

सामग्री प्रबंधन अनुभाग

भारतीय प्रौद्योगिकी संस्थान रूडकी

रूडकी–247667, हरिद्वार, उत्तराखण्ड, भारत

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PAN-AAALI0033R

Material Management Section Indian Institute of Technology Roorkee-247667( Haridwar) (Uttarakhand) (India)

Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in



#### निविदा प्रलेख / Tender Document

#### No. 1100001791/MM-7/IITR/2020-21/Supply of Active and Pass/ICC/193

#### Date of Uploading of Tender -https://eprocure.gov.in/eprocure/app

2/Nov/2020

Bids under two bid systems (Technical and Commercial) are invited Online at CPP Portal (https://eprocure.gov.in/eprocure/app) from the reputed manufacturer/authorized supplier/dealer for the following items. **Manual bids will not be accepted.** 

वस्तु की तकनीकी विषिष्टताये / Technical Specifications of item:

Sr. No	Name of item / Specifications	QTY	UOM
1	Supply of Active and Passive Equipment's for Spare Inventory	As per	Annexure-V
	(For Detailed Technical Specification Plz refer A	nnexure-V)	
	नोट–1ः कृपया वस्तु का मूल्य एवं कर अलग–अलग	दर्षाए।	
	Note-1: Please quote the Rate & Taxes of the item sep	parately.	
	Note-2: E-way bill is to be issued by the Venders/	Transporter Transporter	
	Note-3: The HSN / SAC Code of the item must be	mentioned.	
For Reasonabi	ility of Rates, The firm must enclose the last two supply orders for the same	item with Financial	Bid (Annexure-III) only.
	Critical Date Sheet	<del>_</del>	<del>,</del>
1	Published Date	2/Nov/2020	(17:00)
2	Bid Document Download / Sale Start Date	2/Nov/2020	(17:30)
3	Seek Clarification Start Date	2/Nov/2020	(18:00)
4	Seek Clarification End Date	9/Nov/2020	(15:00)
5	Pre Bid Meeting Date	Not Required	Not Required
6	Bid Submission Start Date	11/Nov/2020	(12:00)
7	Bid Submission End Date	23/Nov/2020	(17:00)
8	Bid Opening Date	24/Nov/2020	(12:00)

### Chapter-1: Instruction to bidders

1

- A. The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and/or Proprietary Certificate, as the case may be , in support of your offer.
- B. बोली का जमा किया जाना / Submission of Bids:

The bids should be submitted online in two parts -

- (i) The Technical Bid (Annexure-I, II & V) with EMD and Tender Acceptance Letter
  - (ii) The Financial Bid (Annexure-III) & Price Bid in .XLS Format

Rates in .xls format will only be considered for Financial evaluation.

- 2 The bids should be on official pad preferably with GST Number of the firm
- The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- The transportation cost, insurance charge etc., if any, percentage/ rate of GST or all other taxes and duties should be clearly mentioned.

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- 5 The bids / rates / tenders should remain valid for a minimum period of 90 days from the date of financial opening.
- Since this purchase being for research purpose, I.I.T., Roorkee is registered in DSIR, New Delhi, it is therefore exempted from the payment of GST up to the limit of exemption as per Govt. Rules. The bidder should quote accordingly.
- 7 The rates shall not be subject to escalation of any nature.
- 8 The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- 9 While quoting / sending rates, the firm shall give an undertaking as per Annexure-II.
- C. विधि निक्षेप / Earnest Money Deposit (EMD):

The Technical Bid should accompany an EMD of value Rs. 4,40,000/-(Rupees Four Lac Forty Thousand only) which should be deposited online into below mentioned account.

**Details of IIT Roorkee Bank Account:** 

Account Name: NON MHRD GOVERNMENT FUND IIT ROORKEE

Account No.: 00000032685865515
Bank Name: STATE BANK OF INDIA
Branch Address: IIT ROORKEE, ROORKEE

IFSC Code: SBIN0001069 MICR: 247002094

The Bidder will have to fill EMD details & provide the tender reference number in the narration/remarks while doing the payment as per quoted items and share the receipt of the same in pdf on CPP Portal (https://eprocure.gov.in/eprocure/app). The qualification in Technical bid will be subject to the submission of EMD in above mentioned account within schedule date and time as mentioned in the NIT. IITR shall not be responsible for any delay in submission of EMD.

In case the EMD is not received in above mentioned account within the aforesaid period i.e. before bid opening date & time as mentioned in NIT, the bid will be out rightly rejected.

Exemption on submission of EMD will be given against valid MSME/NSIC certificate under valid category.

