

Maulana Mohammad Ali Jauhar Marg, Jamia Nagar New Delhi-110025

E-TENDER NOTICE

BID DOCUMENT [Two bid system]

No. JMI/PICO/NIT-08/2018-19

On behalf of The VICE CHANCELLOR, Jamia Millia Islamia (JMI), New Delhi, INDIA, online bids (Two-Bids System) are invited for supply of Equipment under DST-PURSE Scheme sponsored by DST for Central Instrumentation Facility, JMI from reputed manufacturers or their authorized agents for the supply/installation/commissioning of the following item(s):

S	l.	Name of the instrument	Enquiry Ref. No.	Qty.	EMD to be given in
N	lo				INR/equivalent Foreign
					currency
	1	ERBIUM DOPED FIBER AMPLIFIER WITH OPTICAL FIBER SYSTEM	No. JMI/PICO/NIT-08/ 2018-19	01	60,000/-

Minimum Warranty : One Year

Website for Online bid Submission : https://eprocure.gov.in
Last date & Time for online submission of bids : 29.05.2018 at 13:00 Hrs
Date/Time for opening of Technical bid : 30.05.2018 at 15:00 Hrs

Technical Specifications are available at the bottom of the document.

The EMD of Rupees 60,000/- is payable by Demand Draft or Pay Order issued by scheduled bank in favour of "The Registrar, Jamia Millia Islamia" payable at New Delhi India. The original DD/PO should be submitted to JMI on or before the due date of opening of technical bids.

KINDLY NOTE THAT ONLY ONLINE BID WILL BE CONSIDERED AGAINST THISTENDER. Further, requests for postponement will not be entertained. Bids send by post/Fax/email bids shall be rejected straightway.

The Vice Chancellor, JMI reserves the right to accept/reject any or all tenders either in part or in full without assigning any reasons there for.

The Registrar

Date: 08.05.2018

Note: All the bidders may kindly note that all future corrigendum/amendments will be published on JMI website and CPPP website only and no separate newspaper shall be released for the same. All the prospective bidders are therefore requested to visit the website regularly for any such changes/update.

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Definitions

- 1.1 In this Contract, the following terms shall be interpreted as indicated:
 - (i) "The Order" means the Purchase Order placed by the Purchaser including all the attachments and appendices thereto and all documents incorporated by reference therein:
 - (ii) "The Contract Price" means the price payable to the Supplier under the Order for the full and proper performance of its contractual obligations;
 - (iii) "The Goods" means all the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the Contract;
 - (iv) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract
 - (v) "GCC" mean the General Conditions of Contract contained in this section.
 - (vi) "SCC" means the Special Conditions of Contract.
 - (vii) "The Purchaser" as specified in Special Conditions of Contract.
 - (viii) "The Purchaser's country" is "India".
 - "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
 - (x) "Day" means calendar day.
 - (xi) JMI/The Registrar/Purchaser/and SPO represent same entity.

2. Application

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Standards

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications. When no applicable standard is mentioned, the authoritative standard appropriate to the Goods' country of origin shall apply. Such standards shall be the latest issued, by the concerned institution.

4. Use of Contract Documents and Information

4.1 The bidder shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

5. Patent Rights

5.1 The bidder shall indemnify the Purchaser against all third-party claims of infringement of patent, trade mark or industrial design rights arising from use of the Goods or any part thereof in India.

6. Submission of the bids and EMD

The procurement will be carried out through submission of online tenders only. No offer in physical form will be accepted and any such offer if received by JMI will be out rightly rejected. Tender documents can be downloaded from website of CPPP www.eprocure.gov.in and final bids (Technical and Financial) are to be uploaded on same website i.e. www.eprocure.gov.in. The bidders should have a valid digital signature certificate (Class'II or Class'III) issued by any of the valid Certifying Authorities to participate in the online tender. The bids shall be uploaded in electronic form only on www.eprocure.gov.in website. Before submission of bids, the bidders are requested to kindly read the "Guidelines to bidders on CPPP's e-procurement module" available at the end of this tender document.

6.2 The original EMD amount in the form of Demand Draft/Pay shall be submitted to PICO, Jamia Millia Islamia, New Delhi by hand delivery/courier on or before the due date for submission of bids failing which the bid will be rejected. The reference no. of the Tender and superscribe the word "EMD" should be specifically mentioned on the top of the envelope.

7. Inspections and Tests

7.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.

8. Packing

- 8.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 8.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.
- 8.3 <u>Packing Instructions</u>: Each package will be marked on three sides with proper paint/indelible ink, the following:
 - (i) Item Nomenclature
 - (ii) Order/Contract No.
 - (iii) Country of Origin of Goods
 - (iv) Supplier's Name and
 - (v) Packing list reference number

9. Delivery and Documents

- 9.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the order within the period as indicated in the SCC. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 9.2 Delivery of the goods should be made within a maximum of 30 Days from the date of placement of purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AWB etc and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:
 - (i) Three copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
 - (ii) Acknowledgment of receipt of goods from the consignee(s) by the transporter;
 - (iii) Insurance Certificate if applicable;
 - (iv) Manufacturer's/Supplier's warranty certificate;
 - (v) Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report; and
 - (vi) Certificate of Origin.
 - (vii) Two copies of the packing list identifying the contents of each package.
- 9.3 The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses including demurrage charges.

10. Insurance

- 10.1 The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
- 10.2 For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" The insurance shall be valid for a period of not less than three months after installation and commissioning. However, in case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance.

11. Transportation

11.1 Where the bidder is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

12. Spare Parts

- 12.1 As specified in the SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
 - (i) Such spare parts as the Purchaser may elect to purchase from the Supplier, provided this election shall not relieve the Supplier of any warranty obligations under the Contract;
- Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.
- 12.3 The incidental services also include:
- 12.4 Furnishing of one set of detailed operations & maintenance manual.

