



गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G.)
(A Central University established by the Central Universities Act, 2009)
Phone 07752-260207, fax 07752-260154 Website www.ggu.ac.in

COVER PAGE

e-Tender Notice

“Expression of Interest –cum-Tender”

Expression of Interest –cum- Tender for Design, Supply & Commissioning of
Mass Media & Moocs Studio Lab at GGV Campus

Probable Project Cost : Rs. 190 Lakhs (Inclusive All)
(Including 2 Years AMC)

Tender Cost : Rs. 5,000/- (in form of D.D.)

Earnest money deposit : Rs. 5.70 Lakhs (in form of
D.D./FDR/Bank Guarantee)

Last date of submission of EoI-
cum-Tender : 03/04/2018, Up to 3.00 PM

Pre-Bid Meeting at GGV : 22/03/2018 at 11.00 AM

Date & Time of opening of Technical Bid : 04/04/2018, at 3.00 PM



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EOI No. 25/Engg/GGV/MMM Lab/2018 Bilaspur, Date 09/03/2018

e-Tender Notice

**Expression of Interest-cum-Tender for Design, Supply & Commissioning of
Mass Media & Moocs Studio Lab at GGV Campus**

Guru Ghasidas Vishwavidyalaya (a Central University), Bilaspur (C.G.) invites Expression of Interest (EoI)-cum-Tender through e-tendering from reputed manufacturers/ authorized distributors/ dealers for Design, Supply & Commissioning of Mass Media & Moocs Studio Lab at GGV Campus. Details & formats and other terms & conditions regarding the EOI/tender can be downloaded from the following websites: - www.ggu.ac.in or www.eprocure.gov.in.

Registrar (Acting)

EXPRESSION OF INTEREST–CUM-TENDER FOR DESIGN, SUPPLY & COMMISSIONING OF MASS MEDIA & MOOCs STUDIO LAB AT GGV CAMPUS

Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) invites Expression of Interest (EOI)-cum-Tender from reputed manufacturers /authorized distributors/dealers for Design, Supply & Commissioning of Mass Media & Moocs Studio Lab which can be downloaded from University website www.ggu.ac.in or from CPP Portal www.eprocure.gov.in.

Bid/Tender cost (Non-refundable) of Rs. **5,000/-**, EMD of Rs. 5,70,000/- (Rupees Five Lakhs Seventy Thousand Only) in the form of Demand Draft/FDR/Bank Guarantee from any Nationalized Bank in favor of “Registrar, Guru Ghasidas Vishwavidyalaya” payable at Bilaspur (C.G.) and a CD/DVD containing the Power Point Presentation & layout drawings/design of Mass Media & Moocs Studio Lab with acoustics, furniture & equipment’s, partitioning, with complete interior work, proposed design plan of room with the list of materials, designing, digitization of rooms through Mass Media & Moocs Studio Lab equipment’s must be submitted through registered post/speed post/ courier service only to the prescribed address at GGV within the due date of submission, failing which the bidder/firm will be disqualified in the Technical Bid itself.

The detailed scope of the work for this EoI/Tender is given as under.

S.NO.	Client/ EoI No.	SCOPE OF WORK	Estimate Cost including all (In Rupees)
1	Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur (C.G.) -495009 India EoI No. 25/Engg/GGV/MMM Lab/2018, Dated 09/03/2018	Design, Supply & Commissioning of Mass Media & Moocs Studio Lab at GGV Campus:- The scope of work includes Setup of Studio with required Equipments, Workflow, Connection diagram, Acoustic work, Partitioning, Wall Paneling, False Ceiling, Provision and Installation of Air-Conditioning, Power Distribution and all type of Electrical Work as per requirement,etc	Rs. 190 Lakhs (Inclusive All)

This tender contains the following documents:-

- A. Essential Eligibility Criteria for Bidders
- B. Submission and Evaluation Criteria of Bid/Tender/EoI
- C. General Instructions for Bidders
- D. Declaration (Annexure – I), Technical Specification (Annexure –II)

A. ESSENTIAL ELIGIBILITY CRITERIA FOR BIDDERS

1. The Bidder should have done similar work of studio setup in any Government Organization/ PSU's/ State/ Central University in past 3 years. (Copy of purchase order along with Completion Certificate/ satisfactory report from Client duly attested by bidder should be enclosed along with the Technical Bid).
2. The bidder should have at least an annual turnover of Rs.1.00 Crore for each of the last three financial years. A certificate from Chartered Accountant must be enclosed in support of the statement.
3. The bidder should be a single Company/ Firm. No consortium is allowed. Relevant document in the support of this statement must be enclosed.
4. Copies of the audited balance sheet of the vendor/bidder for the last three financial years, details of Permanent Account Number and ITR (Income Tax Return) for last 3 financial years must be attached by the Bidder.
5. The Bidder must submit the authorization Certificate of the main Studio Equipments from the Original Equipment Manufacturer (OEM) that should be issued after the release date of this EoI/Tender.
6. G.S.T Registration Certificate, Bank mandate of the Company certified by bank & Proof for the firm at least 5 years old (Enclose the copy of Registration Certificate) must be submitted by the bidder.
7. The bidder must enclose a notarized certificate that the Organization has not been black listed by any institution of the Central/ State / PSU/ University/ Institute etc. in the past three years.

The Bid without credentials shall be rejected.

The Bidder must furnish the following information in the tabular form.

ELIGIBILITY CRITERIA AS PER SECTION A							
Information as per clause No.	A-1	A-2	A-3	A-4	A-5	A-6	A-7
Reference page numbers of the documents submitted by the bidder	From-to	From-To	From-to	From-to	From-to	From-to	From-to

B. SUBMISSION AND EVALUATION CRITERIA OF BID/TENDER/EoI

B1. SUBMISSION OF BID/TENDER/EoI

Important:

- a. The EoI/Tender document can be downloaded from the websites www.eprocure.gov.in or www.ggu.ac.in. **Corrigendum, if any, would appear only on the above web sites and will not be published anywhere else.**
- b. Bid must be duly signed by an authorized signatory, who has been authorized by the concerned Firm/Bidder. For this, a Declaration in the prescribed format (**Annexure - I**) duly filled in, sealed and signed on a non-judicial stamp paper of Rs.100/- must be scanned and submitted along with the Technical Bid.
- c. **Tender Cost, EMD, Lay out Drawing and Online (soft copy) Bid Submission**
 - i. The bid document consisting of scope of work and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from websites www.ggu.ac.in or www.eprocure.gov.in.
 - ii. Bid/Tender cost (Non-refundable) of Rs. **5,000/-** should be in the form of demand draft in favor of “The Registrar, Guru GhasidasVishwavidyalaya”, drawn on any nationalized bank payable at Bilaspur (C.G.). EMD of amount **Rs. 5.70 lakh** should in the form of demand draft/FDR/ Bank Guarantee in favor of “ The Registrar, Guru GhasidasVishwavidyalaya”, drawn on any nationalized bank payable at Bilaspur (C.G.).
 - iii. The Bidder must provide in PPT presentation format, the layout drawings/design for furniture & equipment, with outlay of interior work, proposed design plan of the room with the list of materials, in a CD/DVD. The Bidder must ensure that content in this CD/DVD is running successfully.
 - iv. **The above CD/DVD, Original demand draft for Bid Cost (Non-refundable) and D.D./FDR/Bank Guarantee for Earnest Money Deposit (EMD) in a sealed envelope only through speed/registered post/courier service must reach to the following address on or before the last date of submission and time i.e. 03/04/2018 upto 3.00 PM.**

To,

“The University Engineer

Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur (C.G.) – 495009”

- v. The above envelope should be marked “EOI/Tender Notice No. **25/Engg/GGV/MMM Lab/2018 Bilaspur, Date 09/03/2018**”.
- vi. Bidder must register on the website www.eprocure.gov.in for uploading the soft copy of the bid. Those interested Bidders not registered on the website www.eprocure.gov.in mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the above website.
- vii. The intending bidder (s) must read the terms and conditions of this EoI/tender carefully, and should submit bid only if they are eligible and are in possession of all the required documents.
- viii. The intending bidder (s) must have a valid digital signature to submit the bid.
- ix. Bidders should upload documents in the form of PDF format or as per the format available on the website www.eprocure.gov.in.
- x. Bidder must upload on the e-Tendering website www.eprocure.gov.in the scanned copy of demand draft for Bid Cost (Non-refundable), and demand draft/FDR/BG of Earnest Money Deposit (EMD) in PDF format. The copies (Images) of the above two demand drafts should be combined, scanned and uploaded as a single file only with file name as “Bid_Cost_EMD_Name of Bidder.pdf” within the period of bid submission.
- xi. Bidders must upload on the e-Tendering website www.eprocure.gov.in, the scanned copy of the bid documents Technical (in PDF format) and Financial Bids (as per format available on the website (www.eprocure.gov.in)) within the period of bid submission.
- xii. First PDF file titled “Technical Bid Name of Bidder must have all required documents related to Technical Bid.
- xiii. Second file (as per the format available on the website www.eprocure.gov.in) titled “Financial_Bid_Name of Bidder” must have the Financial Bid.
- xiv. The bidders are required to upload and submit the scanned page of Technical documents as per essential eligibility criteria for the bidders and other required documents as per this EoI/Tender.

