

## TENDER NOTICE NO. 9 / 2018-2019

### Public Tender No. : NCRA:WF116:PUB 377:2018

The National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR) is a leading Centre for research in a wide range of areas in astronomy and astrophysics.

1. **NCRA-TIFR**, Pune, India invites sealed bids in two part, Part– I: Techno-commercial Bid & Part – II: Price Bid for the following:

Description	Earnest Money Deposit (EMD)
Supply, Installation, Testing and Satisfactory Demonstration of Video Conferencing Systems at Three (3) locations and Three Types / Categories of VC Systems as per our specifications at :-  (1) Location 1 – National Centre for Radio Astrophysics (NCRA), Pune University Campus, Ganeshkhind, Pune 411007, Maharashtra. (2) Location 2 – Giant Metrewave Radio Telescope (GMRT) Observatory, GMRT Khodad, Tal. Junnar, Dist. Pune 410504, Maharashtra. (3) Location 3 – Radio Astronomy Centre (RAC), Udhagamandalam (Ooty) 643001, Tamil Nadu.  Estimated Cost : ~ <b>Rs. 118 Lakhs</b> (inclusive of GST)	Rs. 2,36,000/- Full amount in the Form of Demand Draft.  Tender Fee : <b>Rs. 700/-</b> (Rupees Seven Hundred by way of Demand Draft in favour of “TIFR” payable at Pune).
<b>EMD and Tender Fee must be submitted with Technical Bid.</b>	
Date and Time for submissions of pre-bid queries (online/offline)	<b>15.12.2018, upto 1700 hrs</b>
Date and Time for Pre-Bid meeting	<b>17.12.2018, 1100 hrs. at NCRA-TIFR Pune</b>
Date and Time for submission of Bids	<b>24.12.2018, upto 18.00 hrs.</b>
Date and time of opening of Techno Commercial Bid (Part- I).	<b>26.12.2018, at 15.00 hrs.</b>

### 2. Eligibility Criteria:

- Bidder must take note of three site locations, where systems have to be installed.
- Bidders are requested to attend the pre-bid meeting as per the date and time mentioned above.
- The bidder shall provide / supply all the components of the system from the specified OEM /distributor with applicable warranty/guarantee and also assurance about the after sales/service. Preferably, the bidder shall be currently authorized by the manufacturer of the major components of the system to sell their products and initiate warranty service on the same items. Proof of this may be requested during the bidding process. Proof of franchise shall be in the form of a letter from the appropriate manufacturer addressed to the institute stating that the contractor is currently authorized to sell their products. Letters from the sales representative (rep) shall not be accepted as proof.

- d. Manufacturer Authorisation Certificate as per our Format at **Annexure C** must be enclosed with the technical bid, if bid is from a Dealer / Distributor / Partner.
- e. Bidder must quote for all the items / systems and for all the three site locations.
- f. Bidder must have their full-fledged sales and service office at nearest town / city from **respective locations**. Bidder must specify the time required by them to attend complaint calls once reported by the purchase.
- g. Bidder must not have been black listed by TIFR or another Education / R&D Govt. organization as on date of submission of bid. Certificate to this effect must be submitted.
- h. (i) **Bidder must provide / transfer the warranty, committed by OEM for each of the items in writing in the compliance sheet at Chapter 4.**  
(ii) **Wherever, there is less than one year warranty given by an OEM, Bidder must provide Warranty for remaining period upto one year.**  
(iii) **AMC can be considered only after expiry of the Warranty period respectively and bidder must quote for AMC charges in the Price Bid Chapter 7.**
- i. Bid must be valid for a minimum period of **180 days** from the due date for submission of bid.
- j. Bidder should have executed similar works of experience in similar work of value stated below **seven years** prior to 30.11.2018 i.e. between 01.10.2011 to 31.11.2018.
  - One single job costing not less than 80% of Estimated cost                      OR
  - Two jobs each costing not less than 60% of Estimated cost                      OR
  - Three jobs each costing not less than 40% of Estimated cost

Similar work means Supply, Installation, testing and satisfactory demonstration of Video Conference system.  
Copies of orders and completion certificates to be submitted evidencing the above without fail.
- k. Bidder must submit an undertaking that order executed by them, have not been carried out on back to back basis.
- l. Bidder must have an average turnover of atleast **Rs. 35.40 Lakhs** for the past Five Years. Bidder must submit only Chartered Accountant's Certificate showing their turnover and Profit & Loss for the past 5 years i.e. for 2012-13, 2013-14, 2014-15, 2015-16, 2016-17 and must have made profit atleast for three years out of these five years.  
**IT returns and Profit and Loss statements and Balance Sheets will not be accepted.**
- m. Bidder is required to submit all relevant documents in support of the above, failing which their bid will not be taken up for technical evaluation.
- n. Successful bidder must be able to submit :-

Security Deposit and Performance Guarantee as specified in the tender document.

Bidder must specify in their technical bid if any exemption / relaxation applicable to them from any of the eligibility requirements under any rules / guidelines / directives of

Government of India together with necessary and relevant documents in support of their, claim in their technical bid.

**MSME benefits will be applicable only to Indian manufacturers (OEMs) if they bid directly.**

Bids from bidders who have not accepted our order awarded to them or who have withdrawn from the tender process OR whose EMD/Security deposit has been forfeited by us or who have failed to execute order placed, on them in the past one year are not eligible to bid.

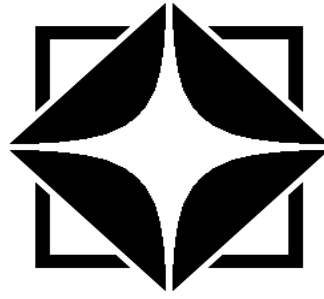
3. Bidding document can be downloaded from our website <http://www.ncra.tifr.res.in/ncra/ncra1/public-tenders-1> and also from <http://eprocure.gov.in/epublish/app> by any interested bidder meeting the eligibility criteria from 04.12.2018.

Bidders after downloading the tender document are requested to please send an email to [purchase@ncra.tifr.res.in](mailto:purchase@ncra.tifr.res.in) giving their Full address, so that purchase can intimate regarding the correspondence / addendum to the tender documents, if any.

4. The bids Part 1 – Techno-commercial Bid together with all documents as stated in Check List & Part 2 – Price Bid in separate sealed envelopes duly superscribed with tender no. & due date must reach Purchase Officer, NCRA-TIFR, Pune University Campus, Ganeshkhind, Pune-411007, India. The Techno-commercial bid will be opened in the presence of Bidders' representatives who choose to attend on the specified date and time alongwith authority letter from their company. In the event of the date specified for bid receipt and opening being declared as a closed holiday for NCRA's office, the due date for submission of bids and opening of bids will be the following working day at the same time.
5. Price bids will be opened at a later date which will be intimated to only techno-commercially qualified bidders.
6. All bids must be accompanied by **DD towards earnest money deposit and Cost of Tender document** specified above and must be delivered to the above office at the date and time indicated above.
- 7. RIGHT TO REJECT ANY OR ALL BIDS :**  
NCRA reserves the right to accept or reject any or all bids without assigning any reasons there for. NCRA also reserves right to reject bids during technical evaluation, based on past performance, experience or any other criteria.
8. NCRA is not responsible for delay or loss of tender document / bids in transit.
9. **Bidder are also requested to visit our website [www.ncra.tifr.res.in](http://www.ncra.tifr.res.in) regularly for any addendum /updates pertaining to this tender.** No separate notification will be published in the Newspapers for the same.
10. **Both Technical Bid and Price Bid** to be submitted within the due date and time in a sealed envelope and marked on top the Tender No., due Date in Bold Letters.

Please see attached sheets for conditions of tender.

**PURCHASE OFFICER**



NCRA • TIFR

**NATIONAL CENTRE FOR RADIO ASTROPHYSICS**  
**Tata Institute of Fundamental Research**  
**Pune**

**Public Tender No.**

**NCRA:WF116:PUB377:2018**

*Supply, Installation, Testing and Satisfactory Commissioning of Video Conferencing Systems at National Centre for Radio Astrophysics (NCRA), Giant Metrewave Radio Telescope (GMRT) and Radio Astronomy Centre (RAC) Ooty.*

**CHECK LIST TO BE ENCLOSED WITH TECHNO COMMERCIAL BID**

(Part-I of Tender)

Page 1 of 2

Sr. No.	Particulars	Provide Details	Enclosed
1	Whether EMD enclosed.	D.D.No. .... Dtd..... Rs. FDR No. ... Dtd..... Rs.	Yes / No
2	Demand Draft towards Tender Fee enclosed	D.D.No. .... Dtd.....	Yes / No
3	Bidders Partnership registration / Company incorporation Copy enclosed of OEM.		Yes / No
4	Incorporation / Registration copy submitted		
5	Company Profile as per <b>Annexure A</b> enclosed		Yes / No
6	Eligibility Criteria Statement duly filled in by bidder <b>Annexure-B</b>		Yes / No
7	Whether Manufacturers authorization certificate from respective Manufacturers for supply of item (if bid is from authorized Distributor or dealer) enclosed – as per <b>Annexure – C</b>		Yes / No
8	Details of orders completed in the past 7 years together with copies of orders submitted as per <b>Annexure D</b> submitted		Yes / No
9	Whether Schedule of deviation from General & Special Conditions is submitted duly signed and Stamped as per <b>Annexure – E</b> enclosed		Yes / No
10	Whether Schedule of Technical Deviation is submitted duly signed and Stamped as per <b>Annexure – F</b>		Yes / No
11	Bid Form as per <b>Annexure J</b> enclosed		Yes / No
12	Undertaking for Amalgamation/Acquisition - <b>Annexure-K</b> enclosed.		Yes / No
13	CA Certificate indicating Turnover and Profit or Loss for 5 years prior to <b>01.03.2017</b> enclosed as per <b>Annexure L</b>		Yes / No
14	Format for furnishing Bank Details for refund of EMD/ making payment – <b>Annexure-M</b>		Yes / No
15	Undertaking for having read and taken note of all the terms and conditions of the Tender as per <b>Annexure N</b> enclosed.		Yes / No

Date	:	Signature of Bidder	:
		Name & Designation	:
Place	:	Company Name & Address	:
		Company Seal & Phone No.	:

**CHECK LIST TO BE ENCLOSED WITH TECHNO COMMERCIAL BID**

(Part-I of Tender)

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<b>Sr. No.</b>	<b>Particulars</b>	<b>Provide Details</b>	<b>Enclosed</b>
16	Copy of power of attorney to sign the bid enclosed (Applicable for LLP / partnership company / PVT LTD / LTD Company)		<b>Yes / No</b>
17	Documentary evidencing that Bidder have their full-fledged sales and service office at nearest possible location of <b>respective locations</b> .		<b>Yes / No</b>
18	Undertaking that order have not been executed on back to back basis submitted.		<b>Yes / No</b>
19	Copies of order with similar value executed in the past Five years submitted.		<b>Yes / No</b>
20	Document seeking any exemption / relaxation as per Govt. of India rules submitted		<b>Yes / No</b>
21	Unpriced bid <b>as per Chapter 6</b> enclosed.		<b>Yes / No</b>

22	<b>Price bid – Part II</b> <b>(Schedule of work with Qty. &amp; rate as per Chapter 7 of tender document)</b> <b>to be submitted in separate sealed envelope.</b>	<b>Yes / No</b>
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Date : Signature of Bidder :  
Name & Designation :  
Place : Company Name & Address :  
Company Seal & Phone No. :

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## **A – Introduction**

### **1.1 Eligible Bidders**

Bidders who fulfill the pre-qualification/eligibility criteria as specified in our tender notice are only required to submit their bids and will only be considered for technical evaluation.

Issue/downloading of tender document does not mean that a bidder is qualified to submit the bid. Purchaser's decision in this regard will be final.

### **1.2 Cost of Bidding**

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

### **1.3 Contract Rate / price**

#### **1.3.1 Rate / Prices quoted by the bidder for the services to be performed under shall be firm.**

## **B - The Bidding Documents**

### **1.4 Content of Bidding Documents**

The goods required, bidding procedure and contract terms are prescribed in the bidding documents which should be read in conjunction.

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 their bid.

### **1.5 Clarification of bidding documents**

A prospective Bidder requiring any clarification of the Bidding Documents shall contact purchaser in writing at purchaser's address specified in the Tender Notice. Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including the query but without identifying its source. Purchaser if deemed necessary will amend the Bidding Documents as a result of a clarification, purchaser shall do so following the procedure under clause relating to amendment of bidding documents and Clause relating to Deadline for Submission of Bids.

### **1.6 Amendment of Bidding Documents**

At any time prior to the deadline for submission of bids, 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.

All prospective bidders who have received the bidding documents will be notified of the amendment in writing or by fax, or by e mail which will be binding on them and the same may also be posted on our website.

In order to allow prospective bidders reasonable time to take the amendment into account, in preparing their bids, purchaser, at its discretion, may extend the deadline for the submission of bids.

## **C - Preparation of Bids**

### 1.7 Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and purchaser, shall be written in **English language only**.

### 1.8 Bid form and price schedule

The bidder shall complete the Bid Form and the price schedules furnished in the bidding documents.

Discount / Prices as applicable to Non Commercial/ Government Educational and Research Institutes should be quoted as purchaser is a Deemed University and also Public Funded Research Institute. Prices for software should be for academic version,

### 1.9 Bid Prices

The price quoted must be **in rupees only**.

Price quoted should be on F.O.R. Destination basis for delivery of items at respective destination.

**Price must be quoted strictly as per the prescribed Price Bid Formats attached herewith.**

**“If a bidder quotes NIL charges / consideration, the bid shall be treated as unresponsive and will not be considered”.**

### 1.10 **GST :** Extra at actuals will be paid.

### 1.11 Offer from distributor/dealer on behalf of manufacturer

In case the bid is submitted by distributor/dealer on behalf of OEM, Manufacturer's Authorisation Certificate as per our format, Refer **Annexure – C** must be submitted, failing which bid will be rejected.

### 1.12 Conditional Discount

In case the bidder offer any conditional discount with regard to acceptance of their bid within a specific period or specific payment terms, delivery, quantity etc. the purchaser will not take in to such conditional discount while evaluating their bid.

### 1.13 Bid Currency

Prices shall have to be quoted in Indian Rupees only.

### 1.14 Documents Establishing Bidder's Eligibility and qualifications

The bidder shall furnish, as part of their bid, documents establishing the bidder's eligibility to bid and their qualification to perform the contract if their bid is accepted.

The documentary evidence of the bidders' qualification to perform the contract if the bid is accepted and shall establish to purchaser's satisfaction that, the bidder meets the qualification criteria listed in bidding documents, if any.

1.15 *Documents Establishing Goods' Eligibility and Conformity to Bidding Documents*

To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the goods and services offered.

(a) An item-by-item commentary on our 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.

For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by purchaser in its Technical Specifications are intended to be descriptive only and not restrictive.

1.16 *Period of Validity of Bids*

Bids will have to remain **valid for a minimum of 180 days** from the date of techno commercial bid opening. A bid valid for a shorter period shall be rejected by purchaser as non-responsive.

In exceptional circumstances, 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 (by fax or e-mail). The EMD provided shall also be suitably extended.

A Bidder may refuse the request without forfeiting their EMD. A Bidder accepting the request will not be required nor permitted to modify their bid.

