



**MANOHAR PARRIKAR INSTITUTE FOR
DEFENCE STUDIES AND ANALYSES**
मनोहर पर्रिकर रक्षा अध्ययन एवं विश्लेषण संस्थान

Upgradation/Installation of Audio-Visual System in Seminar Hall-1 and Room 005 at Manohar Parrikar Institute for Defence Studies and Analyses

Item	Upgradation/Installation of Seminar Hall-1 and Room 005 at Institute's Main Office Building, New Delhi-110010
e-Tender no
Mode Of Tender	Through Government e- marketing system (Gem) (Online Part I - Techno-Commercial Bid and Part II - Price Bid)
Date of NIT available to parties to Download	From 10:00 AM of 28 th December, 2022
Tender Fees	Rs – Nil
Pre-Bid meeting	11:00 AM on 12 th January, 2023
Earnest Money Deposit (EMD)	Rs. 1,10,000/- by D.D.in favour of Manohar Parrikar Institute for Defence Studies and Analyses, payable at New Delhi -110010
Last date of submission of EMD	Till 2:00 PM on 20 th January, 2023
Date of Starting of e-Tender for submission of on line Techno- Commercial Bid and price Bid at GEM	10:00 AM of 28 th December 2022
Date of closing of online e-tender for submission of Techno-Commercial Bid &Price Bid	2:00 PM of 20 th January, 2023
Date & time of opening of Part-I(i.e. Techno-Commercial Bid) Part-II Price Bid: Date of opening of Part-II i.e. price bid shall be informed separately	3:00 PM of 20 th January, 2023

*** Tenderers desirous of attending pre - bid meeting should inform or send queries by 11:00 AM on 11th January, 2023 to webmaster.idsa@nic.in

Name of the work: Upgradation/Installation of Audio-Visual System in Seminar Hall-1 and Room 005,
Main Office Building, New Delhi-110010

PART-I

Name of the Tenderer: _____

Address: _____

Date of Pre-Bid Meeting: 11:00 AM on 12th January, 2023

Last Date of Submission: 2:00 PM on 20th January, 2023

Date & Time of Opening of Part-1 on 3:00 PM of 20th January, 2023

Notice inviting e-Tender

Upgradation/Installation of Audio-Visual System in Seminar Hall-1 and Room 005 at Institute's Main Office Building, New Delhi through GEM – E-tender

1. Online Tenders by E-Tendering (GEM) process are invited for above work at Main Office Building, MP-IDSA. The work is estimated to cost Rs.55.00 Lakhs excluding of GST as per general market survey and is to be completed within 45 days from the date of work order.
2. All the Pre-Qualification papers shall be uploaded on GEM site. Same will be downloaded after bid opening date for examination by the Institute. One Set of hard copy (along with EMD) to be submitted in tender box kept at reception

The Earnest Money Deposit (EMD) in the form of DD/Irrevocable Bank Guarantee/proof paid by NEFT shall be submitted in sealed cover addressed by name to MP-IDSA, Shankar Vihar, Delhi Cantt-110010 so as to reach up to 2:00 PM of 20th January, 2023 **superscripted as "EMD for Upgradation/Installation of Sem Hall 1 and Room 005 at MP-IDSA Main Office Building, Delhi Cantt, New Delhi-110010.**

3. Online tenders will be allowed to view/download from 10:00AM of 28th December, 2022. The firms which do not comply with the following pre-qualification criteria and do not submit EMD, will not be considered for opening of their tender Part-II

Pre-Qualification Requirement for General Contractor

- i. The intending tenderer must have successfully completed having minimum 03 years of experience in carrying out Audio-Visual Conferencing System Upgradation/Installation/Renovation of works for Government Organisations/Autonomous Institutions or Reputed private organisations. The similar work* should have been completed on or before September 30, 2022.
- ii. The intending tenderer must and have executed successfully similar works*, during last 3 years ending on March 31, 2022 as under:
 - (a) Three works each costing not less than the amount equal to 40% of the estimated cost
OR
 - (b) Two works each costing not less than the amount equal to 50% of the estimated cost
OR
 - (c) One work costing not less than the amount equal to 80% of the estimated cost.
- iii. Minimum yearly Average turnover of 100% of the estimated cost during last 03 Financial Years supported by audited financial statements.
- iv. Should have service setup at the place of proposed work in Delhi-NCR for rendering after sales service (The Proof of Service setup such as Electricity bill/Telephone bill/ Rent Agreement .etc. along with authorization letter (if applicable) is to be enclosed) in Part- I of the tender).

Pre-Qualification Requirement for MSME Bidders

- (i) The intending tenderer have successfully completed having minimum 03 years of experience in carrying out Audio-Visual Conferencing System Upgradation/Installation/Renovation works for office buildings/commercial premises. The similar work* should have been completed on or before September 30, 2022.
- (ii) The intending tenderer must and have executed successfully similar works*, during last three years ending on March 31, 2022 as under:
 - a) Three works each costing not less than the amount equal to 25% of the estimated cost
OR
 - b) Two works each costing not less than the amount equal to 40% of the estimated cost
OR
 - c) One work costing not less than the amount equal to 60% of the estimated cost
- (iii) Minimum yearly Average turnover of 85% of the estimated cost during last 3 financial years supported by audited financial statements.
- (IV) Should have service setup at the place of proposed work in Delhi-NCR for rendering after sales service (The Proof of Service setup such as Electricity bill/Telephone bill/ Rent Agreement .etc. along with authorization letter (if applicable) is to be enclosed) in Part- I of the tender).
- (V) MSME Bidders are exempted to deposit EMD, in case the bidders is registered within relevant category.
- (VI) *Similar Works means - Hybrid Audio-Visual Conferencing System Upgradation/ Installation of Audio-Visual System at reputed places, Govt. organization/Autonomous bodies and reputed Private organizations.

Note: For Private Sectors- the Verification shall be done by TDS Certificates

General Information

- (i) The contractors shall upload the following information/documents on GEM site to satisfy the Institute about their eligibility. One Hard Copy along with EMD to be deposited in Tender Box before the last date of tender submission.

(a)	Composition of the firm	Full particulars (whether contractor is an individual, or a partnership firm, or a company etc..) of the composition of the firm of contractors in details should be submitted along with name(s) and address (es), of the partner's copy of the Articles of Association/ Power of Attorney/other relevant document.
(b)	Work experience & Completion of similar works of specified value during the specified period	Copies of the detailed work orders for the qualifying works indicating date of award, value of awarded work, time given for completing the work, etc. and the corresponding completion certificates indicating actual date of completion and actual value of executed similar works should be enclosed in proof of the work experience. The details along with documentary evidence of previous experience, if any, of carrying out works for the autonomous bodies/Govt. Department at any place should also be given.
(c)	Turnover	Audited financial statements for last three financial years i.e. 2019-20, 2020-21 and 2021-22 along with a certificate of Chartered Accountant indicating the turnover for these financial years. In case Audited balance sheet of 2021-22 is not available then preceding 3 years shall be considered.
(d)	Name(s) and address(es) of the Bankers.	Written Information about the names and addresses of their bankers along with full details, like names, postal addresses, e-mail IDs, telephone (landline and mobile) nos., fax nos., etc.
(e)	Details of bank accounts	Full particulars of their bank accounts, like accountno. type, when opened etc., should be given.
(f)	Name(s) and address(es) of the Clients and their present contact executives	Written information about the names and addresses of their clients along with full details, like names, postal addresses, e-mail IDs, telephone (landline and mobile) nos., fax nos. etc., of the contact executives (i.e. the persons who can be contacted at the office of their clients by the Institute in case it is so needed) should be furnished.
(g)	Details of completed works	The client-wise names of work(s), year(s) of execution of work (s), awarded and actual cost (s) of executed work (s), completion time stipulated in the contract (s) and actual time taken to complete the work (s), Name(s) and full contact-details of the officers/authorities/departments under whom the work(s) was/were executed should be furnished.
(h)	Details of Service setup	Address and contact details of the service set up at the place of proposed work or nearby metro for Rendering after sales service.

- (ii) **In the event of intending tenderer's failure to satisfy the** Institute with the required document, the Institute reserves the right to refuse to participate in tendering process.
- (iii) The duly filled in tender documents shall be uploaded on GEM site till 2:00 PM of 20th January, 2023 in addition to deposit hard copy and EMD in tender box kept at reception.
- (iv) EMD of INR 1,10,000.00 (Rupees One Lakh Ten Thousand only) in the form of Demand Draft favoring MP-IDSA as per details in schedule of tender or an irrevocable Bank Guarantee issued by a scheduled Bank .MSME bidders are exempted to deposit EMD subject to enlisted in relevant category.
- (v) Tenderers shall submit all the information and the documents as mentioned above. After examination, if any of the tenderer is not found to possess the required eligibility, their tenders will not be accepted by the Institute for further processing.
- (vi) Part-I of the tenders will be opened online at 3:00 PM of 20th January, 2023 in the presence of the authorized representative of the tenderers who choose to be present. Part-II (Price bid) shall be opened of the eligible tenderer on a subsequent date which will be intimated to the tenderers in advance.
- (vii) The applicants/tenderers have to submit/upload:-
 - a. **Client's certificate from their clients for whom they** have carried out "eligible works" in terms of the eligibility (Pre-qualification) criteria explained in this notice.
 - b. TDS certificates in case of Private Organizations.

The client's certificate shall be accepted only when the same is signed by an official of the rank of Executive engineer/Superintendent Engineer or equivalent in respect of a Government/Semi Government organization or a PSU and only when they are supported by adequate proof of payment received by the contractor for the work done by him. The client's certificate issued by the private organizations shall also accompany Tax Deducted at Source (TDS) certificates. Applications/tenders uploaded without the above certificates may be rejected. MP-IDSA shall have the right to independently verify these certificates.

The Institute shall evaluate the said reports before opening of price bid of the tenders. If any tenderer is not found to possess the required eligibility for participating in the tendering process at any point of time and/or his performance reports received from his clients and are found unsatisfactory, the Institute reserves the right to reject his offer even after opening of Part-I of the tender. The Institute is not bound to assign any reason for doing so.
- (viii) The Institute is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The Institute also reserves the right to reject all the tenders without assigning any reason there for.

Date:
Place:

Webmaster/System Administrator

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Section I

FORM OF TENDERS

To
The Webmaster/System Administrator
Manohar Parrikar Institute for Defence Studies and Analyses,
Shankar Vihar, Delhi Cantt
New Delhi - 110010.

Dear Sir,

1. We have examined specifications, designs and schedule of quotation relating to the works specified in the memorandum herein after having visited and examined the site of the works specified in the said memorandum and in accordance in all respects with the specifications, designs and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special Conditions, Schedule of Quantities and Condition of Contract and with such materials as are provided for by and in all other respects in accordance with such condition of contract and with such materials as are provided with such conditions so far as they may be applicable.

MEMORANDUM

(a)	Description of the works	Upgradation/Installation of Seminar Hall-1 and Room 005 at Institute's Main Office Building, Shankar Vihar, Delhi Cantt-110010
(b)	Estimated Cost	Rs.55.00 lakhs Excl. of GST
(c)	Mode of payment	As per Clause 27 of Section-III in General Instruction to Contractors
(d)	Earnest Money Deposit (EMD)	Rs.1,10,000/-
(e)	Bank Guarantee/FDR	(03% of contract value) valid for 15 months
(f)	Time allowed for completion of work	45 days (One and half months) from the date of award of the work order.

2. We also agree that our tender will remain valid for acceptance by Institute for 90 days from the date of opening of Part -1 of the tender and this period of validity can be extended for such period as may be mutually agreed between the Institute and us in writing. We also agree to keep the Bank Guarantee towards earnest money valid during the entire period of validity of tender.
3. If this tender is accepted, I/we hereby agree to abide by and fulfil the terms and provision of the said conditions of Contract annexed hereto, so far as they may be applicable, or in default thereof to forfeit and pay to the MP-IDSA the amount mentioned in the said conditions.
4. I/We understand that you reserve the right to accept or reject any or all the tender either in full or in part without assigning any reason therefore.
5. The tender is submitted in two parts. Part I contains all commercial terms and conditions and technical particulars and Part II contains only the price bid.

We are enclosing a list of our clients with complete details as given in the details of tenderers.

For and on behalf of M/s. _____
(Signature with seal)

Name _____
Designation _____
Place _____
Date _____

(Certified true copy of the Power of Attorney of the above signatory should be enclosed).

