



# वी.पी. कोईराला स्वास्थ्य बिज्ञान प्रतिष्ठान, धरानको

कोटेशन माग गरिएको सुचना

सुचना प्रकाशित मिति: २०८१/०१/१०

यस प्रतिष्ठानलाई आवश्यक तपशिलका उल्लेखित OPG Machine with Rapid Cephalogram खरिद गर्नुपर्ने भएकोले इजाजत प्राप्त प्रतिष्ठानमा सुचिकृत फर्म, संस्था, कम्पनीबाट अद्यावधिक फर्म दर्ता प्रमाणपत्र, मु.अ.कर दर्ता प्रमाणपत्र, आ.व.२०७९/०८० को कर चुक्ताको प्रमाणपत्र प्रतिहरु संलग्न गरी यो सुचना प्रकाशित मितिले ७ दिन भित्र कोटेशन पेश गर्नुहुन सुचित गरिन्छ । माग गरिएको कोटेशन तोकिएको म्यादभित्र प्रतिष्ठानको दर्ता चलानी फाँटमा खामबन्दि कोटेशन दर्ता गर्नुहुन वा [quotation.Procurement@bpkihs.edu](mailto:quotation.Procurement@bpkihs.edu) मा email मार्फत पेश गर्नुपर्नेछ ।

SN.	Product Name	Quantity	Unit	Description/Brand
1	OPG Machine with Rapid Cephalogram	1	Nos	As per Specification

Technical Specification OPG With Rapid Cephalogram				
S.N	Technical specification	Compliance Yes/No	Page Number	Remarks
	<b>Orthopentamogram machine with Rapid Cephalogram</b>			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	<b>Description of Function</b>			
	A panoramic scanning dental X- ray of the upper and lower jaw.			
2	<b>Operation</b>			
a	Should be able to acquire and reproduce panoramic radiographic view of upper and lower jaw including teeth in a common image.			
b	The resultant image acquired should have good resolution without superimposition in each mode.			
3	<b>System Configuration</b>			
a	Orthopentamogram machine with Rapid Cephalogram with complete accessories.			
b	DICOM printer compatible with the system.			
c	Machine & Software Compatible Branded Computer			
d	Online UPS to support the whole unit.			
4	<b>Technical Specification</b>			
a	<b>Function: Pano + Ceph</b>			
b	Scan time: Pano : HD 12 sec - 14 Sec / Normal 10 sec-11 Sec or less Rapid Ceph : Scan Time 2 Sec to 4 Sec or less Lateral Ceph : 13 Sec or less Lateral Ceph: 17 Sec or Less	Full		
c	Ceph FOV: 21 cm x 23 cm [LAT, PA, SMV, Waters View, Carpus] 25 cm x 23 cm [Full LAT] or better FOV			
d	Focal Spot: 0.5 mm			
	<b>Generator/Tube</b>			
e	Generator Type: Inverter Type			
f	Tube Voltage: 60~99 kVp (1 Kv Increment)			
g	Tube Current: 4~10 mA ( 1 mA Increment)			
h	Cooling System: Air Cooling ( Protect ≥ 60°C )			
i	Total Filtration : Min 2.5 mm Al			
j	Gray Scale: 14 bit or better			
	<b>Detector</b>			
k	Type: CMOS Photodiode Array			
l	Pixel Size (Pano): 100 um @ Full Resolution			
m	Pixel Size (Ceph): 200 um @ 2X2 Binning			
n	Gray Scale: 14s bit or better			
o	Energy Range 50 - 120 kV			
	<b>PANO EXAMINATION:</b>			
p	Arch: Narrow / Normal /wide/ Child/ Adult: Male/Female/ Orthogonal			
q	Examination Mode: Standard / Right / Front / Left			
r	Orthogonal Standard / Right / Front / Left			
s	Bitewing Standard / Right / Front / Left and more			
t	Arch: Normal			
u	Examination Mode: TMJ LAT Open / Close TMJ PA Open / Close Sinus LAT / PA and more			
	<b>CEPH EXAMINATION</b>			
v	Lateral, PA, Carpus, SMV and More			
w	The X-ray system have Rotating robot arm construction. The upper arm is able to drive aside to enable free view.			
x	The X-ray system use direct digital imaging with CMOS sensor technology and provide an Ethernet interface.			