13. Warranty

- The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from manufacturing, design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. The warranty should be comprehensive and on site.
- 13.2 This warranty shall remain valid for a period as mentioned on specification page after the Goods or any portion thereof as the case may be, have been delivered, installed & commissioned and accepted at the final destination indicated in the Contract.
- Warranty period shall be as mentioned on specification page from date of successful installation of equipment. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier's discretion shall apply making such changes, modifications, and/or additions to the goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at supplier own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site.
- 13.4 If during warranty period any component or spare part is needed, the same should be supplied free of cost with same configuration or better configuration. All associated cost for replacement of spare parts shall be borne by the supplier including the cost of customs duty, customs clearance charges etc.
- 13.5 In case of complaint regarding repairing/replacement of equipment/instrument within warranty period, the supplier will provide repair/replacement immediately. In case of non-compliance/ delay compliance, the supplier will be penalized with an amount mutually agreed upon and it would be deducted from bank guarantee.

14. Payment

- 14.1 Preference will be given to the supplier who supplies the goods against 100% payment after supply, Installation and commissioning of the equipment(s). Payment may be made through L/C.
- 14.2 Agency commission, if any shall be paid after satisfactory installation & commissioning of the goods.
- 14.3 Purchaser is not liable to pay any interest amount on EMD in any condition.
- Payment of bill shall be processed after completion of supply of all goods as per order. Part payment/piecemeal payment of purchase order shall not be allowed.

15. Prices

- 15.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in the bid.
- 15.2 Price will be quoted in both words and figures. In case of any difference, the prices quoted in words shall prevail.

16. Subcontracts

- 16.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.
- 16.2 Sub-contract shall be only for bought-out items and sub-assemblies.

17. Delays in the Supplier's Performance

17.1 Since time is the essence of the contract, delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Contract

18. Penalty

18.1 If the Supplier fails to deliver any or all of the Goods or to perform services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 1% per week and the maximum deduction is 10% of the contract price. Such payment shall be deducted from the same bill or any other bill due to supplier from JMI

19. Termination for Default

- 19.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:
 - (i) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser.
 - (ii) If the Supplier fails to perform any other obligation(s) under the Contract.
 - (ii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- 19.2 For the purpose of this Clause:
 - (i) "Corrupt practice" means the offering, giving, receiving or soliciting of gratification to influence the action of a public official(s) in the procurement process or in contract execution.
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the purchaser of the benefits of free and open competition;"

20. Force Majeure

- 20.1 The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 20.2 For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, act of God and freight embargoes.

21. Resolution of Disputes

- The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 21.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a contractual dispute, either party may require that the dispute be referred for resolution to the formal mechanisms. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.
- 21.3 In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Registrar JMI and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
 - (i) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this

is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

22. **Taxes and Duties**

- 22.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the
- 23. Inspection and Tests: Inspection and tests prior to shipment of Goods and at final acceptance are as follows:
 - 23.1 After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such inspection and testing by purchaser. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.
 - 23.2 The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.
 - 23.3 In the event of the ordered item failing to pass the acceptance test, a period not exceeding one week will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.
 - 23.4 Successful conduct and conclusion of the acceptance test for the installed goods and equipment(s) shall also be the responsibility and at the cost of the Supplier.

24. **Manuals and Drawings**

- Before the goods are taken over by the Purchaser, the Supplier shall supply operation and 24.1 maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.
- 24.2 The Manuals shall be in English in such form and numbers as stated in the contract.
- 24.3 Unless and otherwise agreed, the goods/ equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.
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25.	Applicable Law: The place of jurisdiction would be New Delhi, INDIA.
26.	Notices: For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.
I Purc	haser:
	The Registrar
	JAMIA MILLIA ISLAMIA
	Maulana Mohammad Ali Jauhar Marg,
	Jamia NagarNew Delhi-110025
	+91-11-26981717
ii Sup	oplier: (To be filled in by the supplier)

INSTRUCTION TO BIDDERS (ITB)

INTRODUCTION

1. Eligible Bidders

- 1.1 This invitation for Bids is open to all manufacturers or their dealers specifically authorized by the manufacturers to quote on their behalf for this tender as per manufacturer's authorization form and Indian agents of foreign principals, if any who possess the qualifying requirements specified in this tender.
- 1.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.
- 1.3 If any agent submits bid on behalf of the Principal/OEM, the same agent shall not submit as bid on behalf of any other principal/OEM in the same tender for the same product.
- 1.4 In a bid, either the Indian Agent on behalf of the principal/OEM or principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same bid.
- 1.5 The bidders may submit the proprietary certificate for the item(s) if applicable

2. Cost of Bidding

2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

THE BIDDING DOCUMENTS

3. Cost of Bid Document

3.1 As mentioned on first page.

4. Contents of Bid Document

4.1 The Bidder is expected to examine all instructions, forms, terms (ITB/GCC/SCC etc.), and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive shall result in rejection of the bid.

5. Amendment to Bid Document

The prospective bidders are **required** to keep a watch on the CPPP/JMI website w.r.t. any amendment to the tender document or to clarification to the queries raised by the bidders up to seven days prior to the opening of the tender. The Purchaser reserves the right to reject the bids if the bids are submitted without taking into account these amendments/clarifications. In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

PREPARATION OF BIDS

6. Documents Comprising the Bid

The bid is required to be uploaded its bids on the CPP portal in **two parts**. One part is the <u>Techno-Commercial Unpriced Bid</u> and the other part is the <u>Financial/Price Bid</u>.

- 6.1 The <u>Techno-Commercial Unpriced Bid</u> prepared by the Bidder shall include the following without indicating the price in the Bid Form.
 - (i) Scanned copy of Tender fees and EMD as specified in the invitation to Bids.
 - (ii) Service Support Details Form;
 - (iii) T&C Deviation Statement Form;
 - (iv) Technical Specification Compliance Form;
 - (v) Performance Statement Form;
 - (vi) Manufacturer's Authorization Form.
 - (vii) Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted as per qualification requirements/criteria.
 - (viii) Bid Form.

