

**NATIONAL INSTITUTE OF TECHNOLOGY,
TIRUCHIRAPPALLI**

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BID REFERENCE NO: TEQIP-II/NITT/173/NCB/CF/11/2016

NATIONAL COMPETITIVE BIDDING

FOR

PROCUREMENT OF EQUIPMENT

**LECTURE CAPTURE SOFTWARE, HARDWARE
AND ACCESSORIES**

UNDER

**TECHNICAL EDUCATION QUALITY
IMPROVEMENT PROGRAMME PHASE II
(TEQIP II)**

**(A WORLD BANK ASSISTED PROJECT)
CREDIT NO. - CR. 4685-0 IN**

NATIONAL COMPETITIVE BIDDING FOR

THE SUPPLY AND INSTALLATION OF LECTURE CAPTURE SOFTWARE, HARDWARE AND ACCESSORIES BID REFERENCE: TEQIP-II/NITT/173/NCB/CF/11/2016

BID REFERENCE: TEQIP-II/NITT/173/NCB/CF/11/2016

Date of publishing of bidding document : **DATE 27.07.2016 TIME: 10:00 Hrs**
in NITT website (www.nitt.edu)

Date and time of Pre-Bid Conference : DATE 16.08.2016 TIME: 10:00 Hrs
(at TEQIP Office)

Last date for availability of : **DATE 26.08.2016 TIME: 14:00 Hrs**
bidding document in NITT website
(www.nitt.edu)

Last date and time for : **DATE 26.08.2016 TIME 14:00 Hrs**
receipt of bids

Time and date of opening : **DATE 26.08.2016 TIME 15:00 Hrs**
of bids

Place of opening of bids : **TEQIP Office, Administrative block,
National Institute of Technology
Tiruchirappalli -620015
Tamilnadu.**

Address for communication : **The Coordinator (TEQIP-II)
National Institute of Technology
Tiruchirappalli -620015
Tamilnadu.**

Email : teqip@nitt.edu, bvenki@nitt.edu
bsundar@nitt.edu

SECTION I: INVITATION FOR BIDS (IFB)

NATIONAL COMPETITIVE BIDDING FOR

The supply and installation of lecture capture software, hardware and accessories

SECTION I. INVITATION FOR BIDS (IFB)

Date : **06.07.2016**

Credit No. : **Cr. 4685-0 IN**

IFB No. : **TEQIP-II/NITT/173/NCB/CF/11/2016**

1. The Government of India has received a Credit (Cr. 4685-0 IN) from the International Development Association in various currencies towards the cost of project_Technical Education Quality Improvement Programme[TEQIP]-Phase II (TEQIP II) and it is intended that part of the proceeds of this credit will be applied to eligible payments under the contracts for which this Invitation for Bids is issued.
2. The **Director, National Institute of Technology, Tiruchirappalli** now invites sealed bids from eligible bidders for **the supply and installation of Lecture capture software/hardware and accessories** listed below:

Sr. No	Item Name	Quantity
1	Lecture capture software	10
2	Computer , SW and accessories	10
3	HD PTZ Camera	20
4	Audio Accessories & cables	10

3. Interested eligible Bidders may obtain further information from and inspect the bidding documents at the office of the **TEQIP Office, Administrative Block, National Institute of Technology Tiruchirappalli -620015, Tamil Nadu, India.**
4. A complete set of bidding documents may be downloaded from NITT website – www.nitt.edu. The bid processing fee of **Rs. 1000/-** as a non-refundable fee as indicated below in the form of a Demand Draft in favour of **“The Director (TEQIP), NIT”**, payable at **Tiruchirappalli.**
5. The provisions in the Instructions to Bidders and in the General Conditions of contract (GCC) are based on the provisions of the World Bank Standard Bidding Document - Procurement of Goods.

- (a) Price of bidding document (non-refundable) : **₹ 1000/-**
- (b) Date of publishing of bidding document in NITT Website : **Date: 27.07.2016 TIME: 10:00 Hrs**
- (c) **Date and time of Pre-bid Conference** : **Date: 16.08.2016 TIME: 10:00 Hrs**
- (d) Date of availability of bidding document in NITT website : **Date: 27.07.2016 TIME: 10:00 Hrs**
- (e) Last date and time for receipt of bids : **Date: 26.08.2016 TIME: 14:00Hrs**
- (g) Time and date of opening of bids : **Date: 26.08.2016 TIME: 15:00 Hrs**

(h) Place of opening of bids : **TEQIP Office,
Administrative Block,
National Institute of Technology
Tiruchirappalli -620015**

(i) Address for communication : **The Coordinator (TEQIP-II)
National Institute of Technology
Tiruchirappalli -620015
Tamilnadu.**

**Email : teqip@nitt.edu, bvenki@nitt.edu
blsundar@nitt.edu**

6. All bids must be accompanied by a bid security as specified in the bid document and must be delivered to the above office at the date and time indicated above.
7. Bids will be opened in the presence of Bidders' representatives who choose to attend on the specified date and time.
8. In the event of the date specified for bid receipt and opening being declared as a closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
9. [In Pre-bid Conference, potential bidders may meet the representatives of NIT, Tiruchirappalli to seek any clarifications on the tender documents.](#)
10. [The Bid document cost and Bid Security are to be submitted by separate DDs.](#)

SECTION II: INSTRUCTIONS TO BIDDER

SECTION II: INSTRUCTIONS TO BIDDERS

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A. Introduction

1. Source of Funds

- 1.1 The Government of India has received a credit from the International Development Association (Here-in-after called as Bank) in various currencies equivalent to USD **300** million towards the cost of **Technical Education Quality Improvement Programme[TEQIP]-Phase II(TEQIP II)** and intends to apply part of the proceeds of this credit to eligible payments under the contracts for which this invitation for Bid is issued.
- 1.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Credit Agreement, and will be subject in all respects to the terms and conditions of that agreement. The Credit Agreement prohibits a withdrawal from the Credit account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Credit Agreement or have any claim to the Credit proceeds.

2. Eligible Bidders

- 2.1 This Invitation for Bids is open to all suppliers from eligible source countries as defined in *Guidelines: Procurement under IDA Credits*, May 2004, revised October 2006 hereinafter referred as the *IDA Guidelines for Procurement*, except as provided hereinafter.
- 2.2 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.
- 2.3 Government-owned enterprises in the Purchaser's country may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the Purchaser.
- 2.4 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Bank in accordance with ITB Clause 36.1.

3. Eligible Goods and Services

- 3.1 All goods and ancillary services to be supplied under the Contract shall have their origin in eligible source countries, defined in the *IDA Guidelines for Procurement* and all expenditures made under the Contract will be limited to such goods and services.
- 3.2 For purposes of this clause, "origin" means the place where the goods are mined, grown, or produced or from which the ancillary services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 3.3 The origin of goods and services is distinct from the nationality of the Bidder.

4. Cost of Bidding

- 4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and **The Director, National Institute of Technology, Tiruchirappalli**, hereinafter referred to as "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

B. The Bidding Documents

5. Content of Bidding Documents

5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents include:

- (a) Instruction to Bidders (ITB) ;
- (b) General Conditions of Contract (GCC) ;
- (c) Special Conditions of Contract (SCC) ;
- (d) Schedule of Requirements;
- (e) Technical Specifications;
- (f) Bid Form and Price Schedules;
- (g) Bid Security Form;
- (h) Contract Form;
- (i) Performance Security Form;
- (j) Performance Statement Form;
- (k) Manufacturer's Authorization Form;
- (l) Bank Guarantee for Advance Payment Form; and
- (m) Equipment and Quality Control Form.

5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

6. Clarification of Bidding Documents

6.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Purchaser in writing or by telex or cable or fax at the Purchaser's mailing address indicated in the Invitation for Bids. The Purchaser will respond in writing to any request for clarification of the bidding documents which it receives no later than 15 days prior to the deadline for submission of bids prescribed by the Purchaser. Written copies of the Purchaser's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective bidders which have received the bidding documents.

7. Amendment of Bidding Documents

7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.

7.2 All prospective bidders who have received the bidding documents will be notified of the amendment in writing or by cable or by fax, and will be binding on them.

7.3 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.

C. Preparation of Bids

8. Language of Bid

8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Bid, the translation shall govern.

9. Documents Constituting the Bid

9.1 The bid prepared by the Bidder shall comprise the following components:

- (a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11 and 12;
- (b) documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
- (c) documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and
- (d) bid security furnished in accordance with ITB Clause 15.

10. Bid Form

10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

11. Bid Prices

11.1 The Bidder shall indicate on the Price Schedule the unit prices and total bid prices of the goods it proposes to supply under the Contract. To this end, the Bidders are allowed the option to submit the bids for any one or more schedules specified in the 'Schedule of Requirements' and to offer discounts for combined schedules. However, Bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility basis, failing which such bids will not be taken into account for evaluation and will not be considered for award.

11.2 Prices indicated on the Price Schedule shall be entered separately in the following manner:

- (i) the price of the goods, quoted (ex-works, ex-factory, ex-showroom, ex-warehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable:
 - a. on components and raw material used in the manufacture or assembly of goods quoted ex-works or ex-factory; or
 - b. on the previously imported goods of foreign origin quoted ex-showroom, ex-warehouse or off-the-shelf.
- (ii) any Indian duties, sales and other taxes which will be payable on the goods if this Contract is awarded;
- (iii) the price for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination; and
- (iv) the price of other incidental services listed in Clause 8 of the Special Conditions of Contract.

11.3 The Bidder's separation of the price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered.

11.4 Fixed Price. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB Clause 24.

12. Bid Currencies

12.1 Prices shall be quoted in Indian Rupees:

13. Documents Establishing Bidder's Eligibility and Qualifications

- 13.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.
- 13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 2.
- 13.3 The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the Purchaser's satisfaction:
- (a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized (as per authorization form in Section XII) by the goods' Manufacturer or producer to supply the goods in India.

[Note: Supplies for any particular item in each schedule of the bid should be from one manufacturer only. Bids from agents offering supplies from different manufacturer's for the same item of the schedule in the bid will be treated as non-responsive.]
 - (b) that the Bidder has the financial, technical, and production capability necessary to perform the Contract and meets the criteria outlined in the Qualification requirements specified in Section VI-A. To this end, all bids submitted shall include the following information:
 - (i) The legal status, place of registration and principal place of business of the company or firm or partnership, etc.;
 - (ii) Details of experience and past performance of the bidder on equipment offered and on those of similar nature within the past three years and details of current contracts in hand and other commitments (suggested proforma given in Section XI);

14. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents

- 14.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services which the Bidder proposes to supply under the contract.
- 14.2 The documentary evidence of the goods and services eligibility shall consist of a statement in the Price Schedule 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.
- 14.3 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of :
- (a) a detailed description of the essential technical and performance characteristics of the goods ;
 - (b) 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
 - (c) 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.
- 14.4 For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

15. Bid Security

- 15.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security in the amount as specified in Section-V - Schedule of Requirements.
- 15.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.
- 15.3 The bid security shall be denominated in Indian Rupees and shall:
- (a) at the bidder's option, be in the form of either a certified check, letter of credit, a demand draft, or a bank guarantee from a nationalized/Scheduled Bank located in India or by a reputable banking institution selected by the bidder and located abroad in any eligible country;
 - (b) be substantially in accordance with one of the form of bid security included in Section VIII or other form approved by the Purchaser prior to bid submission;
 - (c) be payable promptly upon written demand by the Purchaser in case any of the conditions listed in ITB Clause 15.7 are invoked;
 - (d) be submitted in its original form; copies will not be accepted; and
 - (e) remain valid for a period of 90 days beyond the original validity period of bids, or beyond any period of extension subsequently requested under ITB Clause 16.2.
- 15.4 Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 above will be rejected by the Purchaser as non-responsive, pursuant to ITB Clause 24.
- 15.5 Unsuccessful bidder's bid securities will be discharged/returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the Purchaser, pursuant to ITB Clause 16.
- 15.6 The successful Bidder's bid security will be discharged upon the Bidder signing the Contract, pursuant to ITB Clause 34, and furnishing the performance security, pursuant to ITB Clause 35.
- 15.7 The bid security may be forfeited:
- (a) if a Bidder (i) withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or (ii) does not accept the correction of errors pursuant to ITB Clause 24.2; or
 - (b) in case of a successful Bidder, if the Bidder fails:
 - (i) to sign the Contract in accordance with ITB Clause 34; or
 - (ii) to furnish performance security in accordance with ITB Clause 35.

16. Period of Validity of Bids

- 16.1 Bids shall remain valid for 90 days after the deadline for submission of bids prescribed by the Purchaser, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable or telex or fax). The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in ITB Clause 16.3 hereinafter.
- 16.3 In the case of fixed prices contracts, in the event that the Purchaser requests and the Bidder agrees to an extension of the validity period, the contract price, if the Bidder is selected for award shall be the bid price corrected as follows :

The price shall be increased by the **factor (B =10 % per Annum)** for each week or part of a week that has elapsed from the expiration of the initial bid validity to the date of notification of award to the successful Bidder.

16.4 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

17. Format and Signing of Bid

17.1 The Bidder shall prepare two copies of the bid, clearly marking each "Original Bid" and "Copy Bid", as appropriate. In the event of any discrepancy between them, the original shall govern.

17.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The latter authorization shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.

17.3 Any interlineations, erasures or overwriting shall be valid only if they are initialed by the persons or persons signing the bid.

17.4 The Bidder shall furnish information as described in the Form of Bid 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.

D. Submission of Bids

18. Sealing and Marking of Bids

18.1 The Bidders shall seal the original and each copy of the bid in separate inner envelopes, duly marking the envelopes as "original" and "copy". He shall then place all the inner envelopes in an outer envelope.

18.2 **The inner and outer envelopes shall:**

(a) be addressed to the Purchaser at the following address:

**The Director,
Administrative Block,
National Institute of Technology,
Tiruchirappalli -620015,Tamilnadu, India**

(b) bear the Project Name, **Technical Education Quality Improvement Programme[TEQIP]-Phase II** the Invitation for Bids(IFB) title and number **TEQIP-II/NITT/173** , and a statement "Do not open before **15:00** Hrs on **26.08.2016**."

18.3 The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late".

18.4 If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Purchaser will assume no responsibility for the bid's misplacement or premature opening.

18.5 Telex, cable or facsimile bids will be rejected.

19. Deadline for Submission of Bids

19.1 Bids must be received by the Purchaser at the address specified under ITB Clause 18.2 (a) no later than the time and date specified in the Invitation for Bids (Section I). In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received upto the appointed time on the next working day.

19.2 The Purchaser may, at its discretion, extend this deadline for submission of bids by amending the bid documents in accordance with ITB Clause 7, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. Late Bids

- 20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, pursuant to ITB Clause 19, will be rejected and/or returned unopened to the Bidder.

21. Modification and Withdrawal of Bids

- 21.1 The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bids.
- 21.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 18. A withdrawal notice may also be sent by telex or cable or fax but followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.
- 21.3 No bid may be modified subsequent to the deadline for submission of bids.
- 21.4 No bid may be withdrawn in the interval between the deadline for 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, pursuant to ITB Clause 15.7.

E. Bid Opening and Evaluation of Bids

22. Opening of Bids by the Purchaser

- 22.1 The Purchaser will open all bids, in the presence of Bidders' representatives who choose to attend, at **15:00 Hrs** on **26.08.2016** and in the following location:

**TEQIP Office, Administrative Block,
National Institute of Technology
Tiruchirappalli-620015, Tamilnadu, India**

The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day.

- 22.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.
- 22.3 Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances.
- 22.4 The Purchaser will prepare minutes of the bid opening.

23. Clarification of Bids

- 23.1 During evaluation of bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.

24. Preliminary Examination

- 24.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids from Agents, without proper authorization from the manufacturer as per Section XII, shall be treated as non-responsive.

- 24.1.1 Where the Bidder has quoted for more than one schedule, if the bid security furnished is inadequate for all the schedules, the Purchaser shall take the price bid into account only to the extent the bid is secured. For this purpose, the extent to which the bid is secured shall be determined by evaluating the requirement of bid security to be furnished for the schedule included in the bid (offer) in the serial order of the Schedule of Requirements of the Bidding document.
- 24.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of errors, its bid will be rejected and its bid security may be forfeited.
- 24.3 The Purchaser may waive any minor informality or 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.
- 24.4 Prior to the detailed evaluation, pursuant to ITB Clause 26, the Purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 7), Warranty (GCC Clause 15), Force Majeure (GCC Clause 25), Limitation of liability (GCC Clause 29), Applicable law (GCC Clause 31), and Taxes & Duties (GCC Clause 33) will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 24.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

25. Deleted

26. Evaluation and Comparison of Bids

- 26.1 The Purchaser will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24 for each schedule separately. No bid will be considered if the complete requirements covered in the schedule is not included in the bid. However, as stated in Para 11, Bidders are allowed the option to bid for any one or more schedules and to offer discounts for combined schedules. These discounts will be taken into account in the evaluation of the bids so as to determine the bid or combination of bids offering the lowest evaluated cost for the Purchaser in deciding award(s) for each schedule.
- 26.2 The Purchaser's evaluation of a bid will exclude and not take into account:
- (a) in the case of goods manufactured in India or goods of foreign origin already located in India, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
 - (b) any allowance for price adjustment during the period of execution of the Contract, if provided in the bid.
- 26.3 Deleted.
- 26.4 The Purchaser's evaluation of a bid will take into account, in addition to the bid price (Ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within India, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and Excise duty on the finished goods, if payable) and price of incidental services, the following factors, in the manner and to the extent indicated in ITB Clause 26.5 and in the Technical Specifications:
- (a) cost of inland transportation, insurance and other costs within India incidental to the delivery of the goods to their final destination;
 - (b) delivery schedule offered in the bid;
 - (c) deviations in payment schedule from that specified in the Special Conditions of Contract;

- (d) the cost of components, mandatory spare parts and service;
- (e) the availability in India of spare parts and after-sales services for the goods / equipment offered in the bid;
- (f) the projected operating and maintenance costs during the life of the equipment; and
- (g) the performance and productivity of the equipment offered.

26.5 Pursuant to ITB Clause 26.4, one or more of the following evaluation methods will be applied:

(a) *Inland Transportation, Insurance and Incidentals:*

- (i) Inland transportation, insurance and other incidentals for delivery of goods to the final destination as stated in ITB Clause 11.2 (iii).

The above costs will be added to the bid price.

(b) *Delivery Schedule:*

- (i) The Purchaser requires that the goods under the Invitation for Bids shall be delivered at the time specified in the Schedule of Requirements. The estimated time of arrival of the goods at the project site should be calculated for each bid after allowing for reasonable transportation time. Treating the date as per schedule of requirements as the base, a delivery "adjustment" will be calculated for other bids at 2% of the ex-factory price including excise duty for each month of delay beyond the base and this will be added to the bid price for evaluation. No credit will be given to earlier deliveries and bids offering delivery beyond months of stipulated delivery period will be treated as unresponsive.

(c) *Deviation in Payment Schedule:*

Deleted

(d) *Cost of Spare Parts:*

Deleted

(e) *Spare Parts and After Sales Service Facilities in India:*

The cost to the Purchaser of establishing the minimum service facilities and parts inventories, as outlined elsewhere in the bidding documents, if quoted separately, shall be added to the bid price.

(f) *Operating and Maintenance Costs:*

Deleted

(g) *Performance and Productivity of the Equipment:*

Deleted

27. Deleted.

28. Contacting the Purchaser

28.1 Subject to ITB Clause 23, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded. If the bidder wishes to bring additional information to the notice of the purchaser, it should do so in writing.

28.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

F. Award of Contract

29. Postqualification

- 29.1 In the absence of prequalification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid meets the criteria specified in ITB Clause 13.3 (b) and is qualified to perform the contract satisfactorily.
- 29.2 The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13, as well as such other information as the Purchaser deems necessary and appropriate.
- 29.3 An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Purchaser will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform the contract satisfactorily.

30. Award Criteria

- 30.1 Subject to ITB Clause 32, the Purchaser will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

31. Purchaser's right to vary Quantities at Time of Award

- 31.1 The Purchaser reserves the right at the time of Contract award to increase or decrease by up to 15 percent of the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

32. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids

- 32.1 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 contract award, without thereby incurring any liability to the affected Bidder or bidders.

33. Notification of Award

- 33.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable/telex or fax, to be confirmed in writing by registered letter, that its bid has been accepted.
- 33.2 The notification of award will constitute the formation of the Contract.
- 33.3 Upon the successful Bidder's furnishing of performance security pursuant to ITB Clause 35, the Purchaser will promptly notify the name of the winning bidder to each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 15.
- 33.4 If, after notification of award, a Bidder wishes to ascertain the grounds on which its bid was not selected, it should address its request to the Purchaser. The Purchaser will promptly respond in writing to the unsuccessful Bidder.

34. Signing of Contract

- 34.1 At the same time as the Purchaser notifies the successful bidder that its bid has been accepted, the Purchaser will send the bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
- 34.2 Within 21 days of receipt of the Contract Form, the successful bidder shall sign and date the Contract and return it to the Purchaser.

35. Performance Security

- 35.1 Within 21 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents or in another form acceptable to the Purchaser.
- 35.2 Failure of the successful bidder to comply with the requirement of ITB Clause 34.2 or ITB Clause 35.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated bidder or call for new bids.

36 Corrupt or Fraudulent Practices

- 36.1 It is the Bank's policy that Borrowers (including beneficiaries of Bank loans), as well as Bidders, Suppliers, and Contractors, and their agents (whether declared or not), personnel, subcontractors, sub-consultants, service providers and suppliers under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts¹. In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

- (i) "corrupt practice"² means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
- (ii) "fraudulent practice"³ means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
- (iii) "collusive practice"⁴ means a scheme or arrangement between two or more Bidders, with or without the knowledge of the borrower, designed to establish bid prices at artificial, non competitive levels; and
- (iv) "coercive practice"⁵ means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- (v) "Obstructive practice" is
- (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and /or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under sub – clause 36.1 (e) below.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question;

¹ In this context, any action taken by a bidder, supplier, contractor, or any of its personnel, agents, subcontractors, sub-consultants, service providers, suppliers and/or their employees to influence the procurement process or contract execution for undue advantage is improper.

² "Another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

³ "Party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

⁴ "Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non- competitive levels.

⁵ "Party" refers to a participant in the procurement process or contract execution.

- (c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur;
- (d) will sanction a firm or an individual, at any time, in accordance with prevailing Bank's sanctions procedures⁶, including by publically declaring such firm or individual ineligible, either indefinitely or for a stated period of time, (i) to be awarded a Bank-financed contract; and (ii) to be a nominated⁷ subcontractor, consultant, manufacturer or supplier, or service provider of and otherwise eligible firm being awarded a Bank-financed contract; and
- (e) will have the right to require that a provision be included in Bidding Documents and in contracts financed by a Bank loan, requiring Bidders, Suppliers, and Contractors and their sub-contractors to permit the Bank to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by the Bank.

36.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 24.1 (c) of the General Conditions of Contract.

⁶ A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: (i) temporary suspension in connection with an ongoing sanctions proceeding; (ii) cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks; and (iii) the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption.

⁷ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which either has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's pre-qualification application or the bid; or (ii) appointed by the Borrower.

SECTION III: GENERAL CONDITIONS OF CONTRACT

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General Conditions of Contract

1. Definitions

1.1 In this Contract, the following terms shall be interpreted as indicated:

- (a) "The Contract" means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
- (c) "The Goods" means all the equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the Contract;
- (d) "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;
- (e) "GCC" means the General Conditions of Contract contained in this section.
- (f) "SCC" means the Special Conditions of Contract.
- (g) "The Purchaser" means the organization purchasing the Goods, as named in SCC.
- (h) "The Purchaser's country" is the country named in SCC.
- (i) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
- (j) "The World Bank" means the International Bank for Reconstruction and Development (IBRD) or the international Development Association (IDA).
- (k) "The Project Site", where applicable, means the place or places named in SCC.
- (l) "Day" means calendar day.

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. Country of Origin

3.1 All Goods and Services supplied under the Contract shall have their origin in the member countries and territories eligible under the rules of the World Bank as further elaborated in SCC.

3.2 For purposes of this Clause "origin" means the place where the Goods are mined, grown or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of Goods and Services is distinct from the nationality of the Supplier.

4. Standards

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

5. Use of Contract Documents and Information

- 5.1 The Supplier 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.
- 5.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
- 5.3 Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

6. Patent Rights

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

7. Performance Security

- 7.1 Within 21 days of receipt of the notification of contract award, the Supplier shall furnish performance security in the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 7.3 The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:
 - (a) A Bank guarantee or irrevocable Letter of Credit, issued by a nationalized/scheduled bank located in India or a bank located abroad acceptable to the Purchaser, in the form provided in the bidding documents or another form acceptable to the Purchaser; or
 - (b) A cashier's check, certified check, or demand draft.
- 7.4 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 30 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC.

8. Inspections and Tests

- 8.1 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. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- 8.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.
- 8.3 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 8.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing

9.1 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.

9.2 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.

10. Delivery and Documents

10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the Notification of Award. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

11. Insurance

11.1 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 in the manner specified in SCC.

12. Transportation

12.1 Deleted.

12.2 Deleted.

12.3 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such place of 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.

12.4 Deleted

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

13.2 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

14. Spare Parts

- 14.1 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:
- (a) such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
 - (b) In the event of termination of production of the spare parts:
 - (i) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

15. Warranty

- 15.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that 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 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.
- 15.2 This warranty shall remain valid for 12 months after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for 18 months after the date of shipment from the place of loading whichever period concludes earlier, unless specified otherwise in the SCC.
- 15.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the Purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced Goods or parts from ex-works or ex-factory or ex-showroom to the final destination.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in the SCC.
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the Purchaser but in no case later than sixty (60) days after submission of the invoice or claim by the Supplier.
- 16.4 Payment shall be made in Indian Rupees.

17. Prices

- 17.1 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 its bid, with the exception of any price adjustments authorized in SCC or in the Purchaser's request for bid validity extension, as the case may be.

18. Change Orders

18.1 The Purchaser may at any time, by written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:

- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) the method of shipping or packing;
- (c) the place of delivery; and/or
- (d) the Services to be provided by the Supplier.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

19. Contract Amendments

19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

20. Assignment

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

21. Subcontracts

21.1 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.

21.2 Subcontracts must comply with the provisions of GCC Clause 3.

22. Delays in the Supplier's Performance

22.1 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 Schedule of Requirements.

22.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

22.3 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.

23. Liquidated Damages

23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the 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 liquidated damages, a sum equivalent to the percentage specified

in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 24.

24. Termination for Default

24.1 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:

- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
- (b) if the Supplier fails to perform any other obligation(s) under the Contract.
- (c) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 34, in competing for or in executing the Contract.

24.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22, 23, 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 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 and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26. Termination for Insolvency

26.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

27. Termination for Convenience

27.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (a) to have any portion completed and delivered at the Contract terms and prices; and/or
- (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

28. Settlement of Disputes

28.1 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.

28.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

28.2.1 Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

28.2.2 Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

28.3 Notwithstanding any reference to arbitration herein,

(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

(f) the Purchaser shall pay the Supplier any monies due the Supplier.

29. Limitation of Liability

29.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6,

(a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and

(b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

30. Governing Language

30.1 The contract shall be written in English language. Subject to GCC Clause 30, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

31. Applicable Law

31.1 The Contract shall be interpreted in accordance with the laws of the Union of India.

32. Notices

32.1 Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by cable, telex or facsimile and confirmed in writing to the other Party's address specified in SCC.

32.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

33. Taxes and Duties

33.1 Deleted.

33.2 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.

34. Fraud and Corruption

34.1 It is the Bank's policy that Borrowers (including beneficiaries of Bank loans), as well as Bidders, Suppliers, and Contractors, and their agents (whether declared or not), personnel, subcontractors, sub-consultants, service providers and suppliers under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts⁸. In pursuance of this policy, the Bank:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice"⁹ means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - (ii) "fraudulent practice"¹⁰ means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
 - (iii) "collusive practice"¹¹ means a scheme or arrangement between two or more Bidders, with or without the knowledge of the borrower, designed to establish bid prices at artificial, non competitive levels; and
 - (iv) "coercive practice"¹² means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
 - (v) "Obstructive practice" is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and /or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under sub – clause 34.1 (e) below.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question;
- (c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur;

⁸ In this context, any action taken by a bidder, supplier, contractor, or any of its personnel, agents, subcontractors, sub-consultants, service providers, suppliers and/or their employees to influence the procurement process or contract execution for undue advantage is improper.

⁹ "Another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

¹⁰ "Party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

¹¹ "Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non- competitive levels.

¹² "Party" refers to a participant in the procurement process or contract execution.

- (d) will sanction a firm or an individual, at any time, in accordance with prevailing Bank's sanctions procedures¹³, including by publically declaring such firm or individual ineligible, either indefinitely or for a stated period of time, (i) to be awarded a Bank-financed contract; and (ii) to be a nominated¹⁴ subcontractor, consultant, manufacturer or supplier, or service provider of and otherwise eligible firm being awarded a Bank-financed contract; and
- (e) will have the right to require that a provision be included in Bidding Documents and in contracts financed by a Bank loan, requiring Bidders, Suppliers, and Contractors and their sub-contractors to permit the Bank to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by the Bank.

34.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 24.1 (c) of the General Conditions of Contract.

¹³ A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: (i) temporary suspension in connection with an ongoing sanctions proceeding; (ii) cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks; and (iii) the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption.

¹⁴ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which either has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's pre-qualification application or the bid; or (ii) appointed by the Borrower.

SECTION IV: SPECIAL CONDITIONS OF CONTRACT

SECTION IV: SPECIAL CONDITIONS OF CONTRACT

TABLE OF CLAUSES

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Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

1. Definitions (GCC Clause 1)

- (a) The Purchaser is **National Institute of Technology, Tiruchirappalli**
- (b) The Supplier is :

2. Country of Origin (GCC Clause 3)

All countries and territories as indicated in Section XIV of the bidding documents, "Eligibility for the Provisions of Goods, Works, and Services in Bank-Financed Procurement".

3. Performance Security (GCC Clause 7)

- 3.1 Within 21 days after the Supplier's receipt of Notification of Award, the Supplier shall furnish Performance Security to the Purchaser for an amount of 5% of the contract value, valid upto 60 days after the date of completion of performance obligations including warranty obligations.

In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of 12 months and the Performance Bank Guarantee for proportionate value shall be extended 60 days over and above the extended warranty period.

- 3.2 Substitute Clause 7.3 (b) of the GCC by the following:

A cashier's cheque or banker's certified cheque or crossed demand draft or pay order drawn in favour of **The Director, National Institute of Technology (TEQIP), payable at Tiruchirappalli [Purchaser]**.

- 3.3 Substitute Clause 7.4 of the GCC by the following:

The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including the warranty obligation, under the contract.

- 3.4 Add as Clause 7.5 to the GCC the following:

In the event of any contract amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for 60 days after the completion of performance obligations including warranty obligations.

4. Inspection and Tests (GCC Clause 8)

The following inspection procedures and tests are required by the Purchaser:

(i) The inspection of the Goods shall be carried out to check whether the Goods are in conformity with the technical specifications attached to the contract and shall be in line with the inspection/test procedures laid down in the Technical Specifications and the General Conditions of contract. Following broad test procedure will generally be followed for inspection and testing of machine.

- The supplier will dispatch the goods to the ultimate consignee after internal inspection testing along with the supplier's inspection report and manufacturer's warranty certificate.
- The purchase will test the equipment after completion of the installation and commissioning at the site of the installation.
- For site preparation, the supplier should furnish all details to the purchaser sufficiently in advance so as to get the works completed before receipt of the equipment.
- Complete items/ accessories as specified in Section V should be supplied, installed and commissioned properly by the supplier prior to commencement of performance test.

(ii) The acceptance test will be conducted by the purchaser/their consultant or any other person nominated by the purchaser, at its option. There shall not be any additional charges for carrying out acceptance tests. The supplier shall maintain necessary log in respect of the results of the tests to establish to the entire satisfaction of the purchaser, the successful completion of the test specified.

(iii) In the event of the equipments failing to pass the acceptance test, a period not exceeding four weeks will be given to rectify the defects and clear the acceptance test, failing which the purchaser reserves the rights to get the equipment replaced by the supplier at no extra cost to the purchaser.

5. **Packing (GCC Clause 9)**

Add as Clause 9.3 of the GCC the following:

Packing Instructions : The Supplier will be required to make separate packages for each Consignee. Each package will be marked on three sides with proper paint/indelible ink, the following:

i) Project ii) Contract No. iii) Country of Origin of Goods iv) Supplier's Name, and v) Packing list reference number.

6. **Delivery and Documents (GCC Clause 10)**

Upon delivery of the Goods, the supplier shall notify the purchaser and the insurance company by cable/telex/fax the full details of the shipment including contract number, railway receipt number and date, description of goods, quantity, name of the consignee etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- (i) 4 Copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
- (ii) Railway receipt/acknowledgment of receipt of goods from the consignee(s);
- (iii) 4 Copies of packing list identifying the contents of each package;
- (iv) Insurance Certificate ;
- (v) Manufacturer's/Supplier's warranty certificate;
- (vi) Inspection Certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and
- (vii) Certificate of Origin.

The above documents shall 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.

7. **Insurance (GCC Clause 11)**

For delivery of goods at site, 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" basis including War Risks and Strikes.

8. **Incidental Services (GCC Clause 13)**

The following services covered under Clause 13 shall be furnished and the cost shall be included in the contract price:

- a. Performance of the onsite assembly, commissioning and start-up of the equipment.
- b. Furnishing the detailed operation and maintenance manuals for each items of the supply at each location.
- c. Training the purchaser personnel at the suppliers office or other facility, in the installation and operation of the equipment.
- d. Maintenance and repair of the equipment at each location during the warranty period including supply of all spares. This shall not relieve the supplier of any warranty obligation under this contract.

- e. Maintenance and/or repairs of the supplied goods for a period of three years after the end of warranty period. The bidder should indicate the spares and their costs, if any, which are not indicated in the maintenance contracts.

9. **Spare Parts (GCC Clause 14)**

Add as Clause 14.2 to the GCC the following:

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.

10. **Warranty (GCC Clause 15)**

- (i) G.C.C. Clause 15.2:

In partial modification of the provisions, the warranty period shall behours of operation or **24** months from date of acceptance of Goods or months from the dates of Shipment, whichever occurs earlier. 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 shall at its discretion either:

- (a) make 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 its own cost and expense and to carry out further performance tests in accordance with SCC 4 ;

- (ii) Substitute Clause 15.4 of the GCC by the following:

“Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever, shall lie on the Purchaser for the replaced parts/goods thereafter.

In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of 12 months.”

- (iii) GCC Clauses 15.4 and 15.5:

The period for correction of defects in the warranty period is 20 days.

11. **Payment (GCC Clause 16)**

Payment for Goods and Services shall be made in Indian Rupees as follows:

* **On Delivery 80%** * **On Final Acceptance 20%**

* **80 percent of the Contract Price shall be paid on the successful completion and acceptance of On Delivery**

* **20 percent of the Contract Price shall be paid on the successful completion and acceptance of On Final Acceptance**

Advance Payment: No advance payment.

- (i) *On Delivery:* Eighty percent of the contract price shall be paid on receipt of Goods and upon submission of the documents specified in SCC Clause 6 above; and
- (iii) *On Final Acceptance:* The remaining twenty percent of the Contract Price shall be paid to the supplier within 30 days after the date of the acceptance certificate issued by the Purchaser’s representative for the respective delivery.

12. **Prices (GCC Clause 17)**

17.1 Prices payable to the supplier as stated in the contract shall be firm during the performance of the contract.

13. **Sub-contracts (GCC Clause 21)**

Add at the end of GCC sub-clause 21.1 the following:

Sub-contract shall be only for bought-out items and sub-assemblies

14. **Liquidated Damages (GCC Clause 23)**

14.1 For delays :

GCC Clause 23.1 -- The applicable rate is 0.07% per week and the maximum deduction is 10% of the contract price.

15. **Settlement of Disputes (Clause 28)**

The dispute settlement mechanism to be applied pursuant to GCC Clause 28.2.2 shall be as follows:

- (a) 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 Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration.
- (b) In the case of a dispute with a Foreign Supplier, the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules. The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties, and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration.
- (c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the Indian Council of Arbitration both in cases of the Foreign supplier as well as Indian supplier, shall appoint the arbitrator. A certified copy of the order of the Indian Council of Arbitration making such an appointment shall be furnished to each of the parties.
- (d) Arbitration proceedings shall be held at **TIRUCHIRAPPALLI** India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- (e) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.
- (f) Where the value of the contract is Rs. 10 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the Indian Council of Arbitration.

16. Notices (Clause 32)

For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.

Purchaser : **The Director,
National Institute of Technology,
Tiruchirappalli -620015,
Tamilnadu.**

Supplier: (To be filled in at the time of Contract signature)

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.....
.....

17. Supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:

- Quantity offered for inspection and date;
 - Quantity accepted/rejected by inspecting agency and date;
 - Quantity despatched/delivered to consignees and date;
 - Quantity where incidental services have been satisfactorily completed with date;
 - Quantity where rectification/repair/replacement effected/completed on receipt of any communication from;
consignee/Purchaser with date
 - Date of completion of entire Contract including incidental services, if any; and
 - Date of receipt of entire payments under the Contract
- (in case of stage-wise inspection, details required may also be specified).

SECTION V: SCHEDULE OF REQUIREMENTS

SCHEDULE OF REQUIREMENTS

Brief Description	Quantity	Delivery Schedule	Bid Security (In Rupees)
Lecture capture software	10	Delivery in 90 days from the date of award of contract by NIT, Tiruchirappalli	3,00,000/-
HDTV PTZ Camera	20		
Computer SW and accessories	10		
Audio Accessories & cables	10		

SECTION VI: TECHNICAL SPECIFICATIONS

SECTION VI - TECHNICAL SPECIFICATIONS

Lecture capture software/hardware and accessories

Sl. No	Brief Description	Quantity
1.	Lecture capture software	10
2.	HDTV PTZ Camera	20
3.	Computer SW and accessories	10
4.	Audio Accessories & cables	10

1. General Requirements:

Equipment	Requirements
Lecture capture software/hardware and accessories	<p>There are two types of Lecture capture software in the market:</p> <ol style="list-style-type: none">1. Lecture capture software using software which runs on an embedded hardware at each class room called as H/W based lecture capture (LC)2. Lecture capture software using software which runs on the PC with add on cards at each class room called as S/W based lecture capture (LC)3. The bidders are required to quote for the two options:<ol style="list-style-type: none">a) 10 units of H/W based LCb) 5 units of H/W based LC & 5 units of S/W based LC4. Content Management Streaming Software (CMS) for recording, editing and streaming to be run on the server should also be quoted. There are two types of CMS: (a) CMS for h/w based LC (b) CMS for s/w based LC5. Option 3 (a)+ 4 (a) is preferred. However, the purchase committee would decide to go for either option (i) 3(a)+ 4(a) or (ii) 3(b) + 4(a) + 4(b) depending upon whether the total price for option (i) is within the allocated budget or not.6. The bidder should have supplied all the items in the list to at least one organization in the last one year and the supplied items should be in working condition.7. Bidder should give the details of the organization where it has been supplied earlier and give the contact details (phone no/email ids) of the persons with whom its performance status can be ascertained.8. Demo/Proof of concept of the product to be quoted should be arranged at NIT, Trichy before the submission of the quote

**1. (a) Specification for the H/W based LC to be deployed in each class room:
(Number of units required 5 or 10: quote separately for both)**

Equipment	Requirements
H/W based LC to be deployed in each class room	<ol style="list-style-type: none"> 1. One box solution for capture, encode, record, archive and stream. 2. Raw Content captured directly from multiple Video / data sources formats (at least 8 inputs) selectable and swappable on the fly from a web based interface or from a control software application on a touch screen / tablet E-1 43 NCB 3. Multiple layout templates of the video sources with Image / Text overlays available ready, selectable on the fly. 4. Dual Screen Recording with 3 video/data inputs at up to 1080 P 60 of both streams into local Hard disk of 1 Tb or more 5. Live streaming at up to 1080 p 60 of both streams over unicast or multicast networks 6. Audio and video synchronization using Audio stereo Line in and external mic in ports with support for left and right line in. 7. Internal streaming server supporting live streaming through multiple platforms like Mac, Windows 8. Local viewing and monitoring using a HD and VGA port out. 9. Auto scheduling for automation of Streaming and Recording using a Google calendar or aicalendar or from the central Streaming server, the PS. 10. Auto-upload simultaneously up to two destinations including CMS / Streaming server / external USB drive or any FTP server. Can also upload manually to you tube and other streaming servers. 11. Search and sorting options in archives from end user interface. 12. Playback of video content from SDP file or VLC/ Quicktime player. 13. User rights authorization, TLS/SSL and HTTPS Support, Web based control, mail notification and automatic backup and file management for security and management 14. Network connectivity - One port of 10/100/1000 and 3 USB ports.

1 (b) Specifications for Content Management and Streaming Server software for Hardware based LC: No. of units required 1

Sl. No	Parameter	Specification
1	Features	<ol style="list-style-type: none"> 1. Complete and seamless integration with Hardware Recorders for lecture and event capture and live streaming. 3. VOD Playback of uploaded content. 4. Rebroadcasting of RTSP and RTMP live streams to desktops, iOS and Android devices. 5. Viewer Access control for VOD and Live Streams: <ol style="list-style-type: none"> a. Internal access control; b. Integration with external user management systems;

		<p>6. Live streams may be embedded into users web pages.</p> <p>7. Upload of videos in various formats such as mp4,flv etc.</p> <p>a. Manual / Automated Uploading Videos from Capture Devices;</p> <p>b. Manual upload of recordings from other sources;</p> <p>8. Publishing uploaded content:</p> <p>a. publishing uploaded content as it was uploaded;</p> <p>b. publishing uploaded content in different qualities;</p> <p>c. publishing uploaded content with additional information that was extracted from the content (OCR, Segmentation) or information that the content was extended with (Speech to Text services);</p> <p>9. Adding comments to uploaded content.</p> <p>10. Applying processing to uploaded content:</p> <p>a. Splitting content to Presenter and Presentation Part if video & presentation are stored in a single file;</p> <p>b. Applying Segmentation and OCR to content with Presentation;</p> <p>c. Reconverting content to different qualities for user with different bandwidth;</p> <p>d. Trimming uploaded content (beginning and end of the video)</p> <p>11. Uploaded content may be:</p> <p>a. Exported to other content servers;</p> <p>b. Downloaded by users if necessary;</p> <p>c. Embedded into web pages;</p> <p>13. Content is automatically backedup on a second HDD.</p> <p>14. Content can be searched.</p> <p>15. New recordings may be scheduled from inside the archives Server.</p> <p>16. Remote diagnosis, support and management. Automatic updates.</p>
2	Administrative Interfaces	<p>Scheduling capture of lectures and seminars.</p> <p>Manually uploading files to the server</p> <p>Managing user and administrative roles</p> <p>Assessing server performance and load</p> <p>Verifying the timely progress of media through the system</p> <p>Defining series of presentations</p> <p>Review and approval of incoming presentation material</p> <p>Assigning appropriate processing steps (workflows) to incoming media</p>

3	Viewer Portal	Authentication of viewers or provision for anonymous viewing
		Authorization of viewers for access to different recorded media
		Integration with and notification to Learning Management Systems about the arrival of new content
		Flexibility of playback on different media players and devices
		Capture of viewing statistics and user load
		Publishing and push of media to external systems
4	Workflow	It should support Scheduling, Inspection of media file, Composition– Transcoding the media to different formats and resolutions, Able to Trim unwanted portion by using CMS server itself, Text Extraction, Streaming,
5	Viewer Access control for VOD	Internal access control, Integration with external user management systems, Live streams may be embedded into users web pages.
6	Publishing uploaded content	publishing uploaded content as it was uploaded.
7	Processing to uploaded content	Applying Segmentation and OCR to content with Presentation
8	Uploaded content	Exported to other content servers, Downloaded by users if necessary, Recording may be organized into series - different access control may be applied to different series - and this is the mechanism for access control.
9	Viewer Control	Presenter Only, Large Presenter Window, small Graphic, Small Presenter and large Graphic, Equal-sized Presenter and Presentation.
10	Other features	New recordings may be scheduled from inside the Content management server itself, Customized look and feel of the server (advanced change of the look of the server is possible with our assistance).

1 (c) S/W based Lecture Capture Software client: No. of units required:5

Sl. No	Parameter	Specification
1	Platform Support	The desktop application must run on Windows XP, Windows Vista, Windows 7, (optional: Mac OSX)
2	Video Standards	H.264 or higher
3	User Interface	<ul style="list-style-type: none"> • The system should provide an easy to use install wizard when the client is first installed. • Dual monitor view must be supported for laptops or desktops using 2 screens
4	Video Input	The application should support standard USB Cameras which can be changed or switched on the fly.

5	Audio Standards	<ul style="list-style-type: none"> • The system should support Superior wideband audio of crystal clear audio • The application should support standard USB headsets or Microphones which can be changed or switched on the fly.
6	Recording	The client must capable to communicate with streaming server. Streaming server will stream & record the Individual or two way interaction.
7	Network Features	<ul style="list-style-type: none"> • The proposed system should support Audio Error Concealment • Packet and jitter control • Network Address Translation (NAT) support • Automatic NAT discovery • Asymmetric speed control • Fixed-Port TCP-Based Tunneling Protocol for firewall traversal support engaged automatically by the client whenever the network setup/condition requires.
8	Collaboration Option	<ul style="list-style-type: none"> • It should be possible to share any application active on the computer or the entire screen. In a multi screen setup the user should be able to select which is the screen that will be shared among the ones currently connected/active. • It should be possible to view any shared application or screen by any other party via a simple button. Every participant should be able to decide if they want to display

1. (d) Content Management and Streaming Server software for Software based Lecture Capture Class Room: No. of units required:1

Sl.No	NITT Specification	Compliance
1.	Server must be available in hardware and virtual machine deployment options	
2.	Hardware server must be simple to deploy as a rack mount solution.	
3.	Must be supported as virtual machine on the VMware ESXi or Microsoft Hyper-V platform, or on hardware appliance from the vendor.	
4.	The solution must be able to operate as a standalone with endpoints	
5.	Licensing must be flexible, allowing customers to buy only what they want	

6.	Server must be capable of having multiple applications that are part of one virtual machine or hardware appliance	
7.	User must be able to initiate a recording from pressing a single button on the remote control.	
8.	User must be able to create HD video recordings with data sharing while in a video call or even outside a video call. Being outside a video call helps users to record messages and trainings along with data and stream the same LIVE to PC/Mac/mobile viewers.	
9.	User must be able to initiate HD video recordings along with data stream capture from the streaming/recording solution into a video conferencing device provided by multiple vendors.	
10.	User must be able to upload H.264 videos from a local drive into the streaming/recording solution so that these videos can be instantly available for on-demand streaming.	
11.	Video must, if defined by the user, be automatically published and accessible on a web browser interface across various operating systems.	
12.	Each end user viewing the live or recorded content must have control over the layout of the video when data is being shared and should be able to change the layout of the video in real time.	
13.	The system must be capable of dynamically recording an H.239 session and displaying it in conjunction with the primary video session.	
14.	The streaming/recording solution must be able to record the video conferencing call using SIP dial-out.	
15.	When the streaming/recording solution is doing the recording of a video call, the recording indicator must be shown on the video system, but this indicator must not be present in the recorded video content.	
16.	If initiated by the end user, a video session must allow near real-time streaming and simultaneous recording for later use. The recording must be available for on-demand viewing immediately after the recording has completed.	
17.	Live and on-demand recordings must be available for viewing on mobile devices like iPad/iPhone/iPod.	
18.	Viewers must be able to view both data sharing and main video of live and on-demand recordings on the mobile devices.	
19.	Content creators and admins must have the facility to determine what layout is used when data and main video is viewed on mobile devices.	
20.	The web-based user interface must allow some customization, including branding capability.	

21.	The streaming/recording solution must provide support for network storage of recorded videos. The network storage options must include NFS, CIFS or SMB.	
22.	Admin must have the ability to switch from local to network storage at any time and also have the ability to revert back	
23.	Admin must be able to configure a NAS (NFS, CIFS or SMB) location as the backup location for the streaming/recording solution.	
24.	Admin must be able to restore all recorded videos from a NAS (NFS, CIFS or SMB) location to the streaming/recording solution.	
25.	The streaming/recording solution must allow a single recording to be streamed live in multiple bitrates.	
26.	User must be able to control the quality of presentation bitrates so that one can choose different presentation quality for the video recordings depending on the kind of data that is shared.	
27.	The streaming/recording solution must allow users to determine which side of the video call they want to record—near end, far end, or both.	
28.	Users must be able to stream live and on-demand videos in at least two different bitrates for PC/Mac and two different bitrates for mobile devices like iOS devices.	
29.	User must be able to go to any video endpoint and initiate a recording with a PIN that will direct the video system to send the streams to the streaming/recording solution, which allows them to be instantly published and streamed to viewers.	
30.	Admin must be able to restrict the total amount of bandwidth that will be allowed to be consumed by the streaming/recording solution for streaming live videos and on-demand videos and for incoming recordings.	
31.	Admin must be able to monitor all the ongoing video recordings on the streaming/recording solution and be able to terminate any of them.	
32.	Admin must be able to control the maximum permissible recording bitrate on the streaming/recording solution.	
33.	Admin must be able to set the default recording bitrate for any recording on the streaming/recording solution.	
34.	User must be able to change the language of the web interface so that all the UI appears in the language chosen.	
35.	When a user changes the language of choice, the choice must be remembered and the web UI must appear in that language during the next login.	
36.	User must be able to easily embed recorded, unrestricted	

	video content into another web page.	
37.	User must be able to trim the start and end of a video recording as soon as the recording is complete. The trimmed video must be instantly available for viewers.	
38.	Playback of videos must be supported on the following browsers: a. Internet Explorer versions 10 – 11 and on Microsoft Edge for Windows 10 systems b. Firefox version 32 and later c. Chrome version 35 and later d. Safari on Mac OSX and iOS devices	
39.	Playback of video must be supported on the following operating systems: e. Microsoft Windows f. OS X 10.x and above	
40.	The system must be capable of integrating into any LDAP environment. In particular, the streaming/recording solution must allow admins to integrate the solution with Microsoft Active Directory	
41.	The streaming/recording solution must allow the admin to access LDAP groups and users for assigning permissions to videos and channels.	
42.	Based on a user’s individual profile, the video must support automatic publishing and include predefined metadata such as, but not limited to: a. Title b. Description c. Author d. Tags e. Date f. Video thumbnail	
43.	Metadata must be searchable using the web-based user interface.	
44.	The web-based user interface must allow for other end users to make written comments on the video. These comments must allow for moderation by a system administrator.	
45.	The hardware appliance server system must be capable of the following concurrent recordings: a. 20 concurrent recordings @ 720p30 b. 40 concurrent recordings @ 480p30 c. 50 concurrent recordings @ 360p3	
46.	The hardware appliance server system must be capable of the following concurrent recordings: a. 20 concurrent recordings @ 720p30	

	<ul style="list-style-type: none"> b. 40 concurrent recordings @ 480p30 c. 50 concurrent recordings @ 360p3 	
47.	<p>The hardware appliance system must be capable of storing the following on the appliance:</p> <ul style="list-style-type: none"> a. 1,300 hrs @ 1080p30 b. 2,600 hrs @ 720p30 c. 5,200 hrs @ 480p30 d. 7,800 hrs @ 360p30 	
48.	<p>The system must be capable of handling the following:</p> <ul style="list-style-type: none"> a. 800+ concurrent live streaming sessions @ 1080p30 b. 2,000 concurrent live streaming sessions @ 720p30 c. 4,000 concurrent live streaming sessions @ 480p30 d. 5,000 concurrent live streaming sessions @ 360p30 	
49.	<p>The system must be capable of handling the following on-demand viewing sessions:</p> <ul style="list-style-type: none"> a. 200+ sessions @ 1080p30 b. 350 sessions @ 720p30 c. 400 sessions @ 480p30 d. 450 sessions @ 360p30 	
50.	<p>The appliance must supply dual GigE Network Interfaces at a minimum. Must support NIC bonding to allow for double streaming capacity when needed.</p>	
51.	<p>The system must support recording bitrates up to 2 Mbps and must be able to deliver HD video recordings at 768 kbps and Full HD at 2 Mbps.</p>	
52.	<p>The appliance must supply redundant hard disk drives and be configured with RAID 1 at a minimum.</p>	
53.	<p>System administrators must be able to extrapolate a report that tracks view counts and viewing patterns among users on a per-video basis.</p>	
54.	<p>Access to content needs to be configurable and secured based on user/group profile.</p>	
55.	<p>Must be able to support keeping multiple servers in sync for both live and on-demand videos – should support the concept of federating multiple servers</p>	
56.	<p>Single stream must be shared between servers that are federated for a given video call that is being recorded. When data is shared, then the same must be seen across all federated servers and a single stream of data must flow between the servers in addition to the main video stream</p>	
57.	<p>Multiple bitrate support must span across federated streams – if a video has multiple bitrates possible for streaming, then the viewers on the federated remote servers must be able to get the stream at the required bitrate only.</p>	

58.	There should be no need to perform additional transcodes on the remote federated servers when the origin server has videos in different required formats.	
59.	Must support multicasting.	
60.	Must support text chat for all viewers to pass in text queries during a live video recording session.	
61.	Must support streaming of 1080p30 videos from the server. Support for rich text is needed.	
62.	Support switching off support for Comments.	
63.	Must support deployment behind 1-1 static NAT with port forwarding	
64.	Must be supported on the management suite so that scheduled calls can be tested and recorded.	
65.	Needs to support 10+ languages for Closed captioning text	
66.	Needs to support the ability to create chapters on a video timeline so that viewers can click on the hyperlinks to jump to the required section on the video.	

2. Full High Definition PTZ Camera: No of units required : 20

Sl. No	Parameter	Specification
1	Camera Sensor	1/3"High quality HD CMOS
2	Effective Pixel	16: 9 2.07 megapixel
3	Video Format	1080P60/50/30/25/59.94/29.97; 1080I60/50/59.94; 720P60/50/30/25 /59.94/29.97
4	Optical Zoom	12X optical zoom
5	View Angle	6.3° (tele) --72.5° (wide)
6	Digital Zoom	10×
7	White Balance	Auto / Manual/ One Push/ 3000K/ 4000K
8	Focus	Auto/Manual
9	Aperture	Auto/Manual
10	Preset Number	255 presets (10 presets by remote controller)
11	Pan Rotation	±170°,
12	Tilt Rotation	-30°~+90°
13	Interfaces	DVI/ HDMI, USB 3.0

3 (a) Workstation for class rooms: No. of units required: 10

Sl. No	Parameter	Specification
1	Processor	Intel Core I5 Processor Intel® Core™ i5-6500 with Intel HD

		Graphics 530 (3.2 GHz, up to 3.6 GHz with Intel Turbo Boost, 6 MB cache, 4 cores)
2	Chipset	It Contains Intel® Q170 Chipset board
3	RAM	8 GB DDR4-2133 SDRAM
4	Hard disk	500Gb SATA 7200 RPM hard disk
5	HDD Type	Slim SATA SuperMulti DVD-RW
6	Graphics	Integrated Intel® HD Graphics
7	OS	As per the requirement of the client LC s/w

3 (b) Display System : LCD Projector: No of units required: 10

S.No	Parameter	Specification
1	Projection System	3LCD Technology, RGB liquid crystal shutter
2	Colour Light Output	5,000lm
3	White Light Output	5,000lm
4	Resolution	XGA, 1024 x 768, 4:3
5	Aspect Ratio	Aspect Ratio:4:3
6	Contrast Ratio	3,000 : 1
7	Lamp	Life (Normal/Eco) 2,500 hours / 4,000 hours
8	Keystone Correction	± 30° / ± 30° (Zoom: Tele) (Button Typer)
9	Interfaces	Composite in, VGA out, VGA in (2x), Stereo mini jack audio in (2x), Stereo mini jack audio out, RGB out, HDMI in, USB 2.0 Type A, USB 2.0 Type B
10	Focal Distance	18 mm - 29 mm
11	Features	AV Mute Slide, Automatic input selection, Automatic keystone correction, Direct Power on/off, Document Camera Compatible, Instant on/off, JPEG Viewer, Network administration.

3 (c) Projector Screen: No of units required: 10

S.No	Parameter	Specification
1	Size and Aspect Ratio	90" Diagonal Viewing Size (76.0"W x 47.5"H), 16:10 Aspect Ratio
2	Screen Material	MaxWhite 1.1 Gain Screen Material is durable and easy to clean.160 degree wide viewing angle for commercial and residential presentations.Black backed screen material eliminates light penetration for superior color reproduction. Black masking enhances picture contrast.

3	Casing & Installation	Durable metal casing - White, Suitable for wall/ceiling installations, Ships fully assembled with 3-prong power connection ready to Plug & Play
4	Control System	Infrared remote and wall switch, Internal IR/RF low voltage receivers, 3 way wall switch, 5-12 volt trigger synchronizes with projector, In-Wall up/down switch and 5-12V controls available

3 (d) Ceramic White Board : No of units required: 10

S.No	Parameter	Specification
1	Size	8 x 4 Size with Wall Mountable white magnetic Ceramic board
2	Material Type	Shall be made of green Framed in double sided curved anodized aluminium section and Chromium plated plastic corners with good aesthetics Chromium plated metal
3	Surface Type	The surface should be scratch, chemical and stain resistant
4	Features	For both Writing and Projection

4 Audio & Switching System

4 (a) Two Way Speakers : No of units required: 10

Sl. No	Parameter	Specification
1	Enclosure	2-way bass reflex type
2	Rated Input	30 w
3	Impedance	8Ω 100V line; 330Ω (30W), 500Ω (20W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70V line; 170Ω (30W), 250Ω (20W), 330Ω (15W), 500Ω (10W), 1kΩ (5W)
4	Sensitivity	90dB (1W/1m, in anechoic chamber)
5	Frequency Response	80 – 20,000Hz
6	Speaker Components	12 cm dynamic cone-type speaker 2.5cm balanced dome tweeter
8	Operating Temperature	-10°C to +50°C
9	Water Resistance	IP-X4

4 (b) Wireless Handheld microphone: No of units required: 10

Sl. No	Parameter	Specification
Wireless Handheld microphone		
1	Operating Frequencies	UHF band 840.000 - 865.000 MHz (F Band) 795.000 - 820.000 MHz (E Band)
2	Number of Channels	10 total
3	Frequency Stability	±0.005%, Phase Lock Loop frequency control

4	Modulation Mode	FM
5	Normal Deviation	±5 kHz
6	Operating Range	100 m typical
7	Frequency Response	100 Hz to 15 kHz
	Receiver Specification	
8	Receiving System	Dual independent receivers, automatic-switching diversity
9	Image Rejection	55 dB nominal, 50 dB minimum
10	Signal-to-noise Ratio	>100 dB at 40 kHz deviation (A-weighted), maximum modulation 40 kHz
11	Total Harmonic Distortion	≤1% (10 kHz deviation at 1 kHz)
12	Sensitivity	20 dBμV (S/N 60 dB at 5 kHz deviation, IEC-weighted)
13	Audio Output	Unbalanced: 25 mV (at 1 kHz, ±5 kHz deviation, 100k ohm load) Balanced: 12.5 mV (at 1 kHz, ±5 kHz deviation, 100k ohm load)
14	Output Connectors	Unbalanced: 1/4" TS ("mono") phone jack Balanced: XLRM-type
	Transmitter Specification	
15	RF Power Output	10 mW
16	Spurious Emissions	According to National Regulations
17	Microphone Element	Dynamic cardioid
18	Batteries	Two 1.5V AA alkaline (not included)
19	Current Consumption	150 mA typical
20	Dimensions	9.02" (229.0 mm) long x 2.11" (53.5 mm) maximum diameter

4 (c) Wireless Lapel microphone : No of units required: 10

Sl. No	Parameter	Specification
Microphone Specification		
1	Operating Frequencies	UHF band 840.000 - 865.000 MHz (F Band) 795.000 - 820.000 MHz (E Band)
2	Number of Channels	10 total
3	Frequency Stability	±0.005%, Phase Lock Loop frequency control
4	Modulation Mode	FM
5	Normal Deviation	±5 kHz
6	Operating Range	100 m typical
7	Frequency Response	100 Hz to 15 kHz
Receiver Specification		
8	Receiving System	Dual independent receivers, automatic-switching diversity
9	Image Rejection	55 dB nominal, 50 dB minimum
10	Signal-to-noise Ratio	>100 dB at 40 kHz deviation (A-weighted), maximum

		modulation 40 kHz
11	Total Harmonic Distortion	<=1% (10 kHz deviation at 1 kHz)
12	Sensitivity	20 dB μ V (S/N 60 dB at 5 kHz deviation, IEC-weighted)
13	Audio Output	Unbalanced: 25 mV (at 1 kHz, \pm 5 kHz deviation, 100k ohm load) Balanced: 12.5 mV (at 1 kHz, \pm 5 kHz deviation, 100k ohm load)
14	Output Connectors	Unbalanced: 1/4" TS ("mono") phone jack Balanced: XLRM-type
Body Pack Transmitter Specification		
15	RF Power Output	10 mW
16	Spurious Emissions	According to National Regulations
17	Microphone Element	Dynamic cardioid
18	Batteries	Two 1.5V AA alkaline (not included)
19	Current Consumption	150 mA typical

4 (d) Audio Mixer : No of units required: 10

Sl. No	Parameter	Specification
	Mono Input	
1	Microphone input Type	XLR, electronically balanced, discrete input circuit
2	Frequency Response	-10 HZ – 200 KHz (-1db)
3	Gain range	+10 to +60 db
4	Impedance	Approx. 2.6 kohm balanced
5	Distortion (THD+N)	0.005% /0.003% A- weighted
6	Line Input type	¼” TRS connector, electronically balanced
7	Impedance	Approx. 20 kohm balanced, 10Kohm unbalanced
8	Gain range	+10 to +40 db
9	Stereo input type	¼” TRS connector, electronically balanced
10	Impedance	Approx. 20 kohm balanced, 10Kohm unbalanced
11	Max input level	+22 dBU
12	Audio output FX send type	¼” TRS connector, unbalanced
13	Impedance	Approx 120 ohm
14	Max input level	+22 dBU
15	Main output type	¼” TRS connector, unbalanced
16	Impedance	Approx 120 ohm
17	Max input level	+22 dBU
18	Number of Channel	8-ch Analog Mixer

4 (e) Amplifier: No of units required: 10

Sl. No	Parameter	Specification
1	Rated Output	240 w
2	Power consumption	238 w, 520 w (AC operation at rated output)
3	Frequency Response	50-20000 HZ (± 3 dB)
4	Distortion	1% or less at 1 kHz, 1/3 rated power
5	Phantom Power	DC +21 V (MIC 1)
6	Input	MIC 1: -60 dB, 600 ohms, balanced, DIN type (5 pins) MIC 2, 3: -60 dB, 600 ohms, balanced, phone jack AUX 1, 2: -20 dB, 10k ohms, unbalanced, RCA pin jack Mute: Contact pin 4 - 5 closure input
7	Output	Speaker out: Balanced (floating), M3.5 screw terminal distance between barriers: 8.3 mm (0.33") High impedance: 83 ohms (100 V), 42 ohms (70 V) Low impedance: 4 ohms (22 V) Rec out: 0 dB, 600 ohms, unbalanced, RCA pin jack
8	S/N Ratio	60 dB or more
9	Tone Control	Bass: ± 10 dB at 100 Hz Treble: ± 10 dB at 10 kHz

4. (f) UPS : No. of units required :10

SI No	Parameter	NITT Specification
1	Input Specifications	
a	Nominal Input Voltage	230 V
b	Input Frequency	40-70 Hz
c	Input Voltage	100-285 V (Output derated below 160 V)
d	Input Power Factor	0.98
2	Output Specifications	
a	Output Power Capacity	4500 W / 5000 VA
b	Nominal Output Voltage	230 V
c	Other Programmable Voltages	220 V / 240 V
d	Efficiency at FullLoad	>94% in Double-Conversion mode >98% in Greenmode
e	Waveform	Sine wave
3	Bypass Specifications	
a	BypassType	Internal Static Bypass (automatic & manual), Opt. External Bypass
b	Bypass Input Voltage Range	170 V – 270V
c	Max Bypass Current	40 A
d	Input Protection	Circuit Breaker
4	Battery Charger Specifications	
a	Supported Battery Types	SMF / Flooded
b	Battery Bank Voltage	192 V
c	Charger Power / Current	1500 W / 6.5 A max (selectable)

4 (g) Racks: Number of units required: 10

Wall mounted, perforated, covered, metal racks with lock adequate to house the audio and networking equipments

4 (h) 16 port Switch : No. of units required:10

	Parameter	NITT Specification
1.	Num of Ports Available	16 - 10/100 Fast Ethernet
2.	IEEE 802.1p QoS	Yes
3.	IEEE 802.3x Flow Control	Yes
4.	Power over Ethernet Support	PoE Ports available
5.	Standards	IEEE 802.3 10BASE-T Ethernet
		IEEE 802.3u 100BASE-TX Fast Ethernet
		ANSI/IEEE 802.3 NWay auto-negotiation
6.	Protocol	CSMA/CD
7.	Data Transfer Rates	Ethernet: 10Mbps (half-duplex) 20Mbps (full-duplex)
		Fast Ethernet: 100Mbps (half-duplex) 200Mbps (full-duplex)
8.	Topology	Star
9.	Transmission Method	Store-and-forward
10.	Filtering Address Table	8K entries per device
11.	MAC Address Learning	Automatic update
12.	RAM Buffer	4Mbits per device
13.	Other Features	1. Full/half duplex support for each port 2. MDI uplink port for easy expansion 3. Auto-learning of network configuration 4. RAM buffer dynamically allocated for each port 5. Flow control in full duplex mode for protection against data loss

SPECIFICATION COMPLIANCE TABLE

(A compliance table for meeting each of the specifications should be enclosed in the following format)

Description of the specification	Compliance (Yes/No)	Page no. of the document for proof of compliance

SECTION VI-A : QUALIFICATION CRITERIA

(Referred to in Clause 13.3(b) of ITB)

1. (a) The bidder should be a manufacturer who must have manufactured, tested and supplied the equipment(s) similar to the type specified in the 'schedule of requirements' up to at least 5 of the quantity required in any one of the last 3 years. The equipments offered for supply must be of the most recent series models incorporating the latest improvements in design. Further, bidder should be in continuous business of manufacturing products similar to that specified in the schedule of requirements during the last three years prior to bid opening.

(b) Bids of bidders quoting as authorized representative of equipment manufacturer, meeting with the above requirement in full, can also be considered provided.

(i) the manufacturer furnishes authorization in the prescribed format assuring full guarantee and warranty obligations as per GCC and SCC; and

(ii) the bidder, as authorized representative, has supplied, installed and commissioned satisfactorily at least 5 of the quantity similar to the type specified in the Schedule of Requirements in any one of the last three years which must be in satisfactory operation for at least 6 months on the date of bid opening and must be providing annual maintenance services for the above equipments in the country for over one year.
2. The bidder should furnish the information of each of past three years supplies and satisfactory performance for both (a) and (b) above, in proforma under Section XI.
3. All bids submitted shall also include the following information along with formats under Section XV.
 - (i) Copies of original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership, etc.
 - (ii) The bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the manufacture and supply of the required systems and equipments within the specified time of completion after meeting all their current commitments.
 - (iii) The bidder should clearly confirm that all the facilities exist in his factory for inspection and testing and these will be made available to the Purchaser or his representative for inspection.
 - (iv) Details of Service Centers and information on service support facilities that would be provided after the warranty period [in the Service Support Form given in Section XIV].
 - (v) Reports on financial standing of the bidder such as profit and loss statements, balance sheets and auditor's report for each of the past three years, bankers certificates, etc.
 - (vi) Minimum financial turnover Rs. 200.00 lakhs at least in one of the last three years excluding current financial year.

Notwithstanding anything stated above, the purchaser reserves the right to asses that the Bidder has the financial, technical, and production capability necessary to perform the Contract should circumstances warrant such an assessment.

SECTION VII: BID FORM AND PRICE SCHEDULE

PRICE SCHEDULE

(Two Price schedules one for option (i) 10 units of H/W based LC + CMS for H/W based LC ii) 5 units of H/W based LC & 5 units of S/W based LC and CMS for both S/W and H/W based LC along with the other items should be given separately

1	2	3	4	5					6	7	8
Schedule No.	Item Description	Country of origin	Quantity and UNIT	Ex-Factory, Ex-warehouse, Ex-showroom, off-the-shelf	Excise duty, if any	Packing and forwarding	Inland transportation, Insurance and other local costs incidental to delivery	Incidental services as per Clause 8 of SCC except for AMC which should be quoted separately	UNIT Price	Total Price	Sales and other taxes payable if contract is awarded
				a	b	c	d	e	a+b+c+d+e	4*6	

SPECIFICATION COMPLIANCE TABLE

(A compliance table for meeting each of the specifications should be enclosed in the following format)

Description of the specification	Compliance (Yes/No)	Page no. of the document for proof of compliance

SECTION VIII: BID SECURITY FORM

SECTION VIII: BID SECURITY FORM

Whereas¹ (*hereinafter called "the Bidder"*) has submitted its bid dated (*date of submission of bid*) for the supply of (*name and/or description of the goods*) (*hereinafter called "the Bid"*).

KNOW ALL PEOPLE by these presents that WE (*name of bank*) of (*name of country*), having our registered office at (*address of bank*) (*hereinafter called "the Bank"*), are bound unto (*name of Purchaser*) (*hereinafter called "the Purchaser"*) in the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____ day of _____ 20__.

THE CONDITIONS of this obligation are:

1. If the Bidder
 - (a) withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
 - (b) does not accept the correction of errors in accordance with the ITB; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders;

we undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including forty five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature of the Bank)

¹ *Name of Bidder*

SECTION IX: CONTRACT FORM

SECTION IX: CONTRACT FORM

THIS AGREEMENT made theday of....., 20... Between (*Name of purchaser*) of (*Country of Purchaser*) (hereinafter called "the Purchaser") of the one part and (*Name of Supplier*) of (*City and Country of Supplier*) (hereinafter called "the Supplier") of the other part :

WHEREAS the Purchaser is desirous that certain Goods and ancillary services viz., (*Brief Description of Goods and Services*) and has accepted a bid by the Supplier for the supply of those goods and services in the sum of (*Contract Price in Words and Figures*) (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) the Bid Form and the Price Schedule submitted by the Bidder;
 - (b) the Schedule of Requirements;
 - (c) the Technical Specifications;
 - (d) the General Conditions of Contract;
 - (e) the Special Conditions of Contract; and
 - (f) the Purchaser's Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services which shall be supplied/provided by the Supplier are as under:

SL. NO.	BRIEF DESCRIPTION OF GOODS & SERVICES	QUANTITY TO BE SUPPLIED	UNIT PRICE	Total Price	DELIVERY TERMS
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TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

said (For the Purchaser)

in the presence of:.....

Signed, Sealed and Delivered by the

said (For the Supplier)

in the presence of:.....

SECTION X: PERFORMANCE SECURITY FORM

SECTION X. PERFORMANCE SECURITY FORM

To: (Name of Purchaser)

WHEREAS (Name of Supplier)
hereinafter called "the Supplier" has undertaken , in pursuance of Contract (Notification of Award)
No..... dated,..... 20.. to supply.....(Description
of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you
with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance
with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:
THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the
Supplier, up to a total of (Amount of the Guarantee
in Words and Figures) and we undertake to pay you, upon your first written demand declaring the
Supplier to be in default under the Contract and without cavil or argument, any sum or sums within
the limit of (Amount of Guarantee) as aforesaid, without your needing to prove
or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until theday of.....20.....

Signature and Seal of Guarantors

.....
.....
.....

Date.....20....

Address:.....

.....
.....

SECTION XI: PERFORMANCE STATEMENT

Please attach "Proforma for Performance Statement"

Bid No _____ Date of opening _____ Time _____ Hours

Name of the Firm _____

Order placed by (full address of purchaser)	Order No. and Date	Description and quantity of ordered equipment	Value of the order	Date of completion of delivery		Remarks indicating reasons for late delivery, if any	Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser/Consignee)
				As per contract	Actual		

Signature and seal of the Bidder

SECTION XII

(Please see Clause 13.3(a) of Instructions to Bidders)

MANUFACTURERS' AUTHORIZATION FORM*

No. _____ dated

To

Dear Sir:

IFB No.

We _____ who are established and reputable manufacturers of *(name and description of goods offered)* having factories at _____ *(address of factory)* do hereby authorize M/s _____ *(Name and address of Agent)* to submit a bid, and sign the contract with you for the goods manufactured by us against the above IFB.

No company or firm or individual other than M/s _____ are authorized to bid, and conclude the contract for the above goods manufactured by us, against this specific IFB. *(This para should be deleted in simple items where manufacturers sell the product through different stockists.)*

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract and Clause 10 of the Special Conditions of Contract for the goods and services offered for supply by the above firm against this IFB.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its bid.

* Modify this format suitably in case where manufacturer's warranty and guarantee are not applicable for the items for which bids are invited.

SECTION XIII

SAMPLE FORM

BANK GUARANTEE FOR ADVANCE PAYMENT

To:

_____ (*name of Purchaser*)
_____ (*address of Purchaser*)
_____ (*name of Contract*)

Gentlemen:

In accordance with the provisions of the Special Conditions of Contract which amends Clause 16 of the General Conditions of Contract _____ (*name and address of Supplier*) (hereinafter called "the supplier") shall deposit with _____ (*name of Purchaser*) a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ (*amount of guarantee*)* (*in words*).

We, the _____ (*bank or financial institution*), as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ (*name of Purchaser*) on his first demand without whatsoever right of objection on our part and without his first claim to the Supplier, in the amount not exceeding _____ (*amount of guarantee*)* _____ (*in words*).

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between _____ (*name of Purchaser*) and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the contract until _____

Yours truly,
Signature and seal : _____
Name of bank
financial institution :
Address :
Date :

* An amount is to be inserted by the bank representing the amount of the Advance Payment.

SECTION XIV
Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement.

Eligible Countries

As of May 2004¹

1. In accordance with Para 1.8 of the Guidelines: Procurement under IBRD Loans and IDA Credits, dated May 2004, the Bank permits firms and individuals from all countries to offer goods, works and services for Bank-finance projects. As an exception, firms of a Country or goods manufactured in a Country may be excluded.

Para 18(a)(i) as a matter of law or official regulation, the Borrower's Country prohibits commercial relations with that Country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of Goods or Works required, or Indicate the names herein of the countries if any

Para 18(a)(ii) by an Act of Compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that Country or any payments to persons or entities in that country.

Indicate the names of the countries if any

2. For the information of borrowers and bidders, at the present time firms, goods and services from the following countries are excluded from this bidding.

Notes:

1. The most current listing of eligible countries can be viewed on the Public Information Center's Web page at: <http://www.worldbank.org/html/pic/PROCURE.html>. A list of firms debarred from participating in World Bank projects is available at: <http://www.worldbank.org/html/opr/procure/debarr.html>.
2. Any questions regarding this list should be addressed to the Senior Manager, Procurement Policy and Services Group, Operational Core Services Network, The World Bank

ANNEXURE XV

**PROFORMA FOR EQUIPMENT AND QUALITY CONTROL EMPLOYED BY THE
MANUFACTURER**

BID NO. DATE OF OPENING :
NAME OF THE BIDDER :

.....

(Note : All details should relate to the manufacturer for the items offered for supply)

1. Name & full address of the Manufacturer
2. (a) Telephone & Fax No Office/Factory/Works
(b) Telex No. Office/Factory/Works
(c) Telegraphic address :
3. Location of the manufacturing factory.
4. Details of Industrial License, wherever required as per statutory regulations.
5. Details of important Plant & Machinery functioning in each dept. (Monographs & description pamphlets be supplied if available).
6. Details of the process of manufacture in the factory.
7. Details & stocks of raw materials held.
8. Production capacity of item(s) quoted for, with the existing Plant & Machinery
 - 8.1 Normal
 - 8.2 Maximum
9. Details of arrangement for quality control of products such as laboratory, testing equipment etc.
10. Details of staff:
 - 10.1 Details of technical supervisory staff in charge of production & quality control.
 - 10.2 Skilled labour employed.
 - 10.3 Unskilled labour employed.
 - 10.4 Maximum No. of workers (skilled & unskilled) employed on any day during the 18 months preceding the date of Tender.
11. Whether Goods are tested to any standard specification? If so, copies of original test certificates should be submitted in triplicate.
12. Are you registered with the Directorate General of Supplies and Disposals, New Delhi 110 001, India? If so, furnish full particulars of registration, period of currency etc. with a copy of the certificate of registration.

.....
Signature and seal of the Manufacturer