

**RFP for Establishment, maintenance and Training of Augmented reality and Virtual Reality (AR/VR) Lab at Its centre at L. D. College of Engineering, Gujarat Advanced and Emerging Technology Institute (GATI), Ahmedabad**

To inculcate culture of innovation amongst the students and to provide a conducive environment for optimum harnessing of their creative pursuit, the State Government aims to encourage innovation, support start-ups, to train faculties and students in emerging areas of technology and/or through academic institutions and universities. Start-ups in an economy's technology sectors is an important indicator of technological performance for several reasons.

L. D. College of Engineering (LDCE) invites Techno-Commercial Bid for **Augmented reality and Virtual Reality (AR/VR) Lab**. Interested parties, who wish to participate in this bid may obtain the bid documents from GeM portal or from GIL website OR [www.ldce.ac.in](http://www.ldce.ac.in). Bidders/Lead bidder need to submit all the necessary documents (regarding eligibility & Technical bid) online on GeM portal on or before due date of bid submission.

Bidder shall submit their bids on GeM portal.

1.	Contact Person	DGM (Tech.), Gujarat Informatics Ltd Email : <a href="mailto:viveku@gujarat.gov.in">viveku@gujarat.gov.in</a> Phone no. : 079-23259239  Directorate of Technical Education Email : <a href="mailto:dire-dte@gujarat.gov.in">dire-dte@gujarat.gov.in</a> , <a href="mailto:dteguj@gujarat.gov.in">dteguj@gujarat.gov.in</a> Phone no. 079-23253546  The Principal, L. D. College of Engineering Email: <a href="mailto:ldce-abad-dte@gujarat.gov.in">ldce-abad-dte@gujarat.gov.in</a>
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**The pre-bid queries / clarifications if any should be submitted in writing to Gujarat Informatics Limited & Directorate of technical Education & Principal, L. D. College of Engineering, Ahmedabad at least on or before 2 days of pre-bid meeting date. Thereafter the clarifications received from the bidders will not be entertained.**

Please address all pre-bid queries and correspondence to

- **Vivek Upadhyay, DGM (Tech.), Gujarat Informatics Limited**, Block No. 2, 2nd Floor, Karmayogi Bhavan, Sector-10A, Gandhinagar 382 010 Phone No. 079-23259239, Fax No. 079-23238925, E-mail: [viveku@gujarat.gov.in](mailto:viveku@gujarat.gov.in), [kajalp@gujarat.gov.in](mailto:kajalp@gujarat.gov.in)
- **Joint Director, Directorate of Technical Education**, Block 2, 6th Floor, Block No. 2, 2nd Floor, Karmayogi Bhavan, Sector-10A, Gandhinagar 382 010, Phone no. 079-23253546, Email : [dire-dte@gujarat.gov.in](mailto:dire-dte@gujarat.gov.in), [dteguj@gujarat.gov.in](mailto:dteguj@gujarat.gov.in)
- **The Principal, L. D. College of Engineering**, C/o. Gujarat Advanced and Emerging Technology Institute (GATI), Gujarat State, 3rd Floor ACPC Building, L. D. College of Engineering campus, Near Gujarat University, Navrangpura, Ahmedabad, Gujarat  
Email: [ldce-abad-dte@gujarat.gov.in](mailto:ldce-abad-dte@gujarat.gov.in)

Fax / Email should be followed by post confirmation copy.

[QCBS evaluation Details]

The Bidder with lowest qualifying financial bid (L1) will be awarded 100% score.

Financial Scores for other than L1 Bidders will be evaluated using the following formula:

Financial Score of a Bidder (Fn) =  $\{(Commercial\ Bid\ of\ L1 / Commercial\ Bid\ of\ the\ Bidder) \times 100\}$  % (adjusted to 2 decimal points)

Where, Fn = Normalized financial score of the Bidder Combined and Final evaluation is relevant for QCBS bids only. L1 = Lowest qualifying financial bid

### Combined and Final Evaluation

The technical and financial scores secured by each Bidder will be added using weightage of <60%> and <40%> respectively to compute a Composite Bid Score.

The Bidder securing the highest Composite Bid Score will be adjudicated as the most responsive Bidder for award of the Project/Contract. The overall score will be calculated as follows: -

$$B_n = 0.60 * T_n + 0.40 * F_n$$

Where,

Bn = overall score of Bidder

Tn = Technical score of the Bidder (out of maximum of 100 marks)

Fn = Normalized financial score of the Bidder. In the event the bid composite bid scores are

'tied', the Bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.

