

TENDER PROPOSALS



Tender# G-16/08-01

Miscellaneous Items

NATIONAL TEXTILE UNIVERSITY – FAISALABAD

M/S _____

ADVERTISEMENT AS PUBLISHED IN

Daily Nawa-e-Waqt (Aug. 21, 2016) & Daily Dawn (Aug. 21, 2016), PPRA website dated Aug. 19, 2016 and university website. The advertisement is as under:

National Textile University, Faisalabad

Tender Notice No. G-16/08-01

Miscellaneous Items

1. National Textile University, Faisalabad invites two stage-two envelope bids in sealed envelopes from the original Manufacturers, their Authorized Agents/Distributors and GST & Income Tax registered firms for the purchase of the following items. Detail is in the Tender documents.

Sr. #	Item Name
1	Computers: Qty. 50
2	Hardware Firewall: Qty. 01
3	Computer Networking Labs. Qty. 02
4	Laptop: Qty. 02
5	High speed Diesel
6	Miscellaneous Items:

2. Interested eligible bidders may obtain the Tender Document from the office of Convener Purchase or Tender Document may be downloaded from the official website of NTU (www.ntu.edu.pk). The fee of Tender Document is non-refundable **Rs. 1000/-** (one thousand only). The tender document fee will be accepted in shape of Pay order/Demand Draft **drawn on Faisalabad** in the name of "National Textile University, Faisalabad".
3. Eligible firms will submit their bids along with **2%** earnest money of the total quoted price in sealed envelope of Financial Bid in the shape of CDR/Bank Draft in favors of National Textile University, Faisalabad, **drawn on Faisalabad**.
4. Sealed bids should reach in the office of Convener Purchase by or before **12:00 noon on 08-09-2016**. Bids received within the stipulated time and date will be opened by the Purchase Committee in the Meeting Room of NTU Faisalabad on the **same day at 12:30 pm** in the presence of the Bidders or their authorized representatives as per PPRA Rules.
5. The detail of the contact persons is in the tender documents.

Dr. Zahid Rizwan

Convener Purchase

041-9230081-85 (Ext. 159)

National Textile University, Sheikhupura Road, Faisalabad-37610

www.ntu.edu.pk

1. Deadline and Procedure for Bids:

- i. Tender Proposals under “**Two stage-two envelope {PPRA Rule 36(d) & Rule 36(b)}**, rules at the end of this document” (**Technical & Financial Bids**) will be received on **08-09-2016 till 12:00** noon in National Textile University, Faisalabad.
- ii. Technical Bids will be opened in presence of authorized representatives of the bidding firms on the same day (**08-09-2016**) at **12:30 pm** at Meeting Room, National Textile University, Faisalabad.
- iii. *PPRA Rule 36(d) where applicable*: Technically successful bidders will be requested to present/discuss their product/solution/offer with technical committee of NTU. The time, date and venue will be informed in advance to present/discuss the product/solution/offer. Bidders will bring/provide 06 copies of technical brochure at the time of presentation/discussion. **NOTE**: Technical committee can call you electronically or physically depending upon the nature of the issue.

First, 2nd, 3rd, 4th,.....option(s) of any complete equipment or its any part may be presented/discussed at the time of product presentation/discussion. But this will not be applicable after the revised (final) technical specifications. Only first quoted option will be considered for final financial comparative statement for the healthy competition.

More detailed and final specifications will be provided by the technical committee after the product presentation/discussion.

The financial bids will be opened in the presence of representatives of the technically evaluated successful bidding firms. The time, date and venue will be informed in advance to open the financial offers.