The earnest money shall be refunded to all the unsuccessful firms, without any interest after finalization of the contract.

EMD shall be refunded to the successful firms on receipt of PBG/Security Deposit. No interest is payable on the EMD to either the successful firms or the unsuccessful firms.

D. निष्पादन बैंक प्रत्याभृति / Performance Bank Guarantee (PBG):

In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted.

- E. बोलियो का खोला जाना / Opening of Bids:
- 1 The Technical Bids will be opened online at CPPP Portal (https://eprocure.gov.in/eprocure/app)-Plz refer Critical Date Sheet
- The Financial bids of only the Technically Qualified bidders will be opened. The date and time for opening the Financial Bid will be communicated to the respective firm later by the system (CPP Portal (https://eprocure.gov.in/eprocure/app))
- 3 Representatives of the firms(s) may be present at the time of openings, if they so desire.

### **Chapter-2: Conditions of Contract**

**F.** ठेका देना / Award of Contract:

The final selection of the bidder for the award of the contract will be made on the basis of the lowest commercial bid amongst the Technically Qualified Bidders.

- **G.** पूर्व—आपूर्ति निरीक्षण / Pre-supply Inspection:
  - Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.
- H. वस्तु की आपूर्ति / Supply of Item:

The whole supply as per order shall have to be completed within the time mentioned in the order failing which the I.I.T. Roorkee shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material in good condition.

- भुगतान की शर्ते / Payment Terms:
- A. Payment in INR for supply of goods:

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Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD/P.I.

OR

Where Installation is required :100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD/P.I.

OR

80% payment will be made on receipt and acceptance of goods and balance 20% on successful installation and commissioning duly certified by the HOD/P.I.

OR

100% Advance will be paid against submission of 110% Bank Guarantee of the Total Order value. Bank Guarantee should be in favor of "The Registrar, IIT Roorkee" which should be valid till the date of Installation/Delivery period + 30 days

#### B Payment in INR for AMC/Service:

Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.

#### J. ਵੱਭ/Penalty:

A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.

In case of the non-supply of the item after the acceptance of the work/supply order, EMD will be forfeited by the Institute.

#### K. अप्रत्याषित घटना/Force Majeure:

For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Majeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.

#### L. मध्यस्थता / Arbitration:

In the event of any difference or dispute arising out this work, all effort shall be made by both the parties to settle the same amicably. Failing an amicable settlement, the dispute shall be finally settled through arbitration conducted under the Arbitration and Conciliation Act 1996, by arbitrators appointed in accordance with the said Act. The arbitration shall give reasoned and speaking award. All disputes are subject to Roorkee jurisdiction only.

#### M. बोली अस्वीकृती के लिए मानदंड / Criteria for bid rejection:

- 1 If technical bid found without the required undertaking (Annexure-II).
- If it found at a later date that any information given in the bids is Incorrect/false then the bid is liable to be disqualified/rejected.
- 3 Canvassing in any form will result to disqualification.
- 4 If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
- If the firm quotes 'NIL' charges / consideration, the bid shall be treated as unresponsive and will not be considered.
- 6 If financial bid is found along with technical bid in pdf on CPP Portal, then the bid shall be rejected outrightly.
- 7 If any bidder submitting two/multiple bids for the same item of a tender, both/all the bids of that bidder will be outrightly rejected.

#### **Chapter-3: Schedules of requirements**

- N. <u>टिप्पणी / Note:</u>
- If the supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.
- 2 Please note that the firms must submit the compliance Statement in an organized and structured manner in respect of all the specifications as per Annexure-V with the supporting catalogue/leaflet of the firm. Annexure-I, II & V have to be submitted with Technical Bid and Annexure-III with financial bid.
- It may also be noted that the tender bids received after the stipulated date & time or found incomplete and the tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
- 4 The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
- The Indian Institute of Technology (IIT) Roorkee reserves the right to reject any quotation wholly or partly without assigning any reason.
- The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
- The decision of the institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
- 8 IIT Roorkee discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.

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- The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India)- for the item(s) involving import.
- If the bid opening date happens to be a holiday, then the bid will be opened at 3.30PM of the next working day followed by the holiday.
- If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- 12 Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.
- The quantity shown against the item is approximate and may vary as per demand of the Institute at the time of placing order. Also, the final requirement of each line item will be decided by the Institute at the time of placing the PO.
- Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available CPP Portal (https://eprocure.gov.in/eprocure/app). Hence prospective bidders are advised to visit the CPP Portal (https://eprocure.gov.in/eprocure/app) regularly.
- Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is Incorrect/false then the bid is liable to be disqualified/rejected.
- Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
- In case the item/product is under rate contract with DGS&D or GeM, then Bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
- In Item Wise BoQ .xls sheet, In column M, leave blank for the item/service not provided/quoted by you. If quoted 0 then it will be considered that the item/service will be provided free of cost.

