AMENDMENT-I

REVISED TECHNICAL SPECIFICATION

The system should have the below mentioned specification:

1. I.I.T.V SYSTEM

a) The image intensifier should be of latest series.

b) It should be of 9 inches filed i.e. 9 inches / 6 inches / 4.5 inches.

c) The centre resolution should be minimum 48 lp/cm.

d) The circular grid should be fixed on the Image Intensifier (I.I) to improve image quality

Or, Flat panel detector

a) Receptor type should be of Amorphous Silicon technology

b) Conversation screen should be of CsI

c) FPD with 21 X 21 cm size or more should be provided

d) Image matrix should be 1K X 1K or more

e) Pixel pitch should be 205 µm or less

f) ADC conversation should be 16 bit or more

2. **C-ARM STAND:**

a) It should be ruggedly built and should be of good design

b) It should have 1 or 2 separate steering for controlling back and front wheel movements

c) It should also have the below mentioned movements.

- Horizontal travel should be minimum 200 mm
- Orbital movement should be above 125°
- Panning movement should be ±12.5°
- Vertical movement should motorized of 400 mm
- Focus to I.I distance should be 900 mm
- C-Arm rotation should be ±180° (Preferably ±360°)

3. CCD CAMERA:

- The CCD camera should be ½ inch
- It should have resolution of 1k x 1k minimum

4. MONITORS:

a) Medical grade monitor minimum 19 inches more on trolley – 2 Nos.

b) The monitor trolley should be provided for mounting 2 monitors and

should have 2 shelf for keeping memory and stabilizer.

5. GENERATOR:

a) It should be microprocessor controlled digital system with display.

b) It should be of high frequency with output of minimum 3.5 KW and frequency of 40 KHz. (Preferably 100 KHz-200 KHz)

c) The KV should be from 40 to 110 KV.

d) The fluoroscopic mA should be from 0.3 to 3.0 mA or wider.

e) The system should have fluoroscopy mode like

- Manual Flouro mode and Continuous Flouro mode.
- Pulsed fluoro mode with facility to select time interval between the pulses from 1 pps to 10 pps or more
- Auto Dose Rate Control in fluoroscopy mode by which mA & KV should be set automatically as per the thickness of the organ.
- Manual KV selection during fluoroscopy also should be available.
- Boost fluoroscopy mode (optional) / High Definition Fluoroscopy

f) The digital fluoroscopic timer should be incorporated with arrangement of auto cut off of exposure after 300 secs.

g) The radiographic mAs range should be from 20 to 30 mAs or more

h) The X-ray tube should be dual focus stationary anode. The focal spot of the tube should be

1) Small: 0.6mm x 0.6mm
2) Large: 1.8 mm x 1.8 mm or less

It should have mono block / tube housing heat storage capacity of 200 KHU or more. It should also have inherent filtration of 0.5mm or more Al eq.

i) The system should have backlit LCD display of flouro mA, KV, timer & radiography mAs should be provided

j) The reversal, image rotation, functions should be operatable either from control panel or with a remote control.

k) Memory functions like store recall/image transfer should be operatable from control panel as well as from memory unit.

l) There should be independent selection of mA and KV &mAs.

m) The control should have indicator for power, Overload, X-Ray & Tube heating

n) The system should be upgradable to latest functions

6. IMAGE MEMORY:

a) Digital Image Processing & Memory system with PC or a USB Drive.

b) The System should have DVD recording facility as externally or internally.

c) It should have 100 images

d) It should have at least 100 permanent images storage capacity

e) It should have image integration function to reduce the image noise

f) Should be capable of copying images to Pen Drive.

ESSENTIAL ACCESSORIES:

a) Lead aprons (thickness 0.35 mm), Thyroid Shield, Lead Goggles (8 nos each)

b) Lead apron stand – 03 Nos. & for each stand 4 nos. Hanger should be supplied

c) Servo stabilizer -1

7. Should be AERB approved
8. The system should be DICOM compatible.

The product should have US FDA / European CE (4 digit notified body) / BIS

For the buyback of existing 1 (One) C-Arm Machine, vendors should quote the separate price for same. The prospective bidders can check the present condition of the equipment. The selected bidder is to take back the existing C-Arm Machine and the aforementioned items on **"as is where is"** basis.

Buy back value will be deducted from the L1 bidder against the Payment of base price.