Witnesses

(1) Signature with name, address and date _____

(2) Signature with name, address and date _____

Details of Tenderers

A. Particulars of Firm

Sr. No.	Particulars	To be filled by Tenderer
1.	Whether Original Equipment Manufacturer	
	Or Authorized Dealer / subsidiary of foreign company (Please submit the certificate of authority)	Indicate Yes/No for certificate of authority)
2.	Composition of the firm (Whether partnership / proprietorship /Public Ltd.)	
3.	Names of the proprietor/ partners / Directors of the firm	
4.	GST Number	
5.	Address of the Firm	
	Telephone	
	Email	
	Fax	

B. The details of bankers are as below:

Sr. No.	Particulars (submit the crossed cancelled cheque)	To be filled by tenderer
1	Name of the Bank	
2	Branch Address	
3	Telephone and fax number	
4	Name of the contact person	
5	Credit facility / overdraft facility enjoyed by firm from the Bank	
6	The period from which the firm has been banking with Bank	

C. Pre-qualification Criteria :

Following are our Clients for whom we have executed "eligible" works during last 03 years as per the eligibility criteria (Please submit the documentary evidence in support of)

Sr. No.	Details	Client (1)	Client (2)	Client (3)
1	Name of the Client Organization / Firm:			
	Address :			
	Name of the Contact Person:			
	His/her Mobile No. :			
	His/her Fax No.:			
	His/her Telephone No/s.:			
	His/her e-mail ID:			
2	Name of the "eligible" work with brief particulars			
3	Work order No. and date			
4	Cost of the "eligible" work as per work order / letter of award:			
5	Date of commencement			
6	Stipulated date of completion			
7	Actual date of completion			
8	Amount of compensation levied by the client for delayed completion, if any:			
9	Gross value of the work completed and paid for :			

Sr. No.	Details	Client (1)	Client (2)	Client (3)
10	Whether the tenderer has been engaged by the Client for maintenance under Annual Maintenance Contract (AMC) of the commissioned system (please state Yes or No)			

D. Please also provide following details with supporting documents as per pre-qualification criteria:

1	Work experience in years (please submit work order of any amount at least 03 years from the date of publish of this tender)	
2	Turnover of the firm for the last 03 years (year wise) and submit the documentary evidence in support of the same duly certified by Chartered Accountant	
	(a) 2021-22	
	(b) 2020-21	
	(c) 2019-20	

E. Service set up details in Delhi/NCR

Note : All the details must be filled in the tender documents only. No separate annexure will be accepted. Only Submit documents in support of details filled above.

Signature of Tenderer with stamp/Date

Section-II

GENERAL INSTRUCTIONS TO CONTRACTORS AND SPECIAL CONDITIONS

(Including Annexed ATC)

1. (GEM Tender) E- Tenders in two parts are invited for said work from eligible contractors, only those tenderers who qualify as above will be eligible to tender for the work. A tender submitted by a firm which is found to be not satisfying any of the Pre-qualification criteria will be liable for rejection.
2. The tender for the above work is in two parts i.e. Part-I containing technical specifications of equipment, and the terms and conditions (Rates and amounts of items shall not appear anywhere in this part) and Part-II containing only rates of items.
3. Following Scan signed document need to be uploaded on GEM site on relevant tender.
 1. Signed copy of Part I of the tender.
 2. Eligible criteria documents (Work order copy, TDS certificate, Turnover details, Client certificate, OEM or OEM authorization certificate/**Manufacturers' authorization certificate** if any)
 - (a) Each of the tender documents should be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with the General Conditions of Contract, Specifications, Special Conditions etc. as laid down. Any tender with any of the documents not signed will be rejected.
 - (b) The Tender submitted on behalf of a firm/company and shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract, otherwise the tender may be rejected by the bank.
4. Clarifications:
 - (a) If firms are required to clarify any point/clause of the tender, they may email to the officers as mentioned at important information at Section I.

Earnest Money Deposit (EMD) To Be Submitted By The Tenderers

5. Intending tenderers shall pay as earnest money the sum of INR 1,10,000/- by demand draft drawn on any of the scheduled Bank in favour of the MP-IDSA, New Delhi. Tender without EMD will not be accepted. The earnest money will be returned to the tenderer if his tender is not accepted but without any interest. The earnest money of successful tenderer will be returned after completion of the work.
6. Earnest Money deposit of the bidders under Category of MSEs are exempted.
EMD shall be forfeited if the Bidder:
 - (i) Makes misleading or false representations in the forms, statements and attachments submitted, has suppressed any material information, details of any legal proceedings pending in the court which might otherwise have created any impact on the eligibility criteria; or
 - (ii.) Withdraws his Bid during the period of Bid validity; or does not sign the contract after award of Contract.
 - (iii) Has been blacklisted by any Government agency and the blacklisting is still in force.
 - (iv). If bidder fails to undertake the work after issue of LOI.
7. On receipt of intimation from the Institute of the acceptance of his/their tender, the successful tenderer shall be bound to implement the contract and within fourteen days thereof the successful tenderer shall sign an agreement in accordance with the draft agreement and the Schedule of Conditions but the written acceptance by the MP-IDSA

of a tender will constitute a binding contract between the MP-IDSA and the person so tendering whether such formal agreement is or is not subsequently executed.

8. As security for due fulfillment of the terms and the obligation of the contract, an amount of 03% of contract value shall be with held as a performance guarantee which shall be released after completion of defect liability period.

9. All compensation or other sums of money payable by the Contractor to the Employer under the terms of this Contract may be deducted from his earnest money and the security deposit if the amount so permits and the contractor shall, unless such deposit becomes otherwise payable, within ten days after such deduction make good in cheque/ /digital transfer, the amount so deducted.

10. The tenderers shall furnish full details of eligible similar works carried out by them during the last 03 years, as per the Performa included in this tender. The Institute will inspect one or all the works and satisfy itself about the performance of the installed equipment including the quality and reliability of the service rendered before opening Part II of the tenders. Thereafter, the Institute at its discretion will consider or reject any or all the tenders without assigning any reason thereof.

11. The Contractor shall carry out all the work strictly in accordance to technical specification and scope of the work, details and instructions of the Webmaster.

12. The rates quoted shall be firm and shall not be subjected to variations in exchange variation in labour, transport. The rates shall be quoted for complete work, i.e. supply, installation, testing and commissioning of the equipment and shall include charges for all taxes, duties, levies, consumable, labour, transport, loading unloading of the material at site, insurance for transit, storage as also workmen compensation & 3rd party liability policies etc. No concessional for any levies will be issued by the Institute. Similarly, no import license will be issued by the MP-IDSA. **Equipment, if required to be imported shall be arranged to be imported against the contractor's own import license.** All payments will be made at New Delhi and will be in Indian Rupees only.

13. The tenderer must obtain on own responsibility and at own expenses, all the information which may be necessary for filling up the tender or entering into a contract and must inspect the site of the work and acquaint himself with all local conditions, means of access to the work, nature of the work and all matters pertaining thereto.

14. Evaluation of tenders:

- Eligible Tenders (Those qualify in Part-I of tender) will be evaluated on the basis of capital cost of the work and net cost. Tender will be awarded on least cost basis.

15. Defect Liability Period (DLP)

- a) The equipment/system supplied shall be guaranteed against all types of defects for at least a period of one year (defect liability period/ DLP) from the date of handing over of the equipment/system to the Institute.
- b) Any defects in the system/sub-assemblies found within the guarantee period/DLP shall be rectified/ replaced by the tenderer free of cost.
- c) The Security deposit/Performance guarantee shall be released after 03 months of completion of defect liability period without any interest.

16. Insurance

The contractor shall take all insurances before dispatching the system from the factory to our site at his cost to cover all kinds of risks from the date of scheduled commencement of works till handing over the system to the Institute.

17. The tender shall be accompanied by leaflets/literatures giving complete technical & constructional details, makes of components of the equipment offered. Tenderers are advised to visit the site of installations and acquaint themselves of the site conditions before tendering. Tenderers should be specific and offer comments only if their system differs from the Institute's **detailed specifications/ features in any manner. A write up of working of the system** as a whole and the individual components shall also be enclosed. The successful tenderer, on completion of the work, shall furnish two sets of schematic and layout drawings and maintenance manuals.

18. Time allowed for carrying out the work as mentioned in the Memorandum and Section I shall be strictly observed by the Contractor and it shall be reckoned from the written order to commence the work, is issued. The work shall throughout the stipulated period of the Contract be proceeded with all due diligence and if the Contractor fails to complete the work within the specified period, he shall be liable to pay compensation as defined in tender document. Before commencing the work, tenderer shall prepare a detailed work program which shall be approved by the Webmaster/System Administrator.

19. The Contractor shall not be entitled to any compensation for any loss suffered by him because of delays in commencing or executing of the work, whatever the cause of delays may be, including delays arising out of modifications to the work entrusted to him or in any sub-contract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works or in procuring Government controlled or other building materials or in obtaining water and power connections for construction purposes or for any other reason whatsoever and the Employer shall not be liable for any claim in respect thereof. The Employer does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.

20. The successful tenderer is bound to carry out any minor items of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing with the prior consent in writing of the Employer.

21. The Contractor must bear in mind that all the work shall be carried out strictly in accordance with Specifications and also in compliance of the requirements of the Government rules and regulations and to the requirements of the Indian Electricity Rules and no deviation on any account will be permitted.

22. After dispatching the equipment to site, the equipment may be inspected by the **Institute's Technical** officers and then cleared for shipment. The contractor shall ensure that the equipment/execution of work is being and/or have been manufactured/executed in accordance with specifications laid down in the particular specifications attached to this tender document. This will however, not in any way absolve the contractor of his responsibility about proper performance of the system/components after erection & commissioning at the designated site.

23. Inspector Authority to certify performance: - The Institute's Engineer shall have the power:

- a) Before any equipment or part thereof are submitted for inspection to certify that they or any portion thereof are not in accordance with the contract owing to adoption of any unsatisfactory method of manufacture;
- b) To reject any equipment or parts submitted as not being in accordance with the specification;
- c) To reject the whole of the equipment tendered for inspection, if after inspection of such portion thereof as he may in his discretion think fit, he is satisfied that the same is unsatisfactory; and
- d) To mark the rejected equipment or parts with a rejection mark so that it may easily be identified if re-submitted.

24. Consequence of rejection: If the equipment or its part thereof, being rejected by the Webmaster, the contractor fails to make satisfactory supplies or rectify the faulty work thus executed within the stipulated period of delivery/completion period, the Institute shall be at liberty to:

- i) Allow the contractor to re-submit the equipment or parts in replacement of those rejected, within a time

to be specified, the contractor bearing the cost of freight if any, on such replacement without being entitled to any extra payments on that account; or

- ii) Purchase/execute or authorise the purchase/execution of quantity/work of the equipment or parts rejected or others of a similar description (when equipment or parts exactly complying with specifications are not in the opinion of the Institute which shall be final, readily available) to the contractor at his risk and cost and without affecting the contractor's liability as regards supply under the contract; or
- iii) Cancel the contract and purchase/execute or authorise the purchase/execution of the equipment or others of a similar description (when equipment or parts exactly complying with specifications are not in the opinion of the Institute, which shall be final, readily available) at the risk and cost of the contractor. In the event of action being taken under such clause (b) above or this clause the provision of delivery clause apply as far as applicable.

25. **Institute's decision** as to rejection is final: - **The Institute's decision as regards the rejection** shall be final and binding on the contractor subject to contractor's appeal.

26. The following terms of payment shall be applicable to this contract:

- 50% of the quoted rate pro-rata against delivery of all materials after checking at site and Submission of the following documents:
 - i) Contractor's Certificate that all components, parts, sub systems, consumables etc. for successful installation, commissioning and testing of the systems including maintenance have been received at site in good condition and if any shortfall is noticed during installation, commissioning and testing they will be supplied free to the Institute.
- 47% of the quoted rate after successful completion of the work as per tender conditions.
- 3% payment shall be released after completion of defect liability period (15 months).

27. The entire work shall be completed within 45 days from the date of work order failing which liquidated damages @ 0.25 % of the contract amount per week with an upper ceiling of 10% of the contract amount, will be levied.

28. The tenderer shall furnish the name and address of the Bankers with whom they normally Bank. They shall also furnish the name and addresses of their recent clients for whom they have carried out similar works/supplies in the recent past, along with full details like the cost and capacity of the system/machine supplied, the date of the supply etc.

29. The Institute reserves the right to accept or reject any or all the tenders either in full or in part without assigning any reasons thereof.

30. The scope of work shall also include the following:

- a) Dismantling of existing two LCD TV sets (**65"** and **42"**) from Seminar Hall-1 and installation of wall mount two new LED TVs (**75"** and **55"**) and four 55 Inch LED TVs in Room 005, tenderer shall quote for all replaced/removed existing equipment under Buy Back Scheme (Equipment list is attached at Annexure-II)
- b) Removal of old equipment, Supply, assembling, Delivery of equipment to Institute's site at Main Office Building, New Delhi- 110010 including packing, handling, transporting, loading/unloading at site, commission, testing of AV equipments.