Or

In Item Rate BoQ .xls sheet, If quoted 0 for the items/services in column M then it will be considered that the items/services will be provided free of cost.

The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.

**Chapter-4: Specifications and allied Technical details** 

Plz. See Annexure- I, II, V

Chapter-5: Price Schedule (to be utilized by the bidders for quoting their prices online in .XLS format at CPPP Portal (https://eprocure.gov.in/eprocure/app)

Plz. See Annexure- III & Price Bid in .XLS Format

Chapter-6: Contract Form

**Purchase Order is used as Contract Form** 

Chapter-7: Other Standard Forms, if any to be utilized by the purchaser and bidders

**Tender Acceptance Letter** 

\*उप कुलसचिव (सामग्री प्रबंधन) / सहायक कुलसचिव (सामग्री प्रबंधन)

Deputy Registrar (MM)/ Assistant Registrar (MM)

\*Document Digitally Signed on https://eprocure.gov.in/eprocure/app

For any Clarification regarding technical specifications of item Please Contact:

Sh. Sandeep Sharma Institute Ph.-01332-28-4358
Sh. Sanjeev Shukla Computer Centre Email: icc@iitr.ac.in

Sh. Sandeep Goval IIT Roorkee

Sh. Keshav Sinha

Sh. Mukesh Kumar

Sh. Kaushik

Chattopadhyay

**Institute Computer Centre** 

**IIT Roorkee** 

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#### तकनीकी बोली

विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटर हेड पर विकेता / फर्म द्वारा प्रस्तुत करने के लिए )

Detailed specification cum compliance report to be submitted with the Technical Bid (to be submitted by the vendor/firm on its official letter head)

# (For Detailed Technical Specification Plz refer Annexure-V)

Sr.No	Name & Required Specifications of Iter	m(s) Qty	MOU	Offered specifications of item(s) by the firm	
1	Supply of Active and Passive Equipment's for Inventory	Spare As pe	r Annexure-V		
	Firm's Profile :				
1	Manufacturer/Authorized Agent/Distributor/D	ealer/Supplier(valid certif	aler/Supplier(valid certificate must be attached)		
2	E-mail I.D. & Telephone/Mobile No. Detail of Bank A/C				
Note: 1. "offered specifications", should be filled up properly in the format provided as per Annexure-I.		exure-I.			
	2. Volume & Weight of the item should also be mentioned.				
	3. The HSN / SAC Code of the item must be mentioned.				

Signature: Name :
Designation :
Seal of the Organisation

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## उपबंध / UNDERTAKING

Ref. No. Dated:-	No. 1100001791/MM-7/IITR/2020-21/Supply of Active and Pass/ICC/193 2-Nov-20
	That all the terms/conditions mentioned in the enquiry letter/tender against which the rates are being given are acceptable to the firm.
	It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
	It is certified that the firm has never been black-listed from any Government Department. (State/Central Govt./Autonomous/ PSU)
	Signature
	Name

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#### Financial Bid

(to be submitted by the vendor/firm on its official letter head)

Ref. No. No. 1100001791/MM-7/IITR/2020-21/Supply of Active and Pass/ICC/193

Date: 2-Nov-20

#### Rates:

	Sr. No	Name of item / Specifications	Qty	UOM	Rate	Amount (INR) Or In Other Currency
					To be filled in	.XLS sheet (attached)
Total						
	Grand Total Rs.					

<sup>1)</sup> Price of the items should be clearly mentioned if supplied Free of Cost.

#### Terms & Conditions:

1 Prices (quoted in Rs.): FOR Institute Computer Centre

IIT Roorkee

2 Payment: Should be clearly mentioned, As per clause-I of enquiry letter.

3 Validity:

4 Delivery period: 5 Other charges: 6 Warranty:

7 Rejection: Equipment if found not as per the required specification would be rejected.

8 Penalty Clause: As per clause-J of enquiry letter.

In case of the non-supply of the item after the acceptance of the work/supply order,

EMD will be forfeited by the Institute.

9 PBG: In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the

order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No

interest shall be claimed by the bidder on the PBG submitted.

10 Only GST Exemption Certificate is provided by the Institute (If required).

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

Signature	
Name	
Designation	
Seal Of the Firm/Organization	

#### **Details of Institute:**

IEC CODE	010000011	
AD CODE	0001069-2770325	S.B.I., IIT ROORKEE
	0303974-2770324	P.N.B. IIT ROORKEE

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#### **Instructions for Online Bid Submission**

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at https://eprocure.gov.in/eprocure/app.

