TECHNICAL SPECIFICATION OF 64 SLICE CT SCANNER
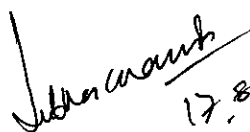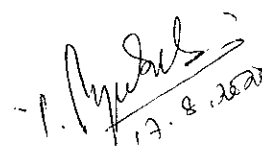
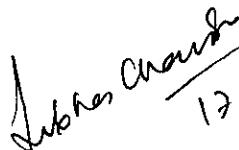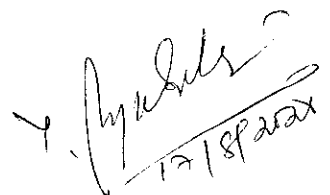| 1.	General
i.	The system quoted should be the latest, state of art, multi-detector helical CT scanner
ii.	The scanner should be capable of comprehensive whole-body imaging including cardiac, Abdomen, neuro and vascular imaging applications.
iii.	It should be European CE and US FDA approved.
2.	**Gantry**
i.	The minimum scan time for a 360 Degree should be less than or equal to 0.4 sec.
ii.	The Gantry should have 3D positioning lights.
iii.	The system should be capable of reconstructing 128 slice or more per rotation.
Iv.	The scan field of view (FOV) in acquisition mode should be at least 50 cm or more with intermediate steps for scanning different anatomic reasons. Extended FOV of 70 cm to position the difficult patients e.g. trauma.
v.	Gantry Aperture should be at least 70 cm diameter.
Vi.	Gantry tilt should be at least +/- 30 degrees.
3.	**X-ray Generator and Tube.**
i.	The x-ray Generator should be compact and inbuilt in the Gantry.
ii.	The System X-ray power should be 70 KW or more.
iii.	The mA range available should be between 20 mA or less to 500 mA or more with increments in steps of not more than 10 mA.
iv.	The x-ray Tube should have Focal spot size of less than or equal to 1 mm, smallest size should be 0.5 mm.
v.	The heat storage capacity should be 7 to 7.5 MHU or equivalent.
vi.	The x-ray tube Cooler Unit should be in built in the Gantry.
4.	**Detector.**
i.	The Detector Offered should be Solid State.
ii.	Each row of detectors should have at least 700 elements.
iii.	The detector should not require frequent calibration.
5.	**Patient Couch.**
i.	The patient table offered should have a minimum load bearing capacity of at least 200 KG.
ii.	The minimum table-top height should not be more than 65cm from the floor level for easy patient loading.
iii.	The range of metal free scan should be at least 160 cm.
iv.	The vertical range should be at least 35 cm (max height minus min height)
v.	Remote UP/DOWN, FWD/BWD of the Patient Couch should be standard.

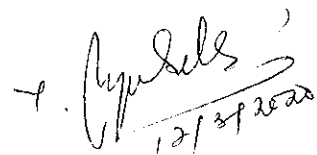|		
6.	**Topogram.**	
i.	The scannogram should be displayed in real time.	
ii.	Views should be feasible in frontal and lateral orientations.	
iii.	Should be possible to interrupt acquisition manually if necessary.	
7.	**Axial / Helical Scanning.**	
i.	The system offered should have Spiral Capability of at least 60 seconds or more.	
ii.	The range of Spiral scanning in Axial Direction should be more than 100 cm.	
iii.	Pitch should be freely selectable in auto and manual mode with a range of at least 0.5 – 1.5.	
iv.	The Reconstruction Time should be a minimum of 20 fps.	
v.	The system should have bolus triggered or tracked scanning capability.	
8.	**Computer & Operator Console.**	
i.	The Computer offered should be the Latest Multi tasking Processors and a menu driven platform with at least 4 GB.	
ii.	Medical grade high resolution LCD color monitor of 19 to 21 inches size.	
iii.	The reconstruction matrix should be at least 512 x 512.	
iv.	The display matrix should be at least 1024 x 1024.	
v.	It should have facility to store at least 250,000 images.	
vi.	DICOM facility to send, store, print, receive, Query / Retrieve, MWM, MPPS etc. should be standard.	
vii.	PC Based connectivity should be standard for easy transfer of images & Report. The image transfer from main console to workstation should be automatic and immediate.	
viii.	Filming and Printing.	
9.	**SPECIAL FEATURES REQUIRED:**	
	System should have iterative metal artifact reduction technique for imaging of challenging areas like spine implants, pacemakers, dental fillings and neuro coils.	
10.	**Workstation & Server:**	
	A multimodality client servet architecture based solution with minimum concurrent 20000 slices rendering capacity with 96 GB RAM with storage of minimum 4 TB for CT, MRI and PET-CT visualization. **Client hardware specification :** 2 numbers Workstations; dual quad core processor, 16 GB RAM, 1TB hard drive, DVD Writing with medical grade monitor of minimum 1 MP resolution & keyboard mouse. Shall be able to visualize CT, MRI and PET-CT.	

	Basic capabilities (Minimum 2 concurrent users for all applications) • MIP, Min IP, SSD, VRT and other advanced 3D applications • 2 – D including image zoom and pan, windowing, image manipulations, distance, angle, Anatomical Registration and mirroring; and advanced bone correction. • 3D volume rendering. • 3D SSD (Shaded Surface Display)	
	Advanced following applications : 1 number floating license each. • CT Angio • Neuro DSA • Vascular analysis: Stenosis measurement • Plaque Analysis • Dental • Neuro perfusion	
11.	**Miscellaneous.**	
i.	Remote Diagnostic Service: Software for Remote Diagnostic Service over a telephone line. Telephone line will be maintained by the hospital.	
ii.	Lead glass of at least 20cm x 100cm and Dry Chemistry imager, 500 DPI or more, with minimum two trays 14 x 17; 10 x 12 film size.	
iii.	Online UPS with Maintenance free batteries capable of 30 minutes back up to run the entire CT, Computer, Dry chemistry camera, Work Stations etc.	
iv.	Dual Head Pressure Injector of reputed make with 50 sets of Syringes and 200 sets of tubings. Specify the make of Injector.	
v.	Patient Positioning Accessories - one set,(including Head Rest, Head and Arm Support, Knee and Leg Support, Coronal Supine Head Holder, Pediatric immobilizer).	
vi.	Patient Communication System: An integrated intercome and Automated Patient Instruction System (API) should be provided.	