- xv. **The Technical bid file must contain the scanned copies of duly signed EoI/tender, certified copies of documents related to ESSENTIAL ELIGIBILITY CRITERIA, all relevant information and documents of turnover, work experience certificates, Proof of Registration Certificate of Firm, OEM Authorization letter (as and where applicable), copy of the audited balance sheet of the vendor by the chartered accountant for the last three financial years, Details of Permanent Account Number, ITR (Income Tax Return) for last 3 financial years, ISO Certification, GST registration certificate, bank mandate for company, etc. relevant for evaluating the bidder technically, Declaration (Appendix- I), Corrigendum / Addendum / Other documents, if any, etc.**
- xvi. The bidder shall quote the items (up to 2 Decimals) as per **Appendix –III**.
- xvii. The tenderer (s) is/are required to quote the rate strictly as per the terms and conditions, specifications, standards given in the EoI/Tender documents.
- xviii. Power of Attorney of the person having digital signature for signing/submitting the tender. This should be supported by Board Resolution (in case of a company registered under the Companies Act).
- xix. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as “0”.Therefore, if any cell is left blank and no rate is quoted by the tenderer, rate of such item shall be treated as “0”(ZERO).
- xx. Information and Instructions for tenderers posted on websites shall form part of bid document.
- xxi. The bidders are advised to submit complete details with their bids. The Technical Bid Evaluation will be done on the basis of documents uploaded on e-tendering web site(s) by the bidders with the bids. Bids with Incomplete/Ambiguous information will be rejected.
- xxii. Before the last time and date of submission of bid as notified, the tenderer can submit revised bid any number of times.
- xxiii. On opening date, the Bidder can login and see the bid opening process.
- xxiv. The tenderer (s) if required, may submit queries, if any, through E-mail (E-mail of University Engineer: ueggvbsp@gmail.com or laxmikantjaiswal22@gmail.com) and in writing to the University Engineer, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) to seek clarifications within 07 days

from the date of uploading of Tender on website. GGV will reply to only those queries which are essentially required for submission of bids. GGV will not reply to the queries which are not considered fit like replies of which can be implied /found in the NIT/ EOI Documents or which are not relevant or in contravention to NIT/EOI Documents, queries received after 07 days from the date of uploading of Tender on website, extension of time for opening of technical bids, etc. Technical Bids are to be opened on the scheduled dates. Requests for extension of opening of Technical Bids will not be entertained.

- d. Last date of submission of the bid online as well as original hard copies of DD for Tender Cost & EMD and CD/DVD containing layout drawings, Power Point Presentation etc., for proposed works, etc. is up to 03:00 PM on 03/04/2018.
- e. **Online technical bid documents submitted by tenderers shall be opened only of those tenderers, whose Power Point Presentation and layout drawings/design for furniture with complete work in a CD/DVD, Earnest Money Deposit and Cost of Bid Document are sent to the university in sealed envelope, and are found to be in order and valid.**
- f. Date and Time of opening of the online/sealed envelope at 3.00 PM on 04/04/2018. (Venue: Administrative Block, GGV).
- g. Successful bidder shall have to submit the certified serially numbered hard copies of all the documents uploaded on the designated website and other relevant original documents for verification before award of the work.

B2. EVALUATION CRITERIA & PRICE BID

- I. **Evaluation Criteria** - The broad guidelines for evaluation of Financial Bids will be as follows:
- II. Only those Financial Bids will be opened and evaluated which are found to fulfill all the eligibility and qualifying requirements of this EoI/tender.
- III. **The bidder should quote the rates inclusive of all taxes and all others in Indian Rupees. The total price of all items shall consists of all taxes & duties and other levies (if any) as per Government rules and regulations like GST, Service Tax, Packaging & Forwarding charges, loading, unloading, transportation, transit insurance, Software & hardware installation, commissioning, testing, Training, Technical literature, Tools, AMC, Supply of Educational Content Software, Any other requirement, etc. (as and where**

applicable).

- IV. L₁ (First Lowest) shall be evaluated on total amount of all items as mentioned in the Financial Bid Format (as per Annexure – III).
- V. The rates are to be quoted by the bidders in Indian Rupees only and payment shall also be made to successful bidders in Indian Rupees only.
- VI. All prices shall be fixed and shall not be subject to escalation of any description.
- VII. Quoted price should be prescribed in both words and figures. If there is any discrepancy between word and figures, the quoted rate in words will be taken as final quoted price by the bidder.

A. GENERAL INSTRUCTIONS FOR BIDDERS

1. The vendors/firms/bidder should have valid GST registration. Relevant documents must be attached as required in sections A and B.
2. The entire project will be done by a single vendor. Single company/Firm will be awarded the complete project. No consortium will be entertained.
3. The bidder has to put the firm's seal and signature in full at all pages of the bidding document. Bid must be submitted and signed by the authorized signatory only. Conditional and incomplete offer will be liable to be rejected.
4. The bidder should have an authorized dealership/registered certificate of Studio Classroom Equipment's from the original OEM. The Authorization/ Dealership letter or certificate of principal manufacturing company (OEM) should be issued after the date of publication of this EOI/Tender to be attached in original.
5. Products to be supplied/installed should be brand new and as per the exact specification provided in the tender document (**Annexure–II**).
6. Preference will be given to "Make in India" products.
7. The technically qualified bidder may be asked for physical demonstration or presentation of software features to the University.
8. The seating capacity of the respective room will be as mentioned in the technical specification (**Annexure–II**).
9. The Mass Media & MOOCs Studio Lab shall be developed in one room. Size of the room is approximately 40' × 36'. The room shall be partitioned appropriately for developing the Mass Media and Moocs Lab. Provision for a common control room should be made. The seating capacity in Moocs Lab should be 20. The

seating capacity in Mass Media Lab 20. System shall be also provided for a teacher/trainer as per Technical Specification. As per requirement, the provision for removing the partition between Mass media Lab and Moocs Lab should be also provided. There shall be a common control room inside the Labs. The total estimated cost of the project including AMC charges for two years (inclusive of all) as per this EoI is Rs. 190 Lakhs. The total cost of Fabrication works of the project shall be preferably limited up to Rs. 60.00 Lacs for both the rooms.

10. **Pre-Bid Meeting:** GGV will host a Pre-Bid Meeting of prospective bidders as on 22/03/2018 at 11.00 AM in the Conference hall of Administrative Building of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.). The representatives of the interested organizations may attend the pre -bid Meeting at their own cost.
11. The University reserves the right to modify unilaterally any part of this document at any stage of awarding the work to the successful bidder in the interest of the University.
12. Successful bidders shall ensure that all computer systems are protected from viruses during warranty and AMC period.
13. **Disqualification:** The University may disqualify bids on account of any of the following reasons:
 - (i) If bid is received after the last date and time.
 - (ii) If the tenderer does not upload all the documents (as per sections A and B including service tax, GST, etc. registration) as stipulated in the bid document.
 - (iii) Tenders in which any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.
 - (iv) If the bidder attempts to influence any member of the expert panel.
 - (v) If the bid is conditional.
 - (vi) If the bidder provides any misleading information or conceals any information.
 - (vii) If the Bid is received without the original hard copies of Bid Cost, EMD and a CD/DVD containing layout drawings, Power Point Presentation related to design, etc. of the work.
 - (viii) If the bidders make any corrections, additions, alterations in the downloaded bid document.
 - (ix) If bidder is under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of India (GoI), State / Central Government, or any other of their agencies.
 - (x) Non fulfillment of any of the eligibility criteria as per this EoI/tender
 - (xi) Bid submitted without the Declaration as per Annexure-I

- (xii) The decision of the University in the matter of disqualification shall be final and binding and no further correspondence shall be entertained from any disqualified bidder thereafter.
14. All provisions in this document and future documents to be issued by the University in connection with this work are supplementary and complementary to each other and are not to be read in isolation.
15. Bidders are advised to visit the designated websites www.ggu.ac.in and www.eprocure.gov.in regularly for latest updates & clarifications regarding this EoI/tender and subsequent stages.
16. In the interest of the University, the University reserves the right to:
- i. accept or reject any or all bids for this EoI/tender without assigning any reason, whatsoever at any stage.
 - ii. Amend the selection process at any stage without assigning any reason, whatsoever.
 - iii. Interpret any clause, modify/alter and amend the provisions of this EoI/tender or any other document issued at any stage of selection without assigning any reason, whatsoever.
 - iv. Amend the scope of work without assigning any reason, whatsoever.
 - v. Debar the bidder, if during the process of selection or later at any stage, it is found or discovered that bidder has/ had provided incorrect/misleading information or material misrepresentation or concealment of information sought by the GGV.
 - vi. Close/ cancel the invitation/ tender notice at any stage without assigning any reason, whatsoever.
17. The Technically Eligible bidders, if interested can attend the opening of the Financial Bids. The date and time of opening the financial bid shall be notified later and uploaded on the websites www.ggu.ac.in and www.eprocure.gov.in only.
18. Any addition/deletion/modification of this EoI/tender made before the due date of the tender will be displayed on www.ggu.ac.in or www.eprocure.gov.in website only.
19. In case the last date fixed for the submission of the EoI/tender is declared as the holiday/off-day, the next working day shall be deemed to be the last date.
20. The University reserves the right to verify the particulars furnished by the bidders independently and to obtain feedback from clients of the Bidder for whom, similar services had been rendered out by them.