- 1 Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for etendering.
- Bidder should register for the enrollment in the e-Procurement site using the "Online Bidder Enrollment" option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
- 3 Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
- Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/nCode/eMudra etc. recognized by Controller of Certifying Authorities (CCA) India on eToken/SmartCard, should be registered.
- 5 The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
- 6 Contractor/Bidder may go through the tenders published on the site and download the tender documents/ schedules for the tenders.
- 7 After downloading/getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
- 8 Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- 9 Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
- Bidder may select the tender in which he/she is interested in by using the search option and then move it to the 'my tenders' folder.
- 11 From my tender folder, he may select the tender to view all the details uploaded there.
- It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.
- The Bidders can update well in advance, the documents such as certificates, annual report details etc., under "My Space option" and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- Bidder should submit the Tender Fee/ EMD as specified in the tender. Scanned copy of the same should be uploaded as part of the offer.
- While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
- 17 The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the same.
- The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection. (If applicable)
- The bidder has to digitally sign and upload the required bid documents one by one as indicated. Every act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.
- The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.

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- 21 If the price bid format is provided in a spread sheet file like BoQ\_XXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
- After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.
- 24 The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e- Tender system. The bidders should follow such time during bid submission.
- All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
- Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone: **0120-4001005** or send an e-mail to cppp-nic@nic.in.

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#### Prequalification

- An undertaking by the firm that it has never been black-listed must be attached along with the Bid, failing which the Bid shall be rejected. (As per Annexure-II)
- 2 True copy of Permanent Account Number.
- 3 Details of GST along with a copy of certificate to be attached.
- Submission of samples if required, for all items indicated in the NIT. The make of items proposed to be supplied should be indicated and submitted along with the techno commercial unpriced bid without indicating the pricing components.
- Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the tender document are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

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# **Tender Acceptance Letter** (To be given on Company Letter Head)

- - -	
-	Date: Sub: Acceptance of Terms & Conditions of Tender.
	Tender No. 1100001791/MM-7/IITR/2020-21/Supply of Active and Pass/ICC/193
Tender de	scription:
-	
Dear Sir,	I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender No.' from the web site(s) namely:
	as per your advertisement, given in the above mentioned website(s).  2 I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No.  to (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
	3 The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
	4 I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
	5 In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.
	Yours Faithfully,
	(Signature of the Bidder, with Official Seal)

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# Item Specifications & Compliance Statement

S.No.	Required complete specifications of item(s) (to be filled by the Indenter)	Quantity	Offered specifications of item(s) by the firm
1	Supply of Active & Passive equipment for Spare Inventory	(Details as per annexure - I)	
	Terms & Conditions (if any) as per requirementarining/technical support, service afte		
1	Any tax to be mentioned in the quote		
2	Quotation should be valid for at least 3 months		
3	Price should be FOR IIT Roorkee		
4	Payment terms should be as per IIT Roorkee purch	ase rules	
5	Payment will be released after receiving material in good condition and satisfactory installation.		
6	Bidder should not be banned by any Indian Govt. organization in any case in last three years (self-declaration to be submitted)		
7	Copy of Registration number of the bidder and the PAN number allotted.		
8	The average bidder's Gross Turnover from IT services and System Integration of LAN networking services in India should be more than Rs. 55 Crores (Rs. Fifty five Crores) per year in the last three financial years viz. 2017 -18, 2018-19 & 2019-20. A relevant page of the balance sheet must be attached.		
9	Bidder should have one similar work order of value not less than Rs. 1.5 Cr or two similar works order of value not less than Rs. 75 Lacs each during the last Five years. Similar Work means "supply & Installation of Network infra solution"		
10	Bidder should be an Authorized System Integrator of the all respective OEM's and shall submit a letter of Authorization from the OEM for this specific Tender.		
11	The bidder should be ISO 9001, ISO 20000-1, ISO 2 currently valid certificates to be submitted as proo		MI-Level 3 (Certified copies of
12	The bidder should be a single legal entity/individuous business for last 10 years. Consortium shall not be allowed.	ial organization	and should be actively doing

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	( Undertaking signed by authorized signatory must be provided along with certificate of incorporation).
13	Bidder's must not offload maintenance of network equipment to any third party (Undertaking must be provided)
14	Proposed switches must support stacking with existing switches.

# ANNEXURE-I (Specification)

#### Required Specifications and Features:

Proposed Access switches must support stacking with existing Access switches.