Otherwise **PPRA Rule 36(b) will be followed** (where applicable)

2. Bidder’s Eligibility and Qualification:

- i. Bidding firm must be registered with tax authorities (Sale Tax & Income Tax) and will submit the certificates of registration.
- ii. Original manufacturer’s authorized distributors/sole agents will provide certificate for participation in the tender from their principle manufacturer(s).
- iii. Bidders are required to submit the certificate along with their offer i.e. “Certified that the prices quoted in the tender are firm, final and are not in excess of printed price list of the manufacturer in country of origin and in case of any discrepancy is noticed subsequently bidder hereby undertakes to make goods any loss to the University.”
- iv. An Affidavit duly attested by the Oath Commissioner/Notary Public showing that the **firm is not Black-listed** from any Govt./Semi Govt. Department of the Pakistan.
- v. Bidder will provide Address of nearest office to Faisalabad (mandatory) and Web page address (optional)
- vi. Users list of quoted items for the last 1 years

3. Sealed Technical & Financial Bid:

- i. Technical & Financial Bids must be sealed (separately) with covering letter. There must be clearly mentioned on each envelope “**Technical proposal**” / “**Financial Proposal**”.

4. Conditional Tender:

- i. Any condition(s) imposed by the bidder will not be accepted.

5. Bid Security (PPRA Rule-25):

- i. Bidders must be accompanied by a Bid Security @ **02%** of the bid price in the shape of Pay Order / CDR in favor of National Textile University, Faisalabad. In case of failure tender document will not be entertained.

Note: The supplier/bidder for the supply of high speed diesel will submit only Rs. 5000/- (Five thousand only)

6. Performance Guarantee (PPRA rule 39):

7. An amount of **06%** will be deducted as a performance Guarantee from the bill for the items (Serial# 1-4, 7, 9-12, 14-15, 17-23 and 25) and shall be retained for the period of **one year** from the date of commissioning/installation of project/machine/equipment. **Taxes/Duties:**

- i. All Govt. Taxes/Duties will be paid by NTU and should not be included in the financial offer.
- ii. All clearing and insurance charges (where applicable) will be paid by NTU and should not be included in the financial offer.

8. Bid Validity Period:

- i. All pricing shall be guaranteed not to increase, based on an order placed. The offer should be valid for 120 days from the date of opening of the tender.

9. Commissioning/Installation/Training:

- i. Commissioning, Installation and testing (at full capacity) of all the equipment will be provided by the bidder.
- ii. Training (on site) will be provided by the bidder for the operation, maintenance and troubleshooting etc.

10. Country of Origin and Packing:

- i. The equipment/items must be brand new and complete in all respects with original packing of manufacturer and strictly conforming to the given specifications. Country of origin and model must be mentioned in technical proposal.

11. Prices:

- i. The foreign principles/manufactures/distributers/agents/supplier/bidder should quote price of Equipment on **C&F** basis at Faisalabad Dry Port OR Faisalabad Air Port (in case of C&F) **otherwise** FOR ex-university store. Detail is as under:
- ii. The bidder/supplier should quote unit price of each equipment/item separately, however the prices of item # 11 (commissioning of computer network) will be calculated.

Example:

Sr.#	Part number and description etc	Supposed Price (Rs.)
1	Layer-2 switch	1000/-
2	Cable manager	100/-
3	Laying of UTP cable, fixing of duct patti, drilling, screw, nail and allied fixation	10/Ft.
4	Termination of I/O, face plate and back box	50/- per unit

Total: Rs. 1160/-

- **To evaluate lowest bidder:** The price of Serial# 3 will be calculated by considering 1000 Feet laying, but will be paid as per actual after completion the project.
- The price of Serial# 4 will be calculated by considering 200 Nodes, but will be paid as per actual after completion the project.

12. Notification of Award:

- i. The university will award the contract to the successful bidder whose tender has been determined to be substantially responsive and has been determined as the lowest financial proposal.
- ii. In case the offer is withdrawn, amended or revised during the validity period of the tender, the earnest money will be forfeited.

13. Warranty and availability of Spare Parts:

- i. The equipment/items or any part must be BRANDED (originally manufactured & assembled) & complete in all respects with original manufacturer's packing and strictly conforming to given specifications. Any used part (inner or outer) will not be accepted.
- ii. **Warranty:** support & service (free of cost) should not be **less than one** year of each item (except serial # 4 & 9 that is mentioned below) otherwise offer will not be considered. Warranty period will be started from the date of *operational work of the equipment / item on site.*

NOTE:

Original Manufacturer's Warranty for the period of 03 years for Serial# 9 (50 computers) and 02 years for Serial# 4 (IP camera).

