



SPECIFICATION DOCUMENT

Project Name:	Smart Classrooms for 3 sites and Smartboards for various sites.		
Prepared by:	Elvis Mahlangu		
Date (Document Completed)	2025-06-13	Requisition Number	RQ46811
Cost Centre	1830	Ledger Account	50415

Project Initiation Phase –

This document is used to provide the Specification with general information about the need to purchase goods and services.

1. Procurement Background

The college is in the process of introducing innovative teaching and learning methods, therefore we are procuring smart classrooms and smart interactive boards, which will enhance digitalization.

2. Budget available	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Approved by Finance Department	From CIEG Budget
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3. Scope of Work

Supply and Deliver:

DESCRIPTION	QUANTITY
<ul style="list-style-type: none"> 86" Interactive Touch Display <p>Features:</p> <ul style="list-style-type: none"> •UHD 4K display with a resolution of 3840 × 2160. •Anti-glare and anti-blocking design to ensure smooth interaction. •Dual systems of Android and Windows (Optional with OPS) saving cost and easy-to-use, video conference software are recommended to run under Windows system. •Quick response, at most 50-points touch control and smooth writing experience. •Built-in network switch chip saves a network switch. •All-in-one design with tempered glass and intelligent temperature control, making it environmentally friendly and safety-guaranteed, supports blue light protection. •EDLA Certified 	27
<ul style="list-style-type: none"> Windows 11 Core i5 OPS Module <p>Operation System: Windows 11 Pro Processor: Intel® Core, i5-12450H, 12th Memory: 8GB Graphics: Intel® UHD Graphics 750 Storage: 256Gb ssd</p>	27



<ul style="list-style-type: none"> Education Sharing System <p>Features:</p> <ul style="list-style-type: none"> • Three live view control views are provided: movie mode, picture-in-picture mode, and multi-screen mode • Auto live view control realizes automatic switch of teacher image, student image, and multimedia image, which helps to meet the demand of daily teaching requirement • ACC format audio encoding technology, up to 48 KHz audio input sampling rate, and internal sound mixing feature provide high audio quality • Synchronously collect the teacher image, student image, and multimedia image via HDMI input Real-time encoding for all cameras with up to 1080p resolution • Support setting different resolution, frame rate, and bitrate for three streams, including main stream, sub-stream, and third stream • Support searching, playback, and downloading courses by keywords • Support publishing courses to FTP server by pressing the publish button on front panel • Support manual live view control, RTMP live view, playback course, and configure course plan in remote client or platform • Support RTMP multimedia 	3	
<ul style="list-style-type: none"> 8MP Classroom Overview Dome Camera <p>Features:</p> <ul style="list-style-type: none"> • High quality imaging with 8 MP resolution • Clear imaging against strong back light due to 120 dB WDR technology • Efficient H.265+ compression technology to save bandwidth and storage • 5 streams to meet a wide variety of applications • Water and dust resistant (IP67) and vandal proof (IK10) 	6	
<ul style="list-style-type: none"> Multi-Mic Array Network Microphone <p>Features:</p> <ul style="list-style-type: none"> • Adopts multi-mic array, picking up sounds in the radius up to 10 meters • The built-in digital circuit is embedded with DSP processing unit and AGC technology to realize clear sound 	3	

<p>with high fidelity</p> <ul style="list-style-type: none"> • With multi-mic array design and self-adaptive beamforming technology, the microphone reduces reverberation effectively • Supports accessing echo reference signal via line in interface, and with AEC algorithm, the microphone suppresses echo and squeal effectively • Supports smart noise reduction, avoiding environmental noise • The indicator is convenient for troubleshooting • Supports network settings and transmitting the audio stream to network camera and DVR/NVR • Supports 32 kHz audio sampling rate for HD sound • Power over ethernet, convenient for installation 		
<ul style="list-style-type: none"> • Analogue Ceiling Speaker <p>Features:</p> <ul style="list-style-type: none"> • Adopting a composite paper fiber sound basin, the sound quality is clear and bright • With the design of powerful steel spring clamp, the installation is fast and safe • Support ceiling mounting installation with a simple appearance <p>Impedance: 8 Ω Speaker Unit: 5.25" \times 1 Rated Power: 6 W</p>	3	
<ul style="list-style-type: none"> • 16CH Network Video Recorder <p>Features:</p> <ul style="list-style-type: none"> • H.265+/H.265/H.264+/H.264 video formats • Intelligent analytics based on deep learning algorithm • Up to 4-ch perimeter protection • Up to 4-ch facial recognition for video stream • Up to 8-ch facial recognition for face picture • Up to 16-ch IP camera inputs • Up to 32-ch 1080p decoding capability • Up to 8-ch IP speakers can be connected • Up to 4 SATA interfaces for HDD connection 	1	
<ul style="list-style-type: none"> • 10TB Surveillance Hard Drive 	4	