### Example:

#### A. Normalisation of technical bids:

Bidders	Technical Score	Calculation	Normalized Technical Score
Bidders-1	75	$75/95*100$	78.94
Bidders-2	80	$80/95*100$	84.21
Bidders-3	85	$85/95*100$	89.47
Bidders-4	95	$95/95*100$	100

#### B. Normalisation of Financial Bids:

Bidders Financial	Financial Quote in Lakhs upto 2 decimal points	Calculation	Normalized Financial Score
Bidders-1	120	$120/120*100$	100
Bidders-2	145	$120/145*100$	82.75
Bidders-3	135	$120/135*100$	88.88
Bidders-4	170	$120/170*100$	70.58

#### C. Final Score calculation through QCBS:

The final score will be calculated through Quality and Cost Selection method based on the following weightage:

Technical : 60%

Financial : 40%

$$Final\ score = (0.60 * Normalised\ Technical\ Score) + (0.40 * Normalised\ Financial\ Score)$$

#### C. Final Score calculation:

Bidders	Normalized	Normalized	Final Score as
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	Technical Score	Financial Score	per QCBS
Bidders-1	78.94	100	87.364
Bidders-2	84.21	82.75	83.626
Bidders-3	89.47	88.88	89.234
Bidders-4	100	70.58	88.232

The bidder with the highest final score shall be treated as the successful bidder. In the above example, Bidder – 3 will be treated as successful bidder. In the event the final score are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the contract.

**ELIGIBILITY CRITERIA:**

Sr no	Eligibility Criteria
1	The sole bidder or Lead Bidder in case of consortium should be system Integrator in the field of IT company in India and should be in existence since last 3 years as on last date of bid submission. In case of consortium, other consortium member should be in the field of software development / software training since last 3 years as on last date of bid submission
2	The sole bidder or Lead Bidder in case of consortium should have an average annual turnover of minimum Rs. 5 crore for the last three audited financial years (2017- 18, 2018-19, 2019-20). The copies of Audited Annual Accounts/Statutory CA Certificate for last three years shall be uploaded along with the bid.
3	The sole bidder or any consortium member in case of consortium must have experience of installations of such type of High End Computers in at least 5 Government OR Private Universities/Institutes. Customer references & Purchase orders must be uploaded along with the bid.
4	The bidder should be authorized by its OEM for following items to quote in the bid.  Mid Range Server Laptop Tablet UPS 55" Touch Display Projector Multi- Functional Printer
5	OEM of items as mentioned below should have presence in India since last 5 years Mid-Range Server Laptop Tablet UPS 55" Touch Display Projector Multi- Functional Printer
6	The sole bidder or Lead Bidder in case of consortium must have one office in Gujarat. Please upload the copy of any two of the following: Property tax bill/Electricity Bill/Telephone Bill/VAT/CST Registration/Lease agreement. In case, bidder do not have office in Gujarat, bidder should give undertaking to open office in Gujarat within 45 days from the date of empanelment.
7	The sole bidder or each of the consortium member in case of consortium should not be blacklisted by any Ministry of Government of India or by any State Government of India or any of the Government PSUs at the time of bidding. Self-Declaration / Certificate / affidavit mentioning that the Bidder is not blacklisted as per the clause should be submitted.
9	The sole bidder or any consortium member in case of consortium will have to attach copy of at least 01 work completion certificate of similar kind of work from the client in last three years for the supply of equipment and providing manpower fulfilling the training for same area. Attach proof of same.

**Note :**

- Consortium is allowed. Maximum Two companies shall be allowed in a consortium including the Lead Member. In case of Consortium, lead bidder will have to submit Consortium agreement which clearly stating the roles and responsibilities of each member.
- The Lead bidder or the Consortium member of a bid cannot be part of multiple bidders. Only an OEM / Product Company can be part of multiple consortiums (if the firm is not participating as a Lead Bidder)

**Note:** In GeM bid, Eligibility Criteria are not mentioned, however bidder & OEM of the quoted product must meet eligibility criteria as mentioned above only & Eligibility Criteria as mentioned above will be considered for evaluation.

