

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & 2B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. : IACS/CC/2017-18/60

Date: 25/10/2017

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for '**Supply, installation, testing and commissioning of LAN cable in the Main Building**'.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads. It is recommended to do an onsite survey before submitting the bid.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No. IACS/CC /2017-18/60 Date:25-10-2017
On site Survey for present installation and proposed cable diagram	08 November, 2017 at 12:00 Noon
Pre-bid meeting (date, time & place) to discuss technical specification	15 November at 12.00 Noon at A K Raychaudhury Hall, Centenary Building
Last date and time of submitting tender	23rd November, 2017 at 12.00 Noon at Dispatch Section
Date and time of opening tender	23rd November, 2017 at 3.30 P.M.
Place of opening tender	At A K Raychaudhury Hall, Centenary Building
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: ccsd@iacs.res.in Tel.+91 33 2473 4971 [Ext. 1210]

The technical bids will be opened first to judge/evaluate the technical specifications of the cables and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly superscribed as 'TECHNICAL BID' on the outer cover of the envelope as already detailed above. **It should be clearly mentioned on the envelope as "Technical Specification for LAN cable".**

Bidders should submit their past experience for LAN cable laying to other research Institutes/Universities/other organizations in Kolkata/India. Please provide documentary proofs of such successful installation in other organizations.

Technical Specification:

I) CAT 6A UTP Cable

	Standard Compliance	Compliance (Yes/No)	Remarks
	Channel Performance		
1	The Category 6A/ Class EA UTP SCS shall comply with the following standards a) ISO/IEC 11801:2010 b) EN 50173 Part 1 through Part 5:2010 and 2011 c) ANSI/TIA-568-C d) IEC 60603-7-4		
2	The Category 6A/ Class EA UTP system should support the following IEEE Ethernet applications -		
3	a) 802.3ab - 1000BASE-T b) 802.3af - Power Over Ethernet (15.4W) c) 802.3at - Power Over Ethernet Enhancements (25.5W) d) 802.3az - Energy Efficient Ethernet		
4	The proposed Category 6A UTP SCS, when configured as a worst-case 100 metre channel shall provide performance headroom over limits specified by Cat6A for below parameters -		
5	NEXT - Minimum 3 db above the standards; Should support a minimum of 4 connector Channel with a minimum 3 db guaranteed NEXT		
6	Insertion Loss - 3%		
7	Return Loss - 1.0 db		
8	The SCS must be tested by 3rd Party test facility to EIA/TIA 568C, ISO/IEC 11801 Amendment 1 and for the channel testing must be provided as part of the bid response.		
9	The Category 6A system should support channels that are shorter than 15 meters for 2, 3, 4 connector channels without any minimum length requirements.		
	CAT 6A UTP Horizontal Cable		
10	The Cable should meet ANSI/TIA 568C.2 Category 6A Specifications		
11	The cable should consist of Eight 23 AWG copper conductors. Copper Clad Aluminum or any other combinations are not allowed		
12	The weight of the cable box of 1000 Feet should not be less than 34.7 lb		
13	The nominal Outside diameter should not be more than 0.285		

	inches		
14	The cable should support the installation temperature: 0 to 60 °C It should support Operating temperature of -20 to 60 °C		
15	The cable shall be available in Low-Smoke, Zero Halogen (LSZH) compatibility and The LSZH version must comply with the following Fire Safety standards: 1) ISO/IEC 60332-3-22: Vertical Flame Spread 2) ISO/IEC 60754-2: Acidity 3) ISO/IEC 61034-2: Smoke Density		
16	The cable and cordage shall be "True UTP" components that do not include internal or external shields, screened components or drain wires. No Special Grounding requirements.		
17	The horizontal cable shall have a unique print string on the cable jacket. This unique identifier shall also be used for on-line reference to a full set of factory tests that were performed on a sample from the same mater reel. The test parameters shall include NEXT, PSNEXT, Return Loss, Attenuation, ELFEXT and PSELFEXT. The on-line reference must be available on the SCS vendor public website, such that it can be accessed at any time.		

II) CAT 6A UTP Information Outlet

	Standard Compliance	Compliance (Yes/No)	Remarks
1	The 8-pin modular (RJ-45) jacks shall comply with IEC 60603-7-4		
2	The Category 6A outlets shall be backward compatible with Category 6 and 5E cords and cables.		
3	The Category 6A outlets shall be of a universal design supporting T568 A & B wiring.		
4	The information outlet shall have a Current Rating of 1.5 A at 20°C		
5	The information outlet must support 90 degree cable termination. As some mounting hardware does not allow for cable entry directly from the rear, this capability is necessary		
6	3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing for Cat 6A components.		
7	The information outlet will have insertion life of 750 cycles minimum. Must be available in multiple colors for better administration.		

