

GURU JAMBHESHWAR, UNIVERSITY OF SCIENCE & TEHNOLOGY, HISAR

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**GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY,
HISAR-125001
Tender For Supply and Installation of N/W Equipment(s)**

To

Subject: Invitation for tender for supply of equipments.

Dear Sir (s),

You are invited to submit your most competitive tender for the following equipment (s) with the following terms and conditions:-

A. SCHEDULE OF EVENTS :-

- | | | | |
|----|---|----|----------------------|
| 1. | TENDER NO.* | :: | N/W Cell / 2016 /01 |
| 2. | TENDER FLOATING DATE | :: | 30.01.2016 |
| 3. | TENDER SUBMISSION CLOSING DATE & TIME:: | | 15.02.2016 (3:00 PM) |
| 4. | TENDER OPENING DATE & TIME | :: | 15.02.2016 (3:30 PM) |
| 5. | VENUE FOR TENDER SUBMISSION & OPENING:: | | Room No. 112 TB-6 |
| 6. | PRE-BID CONFERENCE(IF ANY) | :: | No |
| | DATE, TIME AND VENUE | | NA |
| 7. | TENDER DOCUMENT COST | :: | Rs. 300-00 |

* Tender number must be mentioned in all correspondence.

B. BRIEF DISCRIPTIONOF TENDER DOCUMENT :-

This tender document consist of four parts namely :

- i) Brief description of the equipment name ;
- ii) Technical data sheet(technical specifications of the equipment) ;
- iii) General standard Terms and conditions ; and
- iv) Special Terms and conditions (If any).

1. Brief description of the equipment(s) :-

It mentions the name of the equipment required and its quantity. The quantity is subject to increase and decrease, at the discretion of the indenter. (ANNEXURE-A)

2. Technical data sheet(technical specifications of the equipment) :-

It contains the technical details / specification of the equipment. It should be submitted in a separate sealed envelope marked as "Technical Bid". Bids having deviation in technical specification will be declared as "technically non-responsive " and it will not be considered for commercial evaluation . (ANNEXURE-B)

3. Commercial Data Sheet(Price / Commercial Bid) :-

This format deals with the commercial aspect of the tender. The bidder should quote the basic/ex-works rate of goods and other over head charges only in this format .

4. **General / standard Terms and conditions** (Part D):- This portion contains the general/standard terms and conditions of the tender and its compliance is essential, failing which the contract may be cancelled and bidder may be liable for penal action against it.

5. **Special Terms and conditions :- (ANNEXURE-C)**

It contains special terms and condition which may be in addition to / in super-session of the referred “**General / Standard Terms and conditions**” and its compliance is also compulsory in the same manner, as in the case of the **General / Standard Terms and conditions**.

C. EQUIPMENT DETAILS :

i) Brief description of the equipment name :-

<u>Sr. No.</u>	<u>Name of Equipment(s)</u>	<u>Qty. Required</u>
1.	Networking Items	See Annexure-A

ii) **Technical data sheet (Technical specifications of the equipment) :-**

Sr. No.	Description of the Equipment (s)	Technical Specifications
1.	Network Connectivity of Reception Center at University Gate-3	ANNEXURE-B

D. GENERAL/ STANDARD TERMS AND CONDITIONS OF THE TENDER :-

1 **TWO ENVELOPE BID :-**

The tender is to be submitted on two envelope bid pattern i.e. “**Technical bid**” and “**Price/commercial bid**” in separately sealed envelopes. Both of these envelopes should be put in and sealed in another envelope addressed to In charge, Networking Cell, Guru Jambheshwar University of Science & Technology, Hisar-125001 (Haryana), India and super-scribed in bold as “**TENDER FOR Network Connectivity of Reception Center at University Gate-3**”.