31. The tenderer should indicate in his tender the complete description of the working of the system/sub systems and their power requirements with all relevant brochures /literature etc. in addition to those called for in the Technical specifications.

32. The Tenderer shall carefully check the specifications and shall satisfy himself that the equipment offered is suitable as per the **Institute's** Technical Specifications.

33. Tenderer shall supply all tools, labour and consumables etc. as required for installation, testing and commissioning of the AV equipments.

34. Validity of Tender

The Tender along with the prices shall remain valid initially for a period of 90 days from the date of opening of Part I of tender, which period may be further extended by mutual agreement in writing by the Tenderer and the Tenderer shall not cancel or withdraw the tender during this period.

Lowest Tender Not Necessarily To Be Accepted

35. The Institute is not bound to accept the lowest or any tender or to assign any reason for non-acceptance.

36. The tenderer whose tender is not accepted shall not be entitled to claim any costs, charges, damages and expenses of and incidental to or incurred by him through or in connection with his submission of tenders, even though Institute may elect to modify/withdraw the tender

37. If the invitation to Tender is withdrawn or cancelled by the Institute, which shall have the right to do so at any time, the Bank Guarantee/EMD will be discharged immediately.

38. All compensation or other sums of money payable by the Contractor to the Employer under the terms of this Contract may be deducted from the security deposit, if the amount so permits unless the contractor deposits such amounts in cash within ten days of issue of demand notice by the Bank.

39. The contractor shall submit a Diagram/Drawings for completion of the work within the contractual completion period from day of issue of work order.

40. The responsibility and safety of the materials stored will be with the contractor. No accommodation will be provided for any worker by the Institute. Contractor has to make his own arrangement to ensure safety of the supplied material.

41. The Tenderer shall go through the terms and conditions given in the general conditions of contract herewith and his offer shall be strictly in line with the terms specified therein. No deviation from the terms and conditions specified shall be acceptable. Each page of the tender documents should be signed for his/their having acquainted himself / themselves in the general conditions of contract, Technical specifications, etc.

42. The tender submitted on behalf of a firm shall be signed by all the partners of the firm or a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected.

43. The contractor shall not assign the contract to any other person/firm. He shall not sublet any portion of the contract except with the written consent of the Employer. In case of breach of these conditions, the Employer may serve a notice in writing on the Contractor rescinding the contract whereupon the security deposit shall stand forfeited to the Employer, without prejudice to his other remedies against the Contractor.

44. Adherence to Specifications

The Contractor shall carry out all the work strictly in accordance with the detailed specifications and

instructions of the Webmaster/System Administrator. If in the opinion of Webmaster/System Administrator, nominal changes have to be made to suit the site condition, the contractor shall carry out the same without any extra charge.

45. Acquaintance with the site of work

The tenderer must obtain for himself on his own responsibility and at his own expense, all the information which may be necessary for the purpose of making a tender and for entering into a contract and must inspect the site of the work, and acquaint himself with all local conditions, means of access to the work, nature of the work **and all matters appertaining thereto. The Employer's** decision in such cases shall be final and shall not be open to arbitration.

46. Schedule of Quantity

A Schedule of Probable Quantities in respect of each work and Specifications accompany these Special Conditions. The Schedule of Probable Quantities is liable to alteration by omissions, deductions or additions at the discretion of the Employer. Each tender should contain not only the rates but also the value of each item of work entered in a separate column and all the items should be totaled in order to show the aggregate value of the entire tender.

47. The rates quoted in the tender shall include the SITC charges including quote under Buy-Back Scheme of all old equipment installed and replaced with new equipment in Seminar Hall-1 and Room 005. Contractor shall take down and remove any or all such wall panels, flooring, ceiling, wooden work, wooden polish etc. or things disturbed during the execution of work, shall require to fully reinstate in its original condition to the satisfaction of the Institute.

48. Not entitled for any compensation

The contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause of delays may be, including delays arising out of modifications to the work entrusted to him or in any sub-contract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works. The Employer does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.

49. Bound to carry all items of work

The successful tenderer is bound to carry out all items of work necessary for completion of the job even though such items are not included in the quantities and rates. Schedule of instruction in respect of such additional items and their quantities will be issued in writing by the Institute.

50. Contractor shall make his own arrangement of tools, ladders, loading, unloading of the material, transportation to&fro the site of installation etc.

51. Contractor shall restore all wall panels, wooden work, tables, wooden polishing, dismantling and installation of the above mentioned TVs, Ceiling, and acoustic panels in its original condition to the satisfaction of the Institute. Contractor shall also remove all the waste material from the site and take it away from Institute's premises at their own cost. No excuse in this regard shall be entertained by the Institute.

52. Power Supply: The employer shall provide power from the existing source at site. The contractor has to arrange for distribution of power from the aforesaid source and the work related thereto shall be with the approval of Estate Manager.

53. Escalation: No escalation and payment due to increase in prices/wages will be made to the contractor. The rates quoted shall remain firm throughout till completion of the work and nothing extra beyond the quoted rates shall be paid for whatsoever reason.

54. If any accessories, parts, works which are not mentioned above but are required to complete the SITC work of installation of upgradation of Seminar Hall-1 and Room 005, are in the scope of the tenderer.

55. Contractor shall ensure smooth working in professional manner including restoring the flooring, carpets, wall panels, acoustic panels, wooden tables, wooden polish, ceiling & other infrastructure. Contractor shall re-do the carpet and ensure dry-cleaning, if any damage happened during course of work, it is purely responsibility of contractor. If contractor fails to do the restoration work in original condition, **Institute may undertake the work itself & payment shall be deducted from contractor's bill.**

I/We have understood all the above-mentioned conditions and they are acceptable to me/us.

Place:

Seal and Signature of the Tenderer

Date:

ATC

1. Comprehensive one year on-site NBD Warranty with OEM backend support for both the supplied hardware and software has to be offered.
2. During the warranty period the vendor shall ensure the full time availability of relevant certified engineer at the installation site to provide warranty support. The support shall include onsite activities like implementation support and configuration change support, failed component replacement activity, system troubleshooting and raising support call with OEM for 1 year.
3. The above said person should possess at least a diploma/degree in Audio/IT from a recognized institution. The **deployed person shall be considered under "semi-skilled category"**, and all payment related to the deployed staff/person will be borne by the service provider. The deputed technical support shall be available on the basis of as and when required by the Institute during meetings, events and conferences in Seminar Hall-1 and Room 005 for smooth conduct of events. The deputed operator will work under the supervision of IT Support Cell of MP-IDSA
4. The vendor/OEM shall clearly provide escalation matrix for resolving problems.
5. Bidders should have back to back tie-up with OEM's to provide Hardware & Software support. The bidder needs to produce letter from respective OEM in this respect for major components of the solution (PTZ Camera, Microphone, Controller, Amplifier, Speaker, DSP, Matrix Switcher.)
6. All integration elements including cables connectors adapters media converters transceivers and other hardware or software elements including licensing required to realize the proposed solution have to be offered as part of the solution.
7. The scope of the installation covers the complete SITC installation and commissioning of all the hardware and software items offered as part of this tender as specified.
8. It is the responsibility of OEM and Bidder both to resolve any performance related issues.
9. All specifications mentioned are minimum and vendor may quote system with better Specifications.
10. Vendor shall ensure completeness of the offer with duly filled compliance sheets and attach all relevant documents/brochures/certificates. IDSA reserves the right to reject incomplete offers / offers without relevant documents without seeking any clarifications from vendor.
11. All vendors are directed to do a site-survey for passive and active components sizing before quoting. An approved signed copy of site survey from IDSA is to be uploaded along with the tender
12. At least one Similar Installation of Digital Conference System in 100+ Capacity Hall
13. Bidders may note that all above work is including of repairing, dry-cleaning, carpet pasting, wooden work & polishing. The work includes freight charges, lifting, loading, unloading.
14. The payment will be released as per clause mentioned in the tender document.

I/We have understood all the above-mentioned conditions and they are acceptable to me/us.

Place:
Date:

Seal and Signature of the Tenderer

1. Interpretation Clause

I. In construing these Conditions, the Specifications, Schedule of Quantities and Contract Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise required.

- (a) **“Employer”** Shall mean Manohar Parrikar Institute for Defence Studies and Analyses and shall include its assigns and successors.
- (b) **“Contractor”** **“Contractor”** shall mean
(in the case of a partnership) _____ and
_____ trading in the name and style of
_____ and having a place of business at
_____ and shall include the
partners for the time being of the said firm and the legal representatives of a
deceased partner.
(in the case of individual) **“Contractor”** shall mean Shri _____
trading in the name and capacity of
_____ and shall include his heirs,
successors and legal representatives.
(in the case of Company) **“Contractor”** shall mean _____ a
company incorporated under _____ and having its
registered office at _____ and shall include its
successors and assigns.
- (c) **“Site”** Shall mean the site of the contract works including any Building and erections thereon and any other land (inclusively) as aforesaid allotted by the Employer for the **Contractor’s** use.
- (d) **“This Contract”** Shall mean the Articles of Agreement, the Special Conditions, the Conditions, the Appendix, the Schedule of Quantities and Specifications etc. attached hereto and duly signed.
- (e) **“Webmaster”** **The term** “Webmaster” shall mean the person appointed and paid by the Employer to inspect the works. The Contractor shall afford the Webmaster every facility and assistance for inspecting the works and materials, and for checking materials. Additions, alterations, deviations, or omissions, or any extra work whatever, except in so far as such authority may be specially conferred by a written order of the Institute.
The Webmaster or any representative of the Institute shall have power to give notice to the Contractor or his representative of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued. The work will, from time to time, be examined by the Institute’s representative but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause the Contractor shall take instructions only from the **Institute’s Authorized Representative**.
- (f) **“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 or e mail to the last known private or business address to have been received when in the ordinary course of post, it would have been delivered.

- (g) **“Net Prices”** If in arriving at the contract amount, the Contractor shall have added to or deducted from the total of the items in the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the Tender as the price of that item a similar percentage or proportion of the sum so added or deducted by the Contractor the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the tender. **The expression “net rates” or “net prices” when used with reference to the contract or accounts shall be held to mean rates or prices so arrived at.**
- (h) **“The works”** Shall mean the Supply, Installation, Commissioning and Testing of upgradation of Seminar Hall-1 and Room 005 for **Institute’s** Main Office Building for the Employer at New Delhi as provided herein.
- (i) **“Buy-Back”** Shall mean to take all old and replaced equipment (at Annexure-2) installed **at the installation site under ‘buy-back scheme’.**

2. Scope of Contract (Including annexed ATC)

The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Employer. The Employer may in his absolute discretion and from time to time issue further instructions, details, directions and explanations, which are hereafter collectively referred to as **“Employer’s Instructions”** in regard to :

- (a) The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- (b) Any discrepancy in the Schedule of Quantities and/or Drawings and/or Specifications.
- (c) The removal from the site of any materials brought thereon by the Contractor and the substitution of any other material therefor.
- (d) The removal and/or re-execution of any works executed by the Contractor.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects.

The Contractor shall forthwith comply with and duly execute any work comprised in such **Employer’s** instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representatives upon the works by the Employer shall, if involving a variation, be confirmed in writing by the Contractor within seven days, and if not dissented from in writing within a further seven days by the Employer, such shall be deemed **to be Employer’s instructions within the scope of the** Contract.

3. Variations to be approved by Employer

The Contractor shall submit a statement of variations giving a quantity and rates duly supported by analysis of rates, vouchers etc. The rates on scrutiny and final acceptance by the Employer shall form a supplementary tender. The Employer shall not be liable for payment of such variations until these statements are sanctioned by it.

4. Contractor to provide everything necessary at his cost

The Contractor shall provide at his cost, everything necessary for the proper execution of the works according to the intent, terms and conditions, Scope of work and the ATC mentioned in the tender document.

5. Authorities, Notices and Patents

- I. The Contractor shall conform to the provisions of any Act of the Legislature relating to the works, and to the regulations and bye-laws of any authority, and of electric supply and other companies and/or authorities with whose systems, the installation is proposed to be connected and shall, before making any variations from the Drawings or Specifications that may be necessitated by so conforming, give to

the Employer, written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor shall not receive such instructions within ten days, he shall proceed with the work conforming to the provisions, regulations or bye-laws, in question.