III) Shuttered Face Plate

	Standard Compliance	Compliance (Yes/No)	Remarks
1	Shall be available in 2 port and 4 port square versions.		
2	General Specifications a) Color: White		

	b) Width: 86.36 mm (3.4 in) c) Height: 86.36 mm (3.4 in) d) Depth: 13.72 mm (0.54 in)		
3	Material shall be high impact, flame retardant, UL-rated 94 V-0, thermoplastic.		
4	Shall have inbuilt shutters to prevent dust to accumulate on the information outlets which are not in use.		

IV) CAT 6A Modular Patch Cord

	Standard Compliance	Compliance (Yes/No)	Remarks
1	SCS must support patch cord lengths of 1 meter minimum and equipment cords of 2 meter minimum and The Patch cords shall be available in Stranded and solid core construction		
2	Cords shall be equipped with 8-pin modular plugs on each end.		
3	Plugs shall be designed with an anti-snag latch to facilitate easy removal during move, add and change processes.		
4	The LSZH version must comply with the following Fire Safety standards: ISO/IEC 60332-3-22: Vertical Flame Spread ISO/IEC 60754-2: Acidity ISO/IEC 61034-2: Smoke Density		
5	The cordage shall be UTP components that do not include internal or external shields, screened components or drain wires.		
6	The patch cords will have insertion life of 750 cycles minimum. Shall be available in multiple colors.		

V) 24 Port Patch Panel

	Standard Compliance	Compliance (Yes/No)	Remarks
1	The ganged adapter style patch panel will utilize increments of six RJ-45 style jacks in a common moulded component.		
2	The ganged adapters shall have RJ45 jack in the front and Insulation Displacement Connector (IDC) at the rear of the module.		
3	The panel must be capable of supporting an upgrade to an intelligent system without any interruption to service due to patch cord removal or terminal block re-termination.		
4	3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing for Cat 6A components.		
5	When configured in worst-case 100 meter channels with full cross-connects and consolidation points with the other products proposed in this tender, the panel shall be capable of delivering the minimum guaranteed channel performance		
6	The patch panel type shall be a 1U (24 port) or 2U (48 port) panel capable of supporting 24 or 48 unshielded modular 8-pin connectors compliant with IEC 60603-7-4 while meeting the		

	Channel Performance as specified in Amendment 1 to ISO/IEC 11801:2002		
7	The panel shall be available in 24-port and 48-port configurations, both straight and angled, with universal A/B labeling and 110 connector terminations on rear of panel allowing for quick and easy installation of 22 to 24 AWG cable		
8	The panel shall be equipped with a removable rear mounted cable management bar and front and rear labels		
9	The panel shall be UL and cUL Listed		
10	Operating Temperature Range = 14°F to 140°F (-10°C to 60°C)		
11	Humidity = 95% (noncondensing)		
12	Insertion Life = 750 minimum insertions of an FCC 8-Position Telecommunications Plug		

VI) RJ45: Commscope/D-Link/Snyder (preferred)

VII) Conduit/Casing : ISI Marked Materials

VIII) **Fiber Cable–Patch cords**

	Specifications	Compliance (Yes/No)	Remarks
1	LC-LC Multimode OM4 duplex Patch Cord, bend insensitive, 10 feet		
2	1.6 mm duplex cord		
3	Operating Temperature: -10 to 60 °C		
4	Cable retention strength: 11.24 ib @ 0°		
5	Insertion Loss, typical: 0.17 dB		
6	Return Loss, minimum: 25.0 dB		
7	Optical Components Standard ANSI/TIA-568-C.3		
8	Flame Test Listing as per NEC OFNR (ETL) and c(ETL)		

Criteria for the Passive Components OEM

- OEM should be ISO 9001 & ISO 14000 Certified with manufacturing facility in India.
- All networking passive material (Fiber and Copper) should be from one OEM make only.
- Material should have been manufactured in OEM's own manufacturing facilities, not outsourced.
- There should be minimum 20 - 25 years extended product warranty and Application Assurance as a part of certification of entire installed cable plant.
- The vendor /OEM should provide test reports generated from any testing software/ device for minimum 500 nodes in support of experience to executing such requirement of margin 3 dB or higher for Cat 6A of NEXT (worst case) for entire frequency range specified in ISO/IEC 11801
- All passive components should be RoHS complied. Declaration of – ROHS compliant should clearly be mentioned on data sheets of each Passive Components.