The “**Technical bid**” should mention only the technical details of the item/equipment. Price per unit be mentioned only in the “**Price/commercial bid format**”. Bid will be rejected if it is not submitted in above format

2. **BID SIGNING :-**

The Tender must be signed by authorized signatory of the bidding firm/company on each page, along with seal of the firm/company, as the case may be

3. **Conditional Bid :-**

Conditional Bid is not acceptable. Hence, the supplier is advised neither to alter the specifications nor to mention anything on the Tender form, except cost, signature with seal, otherwise his Tender will not be considered. Supplier should also not submit multiple option bid in terms of rates and model.

4. Delivery Destination:-

The Tender should be quoted as FOR GJUS&T, Hisar.

5. Delivery Acceptance :-

The delivery of the material will be handed over to the authorized official of the concerned indenting department/office, However, the goods will be deemed to accepted subject to the approval of the inspection committee of GJUS&T. In case of rejection of the consignment, the supplier should immediately remove the consignment from the university premises failing which it will remain there at the risk and responsibility of the supplier and university will not be responsible for any kind of liability in this regard.

6. Delivery Period :-

Firm shall complete the job within 30 days of placement of purchase order. They shall be liable of penalty @ 0.5 % per week for delay in this regard. In case job is not completed within 45 days then university will cancel the order without paying any amount and the firm will be blacklisted for any future dealing with the university.

7. Delivery Period Extension:-

The supply order(s) shall be executed within the time specified in this regard. However, in case of Force Majeure / reasons beyond control of the supplier, he may make a written request to the Vice-Chancellor for grant of extension for delivery period. The written request in this regard should clearly spelling out such reasons .

The Vice-Chancellor, if he is satisfied of such reasons and further that the requested extension will not be detrimental to the interests of the university, may grant extension for a reasonable period for delivery of the goods. The supplier would be required to indemnify the university against any loss on account of downfall of the price during the extended period. However the extension in delivery period will not be treated as a matter of right.

8. Penalty for delayed supply :-

In the event of the delayed supply, if accepted, there will be a penalty @ 0.5% per week of total cost of the purchase order. The supply will be deemed to be complete on the day when 100 % supply is handed over to the indenter(in case of supply in installments) and its installation is done.

9. EMD forfeiture:-

EMD will be released on successful inspection of complete network. In case of the contractor backs out the supply, the earnest money deposited by him shall be forfeited. Apart from it, he will be liable for any other action against him, as may be considered necessary by the Vice-Chancellor.

10. Rejection of incomplete tenders;_

Incomplete Tender such as unsigned Tender, late submitted Tender, conditional Tender, not confirming to the eligibility criteria and Technical specification or with any vague term such as 'Extra as applicable', will be considered as rejected.

11. Quantity Variation :-

The quantity shall be subject to increase or decrease as the case may be.

12. Manual/literature:-

The detailed literature/catalogue of the quoted instrument and its accessories should also be attached with the tender. The specifications claimed by the firm should be clearly mentioned in the literature/catalogue also. Its manual should also be supplied with the equipment.

13. Taxation:-

Taxes/Excise duty/Custom duty etc. should be quoted independent of the ex-works price of the item and it will be paid as applicable under Government rules, if so quoted by the Supplier in the tender, subject to the certificate in the bill of costs as follows. However, wherever exemption from duty (excise/custom duty) is applicable, the university will provide the exemption certificate, along with supply/purchase order itself.

“Certified that the taxes/duties charged in this bill is leviable under Government Rules”.In case of imported goods the custom clearance is to be arranged by the supplier at his own. Charges, if any, in this regard, however, need to be mentioned accordingly in the quote itself. University will provide necessary documents for this purpose. In case the quote is silent with regard to taxation and clearance charges etc, no such charges will be paid by the university.

14 . Right to Bid rejection :-

The University reserves the right to reject any or all offers without assigning any reason.

15. Packaging of Consignment :-

The material should be packed in a strong case so as to avoid any damage, theft or pilferage in the transit, in which case the responsibility shall be that of the supplier.

16. Warranty :-

The warranty should be 36 months from the date of installation of the Network including UPS and its batteries.

17. Performance Warranty :-Firm will have to submit performance Bank Guarantee of 10 % amount of total cost for a period of three years. University can claim this amount in case firm do not provide satisfactory services during warranty period.