## INTRODUCTION

To inculcate culture of innovation amongst the students and to provide a conducive environment for optimum harnessing of their creative pursuit, the State Government aims to encourage innovation, support start-ups, to train faculties and students in emerging areas of technology and/or through academic institutions and universities. Start-ups in an economy's technology sectors is an important indicator of technological performance for several reasons.

The following tasks are included as per scope of work defined below,

### **Scope of Work**

Purpose of developing lab in emerging area is to strengthen the knowledge and practical skills of faculty and students and thus increasing the employability.

Bidder should provide all related manuals technical/user/safety/training etc.

**Training** : The courses offered should be certified by IT sector skill Council NASSCOM **OR** The Trainer should possess valid certificate in the AR/VR area of training which is well accepted in IT sector

Quoted items must be as per **Annexure 1**. Necessary furniture/fixture and electrical work for complete functioning of the laboratory should be provided by bidder.

Bidder will be responsible to undertake and complete the work related to **supply, installation and commissioning of equipments and devices as per the bid requirement. All required accessories (connecting cables etc) must be supplied. The bidder will responsible for providing training (as mentioned in bid document in a batch of 30) to participants after successful installation of all hardware and software. Post training support need to be provided till the contract period in development of applications. Also learning material in hard copy or soft copy must be provided. Carry out training as per schedule decided by institute up to 3 years after completion of installation.**

All the latest / relevant software framework/tool/ application/module related to **Augmented Reality and Virtual Reality (AR/VR)** on open source / customized version is required to be deployed by bidder in proposed hardware in lab to impart the necessary training as per scope of work.

The work must be completed on turnkey basis and the supplied equipments are required to be maintained for 5 years on comprehensive warranty basis from the date of Final Approval and Testing and need to sign SLA. The Bidder shall be responsible for implementation of the work as defined.

### **Bidder is required to carry out following tasks.**

**a. Turnkey Project Basis:** - The Bidder shall act as single Bidder to organize and manage the entire project – including supply, installation and commissioning of all required hardware, software, networking, accessory items etc and Training. The Bidder shall be in a position to test, demonstrate and certify the basic requirements in accordance with the contract.

**b. Technical Arrangements:** - Post the award of the contract the bidder shall provide details related to the power requirement based on the components that will be installed in various physical locations. Institute will provide the Power, Earthling and if required any other support required on the Civil part.

**c. Warranty Support:** - The Bidder shall be responsible for the warranty support as mentioned in Annexure-1

**d. Quality of goods supplied:** All goods or materials shall be supplied strictly in accordance with the specifications, Drawings, datasheets, other attachments and conditions stated in the bid document. All materials supplied by the Bidder shall be guaranteed to be of the best quality of their respective kinds and shall be free from faulty design, workmanship and materials.

**Before submission of bid, bidders are requested to visit laboratory location for all the required hardware, software, furniture, fixtures and electrical work for complete functioning of the laboratory.**

After submission of the bid, the Bidders/Lead bidder will have to give presentation to the authorities at GTERS/GATI.

## BID PROCESS AND EVALUATION

1. EMD shall be uploaded by bidder in the online bid & Hard copy of EMD will have to submit within 5 days of bid opening in a sealed cover at Directorate of Technical Education, Gandhinagar with the heading "Bid No. \_\_\_\_\_."

EMD as mentioned above, shall be submitted either through RTGS OR in the form of Draft/Banker's cheque OR in the form of an unconditional Bank Guarantee (which should be valid for 45 days beyond the bid validity); in the name of Directorate of Technical Education payable at Gandhinagar and must be submitted along with the covering letter.

Please affix the stamp of your company on the overleaf of demand draft.

Note: Failing to submit physical covers of EMD within given time limit may lead to the rejection of the bid.