- II. The Contractor shall bring to the attention of the Employer, all notices required by the said Acts, regulations or bye-laws to be given to any authority and pay to such authority, or to any public office, all fees that may be properly chargeable in respect of the works, and lodge the receipts with the Employer.
- III. The Contractor shall indemnify the Employer against all claims in respect of rights, and shall defend all actions arising from claims, and shall himself pay all royalties, license Fees, damages, cost and charges of all and every sort that may be legally incurred in respect thereof.

6. Setting out of works

The Contractor shall set out the works and shall be reasonable for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, connectivity and alignment of all parts thereof. If at any time any error in this respect shall appear during the progress of the works within a period of one year from the completion of the works, the Contractor shall, if so required, at his own expense, rectify such error to the satisfaction of the Employer.

7. Materials and workmanship to conform the descriptions

All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specifications and in accordance with the **Employer's instructions, and the Contractor shall upon** the request of the Employer furnish him with all invoices, accounts receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carryout any test of any materials which the Employer may require.

8. Contractor's superintendence and representative on the works

The Contractor shall give all necessary personal superintendence during the execution of the works, and as long thereafter as the Employer may consider necessary until the **expiration of the "Defects Liability Period" stated in** tender. The Contractor shall also during the whole time the works are in progress, employ a competent representative who shall be constantly in attendance at the works while the men are at work. Any directions, explanations, instructions or notices given by the Employer to such representative shall be held to be given to the Contractor.

9. Dismissal of Workmen

The Contractor shall on the request of the Employer, immediately dismiss from the works, any person employed thereon by him who may, in the opinion of the Employer, has committed act of misconduct and such persons shall not be again employed on the works .

10. Access to Works

The Employer and their respective representatives shall at all reasonable times have free access to the works and/or the workshops, factories or other places where materials are lying of from which they are being obtained and the Contractor shall give every facility to the Employer and their representatives necessary for inspection and examination and test of the materials and workmanship.

11. Assignments and Sub-letting

- I. The whole of the works included in the Contract shall be executed by the Original Awardee and the Contractor shall not directly or indirectly transfer, assign or sublet the Contract or any part share thereof or any interest therein without the prior written consent of the Employer, and no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their

progress.

- II. No alteration, omission or variation shall vitiate this Contract but in case the Employer thinks proper at any time during the progress of the works to make any alterations in or additions to or omissions from the works or any alteration in the kind or quality of the materials to be used therein and shall give notice thereof in writing under his hand to the Contractor, the Contractor shall alter, add to or omit from, as the case may be, in accordance with such notice but the Contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the Contract, Stipulation, Specifications without the consent in writing of the Employer and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Employer, with the prior approval in writing of the Employer in accordance with the provisions of tender hereof, and the same shall be added to or deducted from the Contract Amount, as the case may be, accordingly.

12. Schedule of Quantities

The Schedule of Quantities, unless otherwise stated, shall be deemed to have been prepared in accordance with the technical specifications of the tender document. Any error in description or in quantity or in omission of items from the Schedule of Quantities shall not vitiate this contract but shall be rectified and the value thereof as ascertained hereof, shall be added to, or deducted from, the Contract Amount (as the case may be) provided that no rectification of errors, if any, shall be allowed **in the Contractor's** Schedule of Rates.

13. Sufficiency of Schedule of Quantities

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and/or the Schedule of Rates and Prices which rates and prices shall cover all his obligations under the T&C and scope of work, and all matters and things necessary for the proper completion of the works.

14. Prices for extra etc. ascertainment of

- I. The Contractor may, when authorized by Employer, add to, omit from, or vary the works mentioned in the tender Specification or included in the Schedule of Quantities, but the Contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Employer shall, if confirmed by him in writing seven days, be deemed to have been given in writing
- II. No claim for any extra shall be allowed unless it shall have been executed under provisions of written permission from Institute hereof with the concurrence of the Employer as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.
 - a. The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.
 - b. Rates for all items, wherever possible, should be derived out of the rates given in the Priced Schedule of Quantities.
 - c. The net prices of the original tender shall determine the value of the items omitted, provided if omissions vary the conditions under which any remaining items of works are carried out, the prices for the same shall be valued under sub-clause (c) hereof.

Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omission or additions relative to the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Employer the net rate or price contained in the Priced Schedule of Quantities or tender or for any item of the works involves loss or expense beyond that reasonably contemplated by the Contractor or is by reason of such omission or addition rendered unreasonable or Inapplicable, the Employer shall fix such other rate or price as in the circumstances he shall think reasonable and proper.

The measurement and valuation in respect of the Contract shall be completed within the **"period of final measurement" stated in the tender document**

15. Removal of improper work

All works in course of execution or executed in pursuance of the contract shall all this be accessible to the inspection and supervision of the employer shall either himself be present to receive the orders/instruction or a responsible officer deputed for the purpose.

The Employer shall, during the progress of the works, have power to order in writing or verbal from time to time the removal from the works within such reasonable time or times, as may be specified in the order, of any materials which in the opinion of the Employer are not in accordance with the Specifications or the instructions of the Employer, the substitution of proper materials, and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the Specifications or instructions, and the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Employer shall have the power to employ and pay the other persons to carry out the same, and all expenses consequent thereon, or incidental thereto shall be borne by the Contractor, or may be deducted by the Employer from any money due, or that may become due, to the Contractor.

16. Defects after virtual completion

Any defect or **other faults which may appear within the “Defects Liability Period” stated in the Appendix hereto**, within 12 months from the date of commissioning of the system, arising in the opinion of the Employer from materials or workmanship not in accordance with the contract, shall upon the directions in writing of the Employer, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor at his own cost and in case of default, the Employer may employ and pay other persons to amend and make good such defects, other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer from any moneys due. or that may become due to the Contractor, or the Employer may in lieu of such amending and making good by the Contractor deduct from any money due to the Contractor a sum to be determined by the Employer equivalent to the cost of amending such work and in the event of the amount retained hereof being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith. Should any defective work have been done or material supplied by any Sub-Contractor employed on the works who has been nominated or approved by the Employer hereof, the Contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subject to the provisions of this Clause hereof. The Contractor shall remain liable under the provision of this Clause, notwithstanding the signing of any certificate or the passing of any accounts, by the Employer.

17. Certificate of virtual completion and Defects Liability Period

The works shall not be considered as completed until the Employer has certified in writing with the drawings and completion certificate of the entire work that have been virtually completed as per the SITC of the tender document. The Defects Liability Period shall commence from the date of such Certificate.

18. Insurance in respect of damage to person and property

- I. The Contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated Sub-Contractor or any employee or either, whether such injury or damage arises from carelessness, accident or any other cause whatever, in any way connected with the carrying out of this Contract. This Clause shall be held to include inter alia any damage to Buildings or Infrastructure, whether immediately adjacent or otherwise, and any damage to roads, streets, footpaths, bridges or ways as well as all damage caused to the Buildings and works forming the subject of this Contract by frost, rain wind or other inclemency of weather. The Contractor shall indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any Acts of any legislature or otherwise and also in respect of any award of compensation or damages consequent upon such claim.
- II. The Contractor shall reinstate all damages of every sort mentioned in the Tender Document, so as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

- III. The Contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other third party in respect of anything which may arise in respect of the works or in consequences thereof and shall at his own expense arrange to effect and maintain, until the virtual completion of the Contract, with an approved Office a Policy of Insurance in the joint names of the Employer and the Contractor against such risks and deposit such Policy or Policies with the Employer from time to time during the currency of this Contract. The Contractor shall also similarly indemnify the Employer against all claims which may be made upon the **Employer whether under the Workmen's Compensation Act or any other statute in force during the currency of this contract or at Common Law in respect of any employee of the Contractor or any Sub-Contractor** and shall at his own expenses effect and maintain, until the virtual completion of the Contract.
- IV. The Contractor shall be responsible for any liability which may be excluded from the Insurance Policies above referred to and also for all other damages to any person, animal or property arising out of and incidental to the negligent or defective carrying out of this Contract. He shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation or damages, arising therefrom.
- V. The Employer shall be entitled to deduct the amount of any damage, compensation, costs, charges and expenses arising or accruing from or in respect of any such claims or damage from any or all sums due or to become due to the **Contractor, without prejudice to the Employer's other rights in respect thereof.** The Contractor shall insure the works at his cost and keep them insured until the virtual completion of the work, against loss or damage by fire also.

19. Date of Commencement and Completion

The Contractor shall be allowed admittance to the site on the "Date of Commencement" stated in the Appendix hereto or such later date as may be specified by the Employer and he shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same (except such wooden and polishing work as the Employer may desire to delay) on or before the "Date of Completion" stated in the Appendix subject nevertheless to the provisions for extension of time hereinafter contained.

20. Damages for Non-completion

If the Contractor fails to complete the works by the date stated herein, Referred to or within any extended time and the Employer certifies in writing that in his opinion the same ought reasonably to have been completed, the Contractor shall pay the Employer the sum named in the Appendix as "**Liquidated Damages**" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any money due to the Contractor.

21. Delay and Extension of Time

If in the opinion of the Employer, the works be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of **Employer's** instructions hereof or (d) in consequence of the Contractor not having received necessary instruction in due time, from the Employer for which he shall have specifically applied in writing or (e) from other causes which the Employer may certify as beyond the control of Contractor.

22. Failure by Contractor to comply with **Employer's** instructions

If the Contractor after receipt of written notice from the Employer requiring compliance within ten days fails to comply with such further drawings and the Employer may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor by the Employer or may be deducted by him from any moneys due to the Contractor.

23. Termination of Contract by the Employer

If the **Contractor being an individual or a firm commits any "act of insolvency", or shall be** adjudged an insolvent or being an Incorporated Company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and the Official Assignee of the Liquidator, in such acts of insolvency or winding up, as the case may be, shall be unable, within seven days after

notice to him requiring him to do so, to show the reasonable satisfaction of the Employer that he is able to carry out and fulfill the Contract and to give security therefore, if so required by the Employer.

Or if the Contractor (whether an individual, firm or Incorporated Company) shall suffer execution or other process of Court attaching property to be issued against the Contractor,

Or shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the Contractor,

Or shall assign or sublet this Contract without the consent in writing of the Employer first had obtained,

Or shall charge or encumber this Contract or any payments due or which may become due to the Contractor hereunder,

Or if the Employer determine that the Contractor has abandoned the Contract,

Or

failed to commence the works, or has without any lawful excuse under those Conditions suspended the progress of the works for 14 days after receiving from the Employer notice to proceed, or has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon,

Or

failed to remove materials from the site or to pull down, and replace work for seven days after receiving written notice that the said materials or work were condemned and rejected by the Employer under these Conditions Or neglected or failed persistently to observe and perform all or any of the acts, matters or things by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same.

Then and in any of the said cases, the Employer may notwithstanding reserves the right to terminate the contract the work order/contract without any further payment and compensation, and Employer may engage other service provider to complete/finish the projected remaining work and all expenses occurred will be borne by the first contractor.

24. Certificates and Payments

- I. When the works have been fully completed and the Employer shall have certified in writing that they have been completed, the Contractor shall be entitled to the payment of the Final Balance in accordance with the Final certificate to be issued in writing by the Employer at **the expiration of the period referred to as "the Defects Liability Period" in the Appendix** hereto from the date of Virtual Completion or as soon after the expiration of such period as the works shall have been finally completed and defects made good according to the true intent and meaning hereof, whichever shall last happen, provided always that the issue by the Employer of any certificate during the progress of the works at or after their completion shall not relieve the Contractor from his liability under nor relieve the Contractor of his inability in cases of fraud, dishonesty or fraudulent concealment relating to the works or materials or to any matter dealt within the Certificate, and in case of all defects and insufficiencies in the works or materials, which a reasonable examination would not have disclosed. No Certificate shall of itself be conclusive evidence that any works or materials, to which it relates, are in accordance with the Contract neither will the Contractor have a claim for any amounts which the Employer might have been certified in any interim bill and paid by the Employer and which might subsequently be **discovered as not payable and in this respect the Employer's decision shall be final and binding.**
- II. The Employer shall have power to withhold any Certificate if the works or any parts thereof are not being carried out to his satisfaction.
- III. The Employer may by any Certificate make any correction in any previous certificate which shall have been issued by him.
- IV. No certificate or payment shall be issued if the Contractor fails to insure the works and keep them insured till

the issue of the Completion Certificate.

25. Matters to be finally determined by Employer

The decision, opinion, direction, Certificate (except for payment), with respect to all or any of the matter (which matters are herein referred to as the excepted matters) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other decision, opinion, direction, Certificate or valuation of the Employer or any refusal of the Employer to give any of the same shall be subject to the right of arbitration and review in the same way in all respects (including the provision as to opening the reference) as if it were a decision of the Employer.