In case of imported goods requiring opening of LC or advance copy of the draft, the bank guarantee on account of performance warranty, having validity for warranty period plus 4 months, should be submitted before issuance of the purchase order by the indenter. If required, its validity will be got suitably extended by the supplier before release of his EMD.

18. Payment :-The payment will be made after inspection by university, which will be carried out within one month of completion of the work.

19. Currency:-

The rates be quoted in Indian Currency(IN R).

20. Earnest Money Deposite(EMD) :-

The earnest money of the amount , as per the slab given below, in the form of bank draft payable at Hisar and drawn in favour of the Registrar, Guru Jambheshwar University of Sc. & Tech. Hisar or a irrevocable bank guarantee, will be required to be remitted with the tenders. **EMD should be enclosed with Price bid and the same should be indicated in the Technical bid also.**

21.Arbitration :

In case of any dispute both the parties will be bounded by the decision of the Vice- Chancellor, GJUS&T, Hisar , as the arbitrator.

22.Jurisdiction :-

All disputes shall be subject to Hisar jurisdiction.

23. EMD Slab :-

<u>Sr. No.</u>	<u>Contract Value</u>	<u>Earnest Money</u>
1.	Rs. 200001/- to 300000/-	Rs. 10000/-
2.	Rs. 300001 to 500000/-	Rs. 20000/-
3.	Rs. 500001 to 1000000/-	Rs. 40000/-
4.	Rs. 1000001 to 2000000/-	Rs. 70000/-
5.	Above Rs. 20 Lacs	Rs. 100000/-

The terms & conditions of tender have been read and I/We certify that I/We clearly understand the same and undertake for its compliance

Place :-----

Date:-----

Signature of authorized
representative of the bidding
firm/company with seal.
(Affix Rubber Stamp of the firm)

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY HISAR

(Technical Bid)

TENDER NO & DATE : _____ Name of Firm _____

S No	Description	QTY	Make	Model
A	Actives: Brocade/Cisco/EXTREME			
1	Access Switch gigabit Layer2 24 ports + 2 OFC Mocule	1		
B	Passives: AMP/Krone/Molex			
1	I/O with SMB	20		
2	CAT6 UTP 24 Port Jack Panel Fully Loaded	1		
3	CAT 6 UTP 3 ft Patch cord	20		
4	24 Core SM fibre cable* From TB-6 to Gate-3	1175		
5	12 Port LIU Loaded With Couplers and Splice Tray	2		
6	24 Port LIU Loaded With Couplers and Splice Tray	1		
7	Single Mode Pigtails	48		
8	Single Mode Fibre Patch Cords-3 Mtr	4		
C	Others			
1	12 U Rack: Dynamic/Comrack	1		
2	PVC Conduit of suitable size*	300		
3	Offline/line interaction UPS of 1 KVA- Make: APC / Libbert	1		
4	HDPE 32MM For Fiber *	1000		
D	Services			
1	OFC Cable Laying underground, on walls etc. *	1175		
2	Fixing of LIU	1		
3	Connectorization /Splicing of OFC cores*	48		
4	Fixing of Racks	1		
5	Fixing of UTP jack panels	1		
6	Fixing and installation of UPS	1		
7	Testing and documentation	1		

*On Measurable basis.

Note: Attach the documentation and catalogue of the make and model quoted.

BIDDER'S ACKNOWLEDGEMENT

I UNDERTAKE TO SUPPLY THE EQUIPMENT / ITEM AS PER ABOVE TECHNICAL SPECIFICATIONS

PLACE: _____ (SIGN WITH SEAL OF THE BIDDER)
 DATED :

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY HISAR
Price/commercial bid (For Networking items)
(In separate envelope)