All expenditures {of technical, personnel, any transportation (National/International) or any type of charges of repair/replacement of any part(s) of the item(s)/equipment **during Warrantee period** will be borne by the supplier/bidder.

- iii. After sale, supply of spare parts must be guaranteed on payment for the next two years (after the expiry of warranty periods).

14. Conformity with the given Specifications:

- i. Equipment/items will be inspected at NTU through an authorized Surveyor in the presence of the supplier/their representative. Equipment/or any part will be rejected if not found according to the given specifications.

- ii. In case any material is found not in conformity with the specifications provided in the tender, either on account of inferior quality, defective workmanship, faulty design, faulty packing or is short supplied, or wrongly supplied, the supplier will replace the short supplied wrongly supplied, faulty or defective part/material free of charges including transport charges etc. or pay the full cost of replacement.
- iii. In case of failure on the part of supplier to supply the equipment's as per specifications / quantity within the stipulated time (without extension/approval from the competent authority i.e. Rector of NTU), a penalty at least 0.25% but not exceeding 10% per month will be imposed after the approval of competent authority. Tender with any cuttings, over writings and erasing shall not be entertained.

15. Payments:

- i. The Payment will be made on the availability of funds (approvals from Government planning agencies, other relevant authorities and University management). If payment is delayed (from Government planning agencies, other relevant authorities and University management) due to any reason; no extra interest/mark-up will be paid to the supplier/bidder.

16. Mandatory Signature & Stamp:

- i. Bidder or its authorized representative must sign & stamp each page of the bid documents (technical & financial). Also bidder/supplier will provide the certificate that is provided in this document named as Certificate (Mandatory).

17. Letter of Credit (L./C.):

- i. L./C. (where applicable) will be arranged by the University. All necessary documents for opening LC will be provided by the bidder/supplier, very carefully to avoid any type of confusion/ or delay in supply of items/equipment.

18. Rights of the University:

- i. **If there is any conflict, it is a fundamental term of the Tender that the Bidders acknowledges and accepts that the terms and conditions of the University shall prevail.**
- ii. The University reserves the right to reject any or all bids with assigning reason(s).
- iii. The University reserves the right to ignore or waive off minor irregularities or errors in any offer.
- iv. The University reserves the right to award the Contract to one bidder or divide it among several bidders.
- v. The University reserves the right to cancel the offer of the Bidder whose bid has been found financially to be the lowest if it is revealed to the University that the Bidder does not have the capability or financial resources or facilities to carry out the contract in accordance with the terms and conditions of this Tender Documents.
- vi. The University undertakes to use its best endeavors to hold confidential any information provided by you in your tender submission documents. If you wish not to disclose any of the information to other bidders/suppliers/manufacturers etc because of its sensitivity. You should identify/specify (in black and white) reason(s) for its sensitivity.
- vii. The University will display the official comparative statement on the notice board for which such date will be notified to all bidders accordingly.

19. Breach of Contract:

- i. In case of breach of warranty or Contract, the damages suffered by the University shall be recovered from the Contractor out of any payment due to the Contractor and / or in accordance with the terms and conditions of the Contract Performance Bond mentioned in Standard Forms without notice to the Contractor.

20. Force Majeure:

- i. The Contractor shall not be liable for any additional cost or for liquidated damages for delay or any failure to perform the Contract arising out of force majeure or cause beyond his/her control including acts of God, or of the public enemy. The Contractor shall within ten (10) days from the beginning of such delay notify the University in writing of the causes of the delay. The University shall ascertain the facts and the extent of the delay and extend the time for completing the supplies as in its judgment the findings justify.

21. Legal proceedings:

- i. The law of Pakistan shall govern the contract and the tender documents. Any dispute arising out shall be decided by Competent Authority of the university.

CERTIFICATE (Mandatory)

I (authorized official)..... On behalf of (Company name)solemnly declare that I have read all the terms and conditions of this tender document (Tender No. 16/07-02 for National Textile University Faisalabad), carefully. I also undertake the responsibility that all the given information in tender proposal against the above said tender are correct.

Signature Company stamp.