26. Settlement of dispute by arbitration

In case of any dispute or difference arising out of or in connection with or in carrying out of the work (whether during the progress of the work or after completion and whether before or after the determination, abandonment or breach of contract) except as to any of the excepted matters provided hereunder the parties hereto, shall first endeavor to settle such disputes or differences amicably. If both the parties fail to reach such amicable settlement, all the disputes or differences shall be finally settled by arbitrators as provided herein.

In case of failure of such amicable settlement by the parties, then either party may within 28 days of such a failure give a written notice to the other party requiring that all matters in dispute or difference be arbitrated upon. Such written notice shall specify the matters which are in dispute or differences of which such written notice has been given and no other matter shall be referred to the arbitration of a single arbitrator to be appointed by both the parties or in case of disagreement as to the appointment of a single arbitrator, the appointment of two arbitrators (one to be appointed by each party) and an umpire to be appointed by the arbitrators. The provisions of Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and rules framed there under from time to time shall apply to such arbitrations.

In the event of the Arbitrator or any one of the Arbitrators, as the case may be, dying, neglecting, refusing to act or resigning or being unable to act for any reason or the award being set-aside by the Court for any reason it shall be lawful for the parties to appoint another Arbitrator in the manner provided herein above.

The venue of arbitration shall be New Delhi, INDIA.

The Arbitrator or Arbitrators appointed under this Schedule shall hold the arbitration proceeding jointly and shall have the power to extend the time to make the award with the consent of the parties.

Pending reference to arbitration and award thereon, the parties shall make all endeavor to complete the work in all respects as herein contracted and all disputes, if any, will finally be settled in the arbitration.

Upon every or any such references to the arbitration, as provided herein the cost of and incidental to the reference and award respectively shall be, at the discretion of the Arbitrator or Arbitrators or the Umpire, as the case may be, who may determine the amount thereof. The Arbitrator, Arbitrators or Umpire, as the case may be, shall give reasoned award in respect of each item of disputes which shall be final and binding on both the parties. It is agreed that the Contractor shall not delay the carrying out of the work by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the work with all due diligence and shall, until the decision of the Arbitrators, as the case may be, is given, abide by the terms and conditions of the contract herein, as also instructions with regard to the actual carrying out of the work herein contracted and no award shall relieve the Contractor of his obligations to adhere strictly to the terms and conditions of the contract herein as also instructions with regard to the actual carrying out of the work. The Bank and the Contractor hereby also agree that arbitration under this schedule shall be a condition precedent to any right of action, under the Contract.

In case during the arbitration proceedings, the parties mutually settle, compromise or compound their dispute or difference, the reference to arbitration and the appointment of the Arbitrator or Arbitrators, or Umpire, as the case may be, shall be deemed to have been revoked and the arbitration proceedings shall stand withdrawn or terminated with effect from the date on which the parties file a joint memorandum of settlement thereof with the Arbitrator or Arbitrators or the Umpire, as the case may be.

For the purpose of this clause, the expression "excepted matters" shall mean and refer to all or any of the matters

under Scope of work, Contract price, Delivery Schedule & Final Acceptance certificate.

27. Right of technical scrutiny of final bill

The Employer shall have a right to cause a technical examination of the works and the final bill of the Contractor including all supporting vouchers, abstracts etc. to be made at the time of payment of the final bill. If as a result of this examination or otherwise, any sum is found to have been overpaid or over-certified, it shall be lawful for the Employer to recover the sum.

28. Right of Employer to terminate Contract in the event of death of Contractor, if individual

Without prejudice to any of the rights or remedies under this Contract, if the Contractor, being an individual, dies, the Employer shall have the option of terminating the Contract without incurring any liability for such termination.

29. Anti-Profiting Element of GST: if any change occurred during currency of work, GST shall be paid as per actual. If the GST rates reduced after award of work, the same shall be paid to contractor. If the GST rates increase, the same shall be implemented.

Section (V)

Appendix Here in before Referred To

1.	Defects Liability Period	Twelve months from the date of Completion Certificate. Security deposit shall be released after 03 months of completion of DLP
2.	Period of Final testing period	03 months
3.	Date of Commencement	From the date of issue of work order.
4.	Date of Completion	45 days after issue of workorder.
5.	Liquidated damages at the rate of	0.25% of the contract value per week subject to a maximum of 10% of the contract value.

SECTION VI

(Appendix I)

Check List

Tender For Upgradation/Installation of Seminar Hall 1 and Room 005 for MP-IDS Main Office Building at New Delhi

Commercial Conditions

Sr. No.	Description	Bank's Terms	Acceptance of Institute's terms (YES/NO)
1	Validity	90 days	
2	EMD	Rs.1,10,000/-	
3	Bank Guarantee	BG of 3% of the contract amount should be with held and it should be valid 15 months after Completion of Project.	

Part II should not contain any terms and conditions but only priced bill of quantity. Terms and conditions, if any, incorporated in Part II, will not be valid or considered.

Place:

Date:

Signature of Contractor

Name Designation
Seal of the firm



**MANOHAR PARRIKAR INSTITUTE FOR
DEFENCE STUDIES AND ANALYSES**
मनोहर पर्रिकर रक्षा अध्ययन एवं विश्लेषण संस्थान

Upgradation/Installation of Seminar Hall 1 and Room 005 for Institute's Main office building

Introduction:

The work covers Upgradation/Installation of Seminar Hall 1 and Room 005 & the other allied works as detailed in the technical specifications.

The units and systems proposed to be supplied shall be complete & technically fulfilling the submitted / desired criteria and any part not mentioned in this document but essential for the work and operation of the Upgradation/Installation of Seminar Hall 1 and Room 005 as a whole shall be included in the scope of work and offered as a part of the complete package. The tenderer shall clearly indicate during Pre- bid meeting such additional equipment/components if any with all technical details.

The total responsibility for the guaranteed operation of individual unit and the system as a whole rests with the tenderer as regards the ratings, performance reliable and trouble-free working. The tenderer shall visit and ascertain site conditions, existing structures and other obstructions if any. The work has to be carried out in an existing office Building without causing inconvenience to the normal working of the Institute. The tenderer will consider suitably for these exigencies in his offer and no extra claims will be entertained later on these grounds. The tenderer shall clearly indicate the make of various equipments or components offered by him.

Annexure A

On the Letter Head of company/firm/organization

Ref. No. _____

Date: _____

Webmaster/System Administrator,
MP-IDS A Shankar Vihar, Delhi Cantt-110010

Dear Sir,

Name of Work: Client's Certificate regarding performance of the Contractor

We confirm that M/s. (Name of the contractor) have carried out the following work/s for us.

Other particulars are given below for your perusal and record:

Sr. No.	Particulars	Comments of the Client
1	Name of the eligible work with brief particulars	
2	Work order No. and date	
3	Project/work cost	
4	Date of commencement of work	
5	Stipulated date of completion	
6	Actual date of completion	
7	Details of compensation levied for delay (indicate amount), if any	
8	Gross amount of the work completed and paid for	
9	Performance Report :	Outstanding / Very Good / Good / Fair / Satisfactory / Poor

	(ii) If firm is maintaining the system under Annual Maintenance Contract (AMC). Indicate grading for performance of AMC	
10	Comments of the Client on the capabilities of the M/s. <hr/> (Indicate Grading): Outstanding / Very Good / Good / Fair / Satisfactory / Poor	
	(a) Technical proficiency	
	(b) Financial soundness	
	(c) Mobilization of Manpower	
	(d) General Behavior	
11	Any other information which you consider will help us in making our decision.	

Office Seal of the Client

Yours faithfully,

(Signature of the Responding Officer*) For
S.E.(E) / Executive Engineer (E)

Note:

- * *Responding Officer should be of the Rank of Superintending / Executive Engineer in respect of a Government/Semi- Government organization or a PSU*
- * *Responding Officer should be of the Rank of General Manager in respect of Private organizations*
- * *The matter written in italic not to be printed on the final Performance Certificate*

Annexure B

On the Letter Head of company/firm/organization

Date: _____

Webmaster/System Administrator,
MP-IDS A Shankar Vihar, Delhi Cantt-110010
Dear Sir,

Subject: **Manufacturers'** Authorization Form (MAF) for the Bid Reference No. _____ Dated:

Dear Sir,

We M/s _____ who are the Brand Owner of

(Brand Name) range of Products hereby authorize M/s _____ to
quote

_____ (Brand Name) range of _____ (Product) in the above
mentioned Bid.

Office Seal of the Manufacturer

Yours faithfully,

(Name & Signature of a Representative)

Section (VI)

1. Scope of Work (Including in Annexed ATC)

Upgradation/Installation of Audio-Visual system in Seminar Hall-1 and Room 005. The work includes preparation of schedule of work as per requirement attached, without damages to any other equipments or Infrastructure. The work to be carried out in such a way that the upgradation of the seminar hall -1 and Room 005 should not be hampered.

2. During the warranty period the vendor shall ensure the availability of relevant certified engineer at the installation site to provide warranty support. The support shall include onsite activities like implementation support and configuration change support, failed component replacement activity, system troubleshooting and raising support call with OEM for 1 year.
3. The said person should possess at least a diploma/degree in Audio/IT from a recognized institution. **The deployed person shall be considered under "semi-skilled category".**
4. The deputed technical support shall be available on the basis of as and when required by the Institute during meetings, events and conferences in Seminar Hall-1 and Room 005 for smooth conduct of events. The deputed operator will work under the supervision of IT Support Cell of MP-IDSA

2. Upgradation/Installation of Seminar Hall-1 and Room 005

Upgradation shall be suitable for in-door installation. The Upgradation/Installation of Seminar Hall 1 and Room 005 shall include, dismantling of (65" & 42") and re-installation of two LED TV Units (75Inches and 55Inches) in SM-1 and Installation of 04 new wall mount 55 inches LED TV in Room 005, replacement of all old Mics and component, SITC of mixer, audio DSP, amplifiers, Audio/Video controllers for feeding into the digital VC (Video Conferencing) solution. This involves SITC of 03 PTZ Cameras 20X in SM-1 and SITC of 01 PTZ Cameras 20X in Room 005 with Look at Me with various configurations of digital equipment and components.

3. Testing System

- a) All Equipment, labor etc. shall be arranged by contractor.
- b) All Equipment shall be tested.

4. Damages made while carrying out the work:

Any damages made to the **Institute's** property by the contractor while carrying out the entire work will be made good as per the original by the contractor at his own cost. If the contractor fails to do so, MP-IDSA at liberty to undertake the work itself & amount shall be deducted from contractor's bill.

5. Cabling work: All power cables/control cables shall be measured on linear basis in meters. No extra price shall be paid on account of end termination of control cables which includes thimble etc. Power cable end termination and connection shall form part of cable gland item and hence shall not be measured separately. All spacers, saddles, cable tray etc. shall be laid as per directives of Institute within quoted cost of the cable.

6. Dismantling and Re-installation Work:

- a) **Dismantling of existing two LCD TV sets (65"and 42") from Seminar Hall-1 and installation of wall mount two new LED TVs (75" and 55") and four 55 Inch LED TVs in Room 005, tenderer shall quote**

for all replaced/removed existing equipment under Buy Back Scheme (Equipment list is attached at Annexure-II)

- b) Removal of old equipment, Supply, assembling, Delivery of equipment to Institute's site at Main Office Building, New Delhi- 110010 including packing, handling, transporting, loading/unloading at site, commission, testing of AV equipments.

7. Contractor shall make his own arrangement of tools, ladders, loading, unloading of the material, transportation to&fro the site of installation etc.

8. Contractor shall restore all wall panels, wooden work, wooden polishing, installation of new LED TVs and dismantling of old TVs, Ceiling and Acoustic panels to its original condition to the satisfaction of the Institute. Contractor shall also remove all the waste material from the site and take it away from Institute's premises at their own cost.