Proposed Distribution switches must support stacking with existing Distribution switches.

Distribution switches should integrate with existing Network Behavior Analysis Solution and capture all flows through the switching devices in the network

Proposed wired and wireless solution should integrate with existing AAA.

Proposed wired and wireless solution should integrate with existing NMS Solution including managing and monitoring network infrastructure

Access and Distribution switches should be running secure VTP with MD5 protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting in secure manner.

The Active Material should be supplied with default limited life warranty

Full feature parity between existing and quoted equipment's to be required

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1	Access Switch - 24 Port Layer 2 with 2 x 10G uplink	
S. No	Minimum Required Specifications	
1	Switch should have minimum 24 No's of 10/100/1000 Base-Tx ports (Duplex, Full, Half) and 2x 10GE Uplink port.	
2	Should have minimum switching capacity of 168 Gbps and 370W POE+ Power	
3	Should be IPv4 and IPv6 ready from day one	
4	Switch should support atleast 1K VLANs , 15K MAC, 2K IPv6 Routes, 1K IPv6 multicast groups, 600 IPv6 Security ACL	
5	The switch should support dedicated stacking port separate from uplink ports with 80 Gbps of stacking bandwidth and supports 8 or more stack members. Stacking module must be hot swappable	
6	It shall support IEEE 802.1s Multiple Spanning Tree Protocol and provide legacy support for IEEE 802.1d STP and IEEE 802.1w RSTP or equivalent technology and static routes.	
7	Port Security to secure the access to a port based on the MAC address of a user's device. The aging feature to remove the MAC address from the switch after a specific time to allow another device to connect to the same port.	
8	Switch should support Port-based and 802.1Q tag-based VLANs, MAC-based VLAN, Guest VLAN, Private VLAN Edge, also known as protected ports, with multiple uplinks	
9	All ports should have features of auto- negotiate, flow control (802.3x), port based network access control (802.1x), port security, MAC filtering etc.	
10	Automatically configures port based on device type connected on the port for plug-and-play.	
11	Switch should support atleast eight egress queues per port and Priority Queue ensuring no traffic loss and No latency for higher priority traffic during congestion	
12	The switch should support IPv6 Guard, IPv6 RA-Guard, IPv6 DHCP-Guard, Source-Guard features	
13	Switch shall have Layer 2 trace route for ease of troubleshooting by identifying the physical path that a packet takes from source to destination.	
14	Flash should hold at least two images both primary and backup image during upgrade	
15	Switch should be IPv6 Ready / Gold Logo certified, IEEE 802.3az EEE	
16	The Switch should be NDPP or EAL3 certified at the time of Bidding	
17	All necessary SFP's, interfaces, connectors, patch cords (if any) & licenses must be delivered along with the switch from day one.	
18	The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord.	



2	Access Switch - 48 Port Layer 2 with 2 x 10G uplink
S. No	Minimum Required Specifications
1	Switch should have minimum 48 No's of 10/100/1000 Base-Tx ports (Duplex, Full, Half) and 2x 10GE Uplink port.
2	Should have minimum switching capacity of 216 Gbps and 740W POE+ Power
3	Should be IPv4 and IPv6 ready from day one
4	Switch should support atleast 1K VLANs , 15K MAC, 2K IPv6 Routes, 1K IPv6 multicast groups, 600 IPv6 Security ACL
5	The switch should support dedicated stacking port separate from uplink ports with 80 Gbps of stacking bandwidth and supports 8 or more stack members. Stacking module must be hot swappable
6	It shall support IEEE 802.1s Multiple Spanning Tree Protocol and provide legacy support for IEEE 802.1d STP and IEEE 802.1w RSTP or equivalent technology and static routes.
7	Port Security to secure the access to a port based on the MAC address of a user's device. The aging feature to remove the MAC address from the switch after a specific time to allow another device to connect to the same port.
8	Switch should support Port-based and 802.1Q tag-based VLANs, MAC-based VLAN, Guest VLAN, Private VLAN Edge, also known as protected ports, with multiple uplinks
9	All ports should have features of auto- negotiate, flow control (802.3x), port based network access control (802.1x), port security, MAC filtering etc.
10	Automatically configures port based on device type connected on the port for plug-and-play.
11	Switch should support atleast eight egress queues per port and Priority Queue ensuring no traffic loss and No latency for higher priority traffic during congestion
12	The switch should support IPv6 Guard, IPv6 RA-Guard, IPv6 DHCP-Guard, Source-Guard features
13	Switch shall have Layer 2 trace route for ease of troubleshooting by identifying the physical path that a packet takes from source to destination.
14	Flash should hold at least two images both primary and backup image during upgrade
15	Switch should be IPv6 Ready / Gold Logo certified, IEEE 802.3az EEE
16	The Switch should be NDPP or EAL3 certified at the time of Bidding
17	All necessary SFP's, interfaces, connectors, patch cords (if any) & licenses must be delivered along with the switch from day one.
18	The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord.

