

1. Scope of work

1.1. The scope of work calls for the design, supply delivery and commissioning of the following:

1.2. Classroom (s)

2. 8 X Laser projectors.
3. 8 X Projection screens.
4. 8 X Mini Audio system for classrooms.
5. Removal of old cables, wiring, rails and old screens.
6. Installation and cabling required.

1.2. Laboratorie (s)

1. 4 X 75-inch smart TV
2. Removal of old cables, wiring, rails and old screens.
3. Installation and cabling required.

1.3. Board Room (s)

1. 1 x 75-inch smart TV

2. Project Specific Deliverables

2.1. Laser Projectors

2.1.1. The projectors to be delivered under this project shall at minimum, comply to the following requirements / specifications. failure to meet the minimum requirements / specification shall lead to disqualification.

- Brightness: 5,200 lumens
- Contrast Ratio: 2,500,000:1
- Resolution: WUXGA (1920 x 1200) Ultra HD
- Light Source: Laser
- Projected Distance: screen 2.33 – 3.78 m
- Lamp Life: 50,000 hours



- F-number: 1.5 – 1.7
- Aspect Ratio: 16:10
- Throw Ratio Range: 1.35 - 2.20
- Zoom: 1.6x
- Lens Shift: Vertical: ± 50 degrees, Horizontal: ± 20 degrees
- Color Reproduction: Up to 1.07 billion colors
- Connectivity: HDMI x 2, HDBaseT, VGA, USB-A, USB-B, Wi-Fi, Miracast
- Audio: 2 x 10W speakers
- Dimensions: 440 x 122 x 304 mm
- Weight: 6.9 kg
- Custom Adjustable Projector Ceiling / Roof Mount: Yes

2.1.2. All projectors to be supplied with 10m extended HDMI cables
Specifications for the projectors and cable to be supplied with the RFQ. Failure to supply the specification sheets shall lead to disqualification from the evaluation process.

2.2. Projection Screens

2.2.1. The projection screen to be delivered under this project shall at minimum, comply to the following requirements / specifications. failure to meet the minimum requirements / specification shall lead to disqualification.

- The screen size to be sized according to the measured distance from the projector mounting position,
- The screen shall further comply to the following requirements / specifications
- The screen shall be ceiling or wall mounted
- Matte white finish
- High gain
- Ambient light rejecting (ALR)
- Acoustically transparent

2.2.2. Specifications for the projection screens to be supplied with the RFQ. Failure to supply the specification sheets shall lead to disqualification from the evaluation.

2.3. Mini Audio Systems

2.3.1. The classroom audio system to be delivered under this project shall at minimum, comply to the following requirements / specifications. failure to meet the minimum requirements / specification shall lead to disqualification.

2.3.2. Wall or Ceiling Mount Speakers:

- Quantity: 4-6 speakers, depending on the size of the classroom
- Type: Full-range speakers with a frequency response of 50Hz to 15kHz
- Power handling: 50-100 watts per speaker
- Impedance: 8 ohms
- Sensitivity: 88-92dB

2.3.3. Microphone:

- Type: Gooseneck or handheld microphone
- Polar pattern: Omnidirectional or cardioid
- Frequency response: 50Hz to 15kHz
- Sensitivity: -45dBV/Pa

2.3.4. Mixer:

- Number of channels: 4-8 channels
- Inputs: Microphone, auxiliary inputs
- Outputs: Speakers, recording output
- EQ: 3-band EQ per channel
- Effects: Reverb, delay

2.3.5. Cabling:

- Speaker cables: 16 AWG or 14 AWG speaker wire
- Microphone cable: XLR cable
- Auxiliary cables: RCA cables, 3.5mm stereo cables

2.3.6. Additional Considerations

2.3.7. Placement of speakers

The speakers shall be placed strategically throughout the classroom to ensure audio clarity.

2.3.8. Volume control:

The audio system shall have a volume control.

2.3.9. Feedback prevention

The audio system shall have a feedback prevention system to prevent howling and other feedback problems.

A conceptual design of the audio system shall be developed and submitted for the purpose of evaluation. Audio systems components (speakers, microphones, mixers and cabling) datasheets shall also be submitted for the purpose of evaluation the



submission. Failure to submit the design and audio system components shall lead to disqualification of the RFQ.

2.4. Smart TV / Monitors

2.4.1. The frameless smart TV's to be delivered under this project shall at minimum, comply to the following requirements / specifications. failure to meet the minimum requirements / specification shall lead to disqualification.

- Resolution: 3840 x 2160 pixels (UHD)
- Frameless: Yes
- Display technology: LED, OLED, QLED
- HDR: Yes (HDR10, HDR10+, Dolby Vision)
- Refresh rate: 60Hz, 120Hz (some models)
- Smart features: Built-in Wi-Fi and Bluetooth, streaming apps, voice control
- Connectivity: HDMI, USB, Ethernet
- Additional features: Game mode, upconversion, multiple HDMI ports

2.4.2. All 75 inch frameless smart TV's to be supplied with 10m extended HDMI cables

2.4.3. Specifications for smart tv and cable to be supplied with the RFQ. Failure to supply the specification sheets shall lead to disqualification from the evaluation process.

2.5. Removal and disposal of old work / installations

2.5.1. All old installation are to be removed and disposed of.

2.6. Warranties

2.6.1. All deliverables and workmanship under this are to be delivered and covered will a mandatory 1 year warranty.

2.6.2. Warranty terms and conditions shall be supplied with the RFQ for evaluation purposes. Failure to submit warranty terms and conditions shall lead to disqualification.

