



Notice Inviting e-Tender

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SUPPLY AND COMMISSIONING OF MEDICAL EQUIPMENTS (SET-I) FOR TRAUMA CARE
FACILITY FOR THE HOSPITALS AND MEDICAL COLLEGES OF THE GOVT. OF WEST
BENGAL

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL /NIT- 20/2017

Dated – 26.04.2017

The following amendments have been made in the tender document,

Amendment – II

SCHEDULE – V

Image intensifier (C-Arm)

Specification of High Frequency Mobile C-ARM IITV System

The system should have the below mentioned specifications:

1. I.I.T.V. SYSTEM:
 - 1.1. The image intensifier should be of latest series
 - 1.2. It should be of 9 inches **or more** with triple field
 - 1.3. The center resolution should be minimum 48lp/cm at 4.5 field.
 - 1.4. The circular grid should be fixed on the Image Intensifier (I.I. ratio) to improve image quality.
2. C-ARM STAND:
 - 2.1. It should be ruggedly built and should be of good design

- 2.2. It should have 2 separate steering for controlling back and / or front wheel movements
- 2.3. It should also have the below mentioned movements.
 - Horizontal travel should be minimum 200 mm
 - Orbital movement should be minimum 115°
 - Panning movement should be minimum $\pm 12.5^\circ$
 - Focus to I.I distance should be minimum 900 mm
 - Vertical movement should motorized/oil-free of minimum 400 mm
 - Focus to I.I Clearance should be minimum 730 mm
 - C-Arm rotation should be minimum $\pm 180^\circ$ (Preferably $\pm 360^\circ$)
3. CCD CAMERA:
 - 3.1. The CCD camera should be ½ inch and of 0.3 lux; should be of internationally reputed make.
 - It should have resolution minimum of 1K X 1K
4. MONITORS:
 - 4.1. Medical grade monitor minimum 17 inches more on trolley – 2 Nos. (Certificate to be provided); Resolution: 1K X 1K
 - 4.2. The monitor trolley should be provided for mounting 2 monitors and should have 2 selves for keeping memory and stabilizer.
5. GENERATOR:
 - 5.1. It should be microprocessor controlled digital system with display.
 - 5.2. It should be of high frequency with output of minimum 3.5 KW or more and frequency of 40 KHz. (Preferably 100 KHz)
 - 5.3. The KV should be from 40 to 110 KV.
 - 5.4. The fluoroscopic mA should be from 0.3 to 3.0 mA or wider.
 - 5.5. The system should have fluoroscopy mode like
 - Manual Flouro mode & Continous Fluro Mode
 - Pulsed fluoro mode with facility to select time interval between the pulses from 1 sec to 8 secs 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 / High Definition Fluoroscopy
 - 5.6. The digital fluoroscopic timer should be incorporated with arrangement of auto cut off of exposure after 300 secs.
 - 5.7. The radiographic mAs range should be from 20 to 100 mAs or more
 - 5.8. The X-ray tube should be dual focus stationary anode. The focal spot of the tube should be
 - 5.8.1. Small: 0.6mm x 0.6 mm
 - 5.8.2. Large: 1.5mm x 1.5mm. or more
 It should have mono block / tube housing heat storage capacity of 200 KHU or more. It should also have inherent filtration of 0.5 mm or more Al eq.

- 5.9. The system should have backlit LCD display of fluoro mA, KV, timer & radiography mAs should be provided.
- 5.10. The reversal, image rotation, functions should be operatable either from control panel or with a remote control.
- 5.11. Memory functions like store recall/image transfer should be operatable from control panel as well as from memory unit.
- 5.12. There should be independent selection of mA and KV & mAs.
- 5.13. The control should have indicator for power, Overload, X-Ray & Tube heating
- 5.14. The system should be upgradable to latest functions
6. IMAGE MEMORY:
 - 6.1. Digital Image Processing & Memory system with PC or USB Drive.
 - 6.2. The System should have DVD recording facility as externally or internally.
 - 6.3. It should have 100000 images (size:1K X 1K)
 - 6.4. It should have at least 100 permanent images storage capacity
 - 6.5. It should have image integration function to reduce the image noise
 - 6.6. Should be capable of copying images to Pen Drive
7. ESSENTIAL ACCESSORIES:
 - 7.1. Detachable cassette holder for taking X-rays on 8 inches x 10 inches or 10 inches x 12 inches film
 - 7.2. Lead aprons (0.35 mm lead equivalent), Thyroid Shield, Lead Goggles, Gonadal Shield (12 nos each). The items should be as per AERB guidelines.
 - 7.3. Lead apron stand- (2 Nos.) & Hanger (6)
 - 7.4. Servo stabilizer from reputed make -1 unit
8. Warranty for 2 years and 5 years for CMC after warranty. The prices for CMC shall be quoted at the time of tendering process. The prices of CMC shall be considered for the evaluation process.
9. The Generator, Tube, Image Intensifier of the equipment should have FDA / CE (from European Union notified body having 4 digit identification number) or entire equipment should have CE (from European union notified body having 4 digit identification number) / FDA certification.
10. Should be AERB approved
11. The System should be DICOM compatible
[The rates of Consumables and spares should be mentioned in Form 10a & 10b respectively.]