2. The bidder/lead bidder has to submit the tender in 2 parts (1) Technical Bid and (2) Financial Bid. Which are required to be submitted online on GeM portal .
3. Late Bids: The bidder/lead bidder will not be able to submit the bid after bid submission date and time.
4. Technical bid shall consist of documents as specified later in this document. The bidder/lead bidder has to submit all technical documents duly signed by the bidder/lead bidder.
5. The bidder/lead bidder is required to attach the checklist & tick mark in it the documents attached. Bidder/Lead bidder is required to arrange & submit the documents as mentioned in the sequence of checklist. Please don't submit any unnecessary documents.
6. The EMD may be forfeited at the discretion of **Principal, L. D. College of Engineering, Ahmedabad**, on account of one or more of the following reasons:
  - a. If a Bidder/Lead bidder withdraws its bid during the period of bid validity.
  - b. If Bidder/Lead bidder does not respond to requests for clarification of their Bid
  - c. If Bidder/Lead bidder fails to co-operate in the Bid evaluation process, and
  - d. In case of a successful Bidder/Lead bidder, if the Bidder/Lead bidder fails:
    - i. To sign the SLA as mentioned above or
    - ii. To furnish performance bank guarantee as mentioned or
    - iii. If the bidder/lead bidder is found to be involved in fraudulent practices.

### Evaluation:

1. After the closing time of submission, GIL / GoG committee will verify the submission of EMD as per bid terms and conditions. The eligibility criteria & technical evaluation will be carried out of the responsive bids.
2. The bidder/lead bidder who qualifies in primary scrutiny, their technical bid will be opened and will have to come to demonstrate their procedure of work. **Bidder/Lead bidder will have to demonstrate the execution plan and strength through Presentation.** In the presentation, the bidder/lead bidder will have to include the procedure they will adopt to execute, the proposed set-up, equipment brand, specifications and quantity etc. Evaluation of the presentation will be considered while deciding for the bid. Evaluation criteria is mentioned in the bid.
3. It is assumed that the Bidders/Lead bidder submitting the bids have gone through all bid terms & agreed with all the terms of the bid.
4. For Presentation, all the Bidders/Lead bidder will be informed by email.
5. Financial bids will be opened in online format of technically qualified Bidders/Lead bidder only.
6. Bidder/Lead bidder who is selected for the contract will have to sign the contract on the fixed format of **Rs. 300 Non-Judicial Stamp paper.**
7. **The successful bidder/lead bidder will be required to furnish Performance Bank Guarantee in two parts**
  - a. The successful bidder/lead bidder will be required to furnish Performance Bank Guarantee@10% of the **total value of Training (for 3 year + 2 months) (Total C)** in accordance with the conditions of contract within 15 days from the date of contract order from banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2021/7729/DMO dated 28.06.2021 issued by Finance Department or further instruction issued by Finance department time to time.

- b. The successful bidder/lead bidder will be required to furnish Performance Bank Guarantee@10% of the **total value of Hardware + Miscellaneous / site preparation (for 5 year + 2 months) (Total A + Total B)** in accordance with the conditions of contract within 15 days from the date of contract order from banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2021/7729/DMO dated 28.06.2021 issued by Finance Department or further instruction issued by Finance department time to time.

If the bidder/lead bidder fails to comply with the above requirements within the said period, the earnest money already deposited shall be applicable for forfeiture and **Principal, L. D. College of Engineering, Ahmedabad** shall purchase the items required at the risk and cost of the successful bidder/lead bidder

8. Unfinished or Conditional bid will not be entertained.

## General terms and Conditions

1. The bidder/lead bidder has to quote for all the items mentioned in the bid as per **Annexure-1** and bidder will have to comply scope of work as specified.
2. The bidder/lead bidder may quote only one option (i.e. only one product can be quoted) against each item. Bidders/Lead bidder are required to mention make & model of the product. Do not write OEM against items, unless specified, as Bidders/Lead bidder is expected to give make & model of the product.
3. If in any case the quoted item is not available in the market, the bidder/lead bidder will have to supply higher version/replacement of that item in the quoted cost in the same time duration with prior approval of **GIL/L. D. College of Engineering, Ahmedabad**. No End of Life or End of Support product should be quoted to minimize such instances. (Make & Model quoted by the bidder/lead bidder should be available till the bid validity, duly supported for spares/OEM support for warranty period till the duration of contract).
4. The bid is to be quoted for full quantity mentioned in the bid document as per Annexure 1. **Bidding of partial quantity/ies will not be accepted.**
5. The price quoted shall include all taxes, other levies payable, all freight, packing & forwarding, transportation, insurance, loading & unloading, custom duty, labour, commissioning, erection, excise duty, other duties, other charges, etc. to supply goods at laboratory locations. Discount if offered should be included in offered price. Quoted prices shall be inclusive of all taxes.
6. Rates quoted should also include supply, training, installation, commissioning, erection and demonstration of machine/material/goods/instruments/equipment at our site/s in functional form and to be maintained up to contract period with training.
7. The items for which quotations have been submitted must be in accordance with the specifications given in **Annexure-1**
8. Incomplete information of technical specification may lead to disqualification of bidder/lead bidder. Thus, the bidder/lead bidder is required to submit Sr. No. wise itemized compliance for all specifications mentioned in **Annexure-1**.
9. The scope of work is mentioned in the bid. It is required to be strictly followed during the execution of work during the period of contact period.
10. Technical specifications indicated are minimum specification. Bidder/Lead bidder may quote for better solution. The bidder/lead bidder should provide following with the technical bid,
  - a. Make & Model of the product
  - b. Name of Manufacturer
  - c. Technical Brochure / Manufacturer's data sheet.
  - d. Compliance statement from the OEM of the quoted product
  - e. Warranty certificate from OEM
11. OEM/bidder should also have spares etc. stored in India.
12. The rates quoted by the bidder/lead bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.