21. Mere fulfilling the criteria laid down in this EoI/tender does not entitle/guarantee the bidder to be shortlisted/selected/awarded the works at GGV. The decision of acceptance of any or all tender(s) will rest with GGV who does not bind itself to accept the lowest tender and reserves to itself the right to reject any or all of the tenders received without assigning any reason thereof.
22. Period of Validity of Bids: 06 months from the final bid due date.
23. The following shall be noted related to
 - (i) The EMD (without any interest) for all those bidders who are found not eligible shall be returned back to the bidder through registered post/speed post.
 - (ii) The EMD without any interest shall be refunded/returned to remaining bidders after signing of agreement/MoU with the successful bidder.
 - (iii) No exemption from depositing the EMD shall be allowed to any participating bidder.
 - (iv) Validity of EMD shall be six (6) months from the last due date of submission of EoI/tender.
 - (v) EMD shall be forfeited in the following cases:
 - a) If any information or document furnished by the bidder turns out to be misleading or untrue in any material respect;
 - b) If the successful bidder fails to execute the contract/ agreement within the stipulated time or any extension thereof provided by GGV.
 - c) The earnest money deposit (EMD) shall not carry any interest.
24. **Inspection:** GGV or its representative shall have the right to inspect or to test the items to confirm their conformity to the ordered specification. In case any inspected or tested goods fail to conform to the specifications, GGV may reject them and supplier shall either replace the rejected goods or make all alterations necessary to meet specification required free of cost to GGV.
25. The quantities mentioned in the BOQ are approximate quantities. The bidder shall visit the university campus for exact and accurate measurements.
26. As per requirement and in the interest of the University, any other items which are not mentioned in Financial Bid/Technical Specification may be added for which the rate shall be decided on the basis of market rate analysis.
27. As per requirement and in the interest of the University, the quantity mentioned in Financial Bid/Technical Specification may be decreased or increased.

28. The award of the contract will be decided on the basis of evaluation of design layout, connection diagram, material quality to be used, etc. by the bidder. The decision of the University in this regard shall be final and binding on the bidders.
29. **Declaration** as attached in this EoI/tender (**Annexure –I**) must be furnished by the bidder only on non-judicial stamp paper of Rs.100/-.
30. The bidder may visit the university campus and take actual measurement of the room which needs to be designed. University will not pay for any such expenses incurred during the site- visit. It is the complete responsibility of the bidder and has to bear the expense for it. Also, the bidder should take into account the cost of dismantling of complete room which includes previous wall paneling and flooring work, furniture, electrical work, etc. No extra cost will be borne by the university and the complete dismantling work will be done by the vendor itself.
31. University reserves the right to visit the showroom and manufacturing /assembling units of the bidder/OEM for the quality assurance, if it so desires.
32. The items supplied by the firm shall be of high quality, standard & grade and in the inspection/ test or at any later stage, if the supplied items are found to be of inferior quality, the same shall have to be replaced by the supplier at its own cost/expenses within the stipulated period given by the university, failing which the order of the firm may be cancelled. Delayed supply/non-compliance of complete order may also lead to cancellation of work order.
33. **Specification:** The following Specification clause will form part of the contract placed on successful Bidder. The Firm/Bidder shall guarantee to meet the specifications as per **Annexure – II** and incorporate the modifications to the existing design configuration to meet the specific requirement of the University Services as per modifications/requirements recommended after the Maintenance Evaluation Trials. All technical literature and drawings shall be amended as the modifications by the Firm/bidder before supply to the University. The Successful Bidder, in consultation with the University, may carry out technical up gradation/alterations in the design, drawings and specifications due to change in manufacturing procedures, indigenization or obsolescence. This will, however, not in any way, adversely affect the end specifications of the equipment. Changes in technical details, drawings repair and maintenance techniques along with necessary tools as a result of up gradation/alterations will be provided to the University free of cost within 07 days of affecting such up gradation/alterations.

34. **Delivery Period** – Delivery period for supply of items would be within **90** days from the date of supply order. Please note that contract may be cancelled unilaterally by the University in case services / supply are not received within the contracted delivery period. Extension of contracted delivery period will be at the sole discretion of the University with applicability of LD clause.

1. **On Site WARRANTY Maintenance:** The warranty period of 12 months for the all items/goods/ furniture, electronic items, etc. shall be taken into account from the date of completion of supply of products, its successful delivery/inspection installation/commissioning and acceptance by GGV, including accessories if any, whichever is later.

The Firm/Contractor shall fulfill the following conditions during warranty period:

- a) Any defect in the goods/ furniture thereof should be rectified within maximum period of 48 hours of lodging complaint at Nodal Centre and Sites with-public air- transport facilities
- b) Any defect in the supplied goods failing due to defective material manufacturing defects or Quality Control problem at least three times in three months, or where the penalty amount on account of downtime for three months has crossed 10% of the goods value, will be totally replaced by the Vendor at his cost and risk within 30 days, from the date of last failure.
- c) The firm/contractor shall provide contact numbers (preferably toll free) along with Email IDs to the University (GGV) for complaint booking. All these contacts provided by the Firm/contractor should be working, attended and replied. It will be a single window complaint booking system; University shall not be contacting other than this system for maintenance / repair of their materials/services whatsoever.

35. Annual Maintenance Contract (AMC) – The Annual Maintenance for first year is not to be charged for the all items/goods/ furniture, electronic items, etc. as this period will be under on-site warranty maintenance. The AMC charges for subsequent two years (after the first year warranty period as specified before) for all the items except for Fabrication works and furniture items must be mentioned in the bid. Any tax levied thereof on the AMC for these two years shall also to be mentioned distinctly. The decision of calculating L₁ (first lowest) will be governed by AMC as well.

36. Payment Terms: It will be mandatory for the Bidders to indicate their bank account numbers and other relevant e-payment details so that payments could be made through ECS/NEFT mechanism instead of payment through cheques, wherever feasible. The payment will be made as per the following terms, on production of the requisite documents.

- (i) No advance payment(s) will be made.**
- (ii)** The payment will be made as per the following terms, on production of the requisite documents: 30% of the contract value will be payable on completion of Fabrication works and balance 70% on successful installation, commissioning, testing, acceptance, receipt of Guarantee / Warranty certificate, user's manual, accessories, etc. by the GGV.
- (iii)** The AMC charges for the subsequent 2 years mentioned by the bidder in the Financial Bid shall be paid in four installments each at the end of six months.
- (iv)** In the interest of the University, any items and or quantities mentioned in the Technical Specifications (**Annexure-II**) may be increased or decreased. The AMC charges as quoted in the Financial Bid (**Annexure – III**) by the bidder may be increased or decreased accordingly on pro-rata basis of the total cost incurred on all the items and or quantities (except for Fabrication and Furniture items) after development & commissioning of Mass Media & MOOCs Studio Lab.

37. Performance Warranty: The EMD deposited by the successful bidder shall be treated as performance guarantee for the firm in case the work is awarded to the concerned Bidder. The same shall be released after the 30 days of satisfactory execution of the all the work

38. Security Deposit: Security Deposit (SD) @ 5% of the basic amount (excluding Taxation), as per contract/work order shall have to be submitted along with the bill in the form of DD/FDR/Bank Guarantee from any Nationalized Bank, Otherwise, the same amount will be deducted from the billed amount. On satisfactory completion of the liability period (that is warranty period of 12 months); SD will be released to the Contractor/Firm on demand 30 days after expiry of the liability period.

39. The items should be delivered without any extra cost at the university premises and will also have to be installed/assembled without any extra cost. All expenses incurred due to transport, packing, forwarding, loading-unloading, transportation,

transit insurance etc. shall have to be borne by the vendor/ firm only.