TENDER NO & DATE : _____ Name of Firm _____

S No	Description	QTY	UOM	Rate	Total
A	Actives: Brocade/Cisco/EXTREME				
1	Access Switch gigabit Layer2 24 ports + 2 OFC Module	1	Nos.		
B	Passives: AMP/Krone/Molex				
1	I/O with SMB	20	No.		
2	CAT6 UTP 24 Port Jack Panel Fully Loaded	1	No.		
3	CAT 6 UTP 3 ft Patch cord	20	No.		
4	24 Core SM fibre cable* From TB-6 to Gate-3	1175	Mtrs.		
5	12 Port LIU Loaded With Couplers and Splice Tray	2	Nos.		
6	24 Port LIU Loaded With Couplers and Splice Tray	1	Nos.		
7	Single Mode Pigtails	48	Nos.		
8	Single Mode Fibre Patch Cords-3 Mtr	4	Nos.		
C	Others				
1	12 U Rack: Dynamic/Comrack	1	No.		
2	PVC Conduit of suitable size*	300	Mtrs		
3	Offline/line interaction UPS of 1 KVA- Make: APC / Libbert	1	Nos.		
4	HDPE 32MM For Fiber *	1000	Mtrs		
D	Services				
1	OFC Cable Laying underground, on walls etc. *	1175	Mtrs		
2	Fixing of LIU	1	Nos.		
3	Connectorization /Splicing of OFC cores*	48	Nos.		
4	Fixing of Racks	1	Nos.		
5	Fixing of UTP jack panels	1	Nos.		
6	Fixing and installation of UPS	1	Nos.		
7	Testing and documentation	1	L.S.		
Grand Total					
Amount in words					

We agree to supply the above Equipments/software in accordance with the above technical specifications for a total contract price referred as above , with in the period specified in the Invitation for Tender. We also confirm that the normal commercial warranty/guarantee of as per tender document shall apply to the offered Equipments/Software.

Date: _____

Place: _____

Signature with seal of the firm

Annexure-‘A’

S No	Description	QTY	Specifications
A	Actives: Brocade/Cisco/EXTREME		Specifications as per Annexure ‘B’
1	Access Switch gigabit Layer2 24 ports + 2 OFC Mocule	1	
B	Passives: AMP/Krone/Molex		
1	I/O with SMB	20	
2	CAT6 UTP 24 Port Jack Panel Fully Loaded	1	
3	CAT 6 UTP 3 ft Patch cord	20	
4	24 Core SM fibre cable* From TB-6 to Gate-3	1175	
5	12 Port LIU Loaded With Couplers and Splice Tray	2	
6	24 Port LIU Loaded With Couplers and Splice Tray	1	
7	Single Mode Pigtails	48	
8	Single Mode Fibre Patch Cords-3 Mtr	4	
C	Others		
1	12 U Rack: Dynamic/Comrack	1	
2	PVC Conduit of suitable size*	300	
3	Offline/line interaction UPS of 1 KVA- Make: APC / Libbert	1	
4	HDPE 32MM For Fiber *	1000	
D	Services		
1	OFC Cable Laying underground, on walls etc. *	1175	
2	Fixing of LIU	1	
3	Connectorization /Splicing of OFC cores*	48	
4	Fixing of Racks	1	
5	Fixing of UTP jack panels	1	
6	Fixing and installation of UPS	1	
7	Testing and documentation	1	

*** On measurable basis as per actual.**

Annexure-‘B’

SPECIFICATIONS

Specifications of Access Switch:

Preferred Makes: Cisco/ EXTREME/ Brocade

S. No.	ITEM DESCRIPTION
1	OEM of Switch shall be ISO certified and the product shall be ROHS compliant.
2	The switches offered should not be of ‘SMB’ segment.
3	Interface: Fully managed Layer 2 24 RJ 45 autosensing 10/100/1000 including 4 nos. of 10/100/1000 Base X ports with 2 SM Transceivers.
4	Switching capacity: Min. 56 Gbps & through Extreme 41.6 Mpps. Must support Indian type power cord suitable for 200-240 V AC operation;
5	Shall have non-blocking switching architecture.
6	Min.16 K MAC Address support; 512 VLANs, Jumbo Frame support; Simple Network Time Protocol (SNTP), IPv6 compliant.
7	RSTP or IEEE 802.1w; Multiple Spanning Tree Protocol (MSTP or 802.1s); RMON (4 groups)
8	Minimum four or more hardware queues per port. The queues must be able to handle voice, intranet, email, video conferencing, etc.
9	Network login with IEEE 802.1x user authentication; RADIUS/TACACS+ support; ARP and DHCP snooping; SNMP v1,2 & 3; secure shell v2;
10	Must have advance features like sflow /IPFIX or equivalent, LLDP, IGMP etc.
11	Must be capable of QoS functionalities.

