Nicolas REYMOND, CEO

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14