- (ix) The Comprehensive Annual Maintenance Contract (CAMC) terms & conditions detailing the exclusions, if any and the estimated life of the equipment offered.
- (x) If the demonstration of the goods/equipment is deemed essential as per the technical requirements then confirmation reflecting willingness to arrange demonstration of the equipment offered free of charge at JMI or any other location on a mutually agreeable date, prior to opening of priced bid to ascertain conformity with the tendered specifications.
- 6.2 The Financial/Price Bid shall comprise of the Techno Commercial Bid with price indicated in the bid form. Also, Price Schedule 'Part A' and 'Part B' given with tender to be uploaded after filling all relevant information like Rate, freight, insurance, custom duty etc. The Rate should be inclusive of all charges and no other charges shall be considered. The priced bid should be uploaded strictly as per the format available with the tender failing which the offer is liable for rejection (renaming or changing format of Price schedule sheet will not be accepted by system).

7. Bid Prices

- 7.1 The Bidder shall indicate the unit prices and total bid prices of the goods it proposes to supply under the order and enclose it with the priced bid.
- 7.2 Prices indicated shall be entered separately in the following manner (For Indigenous Items):
 - (i) The price of the goods, quoted (ex-works, ex-factory, ex-showroom, exwarehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable
 - (ii) Taxes: JMI is exempted from payment of Excise Duty under notification number 10/97 dated 01.03.1997 and Customs Duty under notification No.51/96 dated 23.07.1996. Hence Excise Duty, if any, should be shown separately. Please mention the applicable taxes (GST) clearly. We don't issue any 'Form C' or 'Form D'. However, being R&D Organization Concessional customs duty Forms can be issued. No other charges except those mentioned clearly in the bid will be admissible.
 - (iii) Rates should be quoted F.O.R. at site at JMI, New Delhi inclusive of packing, forwarding, loading & unloading, shifting up to the site of installation at JMI, installation and commissioning charges etc. If ex-works prices are quoted then packing, forwarding, documentation, freight and insurance charges must be clearly mentioned separately and clearly. Vague terms like packing, forwarding, transportation etc. without mentioning the specific amount/ percentage of these charges will not be accepted. Such offers shall be treated as incomplete and rejected. Where there is no mention of packing, forwarding, freight, insurance charges, such offers shall be assumed as all inclusive of above charges.
- 7.3 Prices indicated shall be entered separately in the following manner (For Imported Items, quote the DDP price all inclusive of all charges as given below):
 - (i) The price of the goods quoted shall be inclusive of export packing, forwarding, inland freight, airfreight, Insurance, custom clearance charges, customs duty, loading & unloading, delivery, shifting if required up to the site/laboratory at JMI, installation and commissioning, training and insurance from warehouse to warehouse (up to site of installation of JMI). And other local costs incidental to delivery of the goods up to the site of installation at JMI. However the JMI will provide Original Duty Exemption Certificate, copy of DSIR Registration certificate etc. if required by the vendor.
 - 7.4 Prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price the bid will be treated as non responsive and rejected.

8. Bid Currencies

Prices shall be quoted in Indian Rupees or in freely convertible foreign currency preferably in **USD** (\$), Euro (€), Yen (¥), GBP (£), SGD & AUSD wherever possible for correct evaluation during comparison.

9. Documents Establishing Bidder's Eligibility and Qualifications

- 9.1 Pursuant to JMI, the bidder shall furnish, as part of the bid, documents establishing the bidders' eligibility to bid and qualification to perform the contract if the bid is accepted.
- 9.2 That the bidder meets the qualification criteria listed in Bid Document.

10. Documents Establishing Goods' Eligibility and Conformity to Bid Document

The documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

- 10.1 Specifications are basic essence of the product. It must be ensured that the offers are strictly as per specifications. At the same time it must also be kept in mind that merely copying our specifications in the bid shall not make firms eligible for consideration. The documentary evidence of conformity of the goods and services to the Bid Document may be in the form of literature, drawings, data, and shall consist of:
 - (i) A detailed description of the essential technical and performancecharacteristics of the goods as per specifications;
 - (ii) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the use of the goods by the Purchaser; and
 - (iii) An item-by-item commentary on the Purchaser's technical specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the technical specifications.

11. Period of Validity of Bids

Bids shall remain valid for 90 days from the date of opening the bid prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as non-responsive.

12. Format and Signing of Bid

- 12.1.1 The Bidder shall upload the bids in two parts. One part shall contain Techno commercial unpriced bid and the other shall contain the priced bid.
- 12.2 All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
- 12.3 Any interlineations, erasures or overwriting shall be valid only if the persons or persons signing the bid endorse them.
- 12.4 The Bidder shall furnish information on commissions or gratuities, if any paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract as per the bid form.
- 12.5 The bid once accepted and awarded the contract the bidder will be obliged to execute the contract for the delivery and commissioning of the product at JMI.

13. Modification and Withdrawal of Bids

- 13.1 The Bidder may modify or withdraw its bid after the bid's submission; prior to the deadline prescribed for online submission of bids.
- 13.2 No bid may be modified subsequent to the deadline for online submission of bids.
- 13.3 No bid may be withdrawn in the interval between the deadline for online submission of bids and the expiration of the period of bid validity specified by the Bidder on the bid form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security.

OPENING AND EVALUATION OF BIDS

17. Opening of Bids by the Purchaser

- 17.1 The Purchaser will open all Techno Commercial Un-priced Bids, as per the schedule given in invitation to bids.
- 17.2 In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened on the next working day.
- 17.3 The Financial/price bid of technically qualified bidders only will be opened at the date and time to be informed to the qualified bidders.

18. Clarification of Bids

To assist in the examination, evaluation and comparison of bids, the Purchaser may, at its discretion ask the bidder for any clarification(s) of its bid. The request for clarification and the response shall be in writing and no change in the price substance of the bid shall be sought, offered or permitted. However no post Bid clarifications at the initiative of the Bidder shall be entertained.