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Distribution Switch Layer 3 - 10Gig * 24Ports		
r. No.	Specification	
1	General Hardware and Interface requirements	
1.1	Switch should have minimum 24 nos. SFP+ ports and 2 nos of 40Gig QSFP	
1.2	Switch must have 1:1 redundant internal power supply from day 1	
1.3	Power supply modules, fan modules and transcivers modules should be hot swappable.	
1.4	Switch shall support 320Gbps or higher stacking from day 1, Required cables, License etc should be supplied	
2	Performance Requirements	
2.1	Switch must have minimum 640 Gbps of switching fabric and 450Mpps of forwarding rate.	
2.2	Switch must have minimum 32K MAC Addresses.	
2.3	Switch shall support minimum 8K IPv4 and IPv6 unitcast routes.	
2.4	Switch shall support minimum 4K IPv4 and IPv6 multicast groups.	
2.5	Switch shall support minimum 4K IPv4 and IPv6 QoS and Security ACLs.	
2.6	Switch shall support static routing, OSPFv2, OSPFv3 and BGPv4.	
2.7	Switch shall support policy based routing and virtual routing and forwarding feature.	
2.8	Switch shall support Protocol-independent multicast (PIM) for IP multicast routing is supported, including PIM sparse mode (PIM-SM)/PIM dense mode (PIM-DM)/PIM sparse-dense mode and source-specific multicast (SSM).	
2.9	Switch must have aleast 4GB RAM and 4GB Flash / SD card	
3	IEEE Standards	

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3.1	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.		
4	Quality of Service (QoS) requirements		
4.1	Switch shall have 802.1p class of service, IP differentiated service code point (DSCP) and cross stack QoS.		
4.2	Switch shall have committed information rate, rate limiting and flow based rate limiting.		
4.3	Switch shall have minimum 8 egress queues per port and strict priority queuing.		
5	System Management and Administration		
5.1	Switch should support SSHv2, SNMPv2c, SNMPv3, NTPv3 and NTPv4.		
5.2	Switch should support AAA using RADIUS and TACACS+.		
5.3	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard, IPv6 Guard, IPv6 RA-Guard, IPv6 DHCP-Guard, Source-Guard features		
5.4	Switch should support software upgrades via TFTP or FTP.		
5.5	Switch should support IPv4 and IPv6 ACLs, VLAN , Port and Time based access list with time ranges.		
5.6	Switch shall have Switch Port Analyzer (SPAN) and Remote Switch Port Analyzer (RSPAN) .		
5.7	Switch shall have Layer 2 trace route for ease of troubleshooting by identifying the physical path that a packet takes from source to destination.		
5.8	Switch shall have Internet Group Management Protocol (IGMP) Snooping for IPv4 and IPv6, MLD v1 and v2 Snooping and Multicast VLAN Registration protocol.		
5.9	Swich shall have per port broadcast, multicast and unicast storm control.		
5.1	Switch shall have Unidirectional Link Detection Protocol (UDLD), Aggressive UDLD, Link Aggregation Control Protocol (LACP)		
5.1	Switch should support IEEE 802.1AE/AES-256 MACsec encryption standard		

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6	Regulatory Compliance
6.1	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.
6.2	Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.
7	Evaluation Compliance
7.1	Switch should be certified for EAL 2 / NDPP or above under Common Criteria Certification.
7.2	Switch should be IPv6 Certified/IPv6 logo ready

4	Stacking Modules
Sr. No.	Specification
1	stacking modules should be Hot-swappable supporting atleasat 80 Gbps speed
2	Should have alteast 0.5-meter or higher stacking cable length included along with stacking module
3	Stacking module should be compatible with exisitng switches.
4	Stacking solution should support alteast 8 stack members