• 43" Proffession 24/7 Display, 1080P	1
• 10m HDMI Cable	1
• Wall Mount Bracket	27
• Facial Recognition Terminal Features: <ul style="list-style-type: none"> •Max.1500 faces capacity, Max.3000 fingerprints capacity, and Max.3000 cards •Face Recognition Terminal, 4.3-inch LCD touch screen, 2 Mega pixel wide-angle lens, built-in M1card reading module •Two-way audio with client software, indoor station, and main station; Supports TCP/IP, Wi-Fi •Supports ISAPI, ISUP5.0 •Configuration via the web client •Face Recognition Distance: 0.3 m to 1.5 m; Duration < 0.2 s/User; Accuracy rate ≥ 99% •Supports face with mask recognition •Powers supply by standard PoE and at the same time powers supply for door lock (12 VDC/1 A) •Supports platform-applied personal PIN and device-set personal PIN 	3
• Face Recognition Enrolment Station, support Finger and Card Enrolment	1
• Magnetic Door Lock with LZ Bracket - 280kg	3
• No Touch Exit Sensor	3
• Emergency Brealglass Unit	3
• HikCentral Access Control Licenses	1
• HikCentral Attendance Module License	1
• HikCentral Facial License	3
• HikCentral Sharing Tool License	3
• Management Server	1

<p>Features:</p> <ul style="list-style-type: none"> • HikCentral VMS servers combine hardware and software products to give customers a cost-effective and comprehensive solution 1) Plug and play: No additional activation is required, and it is ready to use right out of the box 2) Easy to use: Pre-installed operating system, easy to operate and deploy • All-in-one software and hardware, no activation required, easy delivery and reliable service 1) Guaranteed compatibility: Tested by professional testing team to ensure stable operation 2) Reliable after-sales service: 24/7 platinum after-sales service <p>CPU: E-2324G×1, 3.1 GHz, 8 MB Cache, 4 Cores, 4 Threads</p> <p>Memory: Standard Config : 1 × 16GB UDIMM, 3200MT/s, Scalability : 4 × 128GB UDIMM</p> <p>Hard Disks: Standard Config : 2×1TB 3.5 inch SATA HDD, Scalability : 2×22TB 3.5 inch SATA/SAS HDD</p> <p>Storage Controller: Standard Config : PERC H355 adaptor LP (support RAID 0/1) Compatibility : Independent SAS hardware RAID card (support RAID 5/10), ≥ 8GB cache</p>	
<ul style="list-style-type: none"> • Installation & Commissioning of all hardware, software and cabling infrastructure 	27
<ul style="list-style-type: none"> • Training 	Per Site

4. Timing of work project

3 months

5. Procurement Strategy

Select the appropriate procurement strategy with (mark X)

Quotations		Open bidding		Negotiations		Existing contracts		Other	
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For other, please state reasons below:

6. Reporting

Weekly

7. Monitoring

IT and Academics

8. Conditions of Bid/quotation

The quotation will be evaluated and the Procurement Policy Framework Act 5 of 2005 will be implemented and evaluated on an 80/20 preferences point system.

9. Special Condition

Please attach the following

1. Central Supplier Database (CSD) Report
2. Company registration form/Corporate Document
3. BBBEE Certificate
4. Latest municipal account or any other proof of Business residential address
5. Valid Tax clearance certificate
6. OEM
7. Any other specific requirements

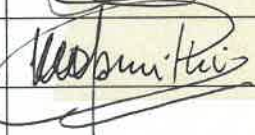
10. Further Information

End user's contact details for enquiries

11. Signatures

Project name: Smart Classrooms for 3 sites and Smartboards for various sites.

We have reviewed the information contained in this Specification and is in line with the College need.

Name	Role	Signature	Date: (DD/MM/YYYY)	Recommended/Not Recommended
Mr SM Hlongwane	ASD: IT		26/06/2025	Recommended
Ms S Mohoto	ASD: FACILITIES		27/06/2025	Recommended
Mr. KW Mphuthi	Acting DPC		2025/07/01	Recommended
Ms N Ndifelani	Acting DPF		02/07/2025	Approved
				Not Approved

Approval for Projects over R200 000

Name	Role	Signature	Dater (DD/MM/YYYY)	Approved/ Not Approved
PJ Modiba	Accounting Officer		09/07/2025	Approved
				Not Approved