Specifications for RACK:

Preferred Make: Comrack/Dynamic

1	Well painted Steel Body Completely covered and has security locks. All covers can be removed and operational from all sides. Uninhibited access to all mounting points inside the rack Proper Ventilated with minimum 2 Fans Proper (vertical and horizontal) Cable Management with required power points Adjustable shelves and accessories to accommodate LIU, Switch, Jack Panel etc.
2	Completely covered and have security locks
3	All covers can be removed and operational from all sides.
4	Uninhibited access to all mounting points inside the rack
5	Proper Ventilated with minimum 2 Fans
6	Proper (vertical and horizontal) Cable Management with required power points

UTP Cat-6 Cable

Items Description	Required Features Description
Brand	ADC Krone / AMP/ MOLEX
Part / Product No	
General Feature	Should have -
	23 AWG conductor
	UL Listed
	Pair Separator: Star filler (No bisector tape)
	Category 6 Cables shall also be compliant with the following: ANSI/TIA/EIA-568-C.2 Transmission Performance Specifications for 4-pair 100W Category 6 Cabling.
Mechanical Characteristics	
Conductor:	Solid Bare Copper AWG: 23
Conductor Dia Norm:	0.574
Insulation:	PE
Average Thickness (±0.03mm):	0.23
Min. Point Thickness (mm):	0.18
Insulation Dia. (±0.05mm):	1.04
Twisting Lay Length (mm):	30underneath
Filler:	PE
Jacket:	PVC with FR rated
Average Thickness of jacket(±0.05mm):	0.5
Min. Point Thickness (mm):	0.46
Outer Dia. (±0.15m	6.1
Warranty	20 years system performance warranty

Cat 6 I/O Modular with Strain Relief bend limit Boot:

Items Description	Required Features Description
Brand	ADC Krone / AMP / MOLEX

Part / Product No	
Type	PCB based, Unshielded Twisted Pair, Category 6, TIA /EIA 568-C.2 and ISO/IEC 11801
Modular Jack	750 mating cycles
Wire terminal	200 termination cycles
Accessories	Integrated bend-limiting strain-relief unit for cable entry
	Support cable pair termination process on the jacks at 90 degree angle.
	Bidder should have a mechanism to maintain the quality of the termination ir-respective of the skill level of the termination staff.
Housing	Polyphenylene oxide, 94V-0 rated.
110 Blocks	polycarbonate, 94V-0 rated
Jack contacts	Beryllium copper, plated with 1.27 mm [.000050] thick gold in localized area and 3.81 mm [.000150] minimum thick tin-lead in solder area over 1.27 mm [.000050] minimum thick nickel under plate
Wiring blocks	Polycarbonate, 94V-0 rated
Approvals	(a) UL Listed / CSA Approved
Performance Characteristics to be provided with bid	Attenuation, NEXT, PS NEXT, FEXT and Return Loss
Warranty	20 years system performance warranty

Cat6 Patch Panel 24 Port with Rear cable manager

Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention
General Feature	Panels should accommodate 24 Cat6 jacks in 1U.
	Should Supports Gigabit Ethernet up to 250MHz
	Should offer modular panels offer complete flexibility and high port density
	Panel should have Expansive cable management and labelling facilities
	Should support for both shielded and unshielded solution and Fully interoperable and backwards compatible
	Modular panels offer complete flexibility within the communications room
	Panel should supplied with the Rear Cable Manager
Mechanical Characteristics	

Jack Connector	
Plastic Housing:	Polycarbonate, UL94V-0 rated or equivalent
Operating Life:	Minimum 750 insertion cycles
Contact Material:	Copper Alloy
Contact Plating:	50μ” Gold/100μ” Nickel
Contact Force:	100g minimum
Plug Retention Force:	15 lb.
IDC Connector	
Plastic Housing:	Polycarbonate, UL94V-0 rated or equivalent
Operating Life:	Minimum 200 reterminations
Contact Material:	Copper Alloy
IDC Contact Plating:	Silver plate
Contact Force:	100g minimum
Wire Accommodation:	22-24 AWG solid
Electrical Characteristics	
Insulation resistance	≥ 500MΩ
Dielectric strength	Contact / contact 1 kVrms
Typical plug / jack contact resistance	≤ 20mΩ
Warranty	20 years system performance warranty

Face Plate for Modular

Face Plate with Shutter	
Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention
General Feature	All faceplates shall:
	Be applicable to both fiber and copper applications.
	Have write on designation labels for circuit identification together with a clear plastic cover.
	86mmx86 mm British style plates.
	Be available in Single, Dual and Quad port.
Warranty	20 years system performance warranty

Face Plate for Modular

Face Plate with Shutter	
Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention

General Feature	All faceplates shall:
	Be applicable to both fiber and copper applications.
	Have write on designation labels for circuit identification together with a clear plastic cover.
	86mmx86 mm British style plates.
	Be available in Single, Dual and Quad port.
Warranty	20 years system performance warranty

Patch Cord (1 / 2 Meter)

Items Description	Required Features Description
Brand	ADC Krone / AMP / Molex
Part / Product No	Please mention
General Feature	The work area equipment cords designated as Category 6 shall, at a minimum, must meet ANSI/TIA/EIA-568-C-5 Transmission Performance Specifications for 4 pair 100W Category 6.
	Jacket should be PVC.
	UL Verified
	Should have boot to protect the locking latch on the RJ45 plug.
	Should be available in different colors
	Operating life: Minimum 750 insertion cycles
	Contact material: Copper alloy
Contact plating: 50μ” Gold/100μ”Nickel	
Warranty	20 ears system performance warranty

Fiber Pigtail Single Mode

1.5m LC Pigtail, 1 fiber, SM	
Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention
General Features	Should be factory-controlled optical performance on a variety of connectors that enable fast, economical installation.
Technical info	Outside Diameter: 900μm
	Buffer Diameter: 900μm tight buffer
	Min. Bend Radius: 30mm
	Cable Sheath Material: PVC
	Cable Sheath color: Random
	Cable Grade: FDDI Riser Rated OFNR
Connector ferrule: Zirconia	

	Retention Strength: 100N
	Operating Temperature: -10°C to 60°C
	Insertion Loss (Max): <0.3dB
	Return Loss (RL): >40dB
Warranty	20 years system performance warranty

Fiber Adapter Single Mode

Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention
General Features	100% Factory Tested 6 Port Universal Adapter Strips for ST
Technical information	Compatible, SC, FC, 568SC (Duplex SC), LC
	Duplex and MT-RJ connectors.
	Push-pull coupling with floating ferrule for positive locking and contact stability
	Ceramic ferrule and plastic housing for long term reliability
	Duplex version with A and B marking as per
	TIA/EIA-568-B.3 – for ease of administration
	Available in PC (MM), SPC (SM) and
	UPC (SM) polish for maximum performance.
	Operating Temperature: -40°C to +85°C
	Insertion Loss (Max):0.5db
	Insertion Loss (Typical):0.2db
Service life (Cycles):1000	
Warranty	20 years system performance warranty

Fibre LIU 12 / 24 port Single mode – Loaded with Splice tray and adapter

Fiber patch panel	
Items Description	Required Features Description
Brand	ADC Krone / AMP/MOLEX
Part / Product No	Please mention
General Features	12/24 Port Rack Mount Fibre Patch panel
	Should be able accept SC Duplex, SC Simplex, LC Duplex and MTRJ Adaptors.
	Should have a fibre management system molded in to the unit structure to effectively route fibers from an incoming cable through to the connector interface.
	Should have knockouts at the rear to enable termination of loose tube or tight buffered cables as well as blown fibre tubes

