TENDER SPECIFICATION

Sl. No.1: Laser induced breakdown spectrometer:

EMD: Rs.1,20,000.00

Instrument specification:

- Air Cooled Q-switched Nd:YAG laser with 1064nm emission 225-600nm, 0.2nm resolution with variable gate delay.
- Provision for argon atmosphere for increased signal strength.
- Forensic casework management system.
- Integral colour camera with digital zoom for sample selection.
- XYZ sample positioning/focusing stage.
- Automatic identification of elements.
- Comparative display of spectra and peak ratios.
- Automatic measurement library of element emission lines.
- Research operation mode.
- Rugged design.
- Full laser safety features.
- Large examination bed for analyzing items up to 300 x 210mm.
- NIST traceable wavelength calibration standard 1411.
- FireWire and USB interfaces to a PC.

Computer (Minimum Specification):

- Intel Core 2 Duo or Quad (2.66 GHz) with 4MB cache
- 4GB DDR2 RAM
- 500GB SATA HDD
- DVD RW Drive
- 6 x USB 2.0 ports
- Network interface integrated Gigabit (10/100/1000) via RJ45 connector
- 512MB Graphics Adaptor (on-board or Card)
- FireWire 400 port (1394a): via internal PCI Card
- Windows 7
- 1005 Key UK with standard numeric keypad
- Wired USB Optical Scroll Mouse
- CDR writeable disks 640MB (x10)
- DVDR writeable disks 4.7GB (x10)

Monitor: 22˝ Colour TFT Monitor

Sl. No.2: CCTV Footage Acquisition and Enhancement System

EMD: Rs.60,000.00

1. System Computer:

1.1 A portable, robust ruggedized lockable case, strap and catches.
1.2 3 screens in total, 1 full HD pc screen, 1 x downscaler preview screen and 1 x test monitor / composite video input preview screen incorporated into the lid of the case.
1.3 Solid State boot drive Operating System and application software.
1.4 Minimum 1.5TB hard drive for Media storage.
1.5 A removable keyboard and track pad with storage compartments for cables and accessories.
1.6 A single case solution.
1.7 Integrated Blu Ray/DVD/CD Reader write.
1.8 Windows 7 Pro shall be installed on it.

1.9   One composite input and output.

1.10 A dedicated composite analogue video demultiplexing input.

1.11 HDMI input and output.

1.12 It shall have easily accessible LAN, Firewire USB 3.0 and USB 2.0 ports.

1.13 Support capturing (recording) in uncompressed AVI, CFF and COG formats.

1.14 Single user interface application for controlling the many aspects of the system to include scan converter, screen capture, input format selection, codec searchable database.

2.   Video and Image Enhancement Software:

2.1 Enable operators of the system to enhance image and video files of used filter and settings within one software package.

2.2 It shall have at least below listed filters:
File conversion, Deblur, Super resolution, De-multiplexing, Denoise, Detection, Image Stabilizer (Enhancement, Histogram Editor, Segmentation, Tracking, Transform, Zoom, Velocity, Reconstruction, Mosaic reconstruction, pattern removal trackable/traceable custom, Deblur, field realignment Photogrammetry, Non Local Means filter Adaptive Deblur.

2.3 Allows operator to apply any parameter settings of any filter for each individual video frame, groups of frames, or any individual selected part of any frame.

2.4 Fully automatic forensic audit trail stored into a text log file.

3.   Real Time Multiplex Software using dedicated de-multiplex input port:

3.1 It shall enable user to view, analyze, process and capture multiplexed video feeds without rendering.

3.2 It shall allow user to view the selected camera and perform pan and zoom on a live input or pre recorded file.

3.3 It shall have automatic and manual De-multiplexing function.

3.4 It shall be able to multi camera capture to multiple files of the live incoming multiplexed stream.

3.5 It shall be able to work on NTSC/PAL video signals coming from DV, s-video, composite, component video sources.

3.6 Region of interest and screen capture digital CCTV to an uncompressed video file .cff, AVI.

3.7 Must be capable of simultaneous video de-multiplexing and processing multiple video inputs.

4.   Automatic Measurement Software:

4.1 Able to take photogrammetric measurements from images and videos.

4.2 Capable to calculate from only one real world measurement taken from the scene.

4.3 Able to calculate measurements without the need for the original camera to be present.

4.4 Take measurements on X, Y, Z axis of objects, people and distances between selected points.

4.5 Able to calculate area.

4.6 It shall be able to calibrate capturing cameras and correct optical distortions caused by camera automatically.

5.   Digital video and CCTV Playback/Output and Management Software with searchable database:

5.1 Supplied with at least 500+ different codecs and players belonging to various digital CCTV manufactured systems.

5.2 Pre-installed media players that would be able to play video files which are created by using above mentioned codecs.

5.3 When a user enters the file extension, the software shall list the media player software names in software interface. Then the user shall be able to playback codecced videos by choosing one of these players.

5.4 Able to allocate a video player to multiple file extensions.

5.5 Shortcut icons enabling prompt access to attached drives, discs and memory units.

5.6 Must be able to create backup file of player database to .dcctv file extension for specific operations.

5.7 Creation of evidence bin for both video and still image file being viewed created or analysed.

5.8 Integrated screen capture utility.

SL. No.3: Accessories for hand held NIR:

EMD : NIL

Specification:
1. PCX-ACC1: PHAZIR Liquids Adapter for transmission measurements with 5mm disposable glass vials. – 01No.
2. PCX-Vial-1 : Vials for PHAZIR PCX-ACC-2 liquids adapters, 5mm ID, 8 x 40 OD, 200 pk with polyethylene SepCap closures (Fisher PN 03-391-23) - 01 No.
3. PHZR-BTRY-2: PHAZIR replacement battery, high capacity, quick change, Li-ion Battery – 01 No.
4. Laptop :
   Minimum requirements -

   - A system (laptop) running Windows 7.
   - A computer that has a 2.4 GHz or faster processor
   - 4 GB or more RAM
   - 500 GB or more hard drive (7200 RPM)
   - 500 MB or better video card running at 1280 x 768
   - CD/DVD RW Drive
   - Wireless capable
   - For Windows up to date and working virus protection
   - An integrated webcam.

Sl. No.4: Battery for 25KV UPS

EMD: Rs.5, 000.00

Specification :

- Maintenance free SMF UPS Battery
- Volts:12 volts, Capacity:160AH,
- Constant voltage charge with voltage regulation 27°C
- Standby use 13.6 to 13.8 V
- Cycle use 13.6 to 13.8v
- Maximum initial current 30A

Sl. No.5: **Spares for Perkin-Elmer High Performance Liquid Chromatograph**

EMD: Nil

Specification Description:

1. N2600531   : 5 Channel VAC DEGAS STINTED-SVC only
2. N9300320   : PM Kit-Pump
3. N9300321   : PM Kit-HPLC A/S
4. 00890945   : Nuts & Ferrules 1/16IN
5. 00891480   : 50CM X.007IN Tubing

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