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

1.17 *Format and Signing of Bid*

The bids are to be submitted in two parts as specified in the Tender Notice.

The Bidder shall submit the bids in two parts. First part (Part – I) shall contain Techno commercial bid comprising all documents listed in the Check List, including technical specifications, bill of materials & Drawings, taxes and duties payable, delivery period and validity.

The second part (Part – II) shall contain only the price-bid comprising price schedules with prices.

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. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.

Any inter lineations, erasures or overwriting shall be valid only if they are initialed by the person or persons signing the bid.

1.18 Status of Individual signing the offer

Individuals signing the bid form and other connected documents must specify the capacity in which they sign like :

- (a) Whether signing as a Sole proprietor of the firm.
- (b) Whether signing as a partner of the firm.
- (c) Whether signing for the firm as Agent.
- (d) Whether signing as a director of a private/limited company. Power of attorney to sign the bid to be submitted in case of b, c & d.

1.19 Abnormally high rate or abnormally low rate

If the bid is seriously unbalanced in relation to the estimated cost, such bidder will have to submit with their price bid detailed price analysis for any or all items. If the Bill of Quantity / Schedule of work to demonstrate how the price quoted have been arrived at.

## **D - Submission and sealing of Bids**

### **1.20 Submission, Sealing and Marking of Bids**

Bidders are advised to inspect and examine if required before submitting their bid the following which may influence or affect their bid.

- (a) Nature of Site.
- (b) Access to Site.
- (c) Space and facilities required.
- (d) Loading, unloading and facilities for shifting of items.
- (e) All other necessary information, risks, contingencies and other circumstances.

Submission of bid by a bidder implies that he has studied the tender documents and has made himself aware of the scope and specifications with all its conditions and other factors.

The bidders may submit their duly sealed bids by post/courier. Purchaser will not be responsible for any misplacement/delay/ loss of tender documents & bids in transit. Bidder can also drop the bid in person in the public tender box kept at the reception counter of purchaser after entering the requisite details in the Public Tender Register kept with the Security Supervisor.

Bids are to be submitted in two parts in separate sealed envelopes specifying tender no. Part-I – Techno-Commercial Bid & Part-II – Price Bid. Both the envelopes must be sent in another sealed cover duly superscribing our tender no., due date and name of the Bidder so as to reach us on or before the due date & time and to be submitted to the address given below :

**Purchase Officer,  
National Centre for Radio Astrophysics,  
Tata Institute of Fundamental Research,  
Post Box No. 3, Ganeshkhind,  
Pune - 411 007. Maharashtra, India.**

**Envelope No. 1: Shall contain “Techno-commercial Bid” (with all the documents listed in Check List) alongwith DD towards Earnest Money Deposit (EMD).**

**Envelope No. 2: Shall contain only “Price Bid” containing price schedule with prices.**

The techno commercial offer **should NOT contain any price information**. It must be submitted in an organized and structured manner. No brochures/leaflets etc. should be submitted in loose form. Please indicate page nos. on your bids, eg. If the bids are containing 25 Pages, please indicate page nos. as 1/25, 2/25, 3/25 -----25/25.

**Bids, which are submitted without following sealed two bid system, will be summarily rejected.**

The techno commercial bid should contain all commercial terms (except prices) with reference to the bid including drawings.

The techno commercial bid should be complete to indicate that all products and services asked for are quoted. Each page of the bid and cutting/corrections shall be duly signed and stamped by the bidder. **Unsigned bid will be rejected.** Failure to comply with this requirement may result in rejection of the bid.

If the envelope is not sealed and marked as required above, purchaser will assume no responsibility for the bid's misplacement or premature opening and in such cases bids will get rejected.

1.21 *Requirement of Tender Submission*

Bidder must have to bid for all items in the price bid failing which their bids will not be considered. Details of options and accessories for which rates are quoted to be specified in the technical bid.

The techno-commercial bid should have sufficient details to show point wise compliance to the specifications and shall include a full set of descriptive technical literature of the equipment and system proposed.

For site inspection if required before submission of tender, the bidder may contact

**Dr. J.K. Solanki,**  
**at NCRA-TIFR, Pune University Campus, Ganeshkhind, Pune 411007**  
**Phone No. 020-25719000 /9111**  
**Email. : [solanki@ncra.tifr.res.in](mailto:solanki@ncra.tifr.res.in)**

1.22 *Deadline for Submission of Bids*

Bids must reach Purchase officer, NCRA-TIFR, Pune at the address specified in Tender Notice not later than the time and date specified herein. In the event of the specified date for the submission of Bids being declared a holiday for purchaser, the Bids will be received upto the appointed time on the next working day.

Purchaser may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with Clause relating to amendment of bidding Documents in which case all rights and obligations of purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

1.23 *Late Bids*

Any bid received by purchaser after the deadline for submission of bids prescribed will be rejected.

Such tenders shall be marked as late and not considered for further evaluation. They shall not be opened at all and will be returned to the bidders in their original envelope without opening.

1.24 **ACCEPTANCE OF BID :** Institute shall be under no obligation to accept the lowest or any other bid received in response to this tender and shall be entitled to reject any or all bids without assigning any reason whatsoever.

1.25 **PLACING OF ORDER :** Institute reserves the right to place the order for part/full/reduced quantity / reduced period than what is specified in the tender.

**Order will placed on a single party who is overall lowest.**



## **E - Opening and Evaluation of Bids**

### 1.26 Opening of Bids

Purchaser will open techno commercial bids one at a time in the presence of Bidder's authorized representatives who choose to attend, as per the schedule given in Tender Notice. The Bidders' representatives who are present shall sign the bids opening sheet evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for purchaser, the Bids shall be opened at the appointed time and location on the next working day. The Price bids shall be opened only after technical evaluation & the date for the same will be intimated to technically qualified bidders at a later date.

The bidders names and the presence or absence of requisite EMD and such other details as purchaser, at its discretion, may consider appropriate, will be announced during the opening.

a) Bids that are received late shall not be considered further for evaluation, irrespective of the circumstances.

**b) Bidders interested in participating for bid opening, should depute their representatives along with an authority letter to be submitted to purchaser at the time of bid opening.**

c) Only one representative of each bidder will be permitted during opening of bids.

### 1.27 Clarification of Bids

To assist in the examination, evaluation, comparison and post qualification of the bids, purchaser may, at its discretion, ask the Bidder for a clarification on their 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. However, no negotiation in respect of prices shall be held except with the lowest bidder, at the discretion of purchaser. Any clarification submitted by a bidder in respect to their bid which is not in response to a request by purchaser shall not be considered.

### 1.28 Preliminary Examination

Purchaser shall examine the bids to confirm that all documents and technical documentation requested have been provided to determine the completeness of each document submitted.

Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.

(a) Bid Form and Price Schedule;

(b) All the bids received will first be scrutinized to see whether the bids meet the basic requirements as incorporated in the bid document. The bids, which do not meet basic requirements, will be treated as unresponsive and ignored. ***The following are some of the important points, for which a bid will be declared as unresponsive and will not be considered for further evaluation:***

(i) The Bid is unsigned.

(ii) The Bidder is not eligible.

(iii) The Bid validity is shorter than the required period.

(iv) The Bidder has quoted for goods manufactured by a different firm other than what has been specified in the tender document.

- (v) Bidder has not agreed to give the required security deposit & Performance Guarantee.
- (vi) The goods quoted are sub-standard, not meeting the required specification etc.
- (vii) Against the schedule of Requirement (incorporated in the bid), the bidder has not quoted for the entire requirement as specified in that schedule.
- (viii) The bidder has not agreed to some essential condition(s) incorporated in the bid.

1.29 Responsiveness of Bids

Prior to the detailed evaluation, purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:

- (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
- (b) Limits in any substantial way, inconsistent with the Bidding Documents, purchaser's rights or the Bidder's obligations under the Contract; or
- (c) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

Purchaser's determination of a bid's responsiveness will be based on the contents of the bid itself.

If a bid is not substantially responsive, it will be rejected by purchaser and may not subsequently be made responsive by the bidder by correction of the material deviation, reservation or omission.

1.30 Non-Conformity, Error and Omission

Provided that a bid is substantially responsive, purchaser may waive any nonconformity or omissions in the bid that do not constitute a material deviation.

Provided that a bid is substantially responsive, purchaser may request the bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformity or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the bid. Failure of the Bidder to comply with the request may result in the rejection of their bid.

Provided that the bid is substantially responsive, purchaser shall correct arithmetical errors on the following basis:

- (a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected;
- (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

Provided that a bid is substantially responsive, purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its **Earnest Money** will be forfeited.

If the price for an item with same part no. is quoted differently at different place, lower rate will be taken as the price of the item.

In the event no rate has been quoted in words or figures for any item/items it will be presumed that the contractor/supplier has included the cost of this/these item/items in other item and rate for such item/items will be considered as zero & supply/work will be required to be executed accordingly.

In case of any tender where unit rate of any item/items quoted is unrealistic, such a tender is liable to be disqualified & rejected.

1.31 *Examination of Terms & Conditions, Technical Evaluation*

Purchaser shall examine the Bid to confirm that all terms and conditions specified in the bid document have been accepted by the Bidder without any material deviation or reservation.

Purchaser shall evaluate the technical aspects of the Bid submitted to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.

1.32 *Evaluation and comparison of bids*

Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.

To evaluate a Bid, purchaser shall only use all the factors, methodologies and criteria defined in the bid documents.

The price bids shall be evaluated on the basis of final landing cost which will be calculated as per Institute procedure to bring quotes on equal footing including charges towards installation, commissioning and testing at destination.

1.33 *Contacting Purchaser*

Any effort by a Bidder to influence purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of their bid.

1.34 *Post qualification*

In the absence of pre-qualification, purchaser will determine to its satisfaction whether the bidder/bidders who is/are selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the bid document.

The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the bidder's qualifications submitted by the bidder, as well as such other information as purchaser deems necessary and appropriate.

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.

## **F- Award of Contract**

### 1.35 Negotiations

There shall not be any negotiation normally. Negotiations shall be held with the lowest evaluated responsive bidder if required. Counter offers tantamount to negotiations and shall be treated at par with negotiations in the case of one time purchases.

### 1.36 Award Criteria

Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid.

### 1.37 **AWARD OF CONTRACT :**

If the rates quoted by more than one bidder are same and lowest. NCRA reserves the right to decide the criteria and proceeding further for awarding the contract. Decision of NCRA-TIFR, Pune shall be final in this regard.

### 1.38 Purchaser's right to divide/vary the Quantities at the time of Award

Purchaser reserves the right at the time of Contract award to decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions. Further, the purchaser may also divide the quantity and place orders on two or more suppliers. Purchaser also reserves the right to place or not to place order for Spares/accessories.

### 1.39 Purchaser's right to accept Any Bid and to reject any or all Bids

The Centre Director, NCRA reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

### 1.40 Notification of Award

Prior to the expiration of the period of bid validity, purchaser may notify the successful bidder in writing by registered letter or fax or e mail that the bid has been accepted and a separate work order shall follow.

Until a formal order is prepared and sent, the notification of award should constitute a binding contract.

Upon placing order on successful Bidder's, purchaser will release the **Earnest Money** to all unsuccessful bidders.

### 1.41 Order Acceptance

The successful bidder should submit Order acceptance **within 21 days** from the date of issue, failing which it shall be presumed that the bidder is not interested and their **Earnest Money** will be forfeited.

Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Security deposit. Even after extension of time, if the order confirmation and security deposit are not received, the contract may be cancelled and limited tenders irrespective of the value shall be invited from the responding firms after forfeiting the **Earnest Money** of the defaulting firm, where applicable, provided there is no change in specifications. In such cases the defaulting firm shall not be considered again for re-tendering.

## **CHAPTER 2**

### **GENERAL CONDITIONS OF CONTRACT (GCC)**

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## 2.1 Definitions

The following words and expressions shall have the meanings hereby assigned to them:

- a. "Contract/purchase order/work order" means the order placed by purchaser on the Supplier, together with the Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b. "Contract Documents" means the documents listed in the work order, including any amendments thereto.
- c. "Contract Price" means the price payable to the Supplier as specified in the contract, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- d. "Day" means calendar day.
- e. "Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- f. "GCC" means the General Conditions of Contract.
- g. "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, configuration, training and initial maintenance and other such obligations of the Supplier under the Contract.
- h. "SCC" means the Special Conditions of Contract.
- i. "Subcontractor/sub vendor/sub fabricator" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier & shall include his heirs, legal representatives, successors and permitted assigns.
- j. "BoM" means bill of material.
- k. 'Centre Director' shall mean Center Director, NCRA-TIFR, Pune & shall include his successor and assigns, as well as his authorized officers/ representatives
- l. 'Engineer' shall mean the engineer/representative of the owner/ purchaser.
- m. 'Bidder / Tenderer' shall mean the firm/ party who bids against an enquiry / tender.
- n. 'Vendor/ Contractor/ Fabricator/Supplier' shall mean the successful BIDDER whose bid has been accepted by the owner/ purchaser and on whom the 'Contract' or 'Purchase Order' is placed by the owner/purchaser and shall include his heirs, legal representatives, successors and permitted assigns.
- o. 'Manufacturer' refers to a person or firm who is the producer and furnisher of material or designer and fabricator of equipment to either the owner/ purchaser or the vendor/ contractor or both under the contract.
- p. 'Others' shall mean other successful bidders whose bids have been accepted by the owner/ purchaser and shall include their heirs, legal representatives, successors and permitted assigns.
- q. Owner / Purchaser / Cente / Institute mean NCRA-TIFR Pune.
- r. 'Inspector' shall mean the authorized representatives appointed by the owner/ purchaser for purposes of the inspection of materials/ equipment/ works.
- s. 'Site' shall mean the actual place of the proposed work as detailed in the specification or other place where work has to be executed under the contract or item to be supplied.
- t. 'Month' shall mean calendar month.
- u. 'Specification' shall mean collectively all the terms and stipulations contained in those portions of the 'Contract' known as General Conditions, the Specifications and such Amendments, Revisions, Deletions or Additions, as may be made in the Agreement and all written Agreements made or to be made pertaining to the method and manner of performing the Work or to the quantities and qualities of the materials to be furnished under this 'Contract'.