40. **Transfer and Sub-letting:** The Successful Bidder has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contractor any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.
41. **Non-disclosure of Contract documents:** Except with the written consent of the University, the firm/bidder and other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.
42. **Patents and other Industrial Property Rights:** The prices stated in the present Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Firm/Bidder shall indemnify the University against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Successful Bidder shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.
43. **Fall Clause:** The following Fall clause will form part of the contract–
- (i) The price charged for the services and stores supplied under the contract by the Bidder / firm shall in no event exceed the lowest prices at which the Bidder / firm sells the stores and services or offer to sell stores and services of identical description to any persons/Organization including the purchaser or any department of the Central government or any Department of state government or any statutory undertaking the central or state government as the case may be during the period till performance of all supply Orders placed during the currency of the rate contract is completed.
 - (ii) If at any time, during the said period the Successful Bidder reduces the sale price, sells or offer to sell such stores and services to any person/organization including the University or any Dept. of Central Govt. or any Department of the State Government or any Statutory undertaking of the Central or state Government as the case may be at a price lower than the price chargeable under the contract, the Bidder/Firm shall forthwith notify such reduction or

sale or offer of sale to the University and the price payable under the contract for the stores of such reduction of sale or offer of the sale shall stand correspondingly reduced.

44. Risk & Expense clause

- (a) Should the fabrication of items is not carried out within the time or times specified in the contract documents, or if defective fabrication is done, the client shall after granting the Contractor/Firm one week to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.
 - (b) Should the fabrication or any installment thereof not perform in accordance with the specifications / parameters provided by the CONTRACTOR during the check proof tests to be done in the CUSTOMER's country, the client shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.
 - (c) In case of a material breach that was not remedied within 45 days, the client shall, having given the right of first refusal to the CONTRACTOR/Firm be at liberty to purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to make good:- (i) Such default. (ii) In the event of the contract being wholly determined the balance of the stores remaining to be delivered there under.
 - (d) Any excess of the purchase price, cost of manufacturer, or value of any stores procured from any other supplier as the case may be, over the contract price appropriate to such default or balance shall be recoverable from the CONTRACTOR/Firm. Such recoveries shall not exceed 10% of the value of the contract.”
45. **Contract Agreement:** The contract agreement will be made between the GGV Bilaspur and the successful bidder. GGV has all the rights reserved to make alterations/addition/deletion in the conditions of this EoI/tender and conditions of payment in the interest of the University.
46. **Amendments to the Agreement:** Modifications if any in this AGREEMENT must be in writing and shall be signed by both parties.
47. **Time Limit for Validity of the Agreement:** Unless extended by mutual consent of both the Client and the Firm/Contractor (PARTIES), the Agreement will be

valid for a period of 90 days beyond the date of the liability Period after completion of the last works contract under this agreement.

48. Termination of Contract

The University shall have the right to terminate this Contract in part or in full in any of the following cases:-

- (i) The delivery of the material is delayed for causes not attributable to Force Majeure for more than (01 months) after the scheduled date of delivery.
- (ii) The Successful Bidder is declared bankrupt or becomes insolvent.
- (iii) The delivery of material is delayed due to causes of Force Majeure by more than (02 months) provided Force Majeure clause is included in contract
- (iv) The University has noticed that the Successful Bidder has utilized the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual/company etc.
- (v) As per decision of the Arbitration Tribunal.

49. Force Majeure

- (i) Neither the Firm/Contractor nor the Client shall be considered as defaulting in the Performance of their obligations under this Agreement, as long as such performance is prevented or delayed, for reason, beyond the reasonable Control of the party claiming the existences of Force Majeure such as Acts of God, severe earthquake, cyclone (except monsoon), floods, lightning, land slide, fire or explosions, plague or epidemics, strikes, lockouts (lasting more than 14 consecutive calendar days), sabotage, blockade, war riots, invasion, acts of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, insurrection or military usurped power or confiscation or trade embargoes or destruction of requisition by order of any Government or any Public Authority. The party claiming the existence of Force Majeure shall within ten days or within shortest possible period without delay, as the case may be, notify the other party about the occurrence of the Force Majeure event and provide the other details of arising ceasing of the impediment. At the end of the impediment, the party claiming the existence of Force Majeure shall provide necessary documental proof of cessation.
- (ii) As soon as the cause of Force Majeure has got removed, the party whose ability to perform its obligations has been affected shall notify the other of such cessation and of the actual delay incurred in such affected activity, including necessary evidence

in support thereof. From the date of occurrence of a case of Force Majeure, obligations of the party affected shall be suspended during the continuance of Force Majeure Conditions and any liability so caused until the case itself and the inability so caused resulting there from have been removed, the agreed time of completion of the respective obligations under this contract shall stand extended by a period equal to the period of delay occasioned by such events.

- (iii) Should one or both the parties be prevented from fulfilling the contractual obligations by state of Force Majeure lasting continuously for a period of six months, the parties shall consult each other regarding the future implementation of the Project.

50. **Liquidated Damages Clause:** In case the work described is delayed beyond the stipulated period of completion, for reasons directly attributable to Firm, a sum equivalent to 0.5% (half percent) of fees for of each completed week by which the work has been delayed subject to maximum of 10% (ten percent) of the fees, shall be levied by way of liquidated damages not by way of penalty. This shall however not absolve the Firm/contractor of the responsibilities and obligations under the contract to complete the execution of work as per the completion time schedule.
51. **Professional Misconduct:** If any time, it is noticed that deliberate attempt has been made by the Bidder to cause over payment to the contractors by over measurement or over estimation of the rates or substandard work is accepted and recommended for payment, the amount shall be recovered from the payments due the Firm/Contractor not only from this contract but also from any other contract awarded by this Client and other means available to the Client. The matter will be viewed as a professional misconduct and strict action as per law will be taken.
52. **Confidentiality:** Except with the prior written consent by the Client, the Firm/Contractor and their representatives shall not at any time communicate to any person or entity any confidential information disclosed to them for the purpose of the services. The Firm/Contractor shall not publicize any information pertaining to Client which is discussed with them during course of execution of work in the interest of project completion.
53. **Indemnification:** The Firm/Contractor shall indemnify the Client for any loss resulting from and as a consequence of errors, omissions arising out of gross negligence on the part of the Firm/Contractor or on the part of their employees/representatives/agents and shall take necessary action to remedy the

loss, such as removal of defects, deficiencies and such other action as considered necessary by the client to remedy the loss arising from such negligence.

54. **Third Party Liability:** The Client shall not be liable for any injury/death, caused to any official, employee, representative or agent of the Firm/Contractor or their sub- Firm/Contractor s working at the site or damage to their properties for any reason whatsoever and Client shall not entertain any claim from any person on that behalf. It would be the responsibility of the Firm/Contractor to get their official, employees, representatives, agents or their sub-Firm/Contractor s insured against the possible risks involved in the discharge of their duties at the worksite.
55. **Arbitration:** Any dispute arising out of this agreement shall be settled through mutual discussion and consultations among the parties. In case the parties would not come under fruitful conclusion on the disputes, the matter shall be referred to the Sole Arbitrator by either party. The Sole Arbitrator shall be the representative nominated by the Vice Chancellor of Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.). The decision of the sole arbitrator shall be final and binding upon the parties to the disputes.
56. **COURT JURISDICTION:** THE UNIVERSITY SHALL NOT BE BOUND TO GIVE JUSTIFICATION FOR ANY ASPECT OF THE SELECTION PROCESS AND THE DECISION OF THE UNIVERSITY SHALL BE FINAL AND BINDING ON ALL WITHOUT ANY RIGHT OF APPEAL. FURTHER, IN CASE OF ANY DISPUTE, ANY SUITE OR LEGAL PROCEEDINGS AGAINST THE UNIVERSITY, THE JURISDICTION SHALL BE RESTRICTED TO THE COURTS AT BILASPUR, CHHATTISGARH.
57. In case of any ambiguity /anything not contained in this document, GGV reserves the right to take discretionary decision without assigning any reason thereof and it will be binding on concerned/all bidders. The University also reserves the right to cancel/reject any bid due to any reason including human error in calculation incurred during process. The GGV shall be free to cancel the whole or part of tender without assigning any reason.

Annexure - I

DECLARATION

- I, ----- Son /Daughter of Shri -----
Proprietor/ Partner/ Director/ Authorized Signatory of M/s. -----
and I am competent to sign this declaration and execute this Tender document.
2. I have carefully read and understood all the terms and conditions including detail requirements for financial bid of the Tender and hereby convey my acceptance of the same.
 3. The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.
 4. I/ we/ am are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my bid at any stage besides liabilities towards prosecution under appropriate law.
 5. Our firm is neither blacklisted by any Government Department nor is any Criminal Case registered against the firm or its owner or partners or directors anywhere in India.
 6. I/ We have read the above mentioned Eligibility Criteria (Section A), Submission and Evaluation Criteria of Bid/Tender/EoI (Section B), General Terms & Conditions (Section-C), Financial bid submission, etc. of this tender very carefully and hereby agree to execute the work on the offered rates quoted by me/us in the enclosed schedule (Annexure-II & Annexure-III) and on the above terms & conditions.
 7. I/We have done myself/ ourselves fully satisfied to read and examine the Notice Inviting, General Conditions & various clauses of contract, all annexure, special conditions & specifications, applicable specifications, drawings, designs, applicable schedule of rates, descriptions of items of works, all the rules in respect of contract and all other contents in the tender documents and hereby agreed for the execution of the said specified works for the University Authority within the above time period in accordance with that at the rate quoted in the following Table.

Dated:

Witness Names & Signature-----

Address -----

Occupation -----

Signature of Contractor/ Bidder.....

Name.....

Designation.....

Phone /Mob. No.,.....

Email ID.....

Firm's seal.....

NOTE: -

- 1 The above declaration, duly signed and sealed by the authorized signatory of the firm/company, should be enclosed with the Tender document.
- 2 Certificate as per above must be submitted only on non-judicial stamp paper of Rs.100/-

TECHNICAL SPECIFICATION (ANNEXURE-II)

ROOM SIZE:- 40'X36'

SYSTEM REQUIREMENTS:-

- 1 Dedicated Internet lease line of minimum 4 Mbps, Network router with at least 4 client port.**
- 2 Third party server/ CDN (Stream Name and Stream URL required to publish through streaming server)**

S.No.	Product Description		Qty
1	8-Channel Digital Video Switcher:-		1 Nos.
	i)	Video Standards	HD & SD
	ii)	Supported Video Formats	3G/HD/SD input:, 1080i 50/59.94/60Hz, 1080p 25/30/59.94/60Hz, HD Output: 1080i 50/59.94/60Hz, SD: 576i 50Hz, 480i 59.94Hz,4k
	iii)	Video Processing	SDI: 4:2:2, HDMI: YUV 4:2:2 10 bit, RGB 4:4:4
	iv)	Input Routable / Cross point	All 8, repeatable
	v)	Number of Inputs in Switcher must be upgradable	Up to 12-Channel in future
	vi)	Video Input	Standard: 8x SDI, 2x HDMI Max Expandable Up to : 12x SDI, 3x HDMI
	vii)	Mix HD & SD source	Yes
	viii)	Computer Graphic Interface	Minimum 2 Via HDMI
	ix)	Video output	4x SDI assignable: PGM, PVW, AUX & Clean Out 2x HDMI assignable: PGM & multi-view
	x)	Down-converted output	Yes, 4x SDI (CH1-CH4)
	xi)	Built-in Multi-view monitoring out	2x HDMI
	xii)	Audio input	4x Balanced XLR
	xiii)	Audio output	2x Balanced XLR
	xiv)	Embedded audio support	Input up to 16 channels, Output 4 channels
	xv)	Audio Delay Calibration in Each SDI Input	Up to 8 frames
	xvi)	A+V switching	Yes
	xvii)	Support Character Generator Software	Yes
	xviii)	DSK	2x DSK Each support Luma key & Linear key (Key / Fill)
	xix)	Picture in Picture	2
	xx)	Logo from Switcher Built-in Memory	2xlog or 1-Logo & 1-Clock
	xxi)	Switcher Built-in Memory Still Store	1 on Each Input Minimum 8 up to 12 Stills
	xxii)	Switching Effects	FTB, Cut, 8 Wipe with border

	xxiii)	Transition Preview	PIP & DSK	
	xxiv)	Sync / Reference In/Out	Built-in Gen lock, Support external sync with loop thru	
	xxv)	Tally Output	1x D-sub 25pin, dual color	
	xxvi)	PC Remote Control	Via Ethernet (free Window software) or RS-422	
	xxvii)	Hardware Control Panel	Switcher Must be provided with Compatible Hardware Control Panel	
	xxviii)	Special Features	2-CH SD down convert output	
2	HDMI Based LCD/LED TV:-			1 Nos.
	i)	Screen Size	40" or better	
	ii)	Chassis	Wall mount & Table top Both Accessories Should be provided	
	iii)	LCD/LED Panel Resolution	1920 x 1080	
	iv)	Viewing Angle	(H) +70/-70°, (V) +60/-60°	
	v)	Supported Resolutions	1080 50i, 720 50p, 1080 50p	
	vi)	Video Inputs	2x HDMI	
	vii)	Aspect Ratio	16:9, 4:3	
	viii)	Audio In/Out	HDMI audio	
	ix)	Audio Out	3.5 mm Jack Headphone/RCA Output	
3	Intercom System:-			1 Nos.
	i)	Supports Channels	8-Way talkback	
	ii)	Additional Standard external earphone and microphone interface For Using 3rd Party Headphones/mic	Yes	
	iii)	tally light indicator	Dual color	
	iv)	Selectable mode of Communication	channel talk, broadcast to all or mute	
	v)	Enables clean and clear communication between the camera crew and the director	Yes	
	vi)	Communication distance	up to 200m	
	vii)	Supplied with	gooseneck mic and LED light	
	viii)	Chasis	19 inches 1 RU Rack Mountable with Mounting kit	
	ix)	standard package includes	4 sets of belt-pack accessories: Headphone with mic, Talkback Cable, Belt pack Unit, Tally LED Lights	
4	Audio Delay Cum Mixer:-			1 Nos.
	i)	Audio-Input	6x XLR, 2x RCA	
	ii)	Audio Output	4x XLR, 2x RCA, 1x 3.5mm	
	iii)	Audio Indicator	1.77" Color OLED	
	iv)	Audio Delay on each Audio Input Individually	0 to 3 Seconds	
	v)	Special Feature	Audio Delay and Mix, delay by channel	

	vi)	Supports Mic Level Inputs	Yes	
	vii)	Supports Mic with 48 Volt Phantom Power	2 Inputs with 48 Volt Phantom Power	
5	HDD Based Digital Video Recorder:-			1 Nos.
	i)	Video Standard	HD & SD	
	ii)	Video Format	1080p 23.97/24Hz, 1080i 50/59.94/60Hz, 720p 50/59.94/60Hz, 576i 50Hz, 480i 59.94Hz	
	iii)	Supported Video Input Signal	1x SDI	
	iv)	Monitoring/ Playback output	1x SDI (input loop thru), 1x HDMI, 1x SDI (Out)	
	v)	Analog Audio Input & Audio Output	2x Balanced XLR (Stereo pair)	
	vi)	Embedded Audio	Both In & Out (8-CH on SDI/HDMI)	
	vii)	Storage Medium	2.5" Hard Drive / SSD*, Max capacity 1TB	
	viii)	Estimated Record Time (min per 10GB)	SD: 19 (50Mbps) ~ 70 (8Mbps)	
			HD: 8 (125Mbps) ~ 62 (10Mbps)	
	ix)	How to Retrieve Recorded Content	Removable Hard Drive / SSD, transfer data via USB2.0	
	x)	Storage File System	NTFS (read only)	
	xi)	Recorded File Format	MXF OP1A, MOV	
	xii)	Video Recording Bit Rate / Color Sampling	MPEG2 Long GOP HD:	
			10Mbps 4:2:0 1440x1080/1280x720, 25Mbps 4:2:0 1440x1080/1280x720, 35Mbps 4:2:2 1920x1080/1280x720, 50Mbps 4:2:2 1920x1080/1280x720, 65Mbps 4:2:2 1920x1080/1280x720 120Mbps 4:2:2 1920x1080/1280x720	
			MPEG2 Long GOP SD:	
			8Mbps 4:2:0 720x480/720x576, 15Mbps 4:2:2 720x480/720x576, 30Mbps 4:2:2 720x480/720x576, 50Mbps 4:2:2 720x480/720x576	
			MPEG2 I-Frame Only HD:	
			80Mbps 4:2:2 1920x1080/1280x720, 100Mbps 4:2:2 1920x1080/1280x720, 125Mbps 4:2:2 1920x1080/1280x720	
			MPEG2 I-Frame Only SD:	
		25Mbps 4:2:2 720x480/720x576, 50Mbps 4:2:2 720x480/720x576		
	xiii)	Audio Recording Format	Uncompressed PCM Sampling rate 48KHz 24bit	
	xiv)	Time code	in/out Yes	
	xv)	External Sync	Genlock Black Burst & Tri-level with loop thru	
	xvi)	Power failure protection	Content saved up to last 3 seconds or less before power failure	

	xvii)	Two Nos. of HDD with Casing each one of 1TB should be provided in the Box with Required cable for importing files from HDD to Editing System	Yes	
	xviii)	Chassis	Rack Mountable	
6	Up-Down Cross Convertor:-			1 Nos.
	i)	Conversion	VGA/HDMI/SDI to HDMI/SDI Multi-format Up/Down/ Cross	
	ii)	Video Inputs	Sel.: 1x VGA, 1x HDMI, 1x 3G/HD/SD-SDI	
	iii)	Loop Through	Yes	
	iv)	Video Outputs	2x 3G/HD/SD-SDI with embedded Audio 1x HDMI	
	v)	Audio Inputs	2x RCA (Stereo Pair), 2x SDI/HDMI Audio embedded	
	vi)	Audio Outputs	SDI embedded audio up to 8CH, 48KHz, PCM audio HDMI embedded audio up to 8CH, 48KHz, PCM audio	
	vii)	Supported Video Input Formats	800x600 (60Hz), 1024x768 (60Hz), 1280x1024 (60Hz), 1366x768 (60Hz), 1400x1050 (60Hz), 1600x1200 (60Hz), 1280x720 (60Hz), 1920x1080 (60Hz), 480i, 480p, 525i, 576i, 576p, 625i, 720p (50/59.94/60Hz), 1080i (50/59.94/60Hz), 1080psf (23.98/24/25/29.97/30Hz), 1080p (23.98/24/25/29.97/30/50/59.94/60Hz)	
	viii)	Output Resolutions	Sel.: 525i, 625i, 720p (50/59.94/60Hz), 1080i (50/59.94/60Hz), 1080p (23.98/24/25/29.97/30/50/59.94/60Hz)	
	ix)	Video Equalizer	Yes	
	x)	Re clock	Yes	
	xi)	PC-Control Via USB	Yes	
7	Monaural Professional Single Side Headset for Intercom:-			2 Nos.
	i)	Physical Specification	Single ear headset, Circumaural / Closed cans to avoid sound leakage - in and out, Noise cancelling microphone, Ear pads are soft and comfortable for extended use	
	ii)	Connection	one 1/8" Audio/Microphone Connector	
	iii)	Earpiece Transducer Principle	Dynamic	
	iv)	Operating Principle	Closed	
	v)	Transmission Range	10Hz-22KHz	
	vi)	Nominal Impedance	24 Ohms	
	vii)	Nominal SPL at 1KHz	98dB	
	viii)	T.H.D.	<0.2% (at 1KHz 100mW)	
	ix)	Nominal Power Rating	100mW	

	x)	Microphone Transducer Principle	Condenser	
	xi)	Mic Transmission Range	20-16KHz	
	xii)	Polar Pattern	Omni-Directional	
	xiii)	Normal Impedance	2.2 K ohms	
	xiv)	Sensitivity	- 64dB	
8	3G/HD/SD SDI to HDMI Converter:-			1 Nos.
	i)	Conversion	3G/HD/SD-SDI to HDMI	
	ii)	Video Inputs	1x 3G/HD/SD-SDI	
	iii)	Loop Through	1x 3G/HD/SD-SDI	
	iv)	Video Outputs	1x HDMI with embedded Audio	
	v)	Audio Inputs	2x RCA (Stereo Pair), 2x SDI Audio embedded	
	vi)	Audio Outputs	2x HDMI Audio embedded	
	vii)	Supported Video Input Formats	480i (NTSC), 576i (PAL), 720p (50/59.94/60Hz), 1080i (50/59.94/60Hz), 1080p(23.98/24/25/29.97/30/50/59.94/60Hz)	
	viii)	Output Resolutions	Automatically matches the SD, HD and 3G SDI video input	
	ix)	Equalizer	Yes	
	x)	Re clock	Yes	
	xi)	SDI Cable Drive	Yes	
9	Trackless Virtual Studio System:-			1 Nos.
	i)	2x HD- SDI Camera Input which support resolutions		
		1080p 60/59.94/50/29.97/25, 1080i 60/59.94/50, 720p 60/59.94/50		
	ii)	2 x HD-SDI Outputs which support resolutions		
		1080p 60/59.94/50/29.97/25, 1080i 60/59.94/50, 720p 60/59.94/50		
	iii)	1 x AUX HDMI input for running ppt/video through external PC/Laptop which must have an option of external audio & embedded audio input		
	iv)	Mini Phono Jack External Audio Input & 2-Channel Embedded audio must be supported from Both of the 2-SDI Inputs. Must have built-in Audio Monitoring UI		
	v)	Monitoring Output for Operator DP x1, HDMI x1, DVI x2		
	vi)	Tally output		
	vii)	Built-in 2 x DSK Channel		
	viii)	Built-in Recorder having H.264 & MPEG-2 Encoding that can be directly recorded on 500GB removable HDD-cartridge		
	ix)	Built-in Network Streaming capability which must support following streaming protocols : TS RTP, TS HTTP, TS UDP, TS RTSP, FLV HTTP, FLV RTMP		
	x)	Built-in Virtual Studio maker/editor & Text/Still editor		
	xi)	2-Channel Live Chroma keying must be supported having all the controls like Alpha mat control, Garbage Masking, Color and border brightness control.		
	xii)	Virtual Machine must have 1 TB Hard disk and 256 GB SSD which will be required for smooth and high performance of Virtual Studio.		
	xiii)	At least 100 nos. of preloaded free Virtual Sets with various themes like NEWS Broadcast and Education/Classroom. Additional virtual set must be available for free life time download		

	xiv)	RS-232 based Hardware Control Panel for switching and controlling of this Virtual Machine.		
	xv)	Wireless Keyboard/Mouse for other PC-Controls		
	xvi)	CPU: Intel Core i7 3.6GHz		
	xvii)	GPU: Radeon R9 200 Series 2GB 256-bit		
	xviii)	RAM: 8GB		
	xix)	Virtual I/O card with dual SDI Input & Output		
	xx)	System Storage: 256Gb SSD		
	xxi)	Media Storage: 2TB HDD 5400RPM		
	xxii)	Display Monitors 2 nos. 21.5" Full HD for previewing.		
10	HD Block Camera:-			2 Nos.
	i)	Video format	1080p 60/50/30/25, 1080i 60/50, 720p 60/50	
	ii)	Image Sensor	1/2.7" type progressive scan CMOS sensor	
	iii)	Effective Pixels (approx.)	2.07 Mega pixels	
	iv)	Min. Illumination	0.05 Lux @ (F1.8, AGC ON)	
	v)	Electronic Shutter	1/30s to 1/10000s	
	vi)	Zoom Ratio	20x Optical zoom ; 16x Digital zoom	
	vii)	Gamma Control	Yes	
	viii)	Iris Control	Auto / Manual	
	ix)	Digital Noise Reductions	2D and 3D	
	x)	On-Screen Display (OSD) Language	English	
	xi)	White Balance	Auto, 3000K/Indoor, 4000K, 5000K/Outdoor, 6500K_1, 6500K_2, 6500K_3, One Push, Manual	
	xii)	AGC / Gain Control	Auto / Manual (0 to 28 step), Max. Gain Limit (6 to 28 step)	
	xiii)	Mirror / Flip Image	Yes	
	xiv)	Focus Mode	Auto / Manual	
	xv)	Field of View	Approx. 63.7° (WIDE END) / 2.3° (TELE END)	
	xvi)	Image Compensation	Day & Night function	
	xvii)	Video Output	3G/HD- SDI x 1	
	xviii)	Built-in Tally LED	Red, Green	
	xix)	Filter	Yes	
	xx)	Control Protocol	VISCA / DVIP Protocol	
	xxi)	Remote Control Interface Interfaces & Distance of Transmission	RS-485: Transmit up to 1200m	
11	CG software:-			1 Nos.
	SD/HD resolution, Manual layout control, Animated logo/ sequence, Dynamic data integration, Data base integration, Fast graphics rendering, Template-based			
12	Laptop with HDMI Output:-			1 Nos.
	i)	Intel i5 Quad Core 2.8 GHz		
	ii)	NVIDIA stream processors have 192 or above, ATI stream processors have 720 or above, 512MB graphics memory and 128 bit or Similar		
	iii)	4 GB Ram		
	iv)	1 TB System Hard disk		