TECHNICAL SPECIFICATION COMPLIANCE STATEMENT FOR SEMINAR HALL - 1

(A)

S. No.	Particulars	Unit	Qty.
1	SITC of PTZ Camera ; USB based : Yes; Zoom : Minimum 20X Optical Zoom; Iris: f=5.57~110mm ; F1.6 ~ F3.5;Viewing Angle:3.3° (tele) –54.7° Wide ;Sensor:1 /2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel ; Video Format: SDI Video Formats: 1080P60/50/30/25/59.94/29.97 ; 1080I60/50/59.94. 720P / 50/ 30 / 25 /59.94/29.97; Minimum illumination:0.5 Lux ; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus : Should be Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve; SNR: >55 dB; Interface:: USB 3.0 x1, HDMI x1, , LAN x1, RS232 x1; Video Compression Format:H.265/H.264 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; LAN Port :Yes; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181; Pan Rotation:+ 170° Tilt Rotation :-30°~+90° ; Pan Control Speed: 0.1~100°/second ;Tilt Control Speed : 0.1~45°/second ;Preset Speed: Pan: 100°/second, Tilt 45°/second ;Preset Number:255 preset with Look At Me Compatible	No.s	3
2	SITC of Boundary Layer Chairman Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Chairman With Priority Button; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light with Look At Me Compatible	No.s	1
3	SITC of Boundary Layer Delegate Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light with Look At Me Compatible	No.s	34
4	SITC of Audio Controller: The main unit of the portable digital conference system can support 60 units of Chairman & Delegate microphone.; It support 250 Microphones with extension power unit.; Equipped with four groups or 8p-DIN interface for system connecting.; Modes : Discuss mode, Free mode, FIFO mode (1-9),Limit mode (1-9) ; 9 Microphones can be on at a time. First In First Out; The working mode is displayed on LCD screen. ; Look At Me – Speaker tracking compatible with camera and processor; Connection: 8PIN x 3 plugs for Microphone ; 8 PIN x1 socket for system connection; RCA : 4 x RCA Port; RJ 45 x 1; XLR Port x 1 (For Audio Conferencing Mic.)	No.s	1
5	SITC of integrated Look At Me Processor with Audio controller: Integrated Look At Me controller-Should have Built-in video switching matrix having 4 HDMI inputs & 1 HDMI output., Should have 256 video camera auto-track control points, Should support Multi-machine cascade. It should support Pelco-D and VISCA protocol (Pelco-D, Baud Rate: 9600, VISCA, Baud Rate: 9600). , The processor should communicate with the equipment by RS232 interface, with computer or video switching matrix. It should support High speed shifting with the camera which shall follow the location for last opening of all speaking representative, when the microphone	No.s	1

	<p>which opened last was closed, the camera should follow back the last following spot, and when all the microphone are closed, the camera should automatically moves back to the standby position. When its working without the computer, it can be set through the controller itself with the button on board, and should also set by the IR controller. It should consist of power switch, Camera number selecting button (VIDICON 1-8), Send the camera output to the related display screen through pressing this button, Processor power indicative lamp, , Busy indicative lamp, Camera selecting indicative lamp, Camera zoom setting, Camera direction set button (up, down, left, right), Save button (save the pre-setting spot), USB connection interface to PC, and for connecting to another video matrix, Should have the port to connect it computer to setup the software function. It should control pan and tilt move directly from software. It should have Data port to connect to the main conference unit, These inputs should get connected with the camera and should support 4 cameras. Should have HDMI Out to show camera output directly to a display.</p>		
6	<p>SITC of Amplifier- Amplifier Output Power: 4 x 230W @ 2ohm 4 x 150W @ 4 ohm 4 x 90W @ 8 ohm. Output Power (Bridge): 400W @ 4 ohm 310W @ 8 ohm. Inputs (Impedance/Sensitivity): 20k ohm / 1 V / 0±1 dBu; Frequency Response (stereo mode): 20 Hz - 20 kHz -3dB. Frequency Response (sub mode): 20 Hz - (50 Hz - 250 Hz) -3dB. S/N Ratio: >96 dB. THD: Less than 0.1% at 1kHz, rated power. Input Impedance: 20k ohm balanced or 10k ohm unbalanced. LED indicators for power on; Load protection: on/off mute, DC fault grounding relay, internal fault fuses.</p>	No.s	1
7	<p>SITC of Digital Signal Processor :DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module; Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play; Support for scene preset function. Automatic power failure protection memory function. Full-featured matrix mixing function. User definable GUI windows-based control software to manage & configure the DSP unit. Built-in automatic camera tracking function. Sampling rate 48KHz; Phantom Power: 48V, Frequency Response:20 - 20KHz, ±0.2dB; Input/Output Level: 18dBu , Output Impedance: 100Ω, Equivalent Input Noise Ein:≤-125dBu; Channel Isolation @1KHZ: 100dB, THD+N : ≤0.004% @4dBu, Dynamic Range: 120dB, Background Noise: -90dBu, Input Gain Amplification Range: 24 to -27dB, (3dB Step,17 in total).</p>	No.s	1
8	<p>SITC of Cable Cubby - 1 x HDMI, 1 x USB, 1 X RJ 45</p>	No.s	2
9	<p>SITC of Matrix Switcher 8x8: Video Input Interfaces: 8 x HDMI Type A Female (Black), Impedance 100 Ω, Max. Distance 5.0 m / 4K@60Hz (4:4:4), Video Output Interfaces: 8 x HDMI Type A Female (Black), Max. Distance 5m / 4K@60Hz (4:4:4) 15m / 1920 x 1200, Impedance 100 Ω; Video Max. Pixel Clock: 600 MHz, Max. Resolution Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4), Max. Data Rate 18 Gbps(6 Gbps Per Lane), Compliance HDMI (3D, 4K, Deep Color) HDCP 2.2 Compatible, Consumer Electronics Control (CEC); Control:RS-232 Connector: 1 x DB-9 Female (Black) Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1,</p>	No.s	1

	Parity: No, Flow Control: No; IR 1 x Mini Stereo Jack Female (Black), Ethernet 1 x RJ-45 Female; EDID Settings : EDID Mode: Default / Port 1 / Remix / Customized (EDID Wizard Support).		
10	SITC of Distribution Amplifier: 1 x 4HDMI Out Distribution Amplifier. Apply for STB, DVD, media player, laptop, D-VHS and other HD-Player devices. It should be compatible with HDMI 3D and 4Kx2K.; Compliant: It should be complaint to distribute 1 HDMI source to 4 HDMI displays, support ultra HD resolution 4Kx 2K @60Hz, support HDMI 3D, Support YUV 4:4:4; Support HDR, HDMI 2.0 and HDCP 2.2 compliant, Low power consumption, Should support and configure the video resolution automatically according to the capabilities of each connected monitor, Should allow simultaneous mixed 4k and 1080p display outputs.	No.s	1
11	SITC of Camera switcher : It should be dual channel video switcher mixer for the streaming generation, mini-pro features four resolution independent inputs – three up to 2K and one up to full 4K@60 to take advantage of native high-performance sources, whether cameras or laptops, without compromising on quality; It should have presets for PIP and PBP , it should also include full pixel-to-pixel scaling capabilities for both the PIP and background video layers ; It should have Audio for output should be selectable from embed ,It should have built-in LCD display just not to only shows video preview, but it should be touch enabled for day to day operation of features and settings. ; It should have features including dynamic output control, preview multi-view, picture in picture, Chroma Key, video transitions, on board PTZ camera controls etc.; Stream : It should have superspeed USB3.0 streaming in which just by connecting the device to a laptop or other device it should stream quickly and easily to various social media and streaming platforms as well as a vast array of popular collaboration applications.; Go Live : It should be able to display local and live with the 2K HDMI output port – which should be used for a preview or the live program output. It should be more than a streaming switcher and should also be a live event switcher; Record: It should be able to from dedicated USB port to capture, record video and audio directly from the device with any portable HDD up to 2TB.; Control : It should have on board control for PTZ cameras directly within the device. It should save attribute views of cameras for recall at the touch of a button; Preview: It should be able showcase all sources live immediately in the builtin LCD display. It should have the facility to get connected to a video output and should display a multi-view preview to always see the next preset before going live; Mix: It should have transition and switch between live video program and preset. It should be able to recall saved preset views along with scaled video layers.	No.s	1
12	SITC of HDMI Extenders	No.s	1
13	SITC of Customized Metal Plates	No.s	35
14	SITC of Storage Rack 24U	No.s	1
15	SITC of Cable & Connectors	Lot	1
16	All repairing & wooden polishing work	Job	1
17	Installation & Programming (As per Site Location)	Job	1

TECHNICAL SPECIFICATION COMPLIANCE STATEMENT FOR ROOM 005

(B)

Sr. No.	Particulars	Unit	Qty.
1	SITC of PTZ Camera ; USB based : Yes; Zoom : Minimum 20X Optical Zoom; Iris: f=5.57~110mm ; F1.6 ~ F3.5;Viewing Angle:3.3° (tele) –54.7° Wide ;Sensor:1 /2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel ; Video Format: SDI Video Formats: 1080P60/50/30/25/59.94/29.97 ; 1080I60/50/59.94. 720P / 50/ 30 / 25 /59.94/29.97; Minimum illumination:0.5 Lux ; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus : Should be Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve; SNR: >55 dB; Interface:: USB 3.0 x1, HDMI x1, , LAN x1, RS232 x1; Video Compression Format:H.265/H.264 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; LAN Port :Yes; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181; Pan Rotation:+ 170° Tilt Rotation :-30°~+90° ; Pan Control Speed: 0.1~100°/second ;Tilt Control Speed : 0.1~45°/second ;Preset Speed: Pan: 100°/second, Tilt 45°/second ;Preset Number:255 preset with Look At Me Compatible	No.s	1
2	SITC of Boundary Layer Chairman Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Chairman With Priority Button; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light.	No.s	1
3	SITC of Boundary Layer Delegate Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light.	No.s	26
4	SITC of Audio Controller: The main unit of the portable digital conference system can support 60 units of Chairman & Delegate microphone.; It support 250 Microphones with extension power unit.; Equipped with four groups or 8p-DIN interface for system connecting.; Modes : Discuss mode, Free mode, FIFO mode (1-9),Limit mode (1-9) ; 9 Microphones can be on at a time. First In First Out; The working mode is displayed on LCD screen. ; Look At Me – Speaker tracking compatible with camera and processor; Connection: 8PIN x 3 plugs for Microphone ; 8 PIN x1 socket for system connection; RCA : 4 x RCA Port; RJ 45 x 1; XLR Port x 1 (For Audio Conferencing Mic.)	No.s	1
5	SITC of integrated Look At Me Processor with Audio controller: Integrated Look At Me controller- Should have Built-in video switching matrix having 4 HDMI inputs & 1 HDMI output., Should have 256 video camera auto-track control points, Should support Multi-machine cascade. It should support Pelco-D and VISCA protocol (Pelco-D, Baud Rate: 9600, VISCA, Baud Rate: 9600). , The processor should communicate with the equipment by RS232 interface, with computer or video switching matrix. It should support High speed shifting with the camera which shall follow the location for last opening of all speaking representative, when the microphone which opened	No.s	1

	<p>last was closed, the camera should follow back the last following spot, and when all the microphone are closed, the camera should automatically moves back to the standby position. When its working without the computer, it can be set through the controller itself with the button on board, and should also set by the IR controller. It should consist of power switch, Camera number selecting button (VIDICON 1-8), Send the camera output to the related display screen through pressing this button, Processor power indicative lamp, , Busy indicative lamp, Camera selecting indicative lamp, Camera zoom setting, Camera direction set button (up, down, left, right), Save button (save the pre-setting spot), USB connection interface to PC, and for connecting to another video matrix, Should have the port to connect it computer to setup the software function. It should control pan and tilt move directly from software. It should have Data port to connect to the main conference unit, These inputs should get connected with the camera and should support 4 cameras. Should have HDMI Out to show camera output directly to a display.</p>		
6	<p>SITC of Amplifier- Amplifier Output Power: 4 x 230W @ 2ohm 4 x 150W @ 4 ohm 4 x 90W @ 8 ohm. Output Power (Bridge): 400W @ 4 ohm 310W @ 8 ohm. Inputs (Impedance/Sensitivity): 20k ohm / 1 V / 0±1 dBu; Frequency Response (stereo mode): 20 Hz - 20 kHz -3dB. Frequency Response (sub mode): 20 Hz - (50 Hz - 250 Hz) -3dB. S/N Ratio: >96 dB. THD: Less than 0.1% at 1kHz, rated power. Input Impedance: 20k ohm balanced or 10k ohm unbalanced. LED indicators for power on; Load protection: on/off mute, DC fault grounding relay, internal fault fuses.</p>	No.s	1
7	<p>SITC of Digital Signal Processor :DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module; Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play; Support for scene preset function. Automatic power failure protection memory function. Full-featured matrix mixing function. User definable GUI windows-based control software to manage & configure the DSP unit. Built-in automatic camera tracking function. Sampling rate 48KHz; Phantom Power: 48V, Frequency Response:20 - 20KHz, ±0.2dB; Input/Output Level: 18dBu , Output Impedance: 100Ω, Equivalent Input Noise Ein:≤-125dBU; Channel Isolation @1KHZ: 100dB, THD+N : ≤0.004% @4dBu, Dynamic Range: 120dB, Background Noise: -90dBU, Input Gain Amplification Range: 24 to -27dB, (3dB Step,17 in total).</p>	No.s	1
8	<p>SITC of Matrix Switcher 8x8: Video Input Interfaces: 8 x HDMI Type A Female (Black), Impedance 100 Ω, Max. Distance 5.0 m / 4K@60Hz (4:4:4), Video Output Interfaces: 8 x HDMI Type A Female (Black), Max. Distance 5m / 4K@60Hz (4:4:4) 15m / 1920 x 1200, Impedance 100 Ω; Video Max. Pixel Clock: 600 MHz, Max. Resolution Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4), Max. Data Rate 18 Gbps (6 Gbps Per Lane), Compliance HDMI (3D, 4K, Deep Color) HDCP 2.2 Compatible, Consumer Electronics Control (CEC); Control:RS-232 Connector: 1 x DB-9 Female (Black) Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No; IR 1 x Mini Stereo Jack Female (Black), Ethernet 1 x RJ-45 Female; EDID Settings : EDID Mode: Default / Port 1 / Remix / Customized (EDID Wizard Support) with Switch 8 Port.</p>	No.s	1