Date: _____

ALL TENDER ITEMS FOR TENDER # G-16/08-01

Sr. #	Name of Item	Specifications	Department	Purchase Through
1.	Air Conditioners (1.5 Ton) - Qty: 02 Contact Peron; Mr. M. Saif Maqsood (041-9230081, Ext: 207)	Split	TPD	36(b), FOR Basis
2.	Lap Top (Core-i7) - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	IT	36(b), FOR Basis
3.	Compressor - Qty: 01 Contact Peron; Mr. Haseeb Iqbal (041-9230081, Ext:)	Attached	DPE	36(b), FOR Basis
4.	IR Network Camera - Qty: 02 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	TPD	36(b), FOR Basis
5.	Internet Wire - Qty: 02 Coil Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Cat 6 UTP	//	36(b), FOR Basis
6.	Electricity Wire - Qty: 02 Coil Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	40 x 76 S/C	//	36(b), FOR Basis
7.	Multimedia Projector with Complete accessories - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	Rector Office	36(b), FOR Basis
8.	Ceiling Mount Kit - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	//	36(b), FOR Basis
9.	Computer Systems - Qty: 50 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	IT	36(b), C&F Basis
10.	Hardware Firewall - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	//	36(d), FOR Basis
11.	Commissioning of Computer Network - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	//	36(d)
12.	Laptop with Extra Ports - Qty: 01 Contact Peron; Mr. M. Shahzad Arshad (041-9230081, Ext: 146)	Attached	//	36(b), FOR Basis

13.	Continuous Supply of Diesel Oil for Diesel Generator	---	Purchase Office	36(b), FOR Basis
14.	Air Conditioner-1.5 Ton - Qty: 02 Contact Peron; Mr. M. Umair (041-9230081, Ext: 220)	Split	Graduate Studies & Research	36(b), FOR Basis
15.	Air Conditioner-1.0 Ton - Qty: 01 Contact Peron; Mr. M. Umair (041-9230081, Ext: 220)	Split	//	36(b), FOR Basis
16.	Sign/Indication Board - Qty: 02 Contact Peron; Mr. M. Umair (041-9230081, Ext: 220)	Attached	//	36(b), FOR Basis
17.	Photo Copy Machine - Qty: 01 Contact Peron; Mr. M. Umair (041-9230081, Ext: 220)	Attached	//	36(d), FOR Basis
18.	AC Compressor for LG Split AC - Qty: 01	24000 BTU/h	Advisor Student	36(b), FOR Basis
19.	N3050157-Lead (PB) Lumina Hollow Cathode Lamp or Equivalent - Qty: 01 Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Perkin Elmer Atomic Absorption Spectrometer	NTRC	36(b), C&F Basis
20.	N3050170-Antimony (Sb) Lumina Hollow Cathode Lamp or Equivalent - Qty: 01 Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Perkin Elmer Atomic Absorption Spectrometer	//	36(b), C&F Basis
21.	N-3050105-Arsenic (As) Lumina Hollow Cathode Lamp or Equivalent - Qty: 01 Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Perkin Elmer Atomic Absorption Spectrometer	//	36(b), C&F Basis
22.	Teflon Syringes (20 ml.) - Qty: 12 Pcs. Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Electrospinning Machine	//	36(b), FOR Basis
23.	Copper Collector (10'' x 10'') - Qty: 01 Pc. Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Electrospinning Machine	//	36(b), FOR Basis
24.	Teflon Collector (10'' x 10'') - Qty: 01 Pc. Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For Electrospinning Machine	//	36(b), FOR Basis
25.	Integrated Sphere - Qty: mentioned in Tender Documents Contact Peron; Mr. M. Ali (041-9230081, Ext: 191)	For UV-VIS NIR Spectrophotometer Lambda 950 Perkin Elmer	//	36(b), C&F Basis

(2) The procuring agency shall incur no liability, solely by virtue of its invoking sub-rule (1) towards suppliers or contractors who have submitted bids or proposals.

(3) Notice of the rejection of all bids or proposals shall be given promptly to all suppliers or contractors that submitted bids or proposals.

34. Re-bidding- (1) If the procuring agency has rejected all bids under rule 33 it may call for a re-bidding.

(2) The procuring agency before invitation for re-bidding shall assess the reasons for rejection and may revise specifications, evaluation criteria or any other condition for bidders as it may deem necessary.