	Should be made up of Non - corrosive material preferably polycarbonate, PC/ABS.
	Should be slide able and should have tamper proof
	positive locking mechanism by means of clips supplied as standard with each unit
	Should meet EN50173 and ISO/IEC 11801 operating specifications
Technical info	Should be made up of polycarbonate, PC/ABS.
Warranty	20 years system performance warranty

Fibre Optic Cable 9/125 Micron Single mode- 24 Core Fibre cable

Items Description	Required Features Description
Brand	ADC Krone /AMP/MOLEX
Cable Type	24 core, Single Mode, Corrugated Steel tape Armour, Loose-tube, Fully water blocked core ,E glass Yarns, Outdoor fiber cable
Fiber Type	Single Mode, 9 / 125, 250 micron primary coated buffers
No. of cores	24
Armor	Corrugated Steel Tape Armor
Cable standard Comply with	IEC 60793-2-50 ,B1.3 and ITU-T.G.652.d.
Fiber Attenuation	
@ 1310nm	0.34 db/KM
@1550nm	0.22 dB/KM
@1380 – 1386 nm	0.31db/km
@1625 nm	0.24db/km
Manufactured technology	Using VAD (Vapor Phase axial Deposition) technology
Link Length	
	1000 Base-LX ... 2-5000 m
	10G BASE-LX 2-10000 m
	10G BASE-LX4 2-10000 m
Optical Characteristics	
Chromatic dispersion @1310nm	<=3.5 ps/(nm.Km)
Chromatic dispersion @1550nm	<=18.0 ps/(nm.Km)
Cut-off Wavelength (nm)	<= 1260
Point discontinuity (dB)	<=0.1
Environmental Characteristics	
Operating Temperature	-20 Degree C to +70 Degree C
Induced attenuation at 1310 and 1550 @(-60 Degree C to +85 Degree C	<=0.05db/Km

Tensile rating	1250N
Maximum Crush resistance	3000N

HDPE Pipe Specification

Size	50 / 42 MM
Outer Diameter	50 MM
Wall Thickness	4.0 mm \pm 0.3 mm
Co-efficient of friction	max 0.06
Bending Radius	Minimum ten times of Outside Diameter
Anticipated Life Time	50 Years
Raw material standard	IS: 7328-1992
Density	0.940 to 0.958 gm/cc at 27° C
Melt flow Index	0.2 to 1.1 gm/10 min at 190° C and 5 Kg load

Annexure-‘C’

Special Terms and Conditions (These will supersede the general terms and condition of the tender document in case of conflict)

- Tender **will be evaluated on turn key basis as per quantity mentioned**. Each bidder will have to quote for all items.
- Following should be included in Technical bid envelope
 - Signed Tender Document (including General Terms and Conditions)
 - Signed Technical Bid, Annexure A, B and C
 - EMD
 - All Supporting Documents for technical evaluation
- Following should be included in Commercial bid envelope
 - Signed Commercial Bid
- Supplier should mention make and model in technical bid.
- Supplier should not quote multiple options for make, model and rate for any item.
- Price should be quoted in commercial bid (separate envelope) in Indian rupee only, including all taxes
- Firm will test fiber and copper through OTDR and Penta scanner respectively.
- VLAN structuring, all type of IP configuration, MAC binding etc to be done by firm if required by university.
- No extra payment will be made for any other head of charge. Such cost should be included in item / service.
- Payment will be made on actual measurable basis for all the items.
- Passive items should have ISO 9001 and ISO 14001 certification.
- Incomplete tender such as unsigned tender, absence of supporting document, late submitted tender, conditional tender, multiple option tender will not be accepted.
- Shielding of open fiber with metal net / steel flexible pipe is to be done by the firm.
- OFC laying is to be done through machine atleast 8 foot below the ground.
- The dispute if any will be subject to jurisdiction at Hisar. For arbitration, the decision of the Vice Chancellor will be final.

I accept all above terms and conditions

Signature of supplier