9	SITC of Camera switcher : It should be dual channel video switcher mixer for the streaming generation, mini-pro features four resolution independent inputs – three up to 2K and one up to full 4K@60 to take advantage of native high-performance sources, whether cameras or laptops, without compromising on quality; It should have presets for PIP and PBP , it should also include full pixel-to-pixel scaling capabilities for both the PIP and background video layers ; It should have Audio for output should be selectable from embed ,It should have built-in LCD display just not to only shows video preview, but it should be touch enabled for day to day operation of features and settings. ; It should have features including dynamic output control, preview multi-view, picture in picture, Chroma Key, video transitions, on board PTZ camera controls etc.;; Stream : It should have superspeed USB3.0 streaming in which just by connecting the device to a laptop or other device it should stream quickly and easily to various social media and streaming platforms as well as a vast array of popular collaboration applications.;; Go Live : It should be able to display local and live with the 2K HDMI output port – which should be used for a preview or the live program output. It should be more than a streaming switcher and should also be a live event switcher; Record: It should be able to from dedicated USB port to capture, record video and audio directly from the device with any portable HDD up to 2TB.;; Control : It should have on board control for PTZ cameras directly within the device. It should save attribute views of cameras for recall at the touch of a button; Preview: It should be able showcase all sources live immediately in the builtin LCD display. It should have the facility to get connected to a video output and should display a multi-view preview to always see the next preset before going live; Mix: It should have transition and switch between live video program and preset. It should be able to recall saved preset views along with scaled video layers.	No.s	1
10	SITC of HDMI Extenders	No.s	8
11	SITC of Cable & Connectors	Lot	1
12	All repairing & wooden polishing work	Job	1
13	Installation & Programming (As per Site Location)	Job	1

APPROVED MAKE LIST OF EQUIPMENT / ACCESSORIES

S. No.	Particulars	Approved Makes
1	SITC of PTZ Camera, 20X Optical Zoom with Look At Me Compatible	Clockaudio/ATDSC/ EQUIPSON/ Polycom/CISCO or equivalent
2	SITC of Boundary Layer Chairman Unit Microphone: with Look At Me Compatible	Clockaudio/ATDSC/ EQUIPSON/Shure or equivalent
3	SITC of Boundary Layer Delegate Unit Microphone: with Look At Me Compatible	Clockaudio/ATDSC/ EQUIPSON/Shure or equivalent
4	SITC of Audio Controller: (For Audio Conferencing Mic.)	Clockaudio/ATDSC/ EQUIPSON or equivalent
5	SITC of integrated Look At Me Processor with Audio controller: Integrated Look At Me controller	Clockaudio/ATDSC/ EQUIPSON/Crestron or equivalent
6	SITC of Amplifier- Amplifier Output Power: 4 x 230W @ 2ohm 4 x 150W @ 4 ohm 4 x 90W @ 8 ohm. Output Power (Bridge): 400W	ELIPSON/ EQUIPSON/ EAW/Bittner or equivalent
7	SITC of Digital Signal Processor	Erthpot/Danacoid/Biamp/People Link or equivalent
8	SITC of Cable Cubby - 1 x HDMI, 1 x USB, 1 X RJ 45	ATDSC/ATEN/Kramer or equivalent
9	SITC of Matrix Switcher 8x8	Kramer/ATEN/Atlona/People Link/RGBlink or equivalent
10	SITC of Distribution Amplifier: 1 x 4HDMI Out Distribution Amplifier.	ATEN/ATDSC/Kramer/ People Link/RGBlink or equivalent
11	SITC of Camera switcher	RGBLINK / Kramer / Crestron or equivalent
12	SITC of HDMI Extenders	ATDSC/ Liberty/ATEN or equivalent
13	SITC of Customized Metal Plates	Customized
14	SITC of Storage Rack 24U	Standard
15	SITC of Cable & Connectors	Standard
16	All repairing & wooden polishing work	Customized
17	Installation & Programming (As per Site Location)	Standard

Part-2

PRICE BID (Under Buy-Back Scheme)

S.NO.	DESCRIPTION	QNTY	RATE	AMOUNT
1	Upgradation/Installation of Audio-Visual System in Seminar Hall-1 (A) and Room 005 (B) as per Annexure-1 below including manpower support as and when required	1 Job		
2	Price Quote under Buy-Back of old Equipment listed as per Annexure-2 (A) and (B) below	1 Job		
3	TOTAL AMOUNT			
4	GST			
5	GRAND TOTAL IN FIGURE			

GRAND TOTAL IN WORDS: _____

Date:

Seal and Signature of the Bidder

Place:

NOTE:

1. This sheet is to remain vacant till Technical Bid.
2. No over-writing/cutting is allowed.
3. If the difference observed in words & figure, higher of the two shall be considered.

PRICE STATEMENT FOR SEMINAR HALL – 1

(A)

Sr.No.	Description/Details	Unit	Quantity	HSN Code	Amount
1	SITC of PTZ Camera ; USB based : Yes; Zoom : Minimum 20X Optical Zoom; Iris: f=5.57~110mm ; F1.6 ~ F3.5;Viewing Angle:3.3° (tele) –54.7° Wide ;Sensor:1 /2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel ; Video Format: SDI Video Formats: 1080P60/50/30/25/59.94/29.97 ; 1080I60/50/59.94. 720P / 50/ 30 / 25 /59.94/29.97; Minimum illumination:0.5 Lux ; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus : Should be Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve; SNR : >55 dB; Interface:: USB 3.0 x1, HDMI x1, , LAN x1, RS232 x1; Video Compression Format:H.265/H.264 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; LAN Port :Yes; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181; Pan Rotation:+ 170° Tilt Rotation : -30°~+90° ; Pan Control Speed: 0.1~100°/second ;Tilt Control Speed : 0.1~45°/second ;Preset Speed: Pan: 100°/second, Tilt 45°/second ;Preset Number:255 preset with Look At Me Compatible	No.s	3		
2	SITC of Boundary Layer Chairman Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Chairman With Priority Button; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light with Look At Me Compatible	No.s	1		
3	SITC of Boundary Layer Delegate Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light with Look At Me Compatible	No.s	34		
4	SITC of Audio Controller: The main unit of the portable digital conference system can support 60 units of Chairman & Delegate microphone.; It support 250 Microphones with extension power unit.; Equipped with four groups or 8p-DIN interface for system connecting.; Modes : Discuss mode, Free mode, FIFO mode (1-9),Limit mode (1-9) ; 9 Microphones can be on at a time. First In First Out; The working mode is displayed on LCD screen. ; Look At Me –	No.s	1		

	Speaker tracking compatible with camera and processor; Connection: 8PIN x 3 plugs for Microphone ; 8 PIN x1 socket for system connection; RCA : 4 x RCA Port; RJ 45 x 1; XLR Port x 1 (For Audio Conferencing Mic.)				
5	SITC of integrated Look At Me Processor with Audio controller: Integrated Look At Me controller-Should have Built-in video switching matrix having 4 HDMI inputs & 1 HDMI output., Should have 256 video camera auto-track control points, Should support Multi-machine cascade. It should support Pelco-D and VISCA protocol (Pelco-D, Baud Rate: 9600, VISCA, Baud Rate: 9600). , The processor should communicate with the equipment by RS232 interface, with computer or video switching matrix. It should support High speed shifting with the camera which shall follow the location for last opening of all speaking representative, when the microphone which opened last was closed, the camera should follow back the last following spot, and when all the microphone are closed, the camera should automatically moves back to the standby position. When its working without the computer, it can be set through the controller itself with the button on board, and should also set by the IR controller. It should consist of power switch, Camera number selecting button (VIDICON 1-8), Send the camera output to the related display screen through pressing this button, Processor power indicative lamp, , Busy indicative lamp, Camera selecting indicative lamp, Camera zoom setting, Camera direction set button (up, down, left, right), Save button (save the pre-setting spot), USB connection interface to PC, and for connecting to another video matrix, Should have the port to connect it computer to setup the software function. It should control pan and tilt move directly from software. It should have Data port to connect to the main conference unit, These inputs should get connected with the camera and should support 4 cameras. Should have HDMI Out to show camera output directly to a display.	No.s	1		
6	SITC of Amplifier- Amplifier Output Power: 4 x 230W @ 2ohm 4 x 150W @ 4 ohm 4 x 90W @ 8 ohm. Output Power (Bridge): 400W @ 4 ohm 310W @ 8 ohm. Inputs (Impedance/Sensitivity): 20k ohm / 1 V / 0±1 dBu; Frequency Response (stereo mode): 20 Hz - 20 kHz -3dB. Frequency Response (sub mode): 20 Hz - (50 Hz - 250 Hz) -3dB. S/N Ratio: >96 dB. THD: Less than 0.1% at 1kHz, rated power. Input Impedance: 20k ohm balanced or 10k ohm unbalanced. LED indicators for power on; Load protection: on/off mute, DC fault grounding relay, internal fault fuses.	No.s	1		
7	SITC of Digital Signal Processor :DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module; Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports	No.s	1		

	recording & play; Support for scene preset function. Automatic power failure protection memory function. Full-featured matrix mixing function. User definable GUI windows-based control software to manage & configure the DSP unit. Built-in automatic camera tracking function. Sampling rate 48KHz; Phantom Power: 48V, Frequency Response:20 - 20KHz, ±0.2dB; Input/Output Level: 18dBu , Output Impedance: 100Ω, Equivalent Input Noise Ein:≤-125dBu; Channel Isolation @1KHz: 100dB, THD+N : ≤0.004% @4dBu, Dynamic Range: 120dB, Background Noise: -90dBu, Input Gain Amplification Range: 24 to -27dB, (3dB Step,17 in total).				
8	SITC of Cable Cubby - 1 x HDMI, 1 x USB, 1 X RJ 45	No.s	2		
9	SITC of Matrix Switcher 8x8: Video Input Interfaces: 8 x HDMI Type A Female (Black), Impedance 100 Ω, Max. Distance 5.0 m / 4K@60Hz (4:4:4), Video Output Interfaces: 8 x HDMI Type A Female (Black), Max. Distance 5m / 4K@60Hz (4:4:4) 15m / 1920 x 1200, Impedance 100 Ω; Video Max. Pixel Clock: 600 MHz, Max. Resolution Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4), Max. Data Rate 18 Gbps(6 Gbps Per Lane), Compliance HDMI (3D, 4K, Deep Color) HDCP 2.2 Compatible, Consumer Electronics Control (CEC); Control:RS-232 Connector: 1 x DB-9 Female (Black) Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No; IR 1 x Mini Stereo Jack Female (Black), Ethernet 1 x RJ-45 Female; EDID Settings : EDID Mode: Default / Port 1 / Remix / Customized (EDID Wizard Support).	No.s	1		
10	SITC of Distribution Amplifier: 1 x 4HDMI Out Distribution Amplifier. Apply for STB, DVD, media player, laptop, D-VHS and other HD-Player devices. It should be compatible with HDMI 3D and 4Kx2K.; Compliant: It should be complaint to distribute 1 HDMI source to 4 HDMI displays, support ultra HD resolution 4Kx 2K @60Hz, support HDMI 3D, Support YUV 4:4:4; Support HDR, HDMI 2.0 and HDCP 2.2 compliant, Low power consumption, Should support and configure the video resolution automatically according to the capabilities of each connected monitor, Should allow simultaneous mixed 4k and 1080p display outputs.	No.s	1		
11	SITC of Camera switcher : It should be dual channel video switcher mixer for the streaming generation, mini-pro features four resolution independent inputs – three up to 2K and one up to full 4K@60 to take advantage of native high-performance sources, whether cameras or laptops, without compromising on quality; It should have presets for PIP and PBP , it should also include full pixel-to-pixel scaling capabilities for both the PIP and background video layers ; It should have Audio for output should be selectable from embed ,It should have built-in LCD display just not to only shows video preview, but it should be touch enabled for day to day operation of features and settings. ; It should have features including dynamic output	No.s	1		

	control, preview multi-view, picture in picture, Chroma Key, video transitions, on board PTZ camera controls etc.; Stream : It should have superspeed USB3.0 streaming in which just by connecting the device to a laptop or other device it should stream quickly and easily to various social media and streaming platforms as well as a vast array of popular collaboration applications.; Go Live : It should be able to display local and live with the 2K HDMI output port – which should be used for a preview or the live program output. It should be more than a streaming switcher and should also be a live event switcher; Record: It should be able to from dedicated USB port to capture, record video and audio directly from the device with any portable HDD up to 2TB.; Control : It should have on board control for PTZ cameras directly within the device. It should save attribute views of cameras for recall at the touch of a button; Preview: It should be able showcase all sources live immediately in the builtin LCD display. It should have the facility to get connected to a video output and should display a multi-view preview to always see the next preset before going live; Mix: It should have transition and switch between live video program and preset. It should be able to recall saved preset views along with scaled video layers.				
12	SITC of HDMI Extenders	No.s	1		
13	SITC of Customized Metal Plates	No.s	35		
14	SITC of Storage Rack 24U	No.s	1		
15	SITC of Cable & Connectors	Lot	1		
16	All repairing & wooden polishing work	Job	1		
17	Installation & Programming (As per Site Location)	Job	1		
	<u>Note: GST not to be included.</u>			SUB TOTAL	
				GST % Amt.	
				A) TOTAL Amt. Incl. of GST	