35. Announcement of evaluation reports-Procuring agencies shall announce the results of bid evaluation in the form of a report giving justification for acceptance or rejection of bids at least ten days prior to the award of procurement contract.

36. Procedures of open competitive bidding- Save as otherwise provided in these rules the following procedures shall be permissible for open competitive bidding, namely:-

- (a) *Single stage - one envelope procedure*-Each bid shall comprise one single envelope containing, separately, financial proposal and technical proposal (if any). All bids received shall be opened and evaluated in the manner prescribed in the bidding document.
- (b) *Single stage – two envelope procedure* -
 - (i) The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal;
 - (ii) the envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
 - (iii) initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;
 - (iv) the envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened;
 - (v) the procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;

- (vi) during the technical evaluation no amendments in the technical proposal shall be permitted;
 - (vii) the financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - (viii) after the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders; and
 - (ix) the bid found to be the lowest evaluated bid shall be accepted.
- (c) *Two stage bidding procedure.-*

First Stage:

- (i) the bidders shall first submit, according to the required specifications, a technical proposal without price;
- (ii) the technical proposal shall be evaluated in accordance with the specified evaluation criteria and may be discussed with the bidders regarding any deficiencies and unsatisfactory technical features;
- (iii) after such discussions, all the bidders shall be permitted to revise their respective technical proposals to meet the requirements of the procuring agency;
- (iv) the procuring agency may revise, delete, modify or add any aspect of the technical requirements or evaluation criteria, or it may add new requirements or criteria not inconsistent with these rules:

Provided that such revisions, deletions, modifications or additions are communicated to all the bidders equally at the time of invitation to submit final bids, and that sufficient time is allowed to the bidders to prepare their revised bids:

Provided further that such allowance of time shall not be less than fifteen days in the case of national competitive bidding and thirty days in the case of international competitive bidding;

- (v) those bidders not willing to conform their respective bids to the procuring agency's technical requirements may be allowed to withdraw from the bidding without forfeiture of their bid security;

Second Stage:

- (vi) the bidders, whose technical proposals or bids have not been rejected and who are willing to conform their bids to the revised technical requirements of the procuring agency, shall be invited to submit a revised technical proposal along with the financial proposal;
- (vii) the revised technical proposal and the financial proposal shall be opened at a time, date and venue announced and communicated to the bidders in advance; and
- (viii) the revised technical proposal and the financial proposal shall be evaluated in the manner prescribed above. The bid found to be the lowest evaluated bid shall be accepted:

Provided that in setting the date for the submission of the revised technical proposal and financial proposal a procuring agency shall allow sufficient time to the bidders to incorporate the agreed upon changes in the technical proposal and prepare their financial proposals accordingly.

- (d) *Two stage – two envelope bidding procedure. -*

First Stage:

- (i) the bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal;
- (ii) the envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
- (iii) initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;
- (iv) the envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened;
- (v) the technical proposal shall be discussed with the bidders with reference to the procuring agency’s technical requirements;
- (vi) those bidders willing to meet the requirements of the procuring agency shall be allowed to revise their technical proposals following these discussions;

- (vii) bidders not willing to conform their technical proposal to the revised requirements of the procuring agency shall be allowed to withdraw their respective bids without forfeiture of their bid security;

Second Stage:

- (viii) after agreement between the procuring agency and the bidders on the technical requirements, bidders who are willing to conform to the revised technical specifications and whose bids have not already been rejected shall submit a revised technical proposal and supplementary financial proposal, according to the technical requirement;
- (ix) the revised technical proposal along with the original financial proposal and supplementary financial proposal shall be opened at a date, time and venue announced in advance by the procuring agency;

Provided that in setting the date for the submission of the revised technical proposal and supplementary price proposal a procuring agency shall allow sufficient time to the bidders to incorporate the agreed upon changes in the technical proposal and to prepare the required supplementary financial proposal; and

- (x) the procuring agency shall evaluate the whole proposal in accordance with the evaluation criteria and the bid found to be the lowest evaluated bid shall be accepted.

37. Conditions for use of single stage two envelope, two stage and two stage two envelope bidding procedures.- Single stage one envelope bidding procedure shall ordinarily be the main open competitive bidding procedure used for most of the procurement. Other appropriate procedures of open competitive bidding shall be selected in the following circumstances, namely:-

- (a) single stage two envelope bidding procedure shall be used where the bids are to be evaluated on technical and financial grounds and price is taken into account after technical evaluation;
- (b) two stage bidding procedure shall be adopted in large and complex contracts where technically unequal proposals are likely to be encountered or where the procuring agency is aware of its options in the market but, for a given set of performance requirements, there are two or more equally acceptable technical solutions available to the procuring agency; and
- (c) two stage two envelope bidding method shall be used for procurement

Specifications

Specifications of Sr. # 9

Technical specs for desktop Computer Systems

Processor:	6th Generation intel core i7 (3.4GHZ with intel turbo boost, 8mb cache, 4 core or above
Chipset:	Q 150 or higher
RAM:	16 GB DDR-4 2133MHZ or above
Storage:	500 GB SSD
Input Devices:	USB Keyboard, Mouse of similar brand
Ports:	USB 3.0, USB 2.0, 1 Serial, Standard VGA, HDMI optional
Display Device:	18.5" or Higher
Operating System	DOS 2.0
Warranty:	3 Year manufacturer Warranty

Specifications of Sr. # 2 & 12

Technical Specifications of Laptop

Processor:	Intel® Core™ i7-6500U with Intel HD Graphics 520 (2.5 GHz, up to 3.1 GHz with Intel Turbo Boost Technology, 4 MB cache, 2 cores) or above
RAM:	16 GB DDR-4 2133MHZ or above
Storage:	500 GB SSD
Ports:	2 USB 3.0, 2 USB 2.0, 1 HDMI, 1 headphone/microphone combo, 1 RJ-45, 1 VGA
Display:	15.6" diagonal full HD anti-glare slim LED-backlit (1920 x 1080) or equivalent
Operating System	DOS 2.0
Carrying case:	Business class carrying case
Warranty:	1 Year manufacturer Warranty

Specifications of Sr. # 4

Technical Specifications of IR IP Cameras

4.0 MP 1080p full HD with 30fps or above Weatherproof Network IR Camera

Having Features:

- 2.8~12 mm F1.2 (x3 Compact Zoom) Motorized lens
- 0 Lux (IR LED ON), 0.05 Lux (IR LED OFF)
- 50dB of Wide Dynamic Range
- H.264 (High Profile Supported) / MJPEG
- Defog, Motion detection, Alarm In /Out, Audio In/Out, Micro SD Slot
- EIS / Mirror / V-Flip / Pivot / BLC / DRE / AGC / Brightness / White balance / Smart IR / 2D+3D
- DNR / Color saturation / Sharpness / Intrusion,
- Standard Approval: Rosh, FCC, CE, UL listed, IP66
- 2-year Original manufacturer warranty
- Operational on site

Abid Bashir
25/8/2016

Abid Hussain
a—d
25/8/16

M. Shahzad Arshad
Shahzad

Specifications of Sr. # 7

Technical Specifications of Multimedia

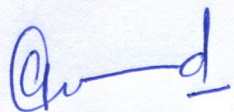
1. BRIGHTNESS (3100 LUMENS or above)
2. RESOLUTION: (TRUE XGA (1024x768) SUPPORT UPTO HDTV & WUXGA (1920x1200)
3. WIRELESS IMAGE (UTILITY TO SEND IMAGES FROM iPad, iPhone & iPod TOUCH, etc)
4. FEATURES (HDMI,USB VIEWER (computer free presentation), USB DISPLAY PORT, WIRED LAN, WIRELESS LAN along with wireless dongle, LAMP LIFE 10,000 HOURS (ECO MODE), CONTRAST 3000:1, 10 W SPEAKERS, QUICK COOLING & DIRECT POWER OFF

ABID BASMIR
25/8/2016

M. Shalqad Arshad.



Abid Hussain


25/8/16.

Serial # 1, 14 & 15 (Air conditions)
Pl. quote installation charges seperately.

Specifications of Sr. # 10

Initial Technical specifications for firewall

State full Inspection throughput	2 Gbps or More
State full Inspection throughput (multiprotocol)	1 Gbps or More
IPS throughput	600 Mbps or More
Concurrent sessions	500,000 or More
Connections per second	20,000 or More
Packets per second (64 byte)	700,000 or More
3DES/AES VPN throughput	300 Mbps or More
Site-to-site and IPsec IKEv1 client VPN user sessions	750 or More
VLANs	200 or More
High-availability support	A/A and A/S or More
Integrated I/O	At least 8-port 10/100/1000 Ports
Expansion I/O	At least 6-port 10/100/1000 or 6-port GE (SFP)

The firewall must be installed, configured from all cyber security aspects for AAA radius server and operational on site. Vendor must provide training to our professional team regarding configurations.

ABID BASHIR

[Signature] 25/8/2016

M. Shahzad Ashraf

[Signature]
25/8/16

Abid Hussain

[Signature]
25/8/16

Specifications of Sr. # 11

Initial technical specifications of Computer Networking

S. No	Item	Qty
1	CAT-VI UTP Cable (per Reel) (Schneider/ Clipsal / Corning)	35 Reels
2	CAT-VI UTP Patch Panel 24 Ports with Shutter (Schneider/ Clipsal / Corning)	9
3	Cable Organizer (Schneider/ Clipsal / Corning)	9
4	CAT-VI UTP Dual Port Shuttered Face Plate with Back box (Schneider/ Clipsal / Corning)	200
5	CAT-VI UTP I/O (Information Outlet) Tool less (Schneider/ Clipsal / Corning)	200
6	Fiber optic MM 8 core (HP/3COM/Cisco)	As per Actual
7	Fiber optic ODF Rack Mount with 8 port SC Duplex coupling	4
8	SC-SC Fiber Optic Patch Cable MM 5 Meter	30
9	Transceiver SM (1000 Mbps)	4
10	Patch Cord Fiber Optic MM (LC-SC) 5 Meter	4
11	CAT-VI UTP Patch Cable 1M (Schneider/ Clipsal / Corning)	200
12	CAT-VI UTP Patch Cable 5M (Schneider/ Clipsal / Corning)	200
13	Adamjee Duct (Per feet)	As per Actual
14	Laying of Duct Per Feet	As per Actual
15	Laying of UTP Cable per feet	As per Actual
16	Fusion Splicing	As per Actual
17	Installation of Face plate and termination of I/O (Per unit)	200
18	42U Rack for Network Equipment's with 4 PDU	2
19	Network Layer 2 switch 24 RJ-45 auto-negotiating 10/100/1000 and 4 SFP 1000 Mbps ports for Uplink	8
20	Controller based WiFi Access Point (AP) Indoor with antenna (external /built-in) along with PoE Adopter IEEE 802.3at HP Aruba series / Equivalent	4
21	UPS 3 KVA pure sine wave	2
22	Extra material like clumps, nails, soft pipe etc. for whole project	Lump sum

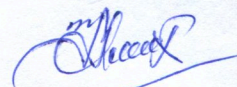
ABID BASHIR
25/8/2016

M. Shahzad Arshed

Abid Hussain



25/8/16



Specifications of Sr. # 3

Technical Specifications for Compressor system

Vessel capacity	25-30 liters
Vessel wall thickness	3-5 mm (Vessel material should bear operating pressure)
Working pressure	15-20 bar
Maximum Temperature	50°C
Minimum Temperature	-10°C
Voltage	230 V / 50-60 Hz

Lab. Engineer

M. Hasnub
12/05/16

Lab. In charge

Chairman DPE

M. Hasnub
12/5/16

Specifications of Sr. # 17

Photocopier Specification

Copy / Print Speed

50 ppm

Functions:

Duplex (2 Sided Copying), Network Print/Scan
Fax (Optional)

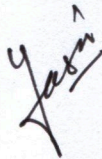
DADF

(Optional)

Padestal

(Optional)

Director Graduate Studies & Research

A handwritten signature in black ink, appearing to read 'Yasin', is written over the underlined text of the Director's name.