y	The X-ray system have an additional remote control panel available On Acquisition Computer outside the room with the exposure timer.			
z	The unit have the capability to have standard images and constant magnification.			
aa	The unit have special child panoramic program, where image area is reduced both at width and height.			
bb	The unit have both lateral and posterior anterior temporomandibular imaging programs with adjustable projection angles.			
5	<b>Digital Imaging Software</b>			
a	General Administration			
b	2D Digital Imaging			
c	The system provide the following patient management functionality:			
d	Patient search, by ID or by name, from database			
e	Patient search by image type, date, and comments			
f	Creating new patients			
g	Editing patient information			
h	Patient Demographics			
i	Patient name, ID, Address, employer, date of birth, gender, nationality, language, contact, etc.			
j	Related Contacts			
k	Opening patient file			
l	Searching only Patient assigned to current user from the database			
m	Optionally require user to define a reason for opening patient file			
n	Assigning patient to provider and reviewing assignments			
o	Searching only patient assigned to current user from the database			
p	Inactivate patient files			
q	The system shall provide the following administrative functions			
r	Adding new patient			
s	Viewing (all patient/assigned patients), inactivating, editing and printing patient's clinical info			
t	Assigning patients to provider			
u	Managing imaging templates			
v	Deleting imaging studies			
w	User management			
x	User demographics			
y	Patient Counseling feature with clinical animation and implant simulation tools.			
z	Image types, sensor orientation, alignments, exposure order, default tooth numbering			
aa	Implant Library			
6	<b>Panoramic imaging</b>			
a	Support for TWAIN compatible scanners and digital camera			
b	The System provide the following Study/Template functionality			
c	Creating/editing study templates			
d	Image capturing directly to study templates, capture assisted by user definable templates			
e	Combining different image types to same Study			
f	The system shall provide the following image viewing tools			
g	Zoom in/out			
h	Magnifier			
i	Full view			
j	Zoom to fit			
k	Layout tool			
l	The system provide the following images processing tools			
m	Preset parameters for each image type,			
n	Brightness and contrast, Median filter, Softening filter , Sharpening filter, Emboss,			
o	Equalize, Invert, soft tissue filter for cephalometric images, Invert, Pseudo-colors,			
p	Level adjustment (Gamma curve and windowing)			
q	Undo/Redo			



r	Recall original image			
s	Image Transformations: mirror, horizontal mirror, rotate clockwise, rotate counter clockwise			
t	Import/export in the following formats: TIF, JPG, BMP			
u	The system provide the following measurements and drawings tools			
v	Calibration of the image			
w	Measure length and angle			
x	Line profile measurement			
y	Histogram of grayscales			
z	Drawing: line, horizontal line, vertical line, arrow, rectangle, ellipse, text, polyline, curve			
aa	Image comments			
bb	Image diagnosis			
cc	The System provide the following printing options			
dd	Single and multi-image printing with alignments			
ee	The System provide the following measurements and view handling and management			
ff	Measure length			
gg	Measure angle			
hh	Save view with measurements			
ii	Delete view			
jj	Zoom in/out			
kk	View and navigate (move, rotate, slice) volume data			
ll	Allow placement of implant models visible in all views for basic implant planning			
7	<b>DICOM Printer:</b> DICOM Printer compatible with the system and able to print film of different sizes.			
8	<b>Computer Console:</b> <input type="checkbox"/> Must have I7 processor <input type="checkbox"/> Must have minimum 16 GB RAM and GPU <input type="checkbox"/> Hard Disk 8 TB <input type="checkbox"/> SSD minimum 500 GB. <input type="checkbox"/> Minimum 21 inches <b>UHD Desktop screen (4K)</b>			
9	The software must have permanent licence and free upgradation throughout machine's operational period. The licence key must must be provided to the user department also. Any upgradation required in the system must be free of cost.			
10	Must quote frozen rate of Comprehensive maintenance contract for a period of 5 years after completion of the warranty period of 5 years which shall not increase 5 % of the equipment price.			
11	Must quote frozen rate of Annual maintenance contract for a period of 5 years after completion of the warranty period of 5 years which shall not increase standard norms of the maintenance contract.			
12	Remote access software for online disrانت maintenance prompt assistant.			
13	Must supply a suitable online UPS for the entire system.			
14	<b>Accessories, Spare and Consumables</b> All standards accessories, consumables and parts required to operate the equipment, including all standard tools and clearing and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above)			
15	<b>Operating Environment</b> The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The Conditions include power supply, purchaser's country requirements.			
16	<b>Standards and Safety Requirements</b> <input type="checkbox"/> Must Submit CE and US-FDA approved certificate for OPG machine <input type="checkbox"/> Must submit ISO 9001 Certificate for OPG and Printer			
17	<b>Installation and Commissioning &amp; User Training</b> <input type="checkbox"/> Supplier must accomplish proper installation and commissioning of the equipment onsite. <input type="checkbox"/> Must provide user training (including how to use and maintain the equipment)			
18	<b>Warranty &amp; Maintenance Service During Warranty Period</b> <input type="checkbox"/> Comprehensive warranty for 5 years after installation <input type="checkbox"/> During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
19	<b>Authorization</b> Manufacturer's Authorization is compulsory.			
20	<b>Documentation</b> <input type="checkbox"/> User (Operating) manual in English <input type="checkbox"/> Service (Technical / Maintenance) manual in English <input type="checkbox"/> Certificate of calibration and inspection from factory.			
21	<b>Documentation</b> <input type="checkbox"/> User (Operating) manual in English <input type="checkbox"/> Service (Technical / Maintenance) manual in English <input type="checkbox"/> Certificate of calibration and inspection from factory.			