	v)	Pre-installed Windows 7 32bit or 64bit Professional or Ultimate or above	
	vi)	HDMI Output: Supported Resolution Through this HDMI Should be 1080 50i when used Extended Mode Display	
13	Network Video Streaming Server:-		1 Nos.
	i)	Video Input	1 x BNC for HD/SD-SDI (75 ohm), 1 x BNC for CVBS (75 ohm), 1 x HDMI (Ver 1.3)
	ii)	Audio Input	SDI embedded audio (2 channels), 2 x XLR/RCA for Analog audio (2 channels), HDMI embedded audio (2 channels)
	iii)	Output	1x RJ-45 Female (10/100M Ethernet) 1x USB 2.0 Type A for file output to USB storage
	iv)	Video Encode	H.264 / AVC video CODEC, up to High Profile Level 4.0 Configurable Bit-rate up to 6Mbps
	v)	Supported Video Resolution	1080 @ 50P / 59.94P / 60P (50P/59.94P/60P input, 25P/30P record/output), 1080 @ 50i / 59.94i / 60i 720 @ 50P / 59.94P / 60P 576@ 50i, 480 @ 59.94i
	vi)	Audio Encoding	AAC-LC audio CODEC Sample rate:48KHz,16bit Configurable Bit-rate up to 384Kbps
	vii)	Network Feature	DHCP Client Streaming feature: - HLS/RTSP/RTMP Server (One protocol at a time) - Supports up to 3 clients
	viii)	Monitoring	6 x LED (PWR/ CVBS/ SDI/ HDMI/ REC / Streaming)
	ix)	Storage	USB 2.0 Mass Storage File system: FAT32/MP4
	x)	Control	Web UI for system configuration and control
14	42/43" LED Monitor (FULL HD):-		1 Nos.
	i)	Connectivity	1 USB Ports, 2 HDMI Ports
	ii)	Display	40 Inch, LED, 4K, 3840x2160
	iii)	HDMI Ports	2 (Rear)
	iv)	USB Supports	Audio, Video, Image
	v)	Voltage Requirement	100 - 240 V
	vi)	Size diagonal	40 Inch
	vii)	Type	LED
	viii)	Resolution	1920 x 1080 pixels
	ix)	Aspect Ratio	16:9
	x)	Video Formats Supported	3GP, Asf, AVI, FLV, MKV, MP4, TS, VOB, WEBM, WMV
	xi)	Total Speaker Output	20 W
15	Lavalier Microphone with receiver:-		2 Nos.
	Polar Pattern Omni directional		
	Audio frequency band width 20 - 20000 Hz		
	Equivalent noise level 34 dB-A		
	Sensitivity 7 mV/Pa		
	Signal to Noise 60 dB-A		
	Electrical impedance 200 Ohms		

	Recommended load impedance 1000 Ohms	
	Type Mini XLR, Gender Female, Contacts 3-pin	
	Voltage 2 to 12 V, Current 2 mA	
16	Handheld Microphone with receiver:-	2 Nos.
	Audio frequency bandwidth 30 - 20000 Hz	
	Sensitivity 2.5 mV/Pa	
	Electrical impedance 600 Ohms	
	Recommended load impedance >2000 Ohms	
	Polar Pattern Omni directional	
	Type Balanced XLR, Gender Male, Contacts 3-pin	
17	Audio Speaker (5" or better Studio Monitor):-	1 set
	Music-centric sound perfect for mixing, monitoring and multimedia applications.	
	Enhance waveguide system	
	Wider sweet spot	
	Seamless transition from high to low frequencies	
	Perfectly matched amps and drivers for optimized performance	
	Minimum 50 watts of class A/B amplification	
	Frequency response: 45Hz - 20kHz	
	5" or larger polypropylene woofer	
	High output with controlled low-frequency performance	
	1" silk-dome tweeter	
	Flexible inputs for simple connection to almost any audio source	
	Customizable frequency control for your studio space	
	i) Two levels of bass boost	
	ii) Boost/cut control over highs	
	Rugged all-wood cabinet design built to last	
	Acoustically optimized with sound-tightening acoustic absorption material	
	Add the companion MR10Smk3 studio subwoofer for powerful, deep extended bass	
	Custom-tuned rear ports for smooth even bass extension	
18	Wi-Fi Router:-	1 Nos.
	Wifi Technology	802.11n
	Wifi Band	2.5 GHZ
	Number of Ethernet Ports	Five (5) 10/100 (1 WAN and 4 LAN) Fast Ethernet ports with auto-sensing technology or better
19	Non Linear Editing System for Control Room:-	1 Nos.
	21.5" (diagonal) Retina 4K display, 4096x2304 resolution with support for one billion colors, 500 NITS brightness.	
	Processor: 3.4GHz quad-core, Intel Core i5 (with Turbo Boost up to 3.8GHz), 8GB RAM, 1TB Storage, Thunderbolt 3 digital video output, Native Display Port output over USB-C, Thunderbolt 2, HDMI, DVI and VGA output. 3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: Display Port, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported, 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot. Final Cut Pro X editing software.	

20	Server with Storage:-		1 Nos.	
	Intel i7 7th Gen, 16GB RAM, 4 TB HDD, 4 GB Graphic Card, Windows 10 Pro, Full HD Monitor (21.5"), Headphones with wired Keyboard and Mouse, antivirus protection :- (20 Students + 1 Teacher)			
21	Core i3, 4 GB RAM, 1 TB HDD, Linux OS, Full HD Monitor (21.5"), Headphones with wired Keyboard and Mouse along with high performance storage in 3U rack mount- 16 Drive Form Factor having easy management with 1 logic value shared by up to 32 hosts. Vmware complaint, Quad GbE ports with load balancing and fail over, mirror and offline array roaming support, 16 SATA Interface, 1 GB RAM, 4TB x 8 HDD, RAID Supported, Redundant Power Supply, antivirus protection.		21 Nos	
22	Tablet based Teleprompter for ENG Camera		1 Nos.	
23	DSLR Camera:-		1 Nos.	
	Full Frame CMOS, 30 Megapixels or better, 61 point AF, 41 cross-type, 3.2 inch touch screen, shooting speed 5fps at Full HD or better			
24	CCTV Camera:-		1 set	
	6 IP PoE Cameras with minimum 2 MP Resolution, 8- channel NVR, 1TB Surveillance HDD, CAT 6 cables as required, 8 port PoE switch, monitor 21.5"			
25	Color Printer with Scanner:-		1 Nos.	
	Multi Function printer, ink tank, color, scanner with Wifi compatibility			
26	Camera Tripod:-		3 Nos.	
	Load Capacity	4 Kg		
	Mount/Base	65 mm bowl diameter		
	Balance Plate	fixed quick-release plate		
	Plate Attachment	1/4"-20 screw with register pin		
	Pan & Tilt Range	360°, +90/-80°		
	Leveling Indicator	Bubble		
	Material	Aluminum		
	Folded Length	29.7" / 5.4 cm		
	Minimum Height	29.7" / 75.4 cm		
	Maximum Height	62.6" / 159 cm		
	Weight	3.1Kg		
	27	Camcorder:-		2 Nos.
i)		Resolution Supported	FHD or better	
ii)		Lens Mount	Fixed	
iii)		Supplied Accessories	XLR handle unit (1), Lens hood (1), Lens cap (1), Large eyecup (1), Accessory shoe kit (1), USB cable (1), Rechargeable battery pack (1), AC Adaptor (1), Power cord (mains lead) (1), Wireless Remote Commander (1), Lithium battery for Wireless Remote Commander (1), Operating Guide (2), CD-ROM "Manuals for Solid-State Memory+B23 Camcorder" (1), Warranty (1)	
iv)		Zoom Ratio	12x (optical) or better	
v)		Focal Length	f=9.3 - 111.6 mm or better, 35mm equivalent f=29.0 - 348.0 mm or better	
vi)		Iris	auto/manual selectable	
vii)		Focus	Auto / Manual selectable	
viii)		Image Stabilizer	ON/OFF selectable, shift lens	
ix)	Filter Diameter	Minimum M62 mm		

	x)	Imaging Device (Type)	1.0-type (13.2 mm x 8.8 mm) back-illuminated CMOS sensor	
	xi)	Effective Picture Elements	Approx. 14.2 M pixels or better	
	xii)	Built-in Optical Filters	OFF, 1/4, 1/16, 1/64	
	xiii)	Minimum Illumination	1.7 lux (LOW LUX mode) or better	
	xiv)	Shutter Speed	1/50 - 1/5000 or better	
	xv)	Slow & Quick Motion Function	1080p: Frame rate selectable, 50 fps / 60 fps	
	xvi)	White Balance	Preset (Indoor: 3200K, Outdoor: 5600K±7 steps, Color temperature set range: 2300-15000K), One push A, B, Auto selectable	
	xvii)	Audio Input	XLR (3-pin) x 2	
	xviii)	Video Output	Integrated into Multi/Micro USB jack (x1), Composite 1.0Vp-p, 75Ω	
	xix)	Audio Output	Integrated into Multi/Micro USB jack	
	xx)	USB	Multi/Micro USB jack (x1)	
	xxi)	Headphone Output	Stereo mini jack (x1)	
	xxii)	Speaker Output	Monaural	
	xxiii)	DC Input	DC jack	
	xxiv)	Remote	Integrated into Multi/Micro USB jack	
	xxv)	HDMI Output	Type A (x1)	
	xxvi)	Built-in Microphone	Omni-directional stereo electret condenser microphone.	
	xxvii)	Double SD Memory Card Slots	SD/SDHC/SDXC compatible x1, SD/SDHC/SDXC x1	
28	Portable Chroma Backdrop:-			1 Nos.
	Green color Chroma-key plastic Mat for backdrop & carpet.			
29	Electronic Interactive Board			1 Nos.
	a)	Technology- Infrared (IR) or better		
	b)	Active Area Diagonal Size- Minimum 78 Inches Diagonal		
	c)	Surface of the Board- Ceramic coated scratch resistant surface.		
	d)	Hot keys- On both sides of the Boards with description of Icons		
	e)	Resolution- 30000*30000 or better		
	f)	Touch Input- Finger & Stylus		
	g)	Accuracy- 1mm or better		
	h)	Interface- USB		
	i)	Multi-Touch- Minimum 10 points touch		
	j)	OS Driver Support- Windows 10 and Linux		
	k)	Operation Temperature- 0-45°C		

	<p>l) Software Features- Annotation software shall include minimum features like choose, pens, annotate, erase, color, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc.</p> <p>m) Accessories- USB interface cable, Stylus holder with 2 stylus</p>	
30	Short Throw Projector:-	1 Nos.
	a) Brightness- 4000 ANSI Lumens or better	
	b) Contrast Ratio- 22000:1 or better	
	c) Native Resolution- WXGA (1280x800) or higher	
	d) Throw- Short Throw	
	e) Keystone- Projector should have vertical and horizontal keystone correction of minimum ± 30 degrees each and provision for corner correction.	
	f) Minimum Lamp Life- 6000 Hrs in Normal Mode, 10000 Hours in Economy Mode	
	g) Input Ports- HDMI -1 ,VGA - 2, Audio IN, RCA x 1, S-Video x 1	
	h) Other Ports- USB, RS 232, LAN(RJ 45)	
	i) Output- VGA, Audio Out	
	j) Throw Ratio- 0.49 or better	
	k) In Built Speaker- Minimum 10 Watts	
	l) Input Power Supply- As per Indian standard with compatible power cable & connector	
	m) Accessories- All device driver and cables for connecting with computer	
n) Other Accessories- Wall mount kit and Cables (of 5 meter length HDMI, Power) should be supplied along with projector.		
31	Visualizer:-	1 Nos.
	Lens- 12x Optical Zoom, 16x Digital Zoom	
	Shooting Area- 390*220 mm	
	Video Resolution- XGA: 1024*768, SXGA: 1280*1024, 720P: 1280*720 16:9, 1080P: 1920*1080	
	Frame Rate- 1080P@30 fps	
	Image Rotation- 0/ 90/ 180/ 270	
	Input Connector- VGA*2, HDMI*1, Audio*1, USB Type A*1 for mouse control	
	Output Connector- VGA*1, HDMI*1, Audio*1, USB Type B*1	
	On board Memory- 100 Pics	
	Memory card- SD	
	White balance- Auto	
	Image Split- Yes	
	Negative/ positive conversion- Yes	
	Black/ white and color selection- Yes	
	Image Freeze- Yes	
	Mirror- Yes	
Remote controller- Yes		
Mouse control/ Wireless Tablet control- Yes		
32	UPS	1 Nos.
	10 KVA Online UPS (8 Batteries of 18 maH each for 30 minutes backup with Rack)	
33	Cassette Air Conditioner:-	4 Nos.
	Feature- Indoor unit: 840 x 840 x 205, Outdoor unit: 760 x 590 x 285, Installation Type - Cassette, Color - White/ cream, Wattage - 2110 Watts. Capacity - 2 Ton	

34	Power Distribution (Electrical Work):-	As per requirement
	Provision & Fixing off Electrical System for Studio Lightings only including supply of Metal Fabricated Sockets, Power Cables, MCB Box with MCBs & Control Switches etc.	
35	Room Light:-	18 Nos.
	LED panel light in White colour (2x2). The panel light is made from Die Cast Aluminum with Powder Coated White finish. Power consumption for the light is 6 watt, and voltage specification is 230 V AC, while the luminous intensity is 105 lm per watt, saving light and electricity. It has Anti-Glare Diffuser, & LED Chip: SMD 2835. The light can be fixed into Recessed, POP or False ceiling. Beam Angle:120 Degree, Body Color: White Color Temperature: 6000-6500K, CRI: Ra 75, LED Chip: San An Lifetime: 50,000 hrs., Light Color: Cool White, Light Source:75 pcs SMD 2835, Luminous Flux: 1350Lm, Material: Aluminum	
36	Studios Lights:-	8
	Provision & Fixing off Lighting Grid Structure comprising off 4"X4' Square Grid of 1.5" Class AGI / MS Pipe, Slotted Cable Tray, Required Fasteners, Suspenders etc. NCL-255D 110W comprising of 2nos. Of 55W Lamps and Electronic Dimmable Ballasts of 210W, Powdered coated Aluminum Fixer, Yoke, Intensifier Barndoor leaves, Reflector, On Board Dimming.	
37	Carpets:-	1450 Sq Ft (Approx)
	Providing & layering of carpet of Leg strong/ Unitex/ Royal/Armstrong or equivalent 4mm thick as per approved color, layer with synthetic bostic and skirting on all sides.	
38	False ceiling with all the required treatments and fittings	1450 sq. ft
	Providing & fixing of gypsum channel and fixing of 12mm gypsum board which is duly plastic paint finish designed with gypsum ceiling with channel of 50mm, fixture channel of 25mm.The frame is layered with 2x2 perforated tiles.	(Approx).
39	ECO - PROOF WALL PANELLING/ Acoustics of the Room:-	2000 Sq Ft
	Providing & fixing of 50mm wooden wall paneling fabricated from GI section of 50mm X 37.5mm, covered with 8mm commercial ply/MDF which is duly filled with eco-friendly material (sound proof), duly finished with cloth/ teak veneer finish polish/ paint. Sound proof eco friendly system consists of 50mm filler with 25mm glass wool padding which is finally fabricated with 25mm thermo col covering with proper air gapping as per eco - sound arrangement	(Approx)
40	Sound Proof Doors:-	4
	P/f of Sound Proof Casement Door with Multipoint Locking System and both side handle with locking arrangement 3D type hinges, Glass Type 6mm CLT+12mm AirGap+6mm CLT with Profile color as White (Door Size 4'X6.5')	
41	Sound Proof Window:-	3
	P/f of Sound Proof Casement Window hermitically sealed with Glass Type 6mm CLT + 12mm Air Gap + 6mm CLT with Profile color as White (Window Size 3'X5')	
42	Console Table:-	1
	a) Production Table- Production Table for Populating the Equipment like Audio Mixer, Vision Mixer, Intercom Device, and Wireless Receivers along with Working Space for the Operators etc.	
	b) Audio Voice Table- Audio Voice Over Edit Table with Storage facilities.	1
43	Furniture Products	
	a)Teacher Chairs -High Back Chair with Head rest, PP Arms, Nylon Base, Gas Lift, Net Back, Seat Fabric Tapestry. Type/Mechanism: Synch Tilt Push Back.	1

	b)Teacher Table - Providing and fixing in position office table of size 1500 mm (L) x900mm (W) x 750mm (H), made up of 18mm thick block board having necessary provision for wire management. Table is provided with single drawer with 6 inches duly chrome polished handles with smooth channels. The table is completely covered with sun mica and edges duly covered with margins with melamine polish.	1
	c) Computer Chair - Medium Back Chair, Without Arms, Nylon Base, Gas Lift, PU Molded Seat & Back Cushion,PP Back Cover, Fabric Tapestry in blue color. Type/Mechanism: Spring Back	20
	d) Computer Table (Workstation for Student) - All booths are made up of wooden/ ply partition with glass. Booth size 2.5' x 2' with all necessary wire arrangement.	20
44	Sound Proof Wooden Partition:- Providing & fixing of 50mm wooden wall half partitioning fabricated from wood section of 50mm X 37.5mm, made up of 8mm commercial ply/MDF which is duly filled with eco-friendly material (sound proof), duly finish polish/ paint. Sound proof eco friendly system consists of 50mm filler with 25mm glass wool padding which is finally fabricated with 25mm thermo col covering with proper air gapping. The full height partition walls fitted with toughened glass of 8/10mm both sides(Size of the glass may vary depending upon size of the partition and room).	As per requirement and design layout
45	Installation Material:- Video Cable, Connector with Boot, Audio Cable for Microphones, Audio Cable for Speakers, Amphenol XLR M+F Connector, CAT 6 Cable, Connector + Boot for CAT 6 Cables, HDMI Cables, VGA Cable, Power Strips, Power Cable (5 Amp), Power Cable (10 Amp), Power Plug (Socket and Top), BMD MUX, Misc Items includes Cable Tie, Ferrules. (including nuts, bolts, screws, etc)	As Per Connection
46	Installation, Commissioning & Training (5 days working product training as per standard working hour.)	1 Job