- v. 'Bid' shall mean the proposal/ document that the BIDDER submits in the requested and specified form in the 'Specification'.
- w. 'Item' 'Items' 'Goods' 'Stores' Plant' or 'Equipment' and 'Work' or 'Works' shall mean respectively the goods to be supplied and services to be provided by the vendor/ contractor/ fabricator under the 'Purchase Order' or 'Contract'.
- x. 'Date of Contract' shall mean the calendar date on which the owner/ purchaser and vendor/ contractor/ fabricator have signed the 'Contract'. 'Effective Date of Contract' shall mean the calendar date on which the owner/ purchaser have issued to the vendor the 'Letter of Intent' or three months prior to the 'Date of Contract' or six months prior to the date of issue of import license whichever is later or as otherwise mutually agreed to between the owner/ purchaser and the vendor.
- y. 'Contract Period' shall mean the period during which the 'Contract' shall be executed as agreed between vendor/ contractor/ fabricator and owner/ purchaser in the 'Contract'.
- z. 'Warranty' / 'Guarantee Period' shall mean the period during which the 'Plant' or 'Equipment' shall give the same performance as guaranteed by the vendor in the Schedule of Guarantee as in the 'Specification'.
- aa. 'Approved' and 'Approval' where used in the 'Specification' shall mean respectively approved by and approval of the owner/ purchaser.
- bb. When the words 'approved', 'approval', 'subject to approval', 'satisfactory', 'equal to', 'proper', 'requested', 'as directed', 'where directed', 'when directed', 'determined', 'accepted', 'permitted', or words and phrases of like import are used, the approval, judgment, direction etc. is understood to be a function of the owner/ purchaser.
- cc. 'Engineer's Instructions' shall mean any drawings and / or instructions oral and/ or in writing, details representative of the owner/ purchaser from time to time during the 'contract period'.
- dd. 'Writing' shall include any manuscript, typewritten or printed statement, under or over signature and/ or seal as the case may be.
- ee. "Notice in Writing" or 'Written Notice' shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have received when the ordinary course of post it would have been delivered.
- ff. 'Contractor's Works' or 'Manufacturer's Works' shall mean and include the land and the other places which are used by the Vendor/ Contractor/ Fabricator or Sub-vendor/ Sub-contractor/ Sub-fabricator for the manufacture of the 'Equipment ' or performing the 'Works'.
- gg. 'Commissioning' shall mean integrated activity covered under 'Preliminary Operation', 'Trial Operation' and carrying out 'Performance Tests'.
- hh. 'Trial Operation' shall mean the integrated operation of the Plant, system/ Equipment covered under the 'Contract' for a specified period at a specified load for providing trouble-free operation of the Plant/ system/ Equipment covered under the 'Contract'.
- ii. 'Performance Tests' shall mean such tests as are prescribed in the 'Specification', to be done by the vendor before the Plant is taken over under guarantee by the owner/ purchaser.
- jj. 'Virtual Completion' shall mean that all Work is completed as directed and the 'Site' is cleared to the satisfaction of the owner/ purchaser.
- kk. 'Commercial Use' shall mean that use of the 'Equipment' or 'Work' which the 'Contract' contemplates or that for which 'Equipment' or 'Work' is commercially capable.
- ll. 'Minor Modification' as applied to equipment erection contracts only, shall mean the modification work required to be done on the 'Equipment' or 'Work' which need a maximum of 48 man-hours per item of work. In the case of civil contracts, it shall be 'Works' which need a maximum of 8 man-hours per item of work.
- mm. 'Major Modification' as applied to equipment erection contracts only, shall mean the

modification work required to be done on the 'Equipment' and 'Works' needing more than 48 man-hours per item of work, where such work is required to be done for no fault of the Vendor/ Contractor. In the case of work contracts, it shall be 'Works' needing more than 8 man-hours per item of work.

2.2 Amalgamation/Acquisition

In the event the Manufacturer/Supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfillment of contractual obligations i.e. supply, installation, commissioning, configuration, warranty, maintenance/replacement of spares accessories etc. while submitting your bid, Bidders need to confirm the same in writing.

2.3 Scope of Supply

The Goods and Related Services to be supplied shall be as specified in the Price Schedule.

2.4 Suppliers' Responsibilities

The Supplier shall supply all the Goods and Related Services included in the BoM, and the Delivery and Completion schedule. Supply means : "Supply, Schedule, as per GCC Clause relating to delivery and document. Design, Installation, testing, Commissioning and satisfactory demonstration of the whole system and training & providing after sales services during warranty period". Charges payable for the same should be specified in the price bid.

2.5 Contract price

Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall be firm.

2.6 Copy Right

The copyright in all drawings, documents, and other materials containing data and information furnished to purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

2.7 Application

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

2.8 Standards

The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, 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.



2.9 Patent/design/copy right/trade mark / third party claim Indemnity

The Supplier shall indemnify and hold harmless purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Goods by the Supplier or the use of the Goods in India; and (b) the sale in any country of the products produced by the Goods.

If any proceedings are brought or any claim is made against purchaser, purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

2.10 Packing

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 permissible under existing road/rail/sea limitations and shall take into consideration, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

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 given by purchaser.

Even when no packing specification is included it will be suppliers responsibility to provide appropriate packing depending upon the nature of the supply and the transportation and handling hazards.

The equipment shall be so packed and protected as not to suffer deterioration, damage or breakage during shipment and storage in a tropical climate.

Each package shall be properly labeled to indicate the type and quantity of material it contains, the purchase order number its dimensions and weights and any other necessary data to identify the equipment and relate it to contract. Packing slip containing description of item & qty. must be affixed on the box.

Empty packages / packing material will become property of the owner.

If wood has been used for packing, Fumigation certificate to be provided with the shipment.

2.11 Delivery of items

Supplier/manufacturer will have to deliver the item/s at delivery point specified in SCC.

2.12 Duration for Completion of contract.

The items will have to be supplied within the period specified in the SCC.

- 2.13 *Incidental Services*  
The supplier may be required to provide any or all of the services, if any, specified in SCC.
- 2.14 *Despatch Documents*
- 2.14.1 The following documents in original are to be sent to Purchaser.
- a. Full set of invoice showing Quantity and Amount.
  - b. Packing slip indicating no. of packages, gross and net weight.
  - c. Manufacturers internal test, inspection certificates.
  - d. Soft copy of user / instruction installation manuals in English.
  - e. Inspection certificate issued by the Purchaser's Inspector, if any;
  - f. Guarantee/Warranty certificates issued by Original Equipment Manufacturer.
  - g. Fumigation Certificate if wood is used in packing.
- 2.14.2 The following documents are to be handed over to the carrier / transporter while handing over the item.
- a. Three Sets of Invoice.
  - b. Two Sets of packing slip.
  - c. Fumigation Certificate if wood has been used in packing.
- 2.15 *Severability :*  
If any provision of this contract is determined to be invalid or unenforceable, it will be deemed to be modified to the minimum extent necessary to be valid and enforceable. If it can not be so modified, it will be deleted and deletion will not affect the validity or enforceability of any other provision.
- 2.16 *Centre reserve the right to reject the bid in case any discrepancy is observed in the unpriced bid and actual price bid.*
- 2.17 *Assignment*  
The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract to third party, except with purchaser's prior written consent.
- 2.18 *Indemnity :*  
Selected bidder shall also, indemnify and hold harmless centre from any third party, Govt. claim, losses, penalties if any arising in connection with this contract.
- 2.19 *Manufacturers registered as MSME with NSIC or Dist. Service Centre.*  
Benefit to MSME / NSIC Registered bidder will be applicable only for those who are manufacturers and bid for items manufactured by them and are registered with NSIC / MSME and who have valid registration as on date of bidding. Bidders must submit copy of their registration certificate with their technical bid.

## 2.20 Extension of time

Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by purchaser.

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 purchaser in writing the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages unless an extension of time is agreed upon pursuant to above clause without the application of liquidated damages clause.

## 2.21 Termination for Default

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 purchaser; or
- (b) If the Supplier fails to perform any other obligation(s) under the Contract.
- (c) If the Supplier, in the judgment of purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in instruction to bidder on Fraud or Corruption in competing for or in executing the Contract.

In the event Purchaser terminates the contract in whole or in part, it may take recourse to any one or more of the following action:

- a) Forfeiting Security deposit;
- b) Purchaser may procure, upon such terms and in such manner as it deems appropriate, item / equipment similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
- c) However, the supplier shall continue to perform the contract to the extent not terminated.

## 2.22 Force Majeure

Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and termination for default, Supplier shall not be liable for forfeiture of their Security deposit, 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.

For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, earthquakes, storms and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by 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.

If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.23 Termination for Insolvency

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 purchaser.

2.24 Termination for Convenience

Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. 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.

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 purchaser at the Contract terms and prices. For the remaining Goods, 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.

2.25 Discrepancies & Order of Preferences:

In case of ambiguities or discrepancies following order of preferences shall hold good :

- a. Purchase Order.
- b. Technical Specifications
- c. Special Conditions of contract.
- d. General Conditions of Contract.

2.26 Governing Language

The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

2.27 Applicable Law/Jurisdiction

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

2.28 Notices

Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by e-mail or confirmed in writing to the other party's address specified in the SCC.

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

2.29 Right to use Defective Goods

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

2.30 Materials

All goods or materials shall be supplied strictly in accordance with the specifications stated in the purchase order or change orders issued by the purchaser.

All goods or materials supplied or used shall be new and of first quality should not be obsolete & going to be obsolete. Where foreign or partly foreign goods or materials are offered or intended to be used, the fact must be specifically stated and brought to the notice of the purchaser.

2.31 Waiver

Purchaser shall be at liberty to waive any breach of any terms or conditions or warranty. Waiver by purchaser or a breach by vendor or any provision of the order shall not be deemed a waiver of future compliance therewith and such provision shall remain in full force and effect.

2.32 Purchaser's Comments

Vendor shall not be relieved of his obligations under the order, including but not limited to his warranty obligations stated herein by incorporating Purchaser's design and fabrication comments into the goods ordered hereunder.

2.33 Responsibility of Vendor

Upon oral or written notification of defects in or malfunctioning of the goods during normal operation, which require corrective action, vendor shall send the necessary personnel to job site to supervise and assume responsibility for repairs and/ or replacement, if necessary of the defective goods or material. If vendor does not expeditiously take steps to correct the breach, purchaser may do so at the cost and expenses incurred by purchaser to repair or replace malfunctioning or nonconforming goods.

Equipment, items or components repaired or replaced by vendor shall have warranty till completion of one year from the date of installation of the equipment.

- 2.34 *Lien in respect of claims in other contract*
- 2.34.1 Any sum of money due and payable to the Contractor (including the Security deposit / Performance Guarantee returnable to him) under contract may be withheld or retained by way of lien by the Centre against any claim of the Centre or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Centre.
- 2.34.2 It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Centre will be kept withheld or retained as such by Centre till this claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money with-held or retained under this clause and duly notified as such to the contractor.
- 2.35 *With-holding and lien in respect of sums claimed*
- 2.35.1 Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, Centre shall be entitled to withhold and have a lien to retain to the extent of the such claimed amount, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with the Centre.
- 2.35.2 It is an agreed term of the contract that the sum of money or money so withheld or retained under the lien referred to above by the Centre will be kept withheld or retained as such by the Centre till the claim arising out of or under the contract is determined by the Arbitrator and that the contractor will have no claim for interest or damage whatsoever on any contract in respect of such with-holding or retention under the lien referred to and duly notified as such to the contractor.
- 2.36 **SETTLEMENT OF DISPUTE :** For any dispute arising out of the contract, it should be the intention of both the parties to settle the matter amicably without referring it to the Court of Law. In case dispute is not getting settled amicably it will be referred to arbitration as under.
- 2.37 **ARBITRATION :**
- 2.37.1 Purchaser and the contractor 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.
- 2.37.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either purchaser or the contractor 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. 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.
- 2.37.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
- (a) In case of Dispute or difference arising between purchaser and contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to

the arbitration proceedings. The dispute shall be referred to the sole arbitrator mutually acceptable to contractor and purchaser. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order. Charges of the arbitrator will have to be shared equally by the Contractor and the Purchaser.

- 2.37.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued.

## **CHAPTER 3**

### **SPECIAL CONDITIONS OF CONTRACT (SCC)**

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## Chapter 3

### SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

3.1 *The Purchaser is:*

**National Centre for Radio Astrophysics  
Tata Institute of Fundamental Research  
Pune University Campus, Ganeshkhind,  
Pune - 411007, Maharashtra, India  
Phone : +91 20 2571 9000/9111  
Fax : +91 20 25692149  
E-mail : [purchase@ncra.tifr.res.in](mailto:purchase@ncra.tifr.res.in)**

3.2 *Address where goods are to be delivered and installed is ;*

**Location 1 :**

**National Centre for Radio Astrophysics (NCRA),  
Tata Institute of Fundamental Research (TIFR),  
Pune University Campus, Ganeshkhind,  
Pune - 411007, Maharashtra, India  
Phone : +91 20 2571 9000/9111  
Fax : +91 20 25692149**

**Location 2 :**

**Giant Metrewave Radio Telescope (GMRT) Observatory,  
National Centre for Radio Astrophysics (NCRA),  
Tata Institute of Fundamental Research (TIFR),  
Khodad (Near Narayangaon), Tal. Junnar,  
Dist. Pune 410504, Maharashtra, India.  
Phone : +91 02132 – 258300 / 258400  
Fax : +91 20 25692149**

**Location 3 :**

**Radio Astronomy Centre (RAC),  
National Centre for Radio Astrophysics (NCRA),  
Tata Institute of Fundamental Research (TIFR),  
Udhagamandalam (Ooty) 643001, Tamil Nadu, India.  
Phone : +91 0423 – 2244880 / 2244888  
Fax : +91 0423 – 2244900**

3.3 *Scope of Work*

Supply of items as specified in **Chapter – 7** of this tender document.

The supplier shall have to depute their specialist to purchaser site at no extra cost during the Warranty period for (a) attending to faults, (b) providing on-job training to personnel in operation, trouble shooting and maintenance (c) attending to commissioning related issues and (d) programming of software etc. (e) providing after sales service.

*Earnest Money Deposit (EMD)*

Earnest Money Deposit is obtained to ensure the earnestness of the tenderer in the participation of the tender and as a deterrent against the tenderer withdrawing or altering his bids during the bid validity.

Quantum of Earnest Money Deposit

Earnest Money Deposit of **Rs. 2,36,000/-**.

Form of Earnest Money Deposit

Full amount in the Form of Demand Draft.

Rejection of Tenders not Accompanied with Earnest Money Deposit

Tenders/offers from the tenderers not accompanied with Earnest Money Deposit, as demanded, will be rejected summarily.

Refund of Earnest Money Deposit

- (a) EMD of bidders who do not qualify during Technical Evaluation will be released on completion of Technical Evaluation.
- (b) EMD of all technically qualified bidders (Except for L1) will be released after release of order on L1.
- (c) EMD of successful bidder will be released on receipt of Security Deposit.

The Earnest Money Deposit will be forfeited:

- (a) If a Bidder withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- (b) In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 15 days of the order or fails to furnish Security deposit within 21 days from the date of order or before the extended date.

*Security Deposit*

Security Deposit to be furnished by the successful bidder within **21 days** of the order for satisfactory performance of the contract. “Satisfactory performance of the contract here means acceptance of the material in respect of supply contracts and satisfactory completion of installation & commissioning and issue of acceptance certificate.

Quantum of Security Deposit

Security Deposit shall be for an amount of **Ten Percent (10%)** of the order value Including all taxes and duties.

Forms of Security Deposit :

Security Deposit can be in the form of Demand Draft in favour of “TIFR” payable at Pune **OR** Bank Guarantee (BG) in favour of Centre Director, NCRA-TIFR, Pune as per the prescribed format. The Bank Guarantee should be from any one of the nationalized banks or Scheduled

banks and executed on non-judicial stamp paper of appropriate value. The BG should be valid upto at least 2 months beyond the contractual date for completion of the order.

**The Bank Guarantee / DD should be submitted within 21 days from the date of receipt of our order failing which order will be cancelled.**

In case the successful bidder expresses inability to obtain the Bank Guarantee, the Security Deposit can also be accepted in the form of Demand Draft/Banker's Cheque issued by any one of the Scheduled Bank drawn in favour of "TIFR" payable at Pune.

#### Refund of Security Deposit

Security Deposit is taken for the due performance of the Contract and become liable to be refunded when the Contractor has duly performed and completed the Contract in all respect.

The proceeds of the security deposit shall be payable to purchaser as compensation for any loss resulting from the Supplier's failure to execute the order.

The security deposit will be discharged by purchaser and returned to the Supplier after completion of the contract.

In the event of any contract amendment, the supplier shall, **within 21 days** of receipt of such amendment, furnish the amendment to the security deposit, rendering the same valid for the duration of the contract.

No Interest will be paid on Security Deposit.

#### Forfeiture of Security Deposit

Security Deposit taken for due performance of the Contract can be forfeited in the event of a breach of contract.

Bank Guarantee obtained towards Security Deposit will be invoked when there is a specific breach on the part of the supplier.

#### Performance Guarantee / Performance Bond

Performance Bond is obtained as a back-up surety for fulfilment of warranty obligation by the Contractor after satisfactory completion of the contract.

#### Form of Performance Bank Guarantee

Bank Guarantee as per prescribed format to be executed from any one of the nationalized banks or Scheduled bank on non-judicial stamp paper of appropriate value.

#### Quantum & Value of Performance Bank Guarantee

Bank Guarantee should be for **Ten Percent (10%)** of the total value of the purchase / work order including all taxes and duties, Freight and Customs Clearance, Insurance etc.

#### Validity of Performance Bank Guarantee

Bank Guarantee should be valid till at least two months beyond the expiry date of warranty period.

Performance Guarantee Amount will not carry any interest.

### 3.6 TERMS AND CONDITIONS APPLICABLE FOR SUPPLY OF ITEMS IN RUPPES

- a. Certificate for availing concessional GST of 5% if required shall be issued by the purchaser.
- b. All items in full quantity must be delivered in one lot at respective locations.
- c. Responsibility for safe delivery of all items at destination will be of the supplier and hence they must take all suitable measures including obtaining transit insurance at their cost.
- d. **EXCHANGE RATE FLUCTUATION** : If bidder is not able to keep rupee price quoted valid till completion of the work, they need to specify the base exchange rate prevailing seven days prior to due date for submission of bid. If the exchange rate on the date of ordering and on the date of supply (before due date specified in Purchase Order) differs by +/- Five Percent then price shall be calculated accordingly for placing orders as well as while making payments.

### 3.7 Evaluation Criteria

On the due date the Techno commercial bids will be opened and referred to the technical evaluation Committee.

The information received and the bids already submitted together will be examined with reference to the tendered specifications and evaluation is made by the Committee.

After the technical evaluation is completed and approved, Purchaser shall inform the bidders whose bids have been rejected technically with the reasons for rejection.

**The price bids of the Bidders whose techno commercial bids are found to be technically deficient or do not meet the qualification criteria as specified in this tender will be returned to them without opening.**

The successful bidders will be informed regarding the date and time of Price bid opening.

**Appropriate loading will be done for deviation in payment terms etc.**

### 3.8 Duration for Completion of work/Delivery Period

Bidders are requested to specify the **delivery period** in the unpriced bid to be submitted with their technical bid.

### 3.9 Liquidated Damages

(a) As time is the essence of the contract, Delivery period mentioned in the Order should be strictly adhered to.

(b) If the supplier fails to **Supply** the equipment as per specifications mentioned in the order within the due date, he shall be liable to pay liquidated damages of **0.5 % per week** of value of delayed supply and works for each or part of month, subject to a maximum of **5%** of order value on the unfinished work & items not supplied beyond the due date specified for completion of contract. Such money will be deducted from any amount due or which may become due to the supplier.

### 3.10 Inspection & Acceptance

The acceptance test will be conducted by purchaser, after the equipment's are received at purchaser's site. The acceptance will involve trouble free operation.

3.11 Warranty : ***Price must be quoted considering on site comprehensive Warranty of minimum one year. Bidder must pass on the standard warranty offered on the item quoted by respective OEM's, if their warranty period is more than one year.***

The Supplier warrants that all the Goods are new, unused, and 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 the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

The defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary.

Supplier will have to provide standby item / substitute of similar specifications at no extra cost, if the defective items will have to be sent back to manufacturer for repairing / replacement. If supplier is not able to provide the standby/substitute equipment, he will have to furnish bank guarantee for the landed cost of the item.

Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. Purchaser shall provide all reasonable opportunity for the Supplier to inspect such defects.

Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to purchaser. Cost, insurance, freight, custom duty, excise duty, other charges if any should be borne by supplier.

If having been notified, the Supplier fails to rectify the defect within **reasonable period of time**, purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which purchaser may have against the Supplier under the Contract.

Goods requiring warranty replacements must be replaced on free of cost basis.

3.12 Payment Terms :-

**70%** payment including taxes will be made within 30 days after receipt of the items at respective sites and **20%** after satisfactory installation, commissioning and testing and balance **10%** will be made after submission of Performance Bank Guarantee for equivalent amount (which will be intimated in the order) from a Scheduled / Nationalized Bank valid till Warranty Period + 2 Months.

**For Post warranty comprehensive AMC :**

Payment for post warranty comprehensive AMC, if opted will be paid on quarterly basis on completion of each quarter. Bidder must submit their detailed AMC proposal with their technical bid for each location.

3.13 Billing address :

**Location 1 :**

**National Centre for Radio Astrophysics (NCRA),  
Tata Institute of Fundamental Research ITIFR),  
Pune University Campus, Ganeshkhind,  
Pune - 411007, Maharashtra, India  
Phone : +91 20 2571 9000/9111  
Fax : +91 20 25692149**

**Location 2 :**

**Giant Metrewave Radio Telescope (GMRT) Observatory,  
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**Location 3 :**

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Udhagamandalam (Ooty) 643001, Tamil Nadu, India.  
Phone : +91 0423 – 2244880 / 2244888  
Fax : +91 0423 – 2244900**

3.14 Removal of Rejected Items :

Any item submitted for inspection and rejected by the purchaser must be removed by the supplier, within fourteen days from the date of receipt of intimation of rejection. Such rejected items shall lie at the supplier's risk from the time of such rejection and if not removed within the aforementioned time, the Purchaser shall have the right to dispose off the same at the supplier's risks and on cost and to appropriate such portion of the proceeds as may be necessary to cover any loss or expenses incurred by the purchaser in connection with the said sale.

3.15 Recovery of Sums Due :

Whenever any claim for the payment of, whether liquidated damage or not, arises out of or under this Contract against the supplier, the Purchaser shall be entitled to recover such sum by appropriating, in part or whole the Security deposit furnished by the supplier. In the event of the Security Deposit being insufficient, then the balance or the total sum recoverable, as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the supplier under this or any other contract with purchaser. Should this sum be not sufficient to cover the full amount recoverable the Contractor shall pay to the Purchaser on demand the remaining balance due. Similarly, if the Purchaser has or makes any claim, whether liquidated damages or not against the supplier under any other Contract with the Purchaser, the payment of all amount payable under the Contract by the Contractor including the security deposit shall be withheld till such claims of the Purchaser are finally adjudicated upon and paid by the supplier.

3.16 Formation of Technical and Evaluation Committee

The Technical Evaluation Committee will be constituted by Centre Director. He may nominate some external/expert members, if required.

### 3.17 Terms of the Technical Evaluation Committee

A committee will go through the technical aspects of the tender and short list such firms whose bids are technically and commercially acceptable.

The technical evaluation will be an assessment of the Techno commercial Bid. Committee will proceed through a detailed evaluation of the Techno commercial Bids in order to determine whether they are substantially responsive to the requirements set forth in the tender. In order to reach such a determination, committee will examine the information supplied by the Bidders, and shall evaluate the same as per the specifications mentioned in this tender.

The technical committee may formulate evaluation criteria in addition to the specifications and requirements indicated in the tender, in the interest of Purchaser and this criteria/recommendation will also form as a part for short-listing of the firms whose technical bids are acceptable.

The Technical Committee will examine all the Technical aspects of the bids received. Further, the Technical Committee may seek additional information from the existing users at NCRA or from other Labs/Organizations and also call for Technical presentations from the bidders if required.

The recommendation/decisions of the Technical Evaluation Committee is final and binding on all the bidders.

### 3.18 Past Performance :

In case the past performance of the tenderer is not found to be satisfactory with regard to quality, delivery, warranty obligation and non-fulfillment of terms and conditions of the contract, their offer is liable to be rejected by the purchaser.

### 3.19 Safety & Security : Contractor will be responsible for the safety and security of all their workmen and staff and will ensure to maintain necessary records for payment and other details as per the prevailing Procedures and Acts. Contractor will be fully responsible for any personal injury, accident, death of your personnel and shall take proper precautions against any such loss or damages.

### 3.20 Indemnity Bond

As per **Annexure- I** to be submitted by the successful contractor before commencement of the work.

### 3.21 (A) Deployment of Labour & Machinery : You shall not employ any person who has not attained the age of 18 years. You shall deploy sufficient equipment's and labour as may be necessary to maintain the progress of schedule. Night work which requires supervision shall not be permitted except when specially allowed by Engineer each time. On your request, you will be provided necessary lighting arrangements etc. for night work as directed by Engineer.

- (B) The Contractor should ensure that their workers do not roam in the premises, other than the assigned work place, without permission.  
Workers should not spoil the area such as toilets, canteen, corridors, pathways, roads, etc. by spitting, throwing garbage, etc.  
Workers should not make noise near the office areas.  
Workers should not cut trees, pluck flowers, pick up any material laying in the campus, etc.

- 3.22 Work at Night or on Holidays : No work at night or on legal holidays will be carried without the written consent of the Engineer and if permitted such work to be done in the presence of the Engineer or his representative.
- 3.23 Demobilisation / Site Clearance : On completion of works under this contract, you shall clear up the site and remove from the site all surplus materials, equipment's, debris, centering etc. and shall handover the site to us in a condition satisfactory to the Engineer
- 3.24 If any of the item/items supplied found to be not original, same will have to be replaced with original item/items at no extra cost to Centre. Delay on this will be to the account of the Contractor.
- 3.25 Storage of tools and materials: You shall make your own arrangement for storage / safety of tools, plants, machinery, materials.  
It is the responsibility of successful bidder to ensure that arrangement is made for receiving and safekeeping of all items required for carrying out the work under their custody and supervision.
- 3.26 Centre if required can only provide an open space where contractor can make arrangement for safekeeping of their goods. No space will be provided for temporary accommodation of workers.
- 3.27 Items brought for carrying out work at Centre's site cannot be taken out without valid permission.
- 3.28 Protection of property: You shall be responsible for making good to the damages to the existing property during the work by your men. During the execution of work, it is likely that you may come across telephone cables, electrical cables, water supply lines, Lan cable etc. It will, therefore, be your responsibility to protect them carefully. All such cases should be brought to the notice of the Engineer by you and also to the concerned department. Any damage what-so-ever done to these are be made good by you at your own cost.
- 3.29 Applicable Law and Jurisdiction of Court  
  
This contract shall be governed by the Law of India being in force. Only the competent Courts of Law in Pune will have the jurisdiction in respect of any dispute, concerning this contract, over the arbitration proceedings etc.



**Chapter - 4**  
**TECHNICAL COMPLIANCE STATEMENT**  
**For all 3 Categories.**

**Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos**

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
1	Package	Full HD 1080p60 camera, codec, 2 x Microphone Array, cables, and remote control					
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.					
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265					
		It should support resolutions of upto 1080p60					
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.					
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps					
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better					
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.					
		Automatic Gain Control and Automatic Noise Suppression					
		Keyboard noise reduction and instant adaptation echo cancellation					
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera					
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content					
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.					
		1 x 3.5 mm Stereo line-in					
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.					
		1 x 3.5 mm stereo line-out					
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port					
		1 x RS-232 mini-DIN 8-pin or equivalent					
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.					
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.					
		It should support PAN Range of +/-90°, and Tilt of +/-20°					

Date :  
  
Place :

Signature of Bidder :  
Name & Designation :  
Company Name & Address :  
Company Seal & Phone No. :

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
	Network Features	H.323 and SIP bandwidth up to 6 Mbps					
		IPv4 and IPv6 support from day one					
		Auto Gatekeeper Discovery					
		IP Precedence, QoS					
		H.323 based Packet Lost Recovery					
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.					
	Security	Media Encryption (H.323, SIP): AES-128, AES-256					
		Authenticated access to admin menus, web interface and telnet API					
		Local account password policy configuration					
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460					
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.					
	Display System						
	Description	Specification Parameter					
2	86" LED Display	86" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation					
Cable Management System							
3	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA					

Date

:

Signature of Bidder

:

Name & Designation

:

Place

:

Company Name & Address

:

Company Seal & Phone No.

:

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
Switching and Control System							
4	Switching and control system	1) Ethernet type Control Processor , Extron/ Creston with minimum 3 COM, 8 IR & 8 relay ports 2)Wireless Aceess Point-D-linl /Netgear / Tp Link, 1Nos 3)Apple iPad 9.7" 32 GB--1Nos 4)Wall Docking station for IPAD- Launchport / Equivalent :1 nos 5) Power control Relay: Creston / Extron- 1 nos 6) 16 Button control button/ contact closure expansion kit : Creston/ Extron 7) All Other Equipments & Software to complete the solution					
Audio							
5	Digital Signal Processor	12 Channel Input and 12 Channel output Digital Signal Processor with Automatic Echo Cancellation, Gain Control, Programmable audio presets for both audio in VC as well as local audio reinforcement.					
	Lapel Microphones	Wearable lapel microphones- 1)Omni Directional Audio Pickup 2)Signal to noise ratio >103dBA 3)Frequency range- A: 548-572 MHz, GB: 606-630 MHz, B: 614-638 MHz, C: 766-790 MHz, D: 794-806 MHz, E: 821-832 MHz, 863-865 MHz, K: 925-937.5 MHz					
	Handheld Microphones	Wireless Handheld microphones- 1) Condenser type microphone. 2)Signal to noise ratio >103dBA 3)Frequence range- A: 548-572 MHz GB: 606-630 MHz B: 614-638 MHz C: 766-790 MHz D: 794-806 MHz E: 821-832 MHz, 863-865 MHz K: 925-937.5 MHz 4)Frequency- 8 frequency banks, each with up to 12 factory-preset channels					
	Audio Power Amplifier	Minimum 150 watts per channel, Multi Channel, Class D, Power Audio Amplifier					
	On Wall Speakers	1)2 way, 4.5" woofer, 1" aluminum tweeter bookshelf/surround loudspeakers 2)4.5" (114mm) Polycellulose Low-Frequency Woofer 3)New High Definition Imaging (HDI) Waveguide 4)1” (25mm) Aluminum Dome Tweeter 5)Frequency Response60Hz – 40kHz 6)Sensitivity86dB @ 1M, 2.83V 7)Nominal Impedance6 Ohms 8)Crossover Frequencies3.2kHz 9)Enclosure TypeBass-Reflex via Rear-Firing Tuned Port					

Date :Signature of Bidder :  
Name & Designation :  
Place :Company Name & Address :  
Company Seal & Phone No. :

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
Recording and Streaming							
6	Recording and Streaming	1)Should process two high resolution AV sources from up to five available input signals — Size and position two AV source signals in layouts that maximize the viewing experience. 2) Should Record and stream simultaneously — Document presentations, <a href="#">video conference streaming</a> , or extend live media to overflow destinations without the need for a computer or additional equipment. 3)High quality scaling with flexible two-window management — Display one or two high resolution sources in various window arrangements, including picture-in-picture and picture-by-picture arrangements for optimal interpretation. 4) Stream concurrently at two resolutions and bit rates from the same source — High resolutions and high bit rates deliver superior quality images for overflow applications, and lower bit rates and resolutions are more efficient for streaming distribution and confidence viewing applications. 5) Should support RTMP streaming protocol for third party hosting services — RTMP push streaming with stream name or key, and user authentication for services like YouTube Live, Wowza Streaming Cloud, Facebook Live, Ustream, and more. 6)HDMI, component, composite, and optional 3G-SDI input — Provides compatibility with common AV signal formats at resolutions up to 1920x1200 including 1080p/60. The SMP 351 3G-SDI model offers an additional 3G-SDI input connection. 7)Should be easy to configure and operate from the front panel or external control system — Ensure that presentations will be recorded and streamed, and valuable information will be documented and <a href="#">reproduced</a> . 8) Should support the latest SMBv2 and SMBv3 protocols for secure file sharing in Windows environments 9)RS-232, Ethernet, and digital I/O control ports — Interface with control systems, sensors, or external devices used in the AV presentation environment. 10)Standards-based H.264 / MPEG-4 AVC video compression — Should support use of the Baseline, Main, or High Profiles at Levels 4.x, or 3.x providing the ability to optimize video coding for use with various types of applications and decoding devices.					
Cables and Connectors							
7	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution					
Implementation							
8		Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training					

**\*\* Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator**

Date : Signature of Bidder :  
Name & Designation :  
Place : Company Name & Address :  
Company Seal & Phone No. :

Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
1	Package	Full HD 1080p60 camera, codec, 2x Microphone Array, cables, and remote control					
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.					
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265					
		It should support resolutions of upto 1080p60					
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.					
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps					
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better					
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.					
		Automatic Gain Control and Automatic Noise Suppression					
		Keyboard noise reduction and instant adaptation echo cancellation					
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera					
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content					
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.					
		1 x 3.5 mm Stereo line-in					
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.					
		1 x 3.5 mm stereo line-out					
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port					
		1 x RS-232 mini-DIN 8-pin or equivalent					
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.					
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.					
		It should support PAN Range of +/-90°, and Tilt of +/-20°					

Date : Signature of Bidder :

Name & Designation :

Place : Company Name & Address :

Company Seal & Phone No. :

Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos

Sr. No .	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
	Network Features	H.323 and SIP bandwidth up to 6 Mbps					
		IPv4 and IPv6 support from day one					
		Auto Gatekeeper Discovery					
		IP Precedence, QoS					
		H.323 based Packet Lost Recovery					
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.					
	Security	Media Encryption (H.323, SIP): AES-128, AES-256					
		Authenticated access to admin menus, web interface and telnet API					
		Local account password policy configuration					
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460					
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.					
Display Systems							
2	55"/65" LED Display	55"/65" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation with wall mount kit					
Annotation System							
3	Annotation System	1)24-inch LCD panel offers a large, comfortable surface and a wide viewing angle for excellent performance 2)2048 levels of pen pressure for precise drawing, writing, and annotating, plus enhanced biometric signature capturing 3)DVI video in/out for support of both analog and digital connections 4)Adjustable stand to support multiple angles to fit any working environment 5)Native Resolution 1920 x 1080 pixels 6)Aspect Ratio 16:9 7)Multi-touch 8)Brightness 210 cd/m² 9)Contrast Ratio 1000:1 10)Viewing Angle H: 178° (89°/89°), V: 178° (89°/89°) 11)User USB Ports 1 12) Pen Pressure Levels 2048					

Date : Signature of Bidder :

Name & Designation :

Place : Company Name & Address :

Company Seal & Phone No. :

Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
Cable Management Systems							
4	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA					
Switching and Control System							
5	Switching and control system	1)Switching System: - HDCP Compliant full HD 4x4 HDMI Matrix switcher -1 Nos 2) Signal Up scaler: 1 VGA/Audio to HDMI up scalar- 1 Nos 3) Ethernet type Control Processor , Extron/ Creston with minimum 3 COM, 8 IR & 8 relay ports with Apple iPad touch panel and docking station 4)8 Button control button/ contact closure expansion kit 5) All Other Equipments & Software to complete the solution <b>Key Functionalities required:</b> 1) Total Inputs required are 1 HDMI source inputs, 1 HDMI for wireless presentation device + 1 VGA source inputs 2)Presentation sharing from any source at simple push of a button in-built in Cable Cubbyhole Both in Local meetings and VC 3) Automatic shut down and start					
Audio							
6	Audio Power Amplifier	150 watts per channel, 4 Channel, Class D, Power Audio Amplifier					
7	On Wall Speakers	3” woofer with woven fiberglass cone 50 Watt power handling (100 Watt program) High fidelity sound character with broad frequency response of 70 Hz – 20 kHz Frequency Range (-10 dB) 70 Hz to 20 kHz Frequency Response (+/-3 dB) 95 Hz - 19 kHz Power Rating2 100W Continuous Program (2 hrs) Maximum Input Voltage: 17.2 V RMS (2 hrs), 34.4 V peak Maximum SPL3 103 dB ave. Continuous Pink Noise (109 dB peak) Sensitivity4 86 dB, 1W/1m (ave. 100 Hz – 10 kHz)					
Cables and Connectors							
8	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution					
Implementation							
9	Implementation	Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training					
** Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator							

Date : Signature of Bidder :

Name & Designation :

Place : Company Name & Address :

Company Seal & Phone No. :

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
1	Package	Full HD 1080p60 camera, codec, Microphone Array, cables, and remote control					
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.					
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265					
		It should support resolutions of upto 1080p60					
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.					
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps					
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better					
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.					
		Automatic Gain Control and Automatic Noise Suppression					
		Keyboard noise reduction and instant adaptation echo cancellation					
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera					
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content					
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.					
		1 x 3.5 mm Stereo line-in					
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.					
		1 x 3.5 mm stereo line-out					
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port					
		1 x RS-232 mini-DIN 8-pin or equivalent					
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.					
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.					
		It should support PAN Range of +/-90°, and Tilt of +/-20°					

Date

:

Signature of Bidder

:

Name & Designation

:

Place

:

Company Name & Address

:

Company Seal & Phone No.

:



Category C – Basic / Simple VC System at GMRT canteen Annexe – 1 No

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
	Network Features	H.323 and SIP bandwidth up to 6 Mbps					
		IPv4 and IPv6 support from day one					
		Auto Gatekeeper Discovery					
		IP Precedence, QoS					
		H.323 based Packet Lost Recovery					
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.					
	Security	Media Encryption (H.323, SIP): AES-128, AES-256					
		Authenticated access to admin menus, web interface and telnet API					
		Local account password policy configuration					
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460					
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.					
Display Systems							
	Description	Specification Parameter					
2	55" LED Display	55" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation with Wall mount kit included					
Cable Management Systems							
3	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA					

Date :

Signature of Bidder :

Name & Designation :

Place :

Company Name & Address :

Company Seal & Phone No. :

Category C – Basic / Simple VC System at GMRT canteen Annexe – 1 No

Sr. No.	Description	Specification Parameter	Compliance		Make	Model / Part No.	Warranty Provided by OEM
			Yes	No			
Audio							
4	Audio Power Amplifier	Minimum 150 watts per channel, Multi Channel, Class D, Power Audio Amplifier					
	On Wall Speakers	3” woofer with woven fiberglass cone 50 Watt power handling (100 Watt program) High fidelity sound character with broad frequency response of 70 Hz – 20 kHz Frequency Range (-10 dB) 70 Hz to 20 kHz Frequency Response (+/-3 dB) 95 Hz - 19 kHz Power Rating2 100W Continuous Program (2 hrs) Maximum Input Voltage: 17.2 V RMS (2 hrs), 34.4 V peak Maximum SPL3 103 dB ave. Continuous Pink Noise (109 dB peak) Sensitivity4 86 dB, 1W/1m (ave. 100 Hz – 10 kHz)					
Cables and Connectors							
5	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution					
Implementation							
6	Implementation	Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training					

\*\* Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator

Date

:

Signature of Bidder

:

:

Name & Designation

:

Place

:

Company Name & Address

:

:

Company Seal & Phone No.

:

## Chapter 5

Standard forms (To be enclosed by bidders with Part – I, Techno-commercial bid)

<b>Table of Contents</b>		
<b>Sl. No.</b>	<b>Contents</b>	<b>Page No.</b>
1	Company Profile - Annexure – A	<b>52</b>
2	Eligibility Criteria – Annexure – B	<b>53</b>
3	Manufacturers’ Authorization Form - Annexure – c	<b>54</b>
4	Schedule of Experience - Annexure d	<b>55</b>
5	Schedule of Deviation from General Conditions - Annexure – E	<b>56</b>
6	Schedule of Deviation (Technical) – Annexure – F	<b>57</b>
7	Bank Guarantee format for Security Deposit* - Annexure – G	<b>58-59</b>
8	Format of Bank Guarantee for Performance Bond* - Annexure – H	<b>60</b>
9	Format of Indemnity Bond* - Annexure I	<b>61</b>
10	Bid Form - Annexure – J	<b>62</b>
11	Format of Amalgamation/Acquisition - Annexure – K	<b>63</b>
12	CA Certificate – Annexure L	<b>64</b>
13	Format for furnishing Bank Details for refund of EMD/ making payment – Annexure-M enclosed	<b>65</b>
14	Undertaking for having read and taken note of all the terms and conditions of the Tender as per - Annexure N enclosed.	<b>66</b>

**\* To be submitted by vendor on whom order will be placed.**

**Annexure – “A”  
COMPANY PROFILE**

**Page 1 of 1**

(To be filled in by the Bidder)

Sl.No.	Question	Response
1.1	Company Name	
1.2	Type of firm Proprietary / Partnership / Pvt. Ltd. / Ltd. / Single Person Company / LLP	
1.3	Date of Incorporation	
1.4	Company Head Office address	
	* Contact person(s) Name	
	* Phone Number	
	* Fax Number	
	* E-mail Address	
1.5	Address of Pune office	
	* Contact person(s) Name	
	* Phone Number	
	* Fax Number	
	* E-mail Address	
1.6	Number of Employees	
1.7	State pending or past litigation if any within the last 3 years with details and explain reasons. Please also mention any claims/complaints received in the last three years.	
1.8	Name of Designation of the Officer of the Contractor/ Bidder to whom all the reference shall be made for expeditious technical co-ordination	
1.9	Whether Contractor is familiar with and has experience in the type of work specified	
1.10	Indicate the number of similar jobs in hand, giving a brief description of scope of work and personnel employed	
1.11	Experience record of personnel permanently employed by Contractor	
1.12	Personnel category-wise who are likely to be assigned for this work and their experience	
1.13	Source of skilled labour	
1.14	Detailed list of tools and tackles which Contractor shall use for execution of work	
1.15	Date of Establishment of firm	

Signature of the Bidder

Name & Designation

Company Seal

Date:

## ELIGIBILITY CRITERIA

Sr. No.	Description	Details to be furnished by the bidder enclosing relevant documents in the technical bid.				
1	Bidder must take note of three site locations, where systems have to be installed.					
2	Bidders are requested to attend the pre-bid meeting as per the date and time mentioned above.					
3	The bidder shall provide / supply all the components of the system from the specified OEM /distributor with applicable warranty/guarantee and also assurance about the after sales/service. Preferably, the bidder shall be currently authorized by the manufacturer of the major components of the system to sell their products and initiate warranty service on the same items. Proof of this may be requested during the bidding process. Proof of franchise shall be in the form of a letter from the appropriate manufacturer addressed to the institute stating that the contractor is currently authorized to sell their products. Letters from the sales representative (rep) shall not be accepted as proof.					
4	Manufacturer Authorisation Certificate as per our Format at <b>Annexure C</b> must be enclosed with the technical bid, if bid is from a Dealer / Distributor / Partner.					
5	Bidder must quote for all the items / systems and for all the three site locations.					
6	Bidder must have their full-fledged sales and service office at nearest town / city from <b>respective locations</b> . Bidder must specify the time required by them to attend complaint calls once reported by the purchase.					
7	Bidder must not have been black listed by TIFR or another Education / R&D Govt. organization as on date of submission of bid. Certificate to this effect must be submitted.					
8	<b>(i) Bidder must provide / transfer the warranty, committed by OEM for each of the items in writing in the compliance sheet at Chapter 4.</b>					
	<b>(ii) Wherever, there is less than one year warranty given by an OEM, Bidder must provide Warranty for remaining period upto one year.</b>					
	<b>(iii) AMC can be considered only after expiry of the Warranty period respectively and bidder must quote for AMC charges in the Price Bid Chapter 7.</b>					
9	Bid must be valid for a minimum period of <b>180 days</b> from the due date for submission of bid.					
	Bidder should have executed similar works of experience in similar work of value stated below <b>seven years</b> prior to 30.11.2018 i.e. between 01.10.2011 to 31.11.2018. - One single job costing not less than 80% of Estimated cost                      OR - Two jobs each costing not less than 60% of Estimated cost                      OR - Three jobs each costing not less than 40% of Estimated cost Copies of orders and completion certificates to be submitted evidencing the above without fail.					
10	Bidder must submit an undertaking that order executed by them, have not been carried out on back to back basis.					
11	Bidder must have an average turnover of atleast <b>Rs. 35.40 Lakhs</b> for the past Five Years. Bidder must submit only Chartered Accountant’s Certificate showing their turnover and Profit & Loss for the past 5 years i.e. for 2012-13, 2013-14, 2014-15, 2015-16, 2016-17 and must have made profit atleast for three years out of these five years. <b>IT returns and Profit and Loss statements and Balance Sheets will not be accepted.</b>	Period	Turnover	Profit	Loss	
		2012-13				
		2013-14				
		2014-15				
		2015-16				
		2016-17				
12	Successful bidder must be able to submit :- Security Deposit and Performance Guarantee as specified in the tender document					

**NOTE : KINDLY FILL UP THE ABOVE DETAILS AND ENCLOSE ALONGWITH YOUR TECHNICAL BID – PART I, OTHERWISE YOUR BID WILL BE REJECTED.**

Signature of the Bidder

Name & Designation

Company Seal

Date:

**MANUFACTURERS' AUTHORIZATION FORM**

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]*

Date:

Tender No.:

To:

WHEREAS We *[insert complete name of Manufacturer]*,.....who are official manufacturers of *[insert type of goods manufactured]*,..... having factories at *[insert full address of Manufacturer's factories]*, .....do hereby authorize *[insert complete name of Bidder]* ..... to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*,..... and to subsequently negotiate and sign the Contract. We hereby extend our warranty, with respect to the Goods offered by the above firm.

Signed:

*[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name:

*[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title:

*[insert title]*

Duly authorized to sign this Authorization on behalf of:

*[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

*[insert date of signing]*

**SCHEDULE OF EXPERIENCE SHOWING WORKS COMPLETED**

Customers (full Address)	Order No. and date	Work and location	Value of order (Rs.)	Date for completi on of work as per contract	Date of actual comple tion of work	Remarks indicating reasons for late completi on of work	Has the work been completed Satisfactory? (Attach a copy of order and completion certificates from the Centre)	Contact person Along with Telephone No., FAX No. and email address

Signature of the Bidder

Name &amp; Designation

Company Seal

Date:

**SCHEDULE OF EXPERIENCE SHOWING WORKS ON HAND**

Customers (full Address)	Order No. and date	Work and location	Value of order (Rs.)	Date for comple tion of work as per contract	Date of actual comple tion of work	Remarks indicating reasons for late completion of work	Has the Work been completed Satisfactory? (Attach a copy of order and completion certificates from the Centre)	Contact person Along with Telephone No., FAX No. and email address	% of work completed as on <b>31.05.2018</b>

Signature of the Bidder

Name &amp; Designation

Company Seal

Date:

**SCHEDULE OF DEVIATION FROM GENERAL CONDITIONS**

**1) The following are the particulars of deviations from the requirements of the tender specifications:**

CLAUSE	DEVIATION	REMARKS (INCLUDING JUSTIFICATION)

Place:

Date:

Signature and seal of the  
Manufacturer/Bidder

NOTE:

1) Where there is no deviation, the statement should be returned duly signed with an endorsement indicating “No Deviations”.



**SCHEDULE OF DEVIATION (TECHNICAL ONLY)**

**1) The following are the particulars of deviations from the requirements of the tender specifications:**

CLAUSE	DEVIATION	REMARKS (INCLUDING JUSTIFICATION)

Place:

Date:

Signature and seal of the  
Manufacturer/Bidder

**NOTE:**

1) Where there is no deviation, the statement should be returned duly signed with an endorsement indicating “No Deviations”.

**BANK GUARANTEE FORMAT FOR SECURITY DEPOSIT**

(To be submitted on appropriate value of Non Judicial stamp paper from any Scheduled Bank)

ORDER NO. \_\_\_\_\_ DTD. \_\_\_\_\_

To,  
 Centre Director  
 National Centre for Radio Astrophysics,  
 Tata Institute of Fundamental Research,  
 Pune University Campus, Ganeshkhind,  
 Pune– 411 007, Maharashtra, INDIA.

This deed of guarantee executed on the \_\_\_\_\_ day of \_\_\_\_\_ by the \_\_\_\_\_ (bank) (hereinafter referred to as "the Bank: which expression shall wherever the context so requires or admits means and includes its successors and assigns).

WHEREAS M/s. \_\_\_\_\_ having their registered office at \_\_\_\_\_ (hereinafter called "the Contractor") have conveyed to the Centre Director, NCRA/TIFR, Pune (hereinafter called "the Purchaser") acceptance of the Purchase Order / Work Order (whichever is applicable) No. \_\_\_\_\_ dtd. \_\_\_\_\_ for the \_\_\_\_\_ (hereinafter called the "Contractor").

In accordance with the terms as set out in the above quoted Purchase Order / Work Order, you have agreed to accept a bank guarantee for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) equivalent to \_\_\_\_\_ (percent) of the value of the contract in lieu of security deposit to be valid upto \_\_\_\_\_ or any extension that may be agreed to. For this purpose, you have agreed to accept our Guarantee.

In consideration thereof, we hereby (Bank), at the request of M/s. \_\_\_\_\_ irrecoverably and unconditionally undertake and guarantee to refund to the Centre Director, NCRA, TIFR, Pune on behalf of the said contractor a sum of Rs. \_\_\_\_\_ on demand and without any demure against any loss or damage that may be suffered by the Purchaser on receipt of your intimation that the M/s. \_\_\_\_\_ have for no reason failed to comply with any of the terms and conditions of the said contract, especially Item No. \_\_\_\_\_ of Annexure \_\_\_\_\_ to the Purchase Order regarding delivery schedule.

This guarantee shall be valid till (the date of completion of the work contained in the said order) as certified by you or till any extension of the date as may be agreed to by us. In the event, the guarantee shall expire 30 days after the said order is satisfactorily completed by you as conforming to the terms and conditions of the contract.

This guarantee shall not be revoked without your express consent and shall not be affected by you granting time or any other indulgence to M/s. \_\_\_\_\_ which shall include but not be limited to postponement from time to time if the exercise of any power vested in you or any right that you may have against to exercise the same in any manner at any time and either to enforce any covenant contained or implied in the said contract or any other course or remedy or security available to

you and our bank shall not be released from its obligation under this bank guarantee by your exercising any of your rights with regard to matters aforesaid or any of them or by reason of any other act or forbearance or other act of omission or commission on your part or any other indulgence shown by you or any other matter or thing whatsoever which under law would but for this provision have the effect of relieving our bank from its obligation under this guarantee.

We shall agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor by a mere demand in writing from you which shall be conclusive evidence to us that such repayment is due and payable to you under the terms of the said contract and shall be binding on us notwithstanding any other security or guarantee that you may have in relation to M/s. \_\_\_\_\_ liabilities in respect of this premises.

This guarantee shall not be affected by any change in the constitution of our bank or of the companies or for any other reason whatsoever.

Notwithstanding anything herein contained our liability under this guarantee is restricted to \_\_\_\_\_  
Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) and the guarantee will remain in force upto \_\_\_\_\_ or any extension that may be agreed to unless a demand or claim is filled against us on or before that said date of expiry viz. \_\_\_\_\_ all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liabilities hereunder.

IN WITNESS WHEREOF the undersigned being duly authorized by the Directors of the Bank has hereunto set his hand at \_\_\_\_\_ this \_\_\_\_\_ day.

SIGNATURE OF BANK OFFICIAL WITH

CODE

Bank Address :  
Name :  
Land Line No. :  
Mobile No. :  
Email address :  
Rubber Stamp :

SIGNATURE OF WITNESS:

1.

2.

**FORMAT OF BANK GUARANTEE FOR PERFORMANCE****(On Non Judicial Stamp Paper of Appropriate Value)**

(To be obtained from any Scheduled Bank by vendor on whom purchase order will be released)

To,  
 Centre Director  
 NCRA, Pune

WHEREAS ..... (Name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract no. .... dated .....to supply (description of goods and services) (herein after 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 scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW 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 limits of (amount of guarantee) as aforesaid, without your need to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you 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 be valid until the ..... day of ....., 20.....

(Signature of the authorized officer of the Bank)

Name : With Code :

Designation :

Email address :

## ANNEXURE – I

Page 1 of 1

### Format of Indemnity Bond

(to be executed on Rs. 100 Non-Judicial Stamp Paper by the successful bidder before commencement of work at site)

Work Order No. \_\_\_\_\_ Dt. \_\_\_\_\_

In consideration of National Centre for Radio Astrophysics, Tata Institute of Fundamental Research (NCRA/TIFR) having office at Pune University Campus, Ganeshkhind, Pune 411 007, hereinafter referred to as “The Institute”, which expression shall unless it be repugnant to the context or meaning thereof, include its successors and assignors having awarded to M/s. \_\_\_\_\_ having registered office at \_\_\_\_\_, a firm carrying in such name and style the business of \_\_\_\_\_ (hereinafter referred to as “The Contractor “ which expression shall unless it be repugnant to the context or meaning; thereof, include its partner(s) / proprietor(s) for the time being or its surviving partner(s) or its heirs and executors, administrators and assignees, its successors and assignors) the contract for \_\_\_\_\_ and in compliance with the terms and conditions of the said contract.

We M/s. \_\_\_\_\_ being the contractor shall save harmless and indemnify the Institute in respect of:

- a. Any expenses arising from any injury or accident or death of workers hired for this work or damage to property of any third party.
- b. Any claim made under any Act of Government or otherwise in respect of injury or damage as aforesaid.
- c. Any award of compensation or damages upon any claim as above.
- d. Any claim against the Institute by any member of the public or other third party in respect of anything, which may arise in respect of the works or in consequence thereof.
- e. Any claim which may be made upon the Institute whether under the Workman’s Compensation Act or any other statute in force during the currency of this contract or of common law in respect of any worker of the contractor/or their family member(s) or of his sub-contractor(s).
- f. Any costs, charges or expenses arising out of any claim or proceeding and in respect of any award of compensation of damages arising therefrom.

For and on behalf of M/s. \_\_\_\_\_

Date:  
S E A L  
Accepted By

for and behalf of NCRA (TIFR) Pune

**BID FORM**

*[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date:

*[insert date (as day, month and year) of Bid Submission]*

Tender No.:

*[insert number from Tender Notice]*

To:

*[insert complete name of Purchaser]*

We, the undersigned, declare that:

(a) We have read & understand the bidding document and have no reservations,

(b) We offer to execute the order in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services *[insert a brief description of the Goods and Related Services]*;

(c) Our bid shall be valid for a period of **180 days**, from the date of opening techno commercial bid (Part– I), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our bid is accepted, we agree to submit security deposit and performance guarantee as per mentioned the tender document;

Signed: *[insert signature of person whose name and capacity are shown]* In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

e) Name: *[insert complete name of person signing the Bid Submission Form]* Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

f) Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**FORMAT OF DECLARATION REGARDING AMALGAMATION / ACQUISITION**

No. ----- Date:-----

1) **Amalgamation/Acquisition**

In the event of M/s. -----proposes for amalgamation, acquisition or sale of its business to any other firm during this contract period, M/s.----- and proposed Buyer/Successor of the Principal Company are liable to execute, fulfill contractual obligations without any deviations. For this purpose M/s. -----/M/s.----- and proposed Buyer/Successor of the Principal Company shall indemnify itself to the Centre Director, National Centre for Radio Astrophysics, TIFR, Pune to fulfill the contractual obligations as per the terms of NCRA Tender and bids of M/s. -----No. ----- dated-----and National Centre for Radio Astrophysics P.O. -----dated ----- . The contractual obligations are supply, installation, commissioning, configuration, warranty maintenance/replacement of spares, accessories etc. as per the above mentioned Purchase Order.

Company Seal &amp; Phone No.:

Name &amp; Signature of Bidder :

Designation :

Date :

## ANNEXURE - L

**Page 1 of 1**

### **CA Certificate**

(ON CA's Letter Head)

- I. Financial Analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

<b>Financial Year</b>	<b>Turnover</b>	<b>Net Profit</b>	<b>Net Loss</b>
2012-13			
2013-14			
2014-15			
2015-16			
2016-17			

(i) Gross Annual turnover on construction works.

(ii) Profit/Loss.

II. Financial arrangements for carrying out the proposed work.

III. Solvency Certificate from Bankers of the bidder in the prescribed Form "B".

For \_\_\_\_\_

Chartered Accountants

Name & Signature :

Company Seal & Phone No .:

Date :



(Information to be submitted on Vendors Company Letter head)

Sub:- Bank Details for payment through Electronic Mode i.e. NEFT/RTGS

Sir,

It is requested that settlement of all our bill/s from now onwards may please be made through Electronic Mode (NEFT/RTGS). The details of My/our bank account are as under :-

1. Beneficiary	Name

2. Full Address	
-----------------	--

[illegible][illegible]

( Full Account Number to be furnished for making payment to be made through Electronic Mode)

5. Type of Account viz Saving A/C / Current A/C / Cash Credit A/C / Overdraft

6. MICR No.

Note: 1<sup>st</sup> three digit & not be zero.

*last of 3 digit of MICR No. Should*

7. Name of the Bank: .....

8. Full Address of the Bank: .....

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for any reasons, We will not hold NCRA TIFR Pune responsible and agree to discharge the responsibility expected of us as a participant under the scheme.

Yours Faithfully

Signature of authorized Officer of the company

Name

Designation

Company's seal

Date \_\_\_\_\_

**UNDERTAKING**

1. We have studied the complete tender document and accept all the terms and conditions.
2. We have studied the complete tender document and accept all the terms and conditions except those specified in **Annexure E and F**.
3. It is certified that my firm/agency/company has never been black listed by any of the Departments / Autonomous Institutions / Universities / Public Sector Undertakings of the Government of India or Government of Maharashtra or any other State Government or Public Sector Banks or Local Bodies / Municipalities and no criminal case is pending against the said firm / agency as on **date of bidding**.
4. Orders have been executed by us directly and not assigned to any third party on back to back basis.

Date	:	Signature of Bidder	:
		Name & Designation	:
Place	:	Company Name & Address	:
		Company Seal & Phone No.	:

**CHAPTER – 6****UN-PRICED BID ( FOR RUPEE QUOTE )****Page 1 of 1**

<b>YOUR GST REGISTRATION NO.</b>	
GST% on supply.  GST% applicable on installation charges	
<b>DELIVERY PERIOD</b>	
<b>ON SITE COMPREHENSIVE WARRANTY.</b>	_____ <b>YEARS</b>
Whether rates for post warranty comprehensive AMC quoted for Five years in the price bid.	<b>Yes / No</b>
Whether detailed terms and conditions of contract for comprehensive AMC submitted in technical bid.	<b>Yes / No</b>
Whether installation charges quoted separately by location wise.	<b>Yes / No</b>

Date : Signature of Bidder :

Name &amp; Designation :

Place : Company Name &amp; Address :

Company Seal &amp; Phone No. :

**PART – II - PRICE BID**  
**SCHEDULE OF WORK, QUANTITY AND RATE**  
**(To be submitted in a separate sealed Envelope)**

**Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos**

Sr. No.	Description	Specification Parameter	Qty	Rate / Set Rs.
1	Package	Full HD 1080p60 camera, codec, 2 x Microphone Array, cables, and remote control	3 Sets	
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.		
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265		
		It should support resolutions of upto 1080p60		
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.		
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps		
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better		
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.		
		Automatic Gain Control and Automatic Noise Suppression		
		Keyboard noise reduction and instant adaptation echo cancellation		
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera		
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content		
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.		
		1 x 3.5 mm Stereo line-in		
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.		
		1 x 3.5 mm stereo line-out		
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port		
		1 x RS-232 mini-DIN 8-pin or equivalent		
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.		
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.		
		It should support PAN Range of +/-90°, and Tilt of +/-20°		

Date :  
Place :

Signature of Bidder :  
Name & Designation :  
Company Name & Address :  
Company Seal & Phone No. :

PART – II - PRICE BID

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Qty	Rate / Set Rs.
1	Network Features	H.323 and SIP bandwidth up to 6 Mbps		
		IPv4 and IPv6 support from day one		
		Auto Gatekeeper Discovery		
		IP Precedence, QoS		
		H.323 based Packet Lost Recovery		
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.		
	Security	Media Encryption (H.323, SIP): AES-128, AES-256		
		Authenticated access to admin menus, web interface and telnet API		
		Local account password policy configuration		
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460		
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.		
	Display Systems			
	Description	Specification Parameter	Qty	Rate / Each
2	86" LED Display	86" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation	3 Nos	
Cable Management Systems				
3	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA	3 Nos	

Date :  
Place :

Signature of Bidder :  
Name & Designation :  
Company Name & Address :  
Company Seal & Phone No. :

PART – II - PRICE BID

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Qty	Rate / No Rs.
Switching and Control System				
4	Switching and control system	1) Ethernet type Control Processor , Extron/ Creston with minimum 3 COM, 8 IR & 8 relay ports 2)Wireless Aceess Point-D-linl /Netgear / Tp Link, 1Nos 3)Apple iPad 9.7" 32 GB--1Nos 4)Wall Docking station for IPAD- Launchport / Equivalent :1 nos 5) Power control Relay: Creston / Extron- 1 nos 6) 16 Button control button/ contact closure expansion kit : Creston/ Extron 7) All Other Equipments & Software to complete the solution	3 Nos	
Audio				
5	Digital Signal Processor	12 Channel Input and 12 Channel output Digital Signal Processor with Automatic Echo Cancellation, Gain Control, Programmable audio presets for both audio in VC as well as local audio reinforcement.	3 Nos	
	Lapel Microphones	Wearable lapel microphones- 1)Omni Directional Audio Pickup 2)Signal to noise ratio >103dBA 3)Frequency range- A: 548-572 MHz, GB: 606-630 MHz, B: 614-638 MHz, C: 766-790 MHz, D: 794-806 MHz, E: 821-832 MHz, 863-865 MHz, K: 925-937.5 MHz	6 Nos	
	Handheld Microphones	Wireless Handheld microphones- 1) Condenser type microphone. 2)Signal to noise ratio >103dBA 3)Frequence range- A: 548-572 MHz GB: 606-630 MHz B: 614-638 MHz C: 766-790 MHz D: 794-806 MHz E: 821-832 MHz, 863-865 MHz K: 925-937.5 MHz 4)Frequency- 8 frequency banks, each with up to 12 factory-preset channels	12 Nos	
	Audio Power Amplifier	Minimum 150 watts per channel, Multi Channel, Class D, Power Audio Amplifier	6 Nos	
	On Wall Speakers	1)2 way, 4.5" woofer, 1" aluminum tweeter bookshelf/surround loudspeakers 2)4.5" (114mm) Polycellulose Low-Frequency Woofer 3)New High Definition Imaging (HDI) Waveguide 4)1” (25mm) Aluminum Dome Tweeter 5)Frequency Response60Hz – 40kHz 6)Sensitivity86dB @ 1M, 2.83V 7)Nominal Impedance6 Ohms 8)Crossover Frequencies3.2kHz 9)Enclosure TypeBass-Reflex via Rear-Firing Tuned Port	12 Nos	

Date :Signature of Bidder :  
Name & Designation :  
Place :Company Name & Address :  
Company Seal & Phone No. :

PART – II - PRICE BID

Category A – VC System with Hardware Recording and Streaming at NCRA Auditorium, NCRA Lecture Hall & GMRT MP Building – 3 Nos

Sr. No.	Description	Specification Parameter	Qty	Rate / No. Rs.
Recording and Streaming				
6	Recording and Streaming	1)Should process two high resolution AV sources from up to five available input signals — Size and position two AV source signals in layouts that maximize the viewing experience. 2) Should Record and stream simultaneously — Document presentations, video conference streaming, or extend live media to overflow destinations without the need for a computer or additional equipment. 3)High quality scaling with flexible two-window management — Display one or two high resolution sources in various window arrangements, including picture-in-picture and picture-by-picture arrangements for optimal interpretation. 4) Stream concurrently at two resolutions and bit rates from the same source — High resolutions and high bit rates deliver superior quality images for overflow applications, and lower bit rates and resolutions are more efficient for streaming distribution and confidence viewing applications. 5) Should support RTMP streaming protocol for third party hosting services — RTMP push streaming with stream name or key, and user authentication for services like YouTube Live, Wowza Streaming Cloud, Facebook Live, Ustream, and more. 6)HDMI, component, composite, and optional 3G-SDI input — Provides compatibility with common AV signal formats at resolutions up to 1920x1200 including 1080p/60. The SMP 351 3G-SDI model offers an additional 3G-SDI input connection. 7)Should be easy to configure and operate from the front panel or external control system — Ensure that presentations will be recorded and streamed, and valuable information will be documented and reproduced. 8) Should support the latest SMBv2 and SMBv3 protocols for secure file sharing in Windows environments 9)RS-232, Ethernet, and digital I/O control ports — Interface with control systems, sensors, or external devices used in the AV presentation environment. 10)Standards-based H.264 / MPEG-4 AVC video compression — Should support use of the Baseline, Main, or High Profiles at Levels 4.x, or 3.x providing the ability to optimize video coding for use with various types of applications and decoding devices.	3 Nos	
Cables and Connectors				Rate / Set Rs.
7	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution	3 Sets	
Implementation				Lump sum / No. Rs.
8		Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training	3 Nos	

\*\* Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator

Date

:

Signature of Bidder

:

Name & Designation

:

Place

:

Company Name & Address

:

Company Seal & Phone No.

:

## PART – II - PRICE BID

**Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos**

Sr. No.	Description	Specification Parameter	Qty	Rate / Set Rs.
1	Package	Full HD 1080p60 camera, codec, 2x Microphone Array, cables, and remote control	2 Sets	
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.		
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265		
		It should support resolutions of upto 1080p60		
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.		
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps		
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better		
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.		
		Automatic Gain Control and Automatic Noise Suppression		
		Keyboard noise reduction and instant adaptation echo cancellation		
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera		
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content		
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.		
		1 x 3.5 mm Stereo line-in		
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.		
		1 x 3.5 mm stereo line-out		
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port		
		1 x RS-232 mini-DIN 8-pin or equivalent		
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.		
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.		
		It should support PAN Range of +/-90°, and Tilt of +/-20°		

Date : Signature of Bidder :  
Name & Designation :  
Place : Company Name & Address :  
Company Seal & Phone No. :



PART – II - PRICE BID

Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos

Sr. No.	Description	Specification Parameter	Qty	
	Network Features	H.323 and SIP bandwidth up to 6 Mbps		
		IPv4 and IPv6 support from day one		
		Auto Gatekeeper Discovery		
		IP Precedence, QoS		
		H.323 based Packet Lost Recovery		
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.		
	Security	Media Encryption (H.323, SIP): AES-128, AES-256		
		Authenticated access to admin menus, web interface and telnet API		
		Local account password policy configuration		
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460		
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.		
Display Systems				Rate / No. Rs.
2	55"/65" LED Display	55"/65" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation with wall mount kit	4 Nos	
Annotation System				
3	Annotation System	1)24-inch LCD panel offers a large, comfortable surface and a wide viewing angle for excellent performance 2)2048 levels of pen pressure for precise drawing, writing, and annotating, plus enhanced biometric signature capturing 3)DVI video in/out for support of both analog and digital connections 4)Adjustable stand to support multiple angles to fit any working environment 5)Native Resolution 1920 x 1080 pixels 6)Aspect Ratio 16:9 7)Multi-touch 8)Brightness 210 cd/m² 9)Contrast Ratio 1000:1 10)Viewing Angle H: 178° (89°/89°), V: 178° (89°/89°) 11)User USB Ports 1 12) Pen Pressure Levels 2048	2 Nos	

Date :Signature of Bidder :

Name & Designation :

Place :Company Name & Address :

Company Seal & Phone No. :

PART – II - PRICE BID

Category B – VC System with Annotation facility at NCRA Board Room, GMRT Conference Room and RAC Conference Room – 3 Nos

Sr. No.	Description	Specification Parameter	Qty	Rate/ No. Rs.
Cable Management Systems				
4	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA	4 Nos	
Switching and Control System				
5	Switching and control system	1)Switching System: - HDCP Compliant full HD 4x4 HDMI Matrix switcher -1 Nos 2) Signal Up scaler: 1 VGA/Audio to HDMI up scalar- 1 Nos 3) Ethernet type Control Processor , Extron/ Creston with minimum 3 COM, 8 IR & 8 relay ports with Apple iPad touch panel and docking station 4)8 Button control button/ contact closure expansion kit 5) All Other Equipments & Software to complete the solution <b>Key Functionalities required:</b> 1) Total Inputs required are 1 HDMI source inputs, 1 HDMI for wireless presentation device + 1 VGA source inputs 2)Presentation sharing from any source at simple push of a button in-built in Cable Cubbyhole Both in Local meetings and VC 3) Automatic shut down and start	2 Nos	
Audio				
6	Audio Power Amplifier	150 watts per channel, 4 Channel, Class D, Power Audio Amplifier	2 Nos	
7	On Wall Speakers	3” woofer with woven fiberglass cone 50 Watt power handling (100 Watt program) High fidelity sound character with broad frequency response of 70 Hz – 20 kHz Frequency Range (-10 dB) 70 Hz to 20 kHz Frequency Response (+/-3 dB) 95 Hz - 19 kHz Power Rating2 100W Continuous Program (2 hrs) Maximum Input Voltage: 17.2 V RMS (2 hrs), 34.4 V peak Maximum SPL3 103 dB ave. Continuous Pink Noise (109 dB peak) Sensitivity4 86 dB, 1W/1m (ave. 100 Hz – 10 kHz)	2 Nos.	
Cables and Connectors				Rate / Set Rs.
8	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution	1 Set	
Implementation				Lump sum / No. Rs.
9	Implementation	Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training	2 Nos	
** Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator				

Date :Signature of Bidder :

Place :Name & Designation :

Company Name & Address :

Company Seal & Phone No. :

PART – II - PRICE BID

Category C – Basic / Simple VC System at GMRT canteen Annexe – 1 No

Sr. No.	Description	Specification Parameter	Qty	Rate / Set Rs.
1	Package	Full HD 1080p60 camera, codec, Microphone Array, cables, and remote control	1 Set	
	Video Standards and Resolutions	It should support H.323, SIP standards for communications.		
		It should support H.264. it should also support latest protocol like H.264 High Profile/H.265		
		It should support resolutions of upto 1080p60		
	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP.It should also support audio from PC used for content sharing.		
		It should transmit both video and content (slides) simultaneously to the far end location at 1080p 30fps		
	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better		
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.		
		Automatic Gain Control and Automatic Noise Suppression		
		Keyboard noise reduction and instant adaptation echo cancellation		
	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera		
		1 x HDMI and 1 x VGA input port for connecting PC/Laptop to share HD content		
		1 x Microphone Input. The codec should support upto 4 mics without using external DSP. 2 mics should be supplied on day one.		
		1 x 3.5 mm Stereo line-in		
	Video and Audio Outputs	2 x HDMI output for connecting main monitor & second monitor.		
		1 x 3.5 mm stereo line-out		
	Other Interfaces	1 x 10/100/1000 Mbps Ethernet LAN port		
		1 x RS-232 mini-DIN 8-pin or equivalent		
	Camera	It should support 1080p60fps with 10x optical zoom. It should support 250 degree Total FOV or more.		
		It should be possible to upgrade the solution to support Group or speaker tracking in future without changing the codec and camera. The tracking feature solution should work in such a way that it continually scan the room and seamlessly command the movable camera to pan, tilt, and zoom, appropriately bring the users in the frame. The solution should be from the same OEM of camera and codec.		
		It should support PAN Range of +/-90°, and Tilt of +/-20°		

Date :Signature of Bidder :  
Name & Designation :  
Place :Company Name & Address :  
Company Seal & Phone No. :

PART – II - PRICE BID

Category C – Basic / Simple VC System at GMRT canteen Annexe – 1 No

Sr. No.	Description	Specification Parameter	Qty	
	Network Features	H.323 and SIP bandwidth up to 6 Mbps		
		IPv4 and IPv6 support from day one		
		Auto Gatekeeper Discovery		
		IP Precedence, QoS		
		H.323 based Packet Lost Recovery		
	Multisite Feature	Future MP license upgrade capability: It should support atleast 6 sites(1+5) at 720p so that locally multisite call can be hosted without depending on bridge resources. It should support upgrade of additional MP licenses in future.		
	Security	Media Encryption (H.323, SIP): AES-128, AES-256		
		Authenticated access to admin menus, web interface and telnet API		
		Local account password policy configuration		
	Other Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460		
		It should be possible to integrate the VC endpoint with SfB online or on permanently by adding a license in future without changing codec. Either inbuilt or on premise gateway solution can be proposed for the same. Necessary gateway or license should be provided on day one.		
Display Systems				
	Description	Specification Parameter	Qty	Rate / Set / No. Rs.
2	55" LED Display	55" Full HD LED Display with 350 Cd/m2, HDMI x 2, DVI x 1, VGA x 1, RS232 x 1, Video IN x 1, RJ45 LAN x 1, Audio IN x 1, Audio Out x 1, 20W in built speakers, USB Media player, landscape/portrait installation, Slim bezel, multi screen, HDMI/DVI Power management, 16 hours/day operation with Wall mount kit included	2	
Cable Management Systems				
3	Cable Management Box	Cable Management Box with 2 nos In-built content push/switching Buttons / With 2 Universal Power sockets / 1 or 2 USB Female Charging sockets, 4-6 holes with grommets for cable pass through for AV cables such as LAN /HDMI / VGA / DP Following Configuration for active sources in each Cable Cubbyhole with in-built Push button 1st Cable Cubbyhole: Wireless / 1HDMI, 2nd & 3rd Cable Cubbyhole: 1 HDMI/ 1 DP Respectively 4 <sup>th</sup> Cable Cubbyhole: 1 HDMI/ 1VGA	1	

Date :Signature of Bidder :  
Name & Designation :  
Place :Company Name & Address :  
Company Seal & Phone No. :

PART – II - PRICE BID

Category C – Basic / Simple VC System at GMRT canteen Annexe – 1 No

Sr. No.	Description	Specification Parameter	Qty	Rate / Set / No. Rs.
Audio				
4	Audio Power Amplifier	Minimum 150 watts per channel, Multi Channel, Class D, Power Audio Amplifier	1	
	On Wall Speakers	3” woofer with woven fiberglass cone 50 Watt power handling (100 Watt program) High fidelity sound character with broad frequency response of 70 Hz – 20 kHz Frequency Range (-10 dB) 70 Hz to 20 kHz Frequency Response (+/-3 dB) 95 Hz - 19 kHz Power Rating2 100W Continuous Program (2 hrs) Maximum Input Voltage: 17.2 V RMS (2 hrs), 34.4 V peak Maximum SPL3 103 dB ave. Continuous Pink Noise (109 dB peak) Sensitivity4 86 dB, 1W/1m (ave. 100 Hz – 10 kHz)	2	
Cables and Connectors				Rate / Set Rs.
5	Cables and Connectors for Room	Full set of required HDMI / VGA / Audio / Control / Speaker bulk & patch Cables & Connectors to complete the solution	1 Set	
Implementation				Lump sump Rs.
6	Implementation	Design, Project Management, Implementation, Programming, Execution, Testing and handover with Training	1	

\*\* Civil work/ raceway cutting/ conduits, etc will be provided by NCRA on basis of drawings shared by integrator

Date :  
Place :

Signature of Bidder :  
Name & Designation :  
Company Name & Address :  
Company Seal & Phone No. :

## PART – II - PRICE BID

After the Stipulated warranty given by the OEM for each item, the AMC charges is quoted as under:-

Sr. No.	Rate for	Description	Amount / Charges Rs.	Services Covered
1	AMC for One Year at a time	Non Comprehensive - on Site		
		Comprehensive - on site		
2	If AMC placed for Two Years together	Non Comprehensive - on Site		
		Comprehensive - on site		
3	If AMC placed for Three Years together	Non Comprehensive - on Site		
		Comprehensive - on site		
4	If AMC placed for Four Years together	Non Comprehensive - on Site		
		Comprehensive - on site		
5	If AMC placed for Five Years together	Non Comprehensive - on Site		
		Comprehensive - on site		

Date : Signature of Bidder :

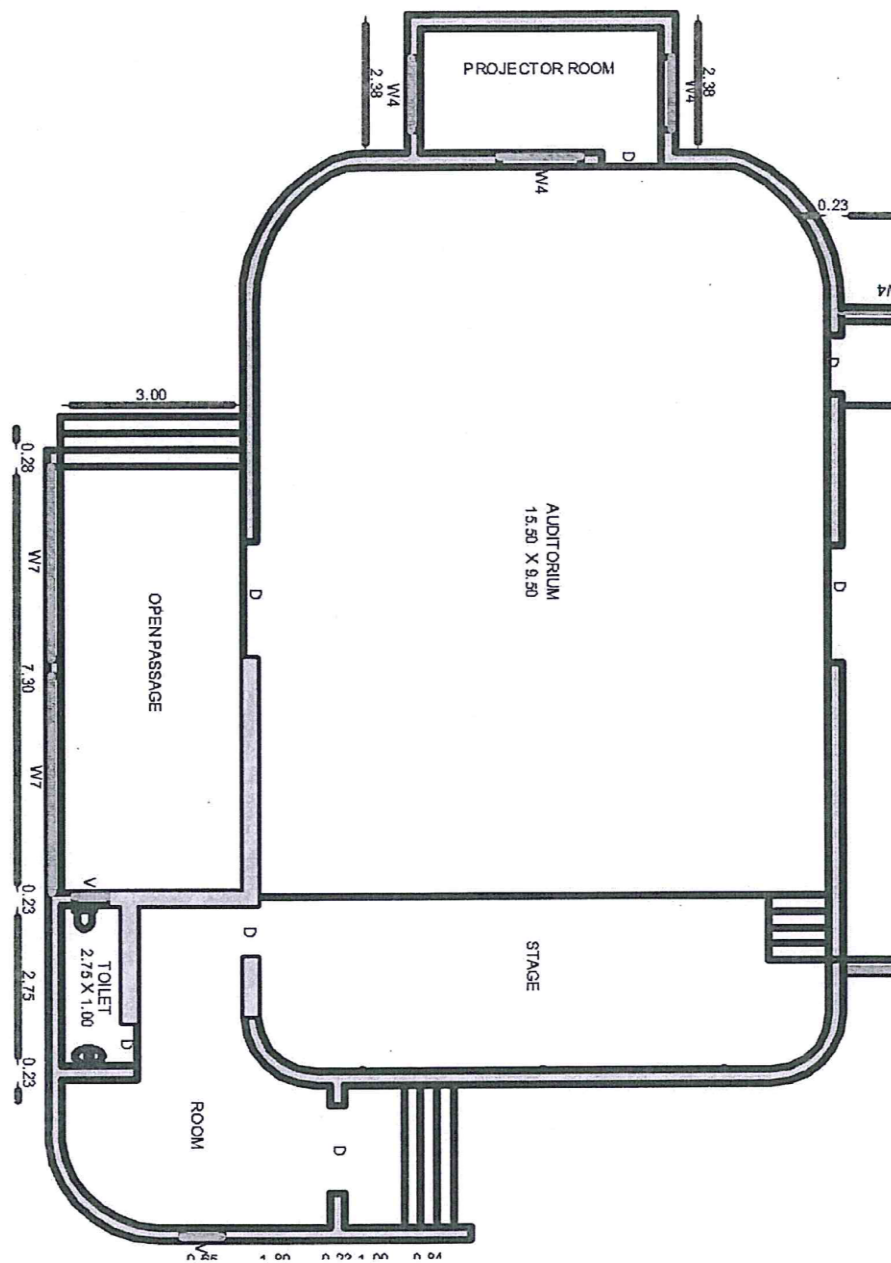
Name & Designation :

Place : Company Name & Address :

Company Seal & Phone No. :

Architectural floor plan of a Lecture Hall. The hall is rectangular with dimensions 10.05 x 7.89. It features a stage area at the bottom with two rooms labeled R. NO -214 and R. NO -213. The plan includes various wall thicknesses (0.23, 0.17, 0.28), door openings (D), and window openings (W6, W7). A total width dimension of 15.20 is shown on the left side.

79

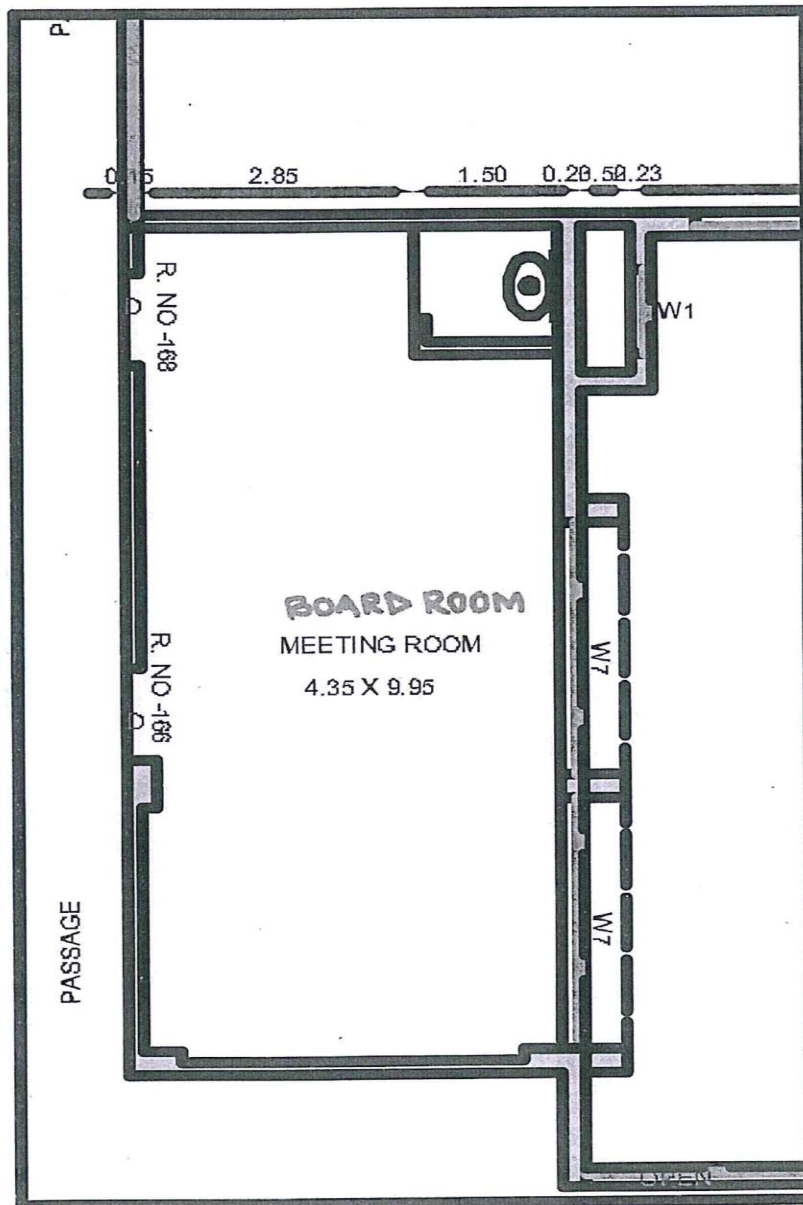


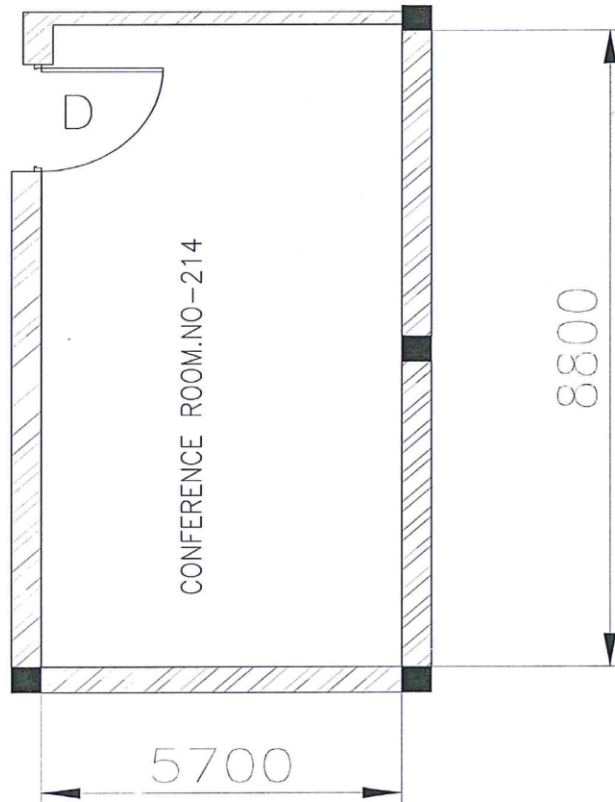
AUDITORIUM

NCRA-PONE.



NCRA - PUNE

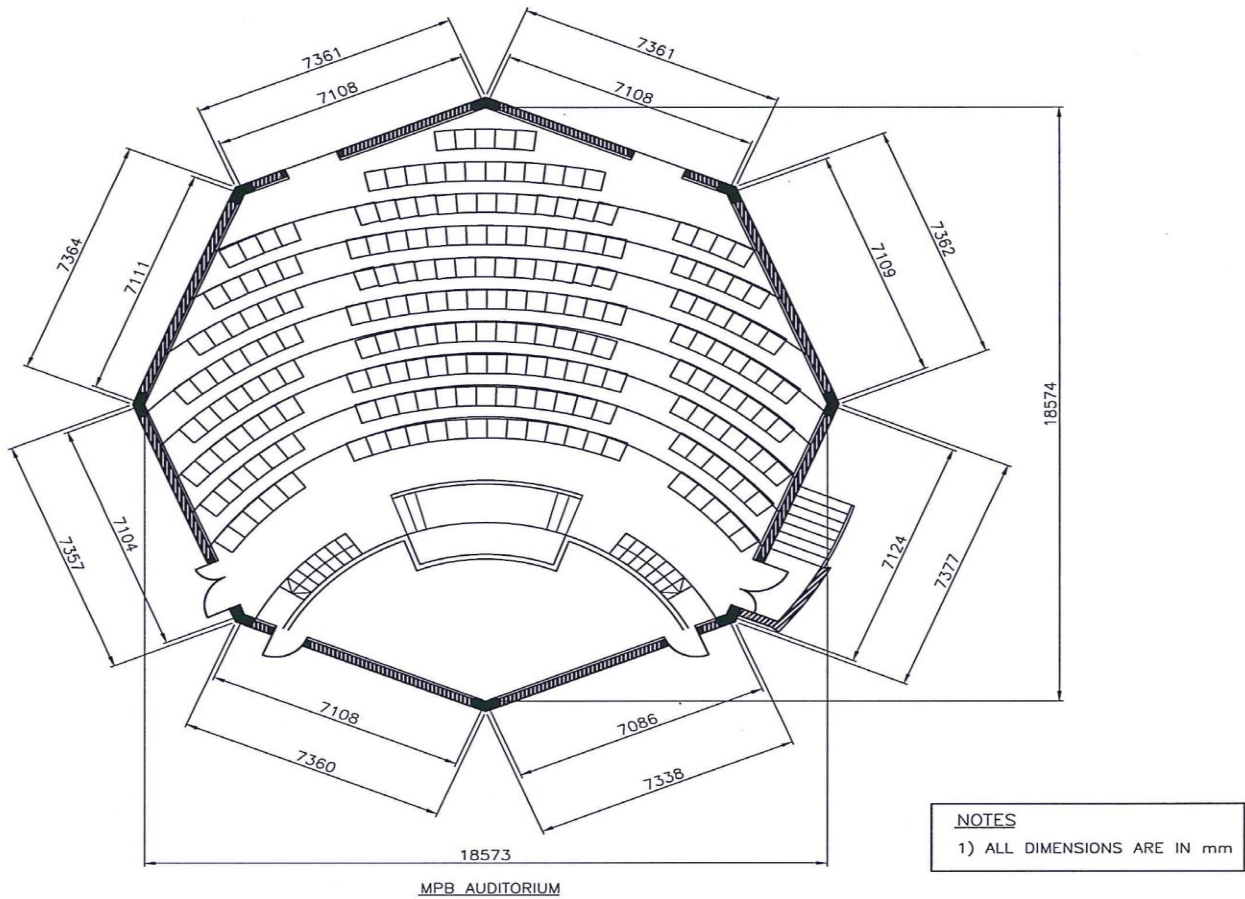


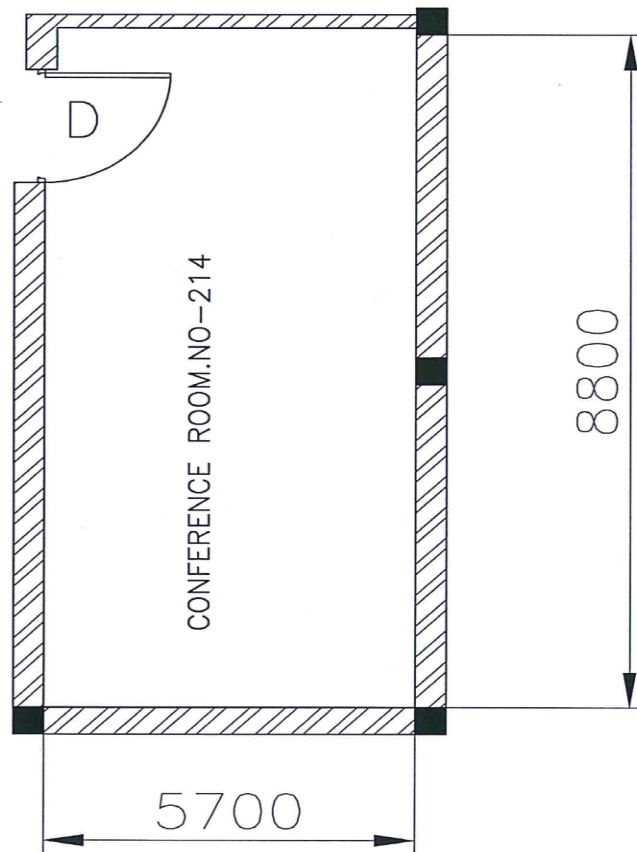


## GMRT CONFERENCE ROOM

### NOTES

- 1) ALL DIMENSIONS ARE IN mm

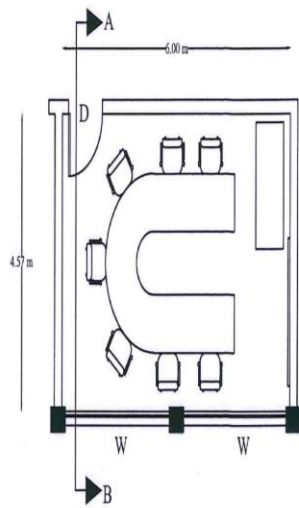




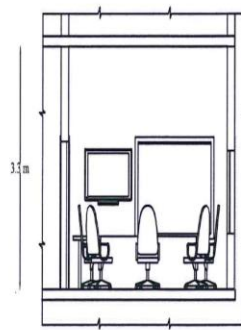
## GMRT CONFERENCE ROOM

### NOTES

- 1) ALL DIMENSIONS ARE IN mm



Floor Plan of Conference Room



Sectional View of Conference Room

Description		
S.No	Description of items	Dimensions
1	Door - D	1.2 m x 2.1 m
2	Window - W	2.8 m x 1.2 m
3	Column	0.3 m x 0.45 m



NCRA - TIFR

Radio Astronomy Centre

Name of the drawing:

Plan and Sectional View of  
Conference Room

Location: RAC Campus

Drawn by: R.Vinothkanna

Checked by: K.Raja

Date: 08/10/2018