PRICE STATEMENT FOR ROOM 005

(B)

Sr. No	Description/Details	Unit	Quantity	HSN Code	Amount
1	SITC of PTZ Camera ; USB based : Yes; Zoom : Minimum 20X Optical Zoom; Iris:f=5.57~110mm ; F1.6 ~ F3.5;Viewing Angle:3.3° (tele) –54.7° Wide ;Sensor:1/2.8inch or better CMOS sensor; Pixels:2.07 Mega Pixel ; Video Format: SDI Video Formats: 1080P60/50/30/25/59.94/29.97 ; 1080I60/50/59.94. 720P / 50/ 30 / 25 /59.94/29.97; Minimum illumination:0.5 Lux ; DNR:2D & 3D DNR; White Balance :Auto/Manual/One push 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K /7000K; Electronic Shutter : Auto/Manual; Focus : Should be Auto/Manual/One Push; BLC:ON/Off; WDR : Off/Dynamic level adjustment; Video Adjustment: Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve; SNR : >55 dB; Interface:: USB 3.0 x1, HDMI x1, , LAN x1, RS232 x1; Video Compression Format:H.265/H.264 ; Control Protocol: VISCA/PELCO-D/Pelco-P; Baud Rate : 11520 / 9600 / 4800 / 2400 ; LAN Port :Yes; Network Protocol: RTSP/RTMP/ ONVIF, GB/T28181; Pan Rotation:+ 170° Tilt Rotation :- 30°~+90° ; Pan Control Speed: 0.1~100°/second ;Tilt Control Speed : 0.1~45°/second ;Preset Speed: Pan: 100°/second, Tilt 45°/second ;Preset Number:255 preset with Look At Me Compatible	No.s	1		
2	SITC of Boundary Layer Chairman Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Chairman With Priority Button; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light.	No.s	1		
3	SITC of Boundary Layer Delegate Unit Microphone: Frequency Response: 40Hz-16KHz; Sensitivity: -44 dB:2dB ; Polar Patern : Cardioid; Base Dimension : : 120(L) mm x 85mm (W) x 20mm(H); Supports Discussion & Video; Connectivity : Daisy Chain connection with Loop In Loop Out; Connection : 6 Pin; Base indicate : Led Light.	No.s	26		
4	SITC of Audio Controller: The main unit of the portable digital conference system can support 60 units of Chairman & Delegate microphone.; It support 250 Microphones with extension power unit.; Equipped with four groups or 8p-DIN interface for system connecting.; Modes : Discuss mode, Free mode, FIFO mode (1-9),Limit mode (1-9) ; 9 Microphones can be on at a time. First In First Out; The working mode is displayed on LCD screen. ; Look At Me – Speaker tracking compatible with camera and processor; Connection: 8PIN x 3 plugs for Microphone ; 8 PIN x1 socket for system connection; RCA : 4 x RCA Port; RJ 45 x 1; XLR Port x 1 (For Audio Conferencing Mic.)	No.s	1		

5	<p>SITC of integrated Look At Me Processor with Audio controller: Integrated Look At Me controller-Should have Built-in video switching matrix having 4 HDMI inputs & 1 HDMI output., Should have 256 video camera auto-track control points, Should support Multi-machine cascade. It should support Pelco-D and VISCA protocol (Pelco-D, Baud Rate: 9600, VISCA, Baud Rate: 9600). , The processor should communicate with the equipment by RS232 interface, with computer or video switching matrix. It should support High speed shifting with the camera which shall follow the location for last opening of all speaking representative, when the microphone which opened last was closed, the camera should follow back the last following spot, and when all the microphone are closed, the camera should automatically moves back to the standby position. When its working without the computer, it can be set through the controller itself with the button on board, and should also set by the IR controller. It should consist of power switch, Camera number selecting button (VIDICON 1-8), Send the camera output to the related display screen through pressing this button, Processor power indicative lamp, , Busy indicative lamp, Camera selecting indicative lamp, Camera zoom setting, Camera direction set button (up, down, left, right), Save button (save the pre-setting spot), USB connection interface to PC, and for connecting to another video matrix, Should have the port to connect it computer to setup the software function. It should control pan and tilt move directly from software. It should have Data port to connect to the main conference unit, These inputs should get connected with the camera and should support 4 cameras. Should have HDMI Out to show camera output directly to a display.</p>	No.s	1		
6	<p>SITC of Amplifier- Amplifier Output Power: 4 x 230W @ 2ohm 4 x 150W @ 4 ohm 4 x 90W @ 8 ohm. Output Power (Bridge): 400W @ 4 ohm 310W @ 8 ohm. Inputs (Impedance/Sensitivity): 20k ohm / 1 V / 0±1 dBu; Frequency Response (stereo mode): 20 Hz - 20 kHz -3dB. Frequency Response (sub mode): 20 Hz - (50 Hz - 250 Hz) -3dB. S/N Ratio: >96 dB. THD: Less than 0.1% at 1kHz, rated power. Input Impedance: 20k ohm balanced or 10k ohm unbalanced. LED indicators for power on; Load protection: on/off mute, DC fault grounding relay, internal fault fuses.</p>	No.s	1		
7	<p>SITC of Digital Signal Processor :DSP audio processing, built-in automatic mixing console, Ducker dodger, optional feedback elimination, echo elimination, noise elimination module; Input Per Channel: Preamplifier, signal generator, expander, compressor, 10-band parametric equalization. Output Per channel: 31-band graphic equalizer, delay, crossover, limiter. Built-in bi-directional USB Audio Interface for soft codec conferencing solution supports recording & play; Support for scene preset function. Automatic power failure protection memory function. Full-featured matrix mixing function. User definable GUI windows-based control software to manage & configure the DSP unit. Built-in automatic camera tracking function. Sampling rate 48KHz; Phantom Power: 48V, Frequency Response:20 - 20KHz, ±0.2dB; Input/Output Level: 18dBu , Output Impedance: 100Ω, Equivalent Input Noise Ein:≤-125dBu; Channel Isolation @1KHZ: 100dB,</p>	No.s	1		

	THD+N : ≤0.004% @4dBu, Dynamic Range: 120dB, Background Noise: -90dBu, Input Gain Amplification Range: 24 to -27dB, (3dB Step,17 in total).				
8	SITC of Matrix Switcher 8x8: Video Input Interfaces: 8 x HDMI Type A Female (Black), Impedance 100 Ω, Max. Distance 5.0 m / 4K@60Hz (4:4:4), Video Output Interfaces: 8 x HDMI Type A Female (Black), Max. Distance 5m / 4K@60Hz (4:4:4) 15m / 1920 x 1200, Impedance 100 Ω; Video Max. Pixel Clock: 600 MHz, Max. Resolution Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4), Max. Data Rate 18 Gbps(6 Gbps Per Lane), Compliance HDMI (3D, 4K, Deep Color) HDCP 2.2 Compatible, Consumer Electronics Control (CEC); Control:RS-232 Connector: 1 x DB-9 Female (Black) Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No; IR 1 x Mini Stereo Jack Female (Black), Ethernet 1 x RJ-45 Female; EDID Settings : EDID Mode: Default / Port 1 / Remix / Customized (EDID Wizard Support) with additional 8 Port Switch	No.s	1		
9	SITC of Camera switcher : It should be dual channel video switcher mixer for the streaming generation, mini-pro features four resolution independent inputs – three up to 2K and one up to full 4K@60 to take advantage of native high-performance sources, whether cameras or laptops, without compromising on quality; It should have presets for PIP and PBP , it should also include full pixel-to-pixel scaling capabilities for both the PIP and background video layers ; It should have Audio for output should be selectable from embed ,It should have built-in LCD display just not to only shows video preview, but it should be touch enabled for day to day operation of features and settings. ; It should have features including dynamic output control, preview multi-view, picture in picture, Chroma Key, video transitions, on board PTZ camera controls etc.; Stream : It should have superspeed USB3.0 streaming in which just by connecting the device to a laptop or other device it should stream quickly and easily to various social media and streaming platforms as well as a vast array of popular collaboration applications.; Go Live : It should be able to display local and live with the 2K HDMI output port – which should be used for a preview or the live program output. It should be more than a streaming switcher and should also be a live event switcher; Record: It should be able to from dedicated USB port to capture, record video and audio directly from the device with any portable HDD up to 2TB.; Control : It should have on board control for PTZ cameras directly within the device. It should save attribute views of cameras for recall at the touch of a button; Preview: It should be able showcase all sources live immediately in the builtin LCD display. It should have the facility to get connected to a video output and should display a multi-view preview to always see the next preset before going live; Mix: It should have transition and switch between live video program and preset. It should be able to recall saved preset views along with scaled video layers.	No.s	1		
10	SITC of HDMI Extenders	No.s	8		
11	SITC of Cable & Connectors	Lot	1		

12	All repairing & wooden polishing work	Job	1		
13	Installation & Programming (As per Site Location)	Job	1		
	<u>Note: GST not to be included</u>	SUB TOTAL			
		GST % Amt.			
		B) TOTAL Amt. Incl. of GST			
		GRAND TOTAL OF ANNX-1 (A+B)			

GRAND TOTAL IN WORDS: _____

Date:

Seal and Signature of the Bidder

Place:

Old Equipment Price Statement (Under Buy Back Scheme)

(A) Equipment list installed in Seminar Hall-1

Sr. No.	Description/Details	Make & Year of Installation 2007	Unit	Rate (Rs)	Amount
1.	Conference Delegate Microphone Unit	Decibel	40		
2.	Power Supply unit, DPS-204	Decibel	02		
3.	Stereo Power Amplifier XKLS 602	Crown	01		
4.	DVD Player/Recorder HDD, RDR-HX720	Sony	01		
5.	Audio Switcher, VP-23	Kramer	01		
6.	Plasma TV 65 Inch	Samsung	01		
7.	LCD TV 42 Inch	Samsung	01		
8.	VGA Mixer, VP-200N	Kramer	01		
9.	Storage Rack	Standard	01		
		A) TOTAL Incl. of GST			

Cont....

(B) Equipment list Installed in Room No 005

Sr. No.	Description/Details	Make & Year of Installation 2009	Unit	Rate (Rs)	Amount
1	Panary Digital Controller	Bose	01		
2	Digital Mixer, MR 88	Clock Audio	03		
3	Audio Processor DFR22	Sure	01		
4	Stereo Power Amplifier 400 watt	Bittner	01		
5	Stereo Power Amplifier 1200 watt	Bittner	01		
6	Australian Monitor Mix, MX-61	Australian	01		
7	Gooseneck Conference Mic	Shure	17		
8	Audio 6x1 XGA switcher, VP-61XL	Kramer	01		
9	HDD DVD Recorder, DMR-EH67	Panasonic	01		
		B) TOTAL Incl. of GST			
		GRAND TOTAL (A+B)			

GRAND TOTAL IN WORDS: _____

Date:

Seal and Signature of the Bidder

Place: