

Kabul University

Boys hostel IT-Lab Technical Specification

Computer LAB is considered as an essential need for students with various interacting elements processes and resources KU Boys Hostel Computer Lab design is a result of comprehensive research by studying a series of other computer LABs in developing nations Quality and Sustainability are the primary factors considered in the design of the computer lab Computer lab will be a key way for supporting the technology needs and day by day knowledge improvement of students our vision is to make sure that the establish computer lab responds to the growing needs of the university in the area of e-learning other educational technology needs Educations and researches Network and be helpful in corporation with university

This section of the document outlines all required hardware to ensure that the required objective is achieved The proposed set of technological equipment takes quality and economic efficiency into consideration This section of the document covers the features and technical specification of computer lab LAN network equipment power and electrical system computer lab management PC lab specification Renovation and furnishing

No	Item	Description	Quantity
1	Supply and installation of Dell optilex \$250 All in one Desktop equivalent	<ul style="list-style-type: none">• Processor 7th Gen Intel Core™ i5-7500 (QC/6MB/4T/3.5GHz/65W)• Monitor 21.5IN WLED Full-HD AIO non-Touch Display• Memory 8GB (1*8GB) 2400MHz DDR4 Non-ECC• Hard Drive 500GB 2.5inch serial ATA (7,200rpm) Hard Drive• Graphics Card inter^R integrated Graphic• Optical Drive 8x DVD+/-RW 9.5mm Opica; Disk Drive	80

		<ul style="list-style-type: none"> • Ports External USB: 2 USB 3.1 Gen 1 (side, one with power Share) 2 USB 3.1 GEN (rear) 2 USB 2.0 (rear) 1 HDMI 1.4 ouT 1 RJ-45 1 DisplayPort 1.2Out 1 Universal Audio Jack 1 Audio Line Out • Camera Camera-Fixed 2.0MP FHD webcam with primary Cover • Stand Basic Stand • Wireless AC 8262 (802.11ac) 2x2+ Bluetooth • Key board US English (QWERTY) Dell KB 212-B quiet key USB Keyboard Black • Mouse Dell MS 111 USB – optical Mouse • Eco-1 Labels Energy Star 6.0 • Operating system windows 10 Pro 64bit English <p>Warranty one-year hardware service with onsite service</p>	
2	Supply and installation of APC UPS	<ul style="list-style-type: none"> • 1000VA /600W Battery Backup Uninterruptible Power Supply (UPS) • 8 total Outlets : 4 Outlets provides UPS Battery Power Backuo and Surge Protection : 4 Outlets offer Surge Protection Only • Automatic Voltage Regulation (AVR) maintains safe voltage conditions without using backuo Battery power • When the power goes out an Apc BATTERY back up with surge protection provides guaranteed power for computers external Hard-drives and other electronics including your wireless router so you can maintain a 	45

		network connection for your LOT Devices when you need it most!	
3	Supply and installation of windows 10 pro	One-year license 64 bit operating system full supporting	80
4	Supply and installation of Ms office Package 2016	One year ;license Full support	80
5	Supply and installation of electric wire	CHBC high Quality 250V 10A ELECTRONIC ip55 wall socket Size:118*86*63 Mechanical Life: 100000Tmes Material ABS/PC App;ycation : office House Indoor etc Plug Terminal whit Mounting Type: Surface Mount	50
6	Supply and installation of electric wire	High quality 3 cores electric copper wire and cable	400m
7	Supply and installation of Duct for power wire	High quality 25*25mm duct for power cable wire	200m
8	Supply and installation of duct	High quality 100*40mm duct for UTP cables	30m
9	Supply and installation of duct	High quality 40*40mm duct for UTP cables	200m
10	Supply and installation of 48- port Access	Cisco Catalyst 2960x (WS-C2969X-48TS-L)Ethernet Switch/equivalent <ul style="list-style-type: none"> • 48 Ports 10/100/1000Ethernet Interfaces • 4SFP Ports(cisco compatible gigabit Fiber 	3

	Switch	SFP Single mode GE EFT LC connector transceiver module to be included)	
11	Supply and installation of Patch Panel	Grade A (high quality and high density) Cat-6 48 ports UTP panel black color complaint with EIA/TIA cat-6 standard Brand AMP or equivalent	3
12	Supply and installation of UTP Cable	Grade A (high Quality) – cat-6 24A WG Copper wire (UTP) SUPPORTUB=NG 10/100/1000BASE TEIA/TIA Red/blue/grey/white/green color (AMP or equivalent) standard Copper text verified	6Boxes
13	Supply and installation of Connectors	Grade A (high Quality) =RJ=45 (AMP or equivalent)	3 Boxes
14	Points (wall face plate)	Grade A (high Quality) –RJ-45 network pointd (cat6) RJ 45 K jack (AMP OR EQUIVALENT) Single gang face plate 2 port white color (AMP or equivalent)	120
15	UTP patch cord	Grade A cat 6 UTP patch cord 2m	120
16	Supply and installation of UTP patch cord	Grade A cat 6 UTP patch cord 1m	130
17	UTP cable management	IU patch cord management panel plastic ring, black or equivalent	4
18	Supply and installation of 32U rack	Rack size: 19 32U rack frame with door & side Panel Air ship Temperature control system Caster, LED-screen, PDU and other accessories included	1
19	Supply and installation of small size	Computer tables for pc lab <ul style="list-style-type: none"> Material – high quality Malaysian /Turkish lasani wooden board and steel 	45

	computer Table (Rectangle)	<p>frame/quality wooden frame with durable finish</p> <ul style="list-style-type: none"> • Drawers-No • Color=1060 Medium Oak • Table Shape –rectangle • Adjustable Height=No • Length=70 Inch • Width-20 Inch • Height-29 Inch • Table top thickness – 1.25 Inch (32mm) • Weight Capacity-over 130 kg • Cables Ports –Yes 2 • Design- contemporary <p>Warranty – 1-year full warranty with all parts</p>	
20	Supply of Quality Functional stacking chair with tubular steel frame comfortable padded seat and armrests	<p>For PC LAB</p> <ul style="list-style-type: none"> • Material-Fabric/Synthetic Leather(seat,back and armrest)Steel(frame) • Assembly-Assembled • Chair back height –standard • Color –black • Furniture frame Material – Metal (thick gauge steel frame) • Seat style- cushion/synthetic leather (padded back and seat) • Armrest – yes (cushion) • Weight capacity – over 100 kg • Overall dimensions -25,5 in Wx24 in. Dx36.5 in. H\ <p>Warranty -1-year full warranty with all parts</p>	125
21	Supply and installation of wall Mounted rolling	<p>Curtains For PC</p> <ul style="list-style-type: none"> • Materials – Fabric , steel (wall mount) PVC roll • Smooth action roller clutch mechanism • Weather resistant fabric and components 	90m ²

	curtains (shades)	<p>resist fading mold , and mildew</p> <ul style="list-style-type: none"> • Complete installation – yes warranty -1-year full warranty with parts 	
22	Supply of HP LASERjET Pro M225Dn Networked all – in-one (print ,scan .copy ,fax) monochrome printer /Equivalent	<ul style="list-style-type: none"> • Print speed – up to 26 ppm black • Maximum paper size -8.5 “ x 14” • Networking – Ethernet • Display -2-line text LCD <p>Paper capacity – 250 /greater sheet input tray</p>	1
23	Supply and installation of Samsung AC/Equivalent	High quality Samsung AC 24000 BTU	5
24	Supply and installation of XG-2758 1U pfSense ^r security gateway appliance /equivalent	<p>Specifications:</p> <ul style="list-style-type: none"> • 8 core Intel Atom C2758 CPU (8x2,4GHx , 2mb csche, 20W, quick Assist, AES-NI) • Standard 1U 19”Rack Mount Form factor • 16 Gb ECC Memory • 120GB MICRON DC510 SSD <p>Included, second SSD optional</p>	1
25	Supply and installation of Floor Carpet	<p>Floor Carpet for PC Lab, High quality carpet. Carpet laying, transportation and all necessary work shall be including in the price.</p>	125m2
26	Supply and installation of Samsung SNO-6084R2Megapixel Full HD Weather	<p>Max.2M (1920×1080)resolution 16:9 Full HD(1080P)resolution support 3, 8.5 mm (2.8×)motorized varifocal lens. H.264,MJPEG dual codec, Multiple streaming. Audio/Face/Motion detection simple focus, UPnP,Defog</p>	5

	proof Network IR Camera/Equivalent	SD/SDHC/SDXC memory slot Multi-crop streaming IR LED (20ea),PoE, IP66, IK10,Bi-directional audio support.	
27	Painting	Color whit Plastic 100% color	300 m2
28	Samsung SRN- 4000-2TB 64CH 400MBS HOT-SWAP RAID NVR ,2TB	Up to 64Ch Full HD Network Camera supports 400 mbs network camera recording H ,264 MPEG-4network camera recording H ,264 MPEG-4& MJPEG multiple codes Supports for VGA to SMP resolution Max 12 hot SWAP HDDs (RAID 5/6) ISCI	1
29	Samsung LN52B750 52- LNCH 1080P 240Hz LCD HDTV WITH CHARCOAL GREY TOUCH OF COLOR (2009 MODEL)	52inch high definition tv with 1080p resolution Four HDMI, two components, one PC, and two composite video inputs Auto Motion plus 240HZ 2ms response time 150,000:1 dynamic contrast 3 for a stunning high contrast picture can use usb 2,0 for connecting thumbs drives or camera two 10w bottom speakers and SRS TruSurround HD for a rich surround sound experience from two speakers	3

Computer lab technical checklist

Follow outlines general checklist for interested bidders and contractors and should be considered when developing their computer lab related proposals and bidding documents

- Contractors shall ensure all required equipment as listed in the specification are properly install and tested and shall provide at least one year technical support

- All copper wires connecting switches to the PCs should be cat 6 or a higher
- All switches will be connected directly to the server room core switch in the building \
- ALL physical infrastructure cabling should support desirable speed throughput support by physical cabling
- ALL cabling has to be done in a systematic manner using proper ducting and color scheme
- Patch panels will be installed in the cabinet where all the ports of that will be terminated and connected the switch
- All installed component must be new complete in a good condition unused, cable and connecting component are to be inspected for damage A one year support and maintenance warranty for physical infrastructure must be provided after the project completion
- Every network point is to be tested and documented through advance network cable tester showing speed of cable ,length of cable and performance of links
- The damage done to the walls or ceiling and flooring during the installation of cable and ducting in the buildings will be repaired by the bidding party
- All electrical installation must be properly grounded and protected against over and lighting
- The bidder should provide all the required hardware according to the list of equipment , specified specification and according to given time schedule
- All the equipment should be in complete working conditions before and after installation and configuration
- All hardware and software must be purchased from an authorized distributor or resellers of the manufacture
- Complete configuration document should be provided acceptance checklist for the successful implementation of project
- The bidder shall be responsible to provide verification test validation test to ensure all proposed software and hardware function as proposed
 1. Developing and submitting test plan , test cases and procedures

2. Performing test details in approval test plan
 3. Evaluating test result and
 4. Performing corrective actions and re testing as required
- During warranty period the bidder must send qualified maintenance personnel to installation site the day the problem is reported or the next business day in no event more than 24 hours after the problem had been reported