19. Preliminary Examination

- 19.1 The Purchaser will examine the bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bid from suppliers, without proper Authorization from the manufacturers and from Indian agents without DGS&D Registration Certificate in case the items fall under the restricted list of the current EXIM/Foreign.
- 19.2 The Purchaser may waive any minor informality, non-conformity, or irregularity in a bid, which does not constitute a material deviation, provided such a waiver, does not prejudice or affect the relative ranking of any Bidder.
- 19.3 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bid Document. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bid Document without material deviations.
- 19.4 On downloading from the web site, the language of standard clauses etc. mentioned in this 'Bid Document' should not be tampered with/ changed/modified in any manner whatsoever. If any such modification etc. is noticed the purchaser at any stage, the bid shall be rejected immediately and EMD shall stand forfeited.

20. Conversion to Single Currency

20.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers/banks' website on the date of Price/Financial Bid opening.

21. Evaluation & Comparison of Bids

21.1 For the bids qualifying for the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:

(i) Indigenous Offers

The final landed cost of purchase after all discounts, freight, forwarding, insurance (warehouse to warehouse), custom clearing charges taxes etc. shall be the basis of evaluation.

(ii) Imported Offers

The FOB/FCA/CIF/CIP price shall be the basis of evaluation (warehouse to ware house basis)

(iii) Imported Vs. Indigenous Offers

The final landed cost (ware house to ware house) of purchase taking into account, freight, forwarding, insurance, taxes etc. (CIF/CIP with customs duty, customs clearance charges, Bank/LC charges, transportation, delivery up to the site of installation at JMI, New Delhi as per available records with JMI for imported goods) shall be the basis of evaluation.

21.2 Conditional tenders/discounts etc. shall not be accepted. Rates quoted without attached conditions (viz. Discounts having linkages to quantity, payment terms etc.) will only be considered for evaluation purpose. Thus conditional discounted rates linked to quantities and prompt/advance payment etc, will be ignored for determining *inter-se* position. The Purchaser however reserves the right to use the discounted rate/rates considered workable and appropriate for counter offer to the successful tenderers.

22. Contacting the Purchaser

22.1 Any attempt by any Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the bid.

23. Purchaser's Right To Vary Quantities At Time Of Award

23.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

24. Purchaser's Right To Accept Any Bid and To Reject Any or All Bids

- 24.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.
- 24.2 Evidence regarding credibility of stable performance and maintenance service capability must be provided. The purchaser reserves the right to make judgment on this score and reject bids that, in the purchaser's view, do not carry sufficient credibility for performance and/or service.

25. Notification of Award

- 25.1 Prior to expiry of the period of bid validity, the purchaser will notify the successful bidder in writing by Purchase Order.
- 25.2 Upon the successful Bidder's furnishing of performance security the purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

26. Order Acceptance

26.1 The successful bidder should submit acceptance of the Purchase Order immediately but not later than 21 days in any case from the date of issue of the Purchase Order failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited

27. Performance Security

- 27.1 The successful Bidder shall furnish the performance security equivalent to 10% of the cost of equipment, in the form of Bank Guarantee from scheduled bank after installation/ commissioning of the equipment(s). which would remain valid for a period of 60 days beyond the date of completion of all obligations of the supplier including warranty obligation. EMD will be released of successful bidder after submission of Bank Guarantee. JMI shall forfeit Bank Guarantee in the event of breach of contract by the successful supplier.
- 27.2 The payment will be released on receipt of performance security as per 26.1 above,

28. Buy Back Items

28.1 If the goods are to be quoted on 'Buy Back' basis, then bidders must offer a separate buy back price for the old item. The Purchaser reserves the right to place the order with or without 'buy back' option. If required the condition of old buy back goods may be examined by the bidder before submission of its bid.

29. Progress of Supply

- 29.1 Supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:
 - (i) Quantity offered for inspection and date;
 - (ii) Quantity accepted/rejected by inspecting agency and date;
 - (iii) Quantity dispatched/delivered to consignees and date;
 - (iv) Incidental services have been satisfactorily completed with date;
 - (v) Number of rectifications/repairs/replacements effected/completed on receipt of any communication from consignee/Purchaser with date;
 - (vi) Date of completion of entire Contract including incidental services, if any; and
 - (vii) Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).

30. Right to Use Defective Goods

30.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

31. Supplier Integrity

31.1 The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

32. Training

- 32.1 The Supplier is required to train designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
- The training shall be initially carried out during installation & commissioning for operating and maintaining the system. The specific training on application shall also to be imparted by the supplier. The duration of such training need to be finalized with the end user of the equipment.
- 32.3 In case any supplier is not willing to impart such training, the bid shall be treated as non-responsive.

BID FORM

To, The Vice Chancellor, JAMIA MILLIA ISLAMIA								
Maulana Mohammad Ali Jauhar Marg,								
Jamia Nagar, New Delhi-110025	;							
Dear sir,								
	ver	which is hereby duly acknowledged, we the(Description of Goods) in conformity may be ascertained from the bid.						
We undertake if our bid is specified.	accepted, to deliver the go	ods in accordance with the delivery schedule						
If our bid is accepted we very performance of the contract, in the fo	=	of the bank as specified in SCC for the due						
=		d for bid opening as per the instructions to the ny time before the expiry of that period.						
Until a formal contract is p thereof and your notification of award	· ·	s bid, together with your written acceptance ontract between us.						
Commission and gratuities, i contract execution if we are awarded		y us to the agents relating to this bid, and to w:						
Name and address of agent	Amount in Rupees	Purpose of Commission						
(if none, state "none")								
We understand that you are not boun	d to accept the lowest or an	y bid you may receive.						
Dated thisday of	20							
Signature								
In the capacity of								
Duly authorized to sign the bid for and	a on benan of							

MANUFACTURERS AUTHORIZATION FORM

No.	Date:
Vice Chancellor	
JAMIA MILLIA ISLAMIA	
Maulana Mohammad Ali Jauhar Marg,	
Jamia Nagar, New Delhi-110025	
Dear Sir:	
We who are established and reputable manufacture authorize M/s (Name and address of Agent) to submit a your tender enquiry mentioned on front page.	urers of having factories/works at (address) do hereby bid, negotiate and receive the order from you against
No company or firm or individual other than M/s is to tender.	s authorized to bid, and conclude the contract in regard
We hereby extend our full guarantee and warran Contract and Clause of the Special Conditions of Contract	ty as per Clause 10.2 (iv) of the General Conditions of for the goods and services offered by the above firm.
	Yours faithfully,
	(Name)
	(Name of manufacturers)

Note: This letter of authority should be on the <u>letterhead of the manufacturer</u> and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial unpriced bid.

Form of Performance Bank Guarantee/Bank Guarantee							
From	Jame of the Bank	To Jamia Millia Islamia New Delhi-India					
offere JMI (herei guarai	d to accept the terms and condition and (hereinafter calle nafter called "the said agreement") have tee for Rs	New Delhi (hereinafter called "The JMI") having as of the proposed agreement between The ded "the Contractor(s)" for the working agreed to production of an irrevocable Bank as a security/guarantee form the contractor(s) nce with the terms and conditions in the said					
1.	We (hereinafter referred (Indicate the name of the Bank) Pay (Rupees only) on demand.	to as the "Bank") hereby undertake to to the JMI an amount not exceeding Rs					
2.	amounts due and payable under this demand from the JMI stating that to recoveries due or likely to be due from on the Bank shall be conclusive as regunder this Guarantee. However, our likely	Do hereby undertake to pay the Guarantee without any demur, merely on a the amount claimed is required to meet the athe the said contractor(s). Any such demand made gards the amount due and payable by the Bank iability under this Guarantee shall be restricted (Rupeesonly).					
3.	notwithstanding any disputes raised pending before any Court or Tribunal being absolute and unequivocal. The p	e to pay to the JMI any money so demanded by the contractor(s) in any suit or proceeding relating thereto, our liability under this present sayment so made by us under this bond shall be ayment thereunder, and the contractor(s) shall ch payment.					
4.	herein contained shall remain in full for taken for the performance of the senforceable till all the dues of the JMI been fully paid, and its claims satisfied	further agree that the Guarantee orce and effect during the period that would be said agreement, and it shall continue to be under or by virtue of the said agreement have for discharged, as per the terms and conditions fully and properly carried out by the said es this guarantee.					

5. We.....(Name of the bank)...... further agree with the JMI that the JMI shall have the fullest liberty without our consent, and without effecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said agreement

or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the JMI against the said contractor(s), and to forbear or enforce any of the terms and conditions relating to the said agreement, and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said not be relieved from our liability by reason of any such variation or extension being granted to the said contractor(s) or for any forbearance, act of omission on the part of the JMI or any indulgence by the JMI to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

- 6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
- 7. We(Name of the bank)...... lastly under take not to revoke the Guarantee except with the previous consent of the JMI in writing. This bank Guarantee on the Bank or its successors or permitted assigns.

Authorized Signatories of the Bank with name and Seal

Name of the Officer:

Designation:

Code if any:

Date:

Place

TECHNICAL COMPLIANCE STATEMENT FORM

An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

ITEM NA	ME			
S. No.	Tender Specifica	itions	Bidder's Specifications	Remarks/Deviation If any

(Technical literature/brochures/manuals should be attached along with this format)

Please note:

- 1. Compliance/Deviation statement comparing the specifications of the quoted model to the required specifications. This statement should also give the page number(s) of the technical literature where the relevant specification is mentioned.
- 2. Bids must have supporting documents (technical literature or copies of relevant pages from the service manual or factory test data) for all the points noted above, failure regarding which may result in rejection of bid.

QUALIFICATION REQUIREMENTS

- 1. The Bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf for this tender as per manufacturer authorization form and Indian agents of foreign principals, if any who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification". Such equipments must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening in India and is engaged in R&D activities.
- 2. The Indian Agents of foreign manufacturers/ suppliers quoting directly on behalf of their principals for items appearing in the restricted list of the current Foreign Trade Policy must be registered with DGS&D. One Indian Agent cannot represent two different foreign principals for the same item in one tender.
- **3.** The bidder should have executed at least one similar order successfully during the preceding three financial years. The details should be incorporated in the performance statement form along with documentary evidence.
- **4.** Details of service support facilities that would be provided after the warranty period should be submitted in the Service Support Details Form.
- That, in the case of a Bidder not doing business in India, the Bidder is/or will be (if successful) represented by an Agent in India who shall be equipped and able to carry out the Supplier's maintenance, repairs and spare parts, stocking obligations prescribed by the conditions of the contract.
- **6.** That the Bidder will assume total responsibility for the fault-free operation of equipment, application software, if any, and maintenance during the warranty period and provide necessary maintenance services for five years after end of warranty period if required.
- 7. Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc.
- **8.** Other things being equal, preference shall be given to firms who or his principal have supplied and installed similar system at any CSIR/ ICAR/ ICMR/DAE/ DRDO/ DST/DBT/other Govt. or autonomous research Labs in India.
- 9. Any additional bid participation criteria / eligibility conditions etc. mentioned in the Technical Specifications sheet will also form part of the Qualification Requirements along with those mentioned in this chapter.