### Essential Eligibility Criteria for Passive OEM:

- a) The OEM of Passive devices should be publicly listed company. (Details must be provided).
- b) The OEM of passive components should have supplied to any of the large educational Institutions/Universities to execute a similar project of minimum 6000 Nodes or at least two projects of 4000 nodes each. (Details must be provided).
- c) The OEM of passive components is required to provide the Product warranty and Performance warranty of minimum 20 – 25 years from the date of commissioning. (Details must be provided).
- d) The OEM of passive components should have at least two Registered Communication Distribution Designer (RCDD) certified person based in India whose services can be utilized in the project as and when required. (Details must be provided).
- e) The OEM of passive components should provide UL/ETL certification for the full Cat 6A U/UTP copper channel link (UL/ETL 4 connector test report) with at least 3 dB NEXT headroom and CAT 6 at least 6 dB NEXT head room for entire frequency range specified in ISO/IEC 11801 also the individual copper components and fiber cable should be UL/ETL listed. (Details must be provided).
- f) All the fiber cable should be Bend insensitive for both Multi mode and Single mode. Single Mode fiber cable should be compliant to ITU-T G.657.A1, OS2.
- g) All passive network components quoted by the bidder should be from a single OEM only (Fiber & Copper).
- h) The supplied passive product must be Intelligent Enabled Cabling System. The Intelligent solution OEM must have their own Intelligent solution including software. The solution shall be standard patch cord based (i.e. no special patch cord, 9th Pin, RFID, CPID etc).
- To check the genuity of the Fiber Cables, the cables should have a unique Tracking Number mentioned on the cable jacket which will allow the user to access the factory test reports of the cable on a publicly accessible website as and when required.
- All product data sheets should be available on the OEM website for cross reference.
- k) The OEM of passive components to be quoted by the bidder should be present in India from at least past 10 years. (Details must be provided).

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# 1. TECHNICAL SPECIFICATIONS

All the Passive Components Shall Be RoHS Complaint.

#### 1. Specification for Category 6A U/UTP Information Outlets

	Standard Compliance	Compliance (Yes/No)	Remarks
	Category 6A - 10Gigabit outlets		
3.1	The 8-pin modular (RJ-45) jacks shall comply with IEC 60603-7-4		
3.2	The Category 6A outlets shall be backward compatible with Category 6 and 5E cords and cables.		
3.3	The Category 6A outlets shall support T568 A & B wiring.		
3.4	The information outlet must support 90-degree cable termination. For terminating in areas where the space is a constraint.		
3.5	The information outlet will have insertion life of 750 cycles minimum.		I F

#### 2. Specification for CAT 6A LSZH U/UTP RJ45 Patch Cords

	Standard Compliance	Compliance (Yes/No)	Remarks
	Modular RJ45 Patch Cords		
4.1	The Patch cords shall be solid core construction to provide superior performance,		
4.2	Cords shall be equipped with 8-pin modular plugs on each end.		
4.3	Nominal cordage diameter shall not exceed 7.24 mm.		
4.4	The cord shall be LSZH and must comply with the following Fire Safety standards ISO/IEC 60332-3-22: Flame Spread (for a bunch of cables), ISO/IEC 60754-2: Acidity and ISO/IEC 61034-2: Smoke Density		
4.5	The cordage shall be UTP components that do not include internal or external shields, screened components or drain wires.		
4.6	The patch cords will have insertion life of 750 cycles minimum.		

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# 3. Specification for CAT 6A Jack Panel

	Standard Compliance	Compliance (Yes/No)	Remarks
	24 Port Patch Panel		
5.1	The ganged adapter style patch panel will utilize increments of six RJ-45 style jacks in a common molded component.		
5.2	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.		
5.3	The panel should have an integrated rear cable management bar that allows bunching of 6 cables and properly dressing the cables.		
5.4	The panel shall come with Velcro Tape for dressing the cables.		
5.5	The panel shall be UL and cUL Listed		

# 4. 1, 2 Port Face Plate

	Standard Compliance	Compliance (Yes/No)	Remarks
6.1	Shall be available in 1 port, 2 port and 4 port square versions.		
6.2	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)		
6.3	Material shall be high impact, flame retardant, UL-rated 94 V-0, thermoplastic.		
6.4	Flammability Rating: UL 94 V-0 Safety Standard: UL Listed		
6.5	Shall be compatible with CAT 5e/CAT 6/CAT 6A information outlets.		

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# Specification for Fiber & Components System

# 1. 6/12 Sliding Fiber Shelf: -

S. No.	Standard Compliance	Compliance (Yes/No)	Remarks
2.1	Shall accommodate 4 coupler plates or 4 pigtail cassettes for a total of 48 fiber terminations.		
2.2	The width shall be 19 inches and height of 1U (1.75 inches), with a maximum of 18-inch depth.		
2.3	The shelf/LIU shall be sliding.		
2,4	The Fiber shelf must be intelligent ready and must support field upgrade to intelligent fiber panels without removal of existing patch cords and without disruption of network services.		
2.5	Shall have splice trays to splice minimum 32 fibers.		

# 2. 6/12 Fiber LC Single mode Adapter Module for Fiber Optic Panel: -

S. No.	Specifications	Compliance (Y/N)	Remarks
3.1	Each module shall accommodate 12/24 fibers, with 12/24 LC adapters.		
3.2	The adapter module shall be intelligent upgradable without any interruption to service due to patch cord removal or through re-splicing. The module should only accept standard patch cords and no 9 <sup>th</sup> pin, RFID, CPID etc will be accepted.		
3.3	The adapter color shall be blue for Single mode.		
3.4	Shall be compliant to RoHS 2011/65/EU		
3.5	Shall come with 12/24 (fibers), 6/12 duplex transparent dust caps.		

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# 3. Single mode LC Fiber Pigtail for Fiber Optic Panel: -

S, No.	Specifications	Compliance (Y/N)	Remarks
4.1	Shall be Single mode OS2, fiber		
4.2	Standards Compliance: G.652.D, G.657.A1 and OS2 Regulatory Compliance: RoHS 2011/65/EU		
4.3	Flame Test Method: IEC 60332-3 / IEC 60754-2 / IEC 61034-2/ IEEE 383 / UL 1666 / UL 1685		
4.4	Optical Performance: Insertion Loss, maximum 0.34 dB Return Loss, minimum 50.0 dB		
4.5	Interface, Front: LC Adapter Color: Blue		
4.6	Pigtail Environmental Specifications Environmental Space: Low Smoke Zero Halogen (LSZH)/Riser Operating Temperature: -10 degree Celsius to +60 degree Celsius Optical Components Standard: ANSI/TIA-568-C.3		

# 4. LC - LC Single mode LSZH Patch Cords: -

S. No.	Standard Compliance	Compliance (Yes/No)	Remarks
5.1	Shall be Single mode (OS2), LC to LC, Fiber patch cords.		
5.2	Standards Compliance: G.652.D, G.657.A1 and OS2 Regulatory Compliance: RoHS 2011/65/EU Jacket: Low Smoke Zero Halogen (LSZH) compliant to IEC 60332- 3, IEC 60754-2, IEC 61034-2, IEEE 383, UL 1666, UL 1685 Flame Test Listing: NEC OFNR-LS (ETL) and c(ETL) Cable Qualification Standards: ANSI/ICEA S-83-596 and Telcordia GR-409 Optical Components Standard: ANSI/TIA-568-C.3		
5.3	General Specifications Connector Color: Blue Connector Interface: LC Operating Temperature: -10 degree Celsius to +60 degree Celsius		
5.4	Connector Optical Performance Insertion Loss, Typical: 0.20 dB Return Loss, minimum: 50.0 dB		

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IIT Roorkee has Active devices of Cisco make. Quoted product must have Full feature parity with existing equipment's. Make Model details of existing Devices is as below: -

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SNo	Item	Qty	иом
A.	Active Material		
1	Access Switch - 24 Port Layer 2 with 2 x 10G uplink	46	Nos
2	Access Switch - 48 Port Layer 2 with 2 x 10G uplink	12	Nos
3	Distribution Switch Layer 3 - 10Gig * 24Ports	2	Nos
4	Stacking Modules for switches	30	Nos
5	Stacking Cable 3M Type 1 (Stack 1-3M)	40	Nos
В.	Passive Material		
Sno	Item	Qty	MOU
1	Cat 6A, 10G Information Outlet, Color Blue	4000	Nos
1.a	3*3, Square faceplate Single port	4000	Nos
1.b	3*3, Inches, Deep Inside Gang Box	4000	Nos
2	Category 6A U/UTP Loaded Patch Panel, 24 port, Intelligent Upgradable, fully Loaded	60	Nos
3	Cat 6A-10G, Solid Low Smoke Zero Halogen Cordage Modular Patch Cord, Blue Jacket, 3 Feet	300	Nos
4	Cat 6A-10G, Solid Low Smoke Zero Halogen Cordage Modular Patch Cord, Blue Jacket, 10 Feet	300	Nos
5	6F, 19" Rack Mount shelf with cassets and pigtails , splice tray , Intelligent upgradable , Single Mode, OS2	1	Nos
6	12F, 19" Rack Mount shelf with cassets and pigtails , splice tray , Intelligent upgradable , Single Mode, OS2	1	Nos
7	LC to LC, Zero water peak Single Mode Fiber Patch Cord, 1.6 mm Duplex, LSZH Sheath, 10 Feet., Meet G.652.D & G.657.A1, OS2	30	Nos
8	RJ45 Connector	15	Bags

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