2. PRICE BID

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid printed in official letter head with vendor seal & sign should be kept in a separate sealed envelope duly super scribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

Sr. No	Item	Quantity	Make/model	Base price	GST	Total price with GST
1	CAT 6A UTP cable with laying charges per meter in existing cable tray	55 boxes (305 meters) approx.				
2	CAT 6A UTP 24 Port Jack Panel with Integration & termination Charges	34 Nos.				
3	CAT 6A UTP Patch chord (1 meter)	700 Nos.				
4	CAT 6A UTP Patch chord (2 meters)	500 Nos.				
5	CAT A I/O with face plate & back box with integration & termination charges	720 Nos				
6	Conduit/Casing inside/outside room	1000 Mtr				
7	RJ45	200 Nos.				
8	LC-LC Multimode OM4 duplex Patch Cord, 10 feet	4 Nos				
9	One Time Installation and documentation charges including any other required equipment/necessary items to complete the project	Lump sum				

All calculation will be on an actual basis

3. SCOPE OF WORK:

The LAN cable with patch panel will replace the existing cables and patch panels in the Main Building of IACS. Laying of cables are to be done through available cable trays in the building. Petty civil works like drilling, holing in walls, plastering, work inside false ceiling, conduit, casing inside/outside room etc. should be included without any extra charges. No equipment and other amenities necessary for completion of this project will be provided by IACS. Only electricity required for the project will be provided by IACS.

The old cable wiring should be completely removed from the wall. Also, the new wiring should use cable trays with a distance of at least around 3 feet from electrical wiring (this is not always adhered to in the current wiring).

4. WARRANTY:

- i. The Comprehensive Warranty shall be for a period of 5 years from the date of satisfactory installation, testing, commissioning and handing over the LAN which covered under warranty in working order. During the Warranty period the replacement of any part(s) of the equipment or rectification of defect of product will be free of cost.

- ii. If, the tenderer is required to replace the rejected equipment and/ or other articles, he will replace them forthwith, but not later than a period of 14 (fourteen) days from the date of rejection. The tenderer shall bear all cost of such replacement, including freight, if any, of such replacement or repaired equipment and/ or other articles but without being entailed to any extra payment on that or any other account.

Servicing facility within India is a must while service engineer stationed at Kolkata will be preferred. A list of clients where LAN has been installed should also be provided. A compliance table (see below) must be prepared and submitted along with the technical bid.

5. BID SECURITY:

- a) An Account payee Demand Draft/Pay Order of Nationalized Bank for Rs. 30, 000/- (Rupees thirty thousand only) drawn in favour of “Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)” is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD).
- b) The Demand Draft for the Bid-Security should have at least about 90 (ninety) days validity period of opening of the bids.
- c) In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

6. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any nationalized bank of India of 10% of the order value in the name of “Indian Association for the Cultivation of Science” is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

7. TERMS OF PAYMENT:

All rates should be quoted in INR only. Payment will be made 100% on successful laying of the cables and against issue of “Completion Certificate”. Partial payment against supply within scheduled delivery period will not be admissible.

8. DOCUMENT

1. The model number, make and a printed literature of the product should be submitted positively.
2. Manufacturers / exclusive distributors / vendors should have history of supplying this type of cables to this or other scientific organizations. Availability of a list in this regard would be preferred.
3. Bidder should submit their past experience for supplying and successful installation of similar units to other research Institute/Universities/other organization in India and abroad. Please provide documentary proofs of such successful installation and project completion.
4. The tender should accompany a compliance chart.
5. Proposed cable diagram should be attached with the tender.
6. Income Tax Return (for the last 3 years)
7. Audited Balance Sheet (for the last 3 years)
8. PAN Card copy

9. GST Certificate
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. A list of clients where LAN has been installed should also be provided
12. Documentary proof of Servicing facility and service engineer stationed at Kolkata.
13. Documentary proof of the vendor/bidder working in this field for at least last 3 years
14. Annexure-I in letter head with company seal and sign

9. GENERAL INSTRUCTIONS

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
3. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally visit the website (www.iacs.res.in) for any amendment.
4. A maximum of 2 representatives per bidder, duly authorized, may be allowed to attend the pre-bid meeting.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers that are responsible for after sales support. Response time should be within 24 hrs.
7. Proposed delivery schedule should be mentioned clearly.
8. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
9. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
10. In case of any dispute, the decision of IACS authority shall be final and binding on the bidders.
11. For any clarification regarding technical specifications, information etc., please send your queries to Dr. Swapan Deoghuria (ccsd@iacs.res.in, Ext. 1210).
12. Once the pre-bid meeting is over and issues are clarified, no query or objection or complain shall be entertained in connection with the tender. Absence of any vendors in pre-bid conference shall not be considered as justification for making query or objection thereto. Also, non-attendance in the pre-bid meeting is not a disqualification for participating in the tender process.
13. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar

Annexure-I

1. **Company/vendor Name:**
2. **Registered Address:**
3. **Kolkata Office (If not same as No 2):**
4. **PAN No.**
5. **GST Registration No.**
6. **Bank Name:**
7. **Bank Address:**
8. **Bank Account No:**
9. **Bank IFSC/MICR Code:**
10. **Contact person with contact details:**