Price Bid Format (To be uploaded only in Financial Cover separately)

PRICE SCHEDULE 'A'

PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN TO BE SUPPLIED IN INDIAN CURRENCY

1	2	3	4	5								6
				Price per unit (R								
Item SI. No.	Brief Description of Goods (with make & model)	Country of origin	Quantity (Nos)	Ex-factory/Ex- warehouse/Ex- showroom/ Off-the shelf	Excise Duty(if any) [%age & value]	Sales Tax/ GST (if any)[%age & value]	Transportation , loading/ unloading and incidental costs till consignee's site	Insurance charges for a period including 3 months beyond the date of delivery	installation & commissioning, supervision, demonstration	Unit price consignee basis	(at site)	Total price (at consignee site) basis (Rs.)
1				(a)	(b)	(c)	(d)	(e)	(f)	(g) =a+b+c+d+e+f		4 x 5 (g)

	price in Rupees:					
iii worus.						
Note: -						
1.	If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.					
2.	The charges for Annual CMC after warranty shall be quoted separately as per Section-XI – Price Schedule C					
	Name:					
	Business Address					
Place:	Signature of Tenderer					
Date:	Seal of Tenderer					

PRICE SCHEDULE

PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD IN FOREIGN CURRENCY

1	2	3	4	5										
Item SI. No.	Brief description of goods (with make & model)	of origin	, , , ,	Gross FOB price at sea/air port of Lading (inclusive of	percentage of Agency	Net FOB excluding Agency Commission) (a-b)	Insurance & Freight	by Air/Sea at the	Custom Duty amount as % of Net	Custom Clearance & Handling charges	Loading/ Unloading, inland transportation, insurance &	Installation commissioning, supervision. Demonstration & training at	Unit price on DDP basis at consignee's site	
				agency Commission)		(4.2)		entry (c+d)	(amount with CDEC as applicable)	**	incidental costs till consignee's site **	the consignee's site	In foreign currency	In Indiai rupees
				(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	=(e)	=(b+f+g+h+i
	be quoted in In orice at Consign (/	nee's site	ncy Foreign c	urrency	: colu	ımn (4 x e)					(In figures and v	words) plus		
**(B) Note:-	In Indian Ru	ıpees		: column	4 x (b+f+g+h+i)	Rs			(In fi	gures and wo	ords)			
233.	1. T 2. T 3. T	he bidder b he quoted բ o be paid in	reak up o orice shou Indian cu	ıld be supported	ious columns is with original pro	for comparison coforma invoice. T	of price up to The proforma	delivery of invoice sho	goods at consi ould indicate th	gnee's site fo	r tender evaluatior e of agency commis	ssion included in the		

- 4. All the components of the DDP price will be paid by the tenderer. The purchaser will make the payment of DDP price after receipt of goods at consignee's site in good condition as per payment terms in the contract. The purchaser can place the order on CIP or DDP basis.
- 5. The price quoted in foreign currency in column (e) shall be converted in Rupees at the selling rate of exchange applicable on the date of tender opening. The customs duty amount so worked out as percentage of net CIP value in rupees will be taken for evaluation and comparison of tenders.
- 6. The charges for Annual CMC after warranty shall be quoted separately as per price schedule 'B'.

	Name:
	Business Address
Place:	Signature of Tenderer
Date:	Seal of Tenderer

PRICE SCHEDULE 'B'

PRICE SCHEDULE FOR COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD

1	2	3	4				5	
Item	Brief Description of the Goods	Quantity	Compreher	sive Mainte	nance Conti	act Cost for	each Unit	Total Comprehensive Maintenance Contract
SI.		(Nos.)	year wise*.					Cost for 5 (or as specified) Years
No.								[3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			Α	В	С	D	е	

^{*} After completion of warranty period

Note: -

- 1. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/service/ operational manual and labour, after satisfactory completion of warranty period may be quoted for next 5 (or as specified) years on yearly basis for complete equipment.
- 2. The cost of CMC may be quoted along with taxes applicable on the date of Tender opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- 3. Cost of CMC may be added for ranking/evaluation purpose.
- 4. The uptime warranty will be 98% on 24 (hrs) x 7 (days) x 365 (days) basis.
- 5. The stipulation in technical specification will supersede above provision.
- 6. The supplier shall keep sufficient stock of spares required during comprehensive maintenance contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

	Name:
	Business Address
ace:	Signature of Tenderer
ate:	Seal of Tenderer

Guidelines to bidders on CPPP e-Procurement Module

1. Procedure for Registration by the Bidder

- 1.1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "Click here to Enroll" on the CPP Portal.
- 1.2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 1.3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 1.4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 1.5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 1.6. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

2. Searching for Tender Documents

- 2.1. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2.2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 2.3. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

3. Procedure for preparation and submission of bids

- 3.1. The documents should be page numbered and contain the list of contents with page numbers. The deficiency in documentation may result in the rejection of the Bid.
- 3.2. Bidder should take into account any corrigendum published (if any) on the tender document before submitting their bids.
- 3.3. The documents should be page numbered and contain the list of contents with page numbers. The deficiency in documentation may result in the rejection of the Bid.
- 3.4. Bidder should take into account any corrigendum published (if any) on the tender document before submitting their bids.
- 3.5. Bidders are advised to go through the Tender advertisement and the Tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3.6. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF formats. Bid documents may be scanned with 100 dpi.
- 3.7. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.
- 3.8. As part of the bid, bidder should provide all the documents as follows:-
 - Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
 - The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
 - The serve time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
 - All the documents being submitted by the bidders would be encrypted to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
 - The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
 - Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary
 will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
 - The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings

4. Assistance to Bidders

Any queries relating to the NIT document and the terms and conditions contained therein should be addressed to the Assistant Registrar PICO. IMI

Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. For any technical related queries please call the Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002, 0120-4001005 and E-Mail: support-eproc[at]nic[dot]in

In Office Hour Only: +91 8804377070, 011-26982759

ERBIUM DOPPED FIBER AMPLIER WITH OPTICAL FIBER SYSTEM

System should be in modular. Individual modules should be compatible with each other. It should be possible to test the characteristics of each module individually. Box type is not acceptable.

1 Set

A. Technical Specifications:

ERBIUM DOPED FIBER AMPLIFIER (EDFA)

EDF Module with 3 different lengths

- -C-Band single mode fiber
- -Peak Absorption near 1530nm 6.0 ± 1dB/m
- -Peak Absorption near 980nm @ 3.0dB/m
- -Second Mode Cutoff: 920nm ± 50nm

Laser pump Module 1 No. -Wavelength : 980nm

-Output Power 100mW typical -Output Power adjustable 1MicroW to 100mW

Optical isolator module

2Nos.

- -Operating wavelength 1550nm ± 15nm
- -Isolation < 30dB
- -Insertion loss ≤ 1dB

Wavelength Selective Coupler (WDM)

- -Operating wavelength: 980nm/1550nm ± 10nm
- -Insertion loss: ≤ 1dB
- -Isolation ≤ 20 dB

Wavelength selective coupler (WDM) 1 No.

980nm/1550nm

Gain Flattening Filter

Fiber Bragg Grating Flat wavelength 1550nm with Optical Circulator

1 No.

Single mode Patch cords 10 Nos.

SC-APC connector, NA 0.12, Mode field diameter 9.2 nm at 1310 nm

Single mode fiber optic link 1 No.

-34Mbps 1550nm, single mode fiber optic link

EDFA Simulation Software 1 No.

Schematic based simulation software with inbuilt EDFA models

1 No.

-980nm, Ratio 99:1

Experiments to be performed with EDFA- The vendor should provide all provisions/accessories to be able to perform the following experiments along with relevant documentation.

-Understanding the Operating principle of EDFA

Working of EDFA in Co-Directional, Counter-Directional Pumping

- -Gair
- -Power Conversion Efficiency
- Quantum Conversion Efficiency

Characteristics study of Pump laser 980nm

- I-P Curve
- Knee Current

Understanding the EDFA Building blocks - Wavelength Selective Couplers -

-980nm/1550nm, Tap Couplers for 980nm - 99:1, Optical Isolators - 1550nm

Factors contributing to EDFA Gain - Pump laser power, Length of Erbium

Doped Fiber

- I/P signal Vs Gain
- Pump laser power Vs Gain
- EDF length Vs Gain

Setting up a Fiber Optic link with EDFA

- 1550nm, 34Mbps Data rate

Fiber Ring Laser

To achieve laser oscillations leading to a fiber laser using tap coupler and amplifying fiber.

Noise Figure measurement

To measure the ASE (Amplified spontaneous Emission) noise level and investigation of ASE-ASE beat noise and signal ASE beat noise.

Software based OSA- 1 Set

Should operate in C band.

Should be Compatible with EDFA system.

Should include laptop with compatible configuration for system operation.

Wavelength Range 1527-1567nm

Resolution Bandwidth

(FWHM) 0.15nm

Wavelength Accuracy 0.04nm

Wavelength Repeatability ±10pm

Wavelength Readout

Resolution 1pm

Wavelength Linearity ±0.01nm

OPTICAL FIBER SYSTEM

1 Set

LASER DIODE module with collimating lens to set up for free space communication: 1 No.

Wavelength - 660nm (typ.), Max O/P power - 3mW,

Threshold current - 30mA (typ.), Forward Bias, Collimating lens for adjustable spot size.

Individual module of LD Modulator: Max data rate – up to 34Mbps for NRZ.

Individual module for Optical Receiver: Modulated Optical I/P - 4Mbps for NRZ.

APD Module with power supply

1 No.

Photo detector - Silicon Avalanche Photo Diode, Max Reverse Current - 100μ A, Responsivity at 850 nm (At M=1) - 0.45μ A/ μ W, **Multiplication factor - 100** (Turn)

ST type optical connector interface.

OTDR Building blocks

Directional Coupler 1x2, 50/125micron

1No.

XY positioner/RAIL, mounting posts for Laser Diode unit with Rail

Pulse Generator unit and Software – less than 150ns ON time with RS422 interface, **1 No.**

1m ST-ST patch cord

2Nos.

Min 500m and individual module spools of bare fiber in length 140,160,200m of MMGF in different lengths in open form with Events to study the OTDR concepts.

LED module with Power Supply:

1 No.

LED Peak Wavelength - 880nm, Spectral Bandwidth: 30nm, Max Optical Power Coupled into Plastic Fiber > -20dBm, Forward Bias.

PD Module with Power Supply:

1 No.

Photo detector - Silicon PIN Diode, Responsivity at 880 nm -0.4 μ A/Mw, Reverse Dark Current -60nA, Forward, Reverse & Zero Bias, Leakage characteristics.

Digital Link with power supply:

Individual Transmitter module:

1 No.

DC coupled with intensity modulation, Date Rate (TTL) - 2Mbit/sec for NRZ, LED wavelength - 880nm, Max. Optical Power > -20dBm.

Individual Receiver module:

1 No.

AC coupled, PIN silicon Photo Diode wavelength - 880 nm, Sensitivity: -35dBm, Link Length - 100m MM Glass Fibre.

Optical Power Meter

1 No.

Calibrated wavelength – **660nm/850nm**, Optical I/p Power: +3dBm to -60dBm, Accuracy: <u>+</u> 0.2dB, Battery & DC power operation, Optical Interface for PF (Bare fiber Adapter) & MM GF (ST Type).

Optical Power Source

1 No.

Optical Source Type – LED, Wavelength - **880nm**, Spectral Width - 100nm, Max optical o/p: -20dBm, Output Stability: <0.3dB, Optical Connector - ST type, Attenuation by Coarse & Fine Adjustments. Modulation: i) Continuous Wave (CW), ii) Internal – Programmable bit rates from 64 to 2048 Kbps, PRBS, iii) External Modulation – TTL, 0 to 2Mbps.

Electrical Section:

2 (64Kbits/sec) channels, including one slot for 16-bit Marker, User programmable two 8-bit frame markers in the alternate frame, Manchester Coding / Decoding, Data Rate - 768 Kbits/sec, 1.5 Mbits/sec after Manchester coding, 2 Voice PCM channels, A-law Voice coding.

Optical Section:

LED Operating Wavelength - 850nm & 650nm, Detector - Si PIN Photo Diode, FWHM Spectral Width - 100nm, Fiber - 1000micron plastic Fiber (1m & 3m length)

Additional Features:

Expansion ports, Programmable marker settings, Single & Double marker for False marker study, Latch type data switches for '1' or '0' transmission, Provision for feeding TTL thru' these data switches & Complete functional block diagram showing different stages with test points and BNC ports for all I/O operations should be available.

Accessories for the experiments:

1 No.

Microscope, ST-ST 1m patch cord MM GF, ST-ST 1m MM GF Reference patch cord, Loose jacketed MM Glass fibre with fixed mandrel for 500m Length, Mandrels with different diameter for MM GF Bending loss measurement & Clad mode stripping study etc., LD Pointer ST-ST Adapters and Experimental manuals for all above kits should be supplied. Preferably supply discrete sources, detectors, components & PCB's to build optical transmitters and receivers.

Note: Supplier should provide PCBs for designing the transmitter and receiver with necessary components and tray (Assembled and unassembled) for project purposes.

WDM System

This system should be modular and should contain each module separately as listed below in the specifications. The modules should be compatible with the modules of Optical Fiber System.

Glass Fiber Based Laser Sources:

1310nm Laser Diode Module -1 No.

Source : Laser Diode
Wavelength : 1310nm
Max Output power : 0.9mW
Max current : 40mA

1550nm Laser Diode Module -1 No.

Source : Laser Diode Wavelength : 1550nm (typ.)

Max Output power : 2mW Max current : 30mA Optical output connector : SC receptacle

Optical Power Meter – 1 No

-Calibrated wavelength 850/1310/1550nm, Germanium Photo Detector, Optical I/P Power: \pm 0.2dB, Battery & DC power operation, ST Type Optical Interface

Laser Diode Modulator - 2 No.

TTL Input Data Rate : 400Kbps to 34Mbps NRZ

: 200Kbps to 17Mbps RZ

OTDR Pulse Input : 70ns ON time (min) for Speed 1.

: 120ns ON time (min) for Speed 2.

Power Supply : $\pm 5V DC$

Power Supply Connectors : DIN-DIN Connectors Interface Connectors : TTL I/P - BNC

LD Unit - 5x2 Headers OTDR Pulse - 25 pin D Type

Optical Receiver Module – 2 No.

Incident optical wavelength : 1550nm
Data output : TTL

Modulated optical data input rate : 100Kbps to 34 Mbps for

NRZ,

100Kbps to 17 Mbps for RZ

Interface connectors

Optical Input : ST TTL Output : BNC

WDM Coupler Module- 1x2 50/125micron 1 No.
Fixed Attenuators - 1310nm & 1550nm- 1 No. each
TTL Generator Module 1 No.

<u>Experiments to be performed with Optical Fiber System</u>: The vendor should provide all provisions/accessories to be able to perform the following experiments along with relevant documentation.

Characteristics of LED and PIN Photo diode

-LED characteristics

-P **–** I

-V — I

Characteristics of PD

- -Reverse bias (Responsivity, Quantum efficiency)
- -Forward bias
- -Zero bias
- -Leakage characteristics

Characteristics of LASER diode

- -LASER diode characteristics
- -P I (knee current)
- -V I
- -Setting up of a LoS (Line of Sight) Link Free space optical link
 - *With live data using OFT
 - *Jamming of signal

Fiber fault analysis using OTDR

- -Building blocks of OTDR Allows building an OTDR with essential components and study its basic operations.
- -Study of Optical Fiber events using the constructed OTDR & standard OTDR's available in labs

Characteristics of APD

- -APD characteristics
- -Reverse bias (multiplying effect)
- -Zero bias
- -Leakage characteristics

Characteristics of multimode Fiber

- *Multimode Plastic fibre
 - -Numerical Aperture of Plastic fibre
 - -Attenuation in Plastic fibre
 - -Bending loss in Plastic fibre
 - -Electromagnetic interference
 - -Pulse broadening in FO communication
- *Multimode glass fibre
 - -Attenuation in MM glass fibre
 - -Bending loss
 - -Clad mode stripping study

Digital Communication concepts used in Serial transmissions

- -Study of 64Kbps transmission concept that is common in serial transmissions like ISDN/E1/T1 systems
- -Time division multiplexing concept
- -Line coding methods (Manchester)
- -False Marker Generation and the role of ITU (CCITT) standard
- -PCM Voice coding
- -Asynchronous data transfer

Fiber Optic link design and analysis

- *FO link design Analog and Digital (Plastic fiber)
- *FO digital link
 - -Multimode Fiber Link Sensitivity and Power budget
 - -Singlemode fiber link Sensitivity and Power budget (optional)
 - -Bit Rate measurement and study of AC coupled Link
- *FO Analog link
 - -System study
 - -Bandwidth

Experimentation with WDM System

- -Study of characteristics of Laser diodes (1550nm&1310nm)
- -Measurement of isolation and insertion loss of WDM coupler
- -Study of WDM concept
- -WDM End to END operation

B. Other Notes

- 1. The vendor should quote for complete system, partial quotes are not acceptable.
- 2. System should be in modular. Individual modules should be compatible with each other. It should be possible to test the characteristics of each module individually. Box type is not acceptable.
- 3. Extended warranty for additional 1 & 2 years to be quoted separately over and above the standard 1-year warranty. Warranty should cover unlimited technical support.
- 4. Vendor shall provide detailed datasheet/ brochure, point to point compliance matrix, for the quoted items. Technical evaluation of the quotation shall be done based on information available from supplied datasheet. No information shall be treated as noncompliance for the particular item. No further queries will be sent.
- 5. If the vendor is not an OEM, it shall provide the Authorization Certificate from his manufacturer showing his willingness to extend the maintenance and support.
- 6. Installation, demonstration & hands-on training of the Equipment shall be done by vendor at University.