13. The tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the scheduled tender are not fully filled in. Particular attention must be paid to delivery date and also to the particulars referred to in the condition of the contract.
14. Financial bids will be opened in online format of technically qualified Bidders/Lead bidder only.
15. Tenders not complying with the above conditions are liable to be rejected at the sole discretion of **GoG/Principal, L. D. College of Engineering, Ahmedabad** without any further reference / communication.
16. This tender is not transferable.
17. **Principal, L. D. College of Engineering, Ahmedabad** reserves the right to choose, accept or reject any or all requests or deviations or offers, in full or part and also reserve the right at any stage to reduce or increase the quantity.
18. All or any claim(s), dispute(s) or difference(s) arising out of or in connection with this agreement shall be subject to the jurisdiction of the courts at Ahmedabad only.
19. Any loss or damage caused to the article in transit/installation/testing is to be replaced by the supplier free of cost within period of **30 days**.
20. If any civil work is required to be done for installation and commissioning, then the supplier shall arrange the essential drawing. For this, prior permission of **Principal, L. D. College of Engineering, Ahmedabad** as an authority is required to be taken by the bidder/lead bidder.
21. The bidder/lead bidder shall have to enter into the agreement in the prescribed Performa.
22. Technical experts of manufacturers/supplier should provide adequate training to all the staff involved as specified in scope of work and annexure-1.
23. Instruments/Equipment/Machines/Goods should be vibration free and provided with vibration absorbing pads as per requirements if required.
24. Successful bidder/lead bidder has to visit the site personally and make necessary arrangements to install machine/material/goods/instruments/equipment after receiving the purchase order so that there is no delay in work and timely installation and commissioning is possible.
25. No bidder/lead bidder shall withdraw his rates after the tender is opened. If a bidder/lead bidder does so, his tender related deposit/s shall be forfeited, and such Bidder/Lead bidder shall be considered ineligible for work/contract in future.
26. Bid Currency: Prices shall be quoted in Indian Rupees only. Payment for the supply of equipment as specified in the agreement shall be made in Indian Rupees only.
27. Language of Bid: The bid prepared by the bidder/lead bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder/lead bidder and **Principal, L. D. College of Engineering, Ahmedabad** shall be in English.
28. Amendment of Bidding Documents (Corrigendum/s)
  - a. At any time prior to the deadline for submission of bids, **Principal, L. D. College of Engineering, Ahmedabad** may, for any reason, whether its own initiative or in response to the clarification request by a prospective bidder/lead bidder, modify the bidding documents by amendment/Corrigendum.
  - b. The corrigendum will be published on GeM portal and **L. D. College of Engineering, Ahmedabad & GIL** website.
  - c. In order to allow prospective Bidders/Lead bidder, reasonable time to take into consideration the amendments while preparing their bids **Principal, L. D. College of Engineering, Ahmedabad**, at its discretion, may extend the deadline for the submission of bids.
29. Delivery & installation: Supply, Installation, testing of all equipment shall be completed within **90 working days** from the date of confirmed purchase order / site readiness at laboratory location.
30. If successful bidder/lead bidder is found breaching any of the condition(s) of bid or supply order/work order, at any stage during the course of supply / installation or warranty period, the legal action as per rules/laws, shall be initiated against the successful bidder/lead bidder and EMD/PBG shall be forfeited, besides debarring and blacklisting the bidder/lead bidder concerned, for the time period as decided by Govt., for further dealings with Government of Gujarat.
31. Warranty and Performance:

- a. The Bidder/Lead bidder shall be responsible for the Comprehensive onsite warranty support for a **minimum contract period of 5 year** from the date of acceptance of goods by purchaser for the equipment to be supplied including subscription of the related software components, if any, as specified in technical specifications. Lead bidder/Bidder shall have to make necessary arrangements for additional warranty beyond manufacturer warranty, if required, for comprehensive onsite warranty.
  - b. If any equipment gives continuous trouble, say more than 3 times in one month during the warranty period, the bidder/lead bidder shall replace the same with new equipment without any additional cost to the purchaser.
  - c. Bidder/Lead bidder must ensure that the warranty support service should be available at the respective locations to provide repairing cum replacement services of human resource for training and equipment within one-week time and complaint should be acknowledged in 48 hours. Bidder/Lead bidder is required to provide the name & address & contact details of the firm for providing warranty support & repairing cum replacement service up to delivery locations and up to the duration of the contract.
  - d. Maintenance Service: Free maintenance services shall be provided by the bidder/lead bidder during the period of warranty and duration of contract.
  - e. In case, bidder/lead bidder is not providing satisfactory support & doing unwarranted delay in providing warranty support, **Principal, L. D. College of Engineering, Ahmedabad** reserves right to repair the equipment at risk & cost of the bidder/lead bidder.
32. Penalty Clause:
- Penalties for delay in delivery and installation:
- a. If the bidder/lead bidder fails to deliver and install the requisite devices, equipment, hardware, and other items within **the given time limit**, then a **sum equivalent to 1 % of per site value** shall be deducted from the payment for each calendar week of delay or part thereof.
  - b. The amount of penalties for delay in delivery and installation shall be subject to a **maximum limit of 10%** of the total contract value.
  - c. **Delay in excess of 5 weeks** will be sufficient for termination of the contract. In that case the Performance Bank Guarantee of the bidder/lead bidder will be forfeited.
  - d. In case, the selected bidder/lead bidder does not supply the ordered items for any reason, he will be liable to pay the difference amount to the purchaser, over and above the Performance Guarantee, which purchaser have to pay to the next or other selected bidder/lead bidder for purpose of the said items.
33. **Principal, L. D. College of Engineering, Ahmedabad** reserves the right to change any bid condition of any item even after inviting the bids, with/without prior notification.
34. **Principal, L. D. College of Engineering, Ahmedabad** 's right to accept any bid and to reject any or all bids: **L. D. College of Engineering, Ahmedabad** reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to awarding the contracts, without thereby incurring any liability to the affected bidder or Bidders/Lead bidder or any obligation to inform the affected bidder or Bidders/Lead bidder of the grounds for such decision.
35. Termination of Contract: For Convenience: **principal, L. D. College of Engineering** by written notice sent to Bidder may terminate the contract in whole or in part at any time for its convenience giving one month's prior notice. The notice of termination shall specify that the termination is for convenience the extent to which Bidder's performance under the contract is terminated and the date upon which such termination become effective.

For Insolvency: **principal, L. D. College of Engineering** may at any time terminate the contract by giving written notice to Bidder, if Bidder becomes bankrupt or insolvent. In this event, termination will be without compensation to Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to **principal, L. D. College of Engineering**. For Non-Performance: **principal, L. D. College of Engineering** reserves its right to terminate the contract in the event

of Bidder's repeated failures, say more than 3 occasions in a calendar year to maintain the service level prescribed by **principal, L. D. College of Engineering**. No compensation is entertained in any case.

### **36. Payment conditions:**

#### **For Hardware:**

- On successful completion of delivery & inspection, 70% payment will be released
- Remaining 30% payment will be released after successful installation & commissioning.

Training and other components payments will be released time to time accordingly as per written schedule provided to L1 bidder

### **TESTING OF EQUIPMENTS AT DEPLOYMENT:**

- The verification/inspection of the supplied items will be carried out in the manner as decided by GIL/GoG. The proper inspection facility has to be provided by the supplier(s) at their cost.
- The bidder will have to offer the inspection in the manner as decided by GIL/GoG before delivering to the respective sites. The cost of the same has to be borne by the supplier. Any deviation found in the specification of the produced goods or delivered goods after inspection from the bid specifications will lead to the cancellation of the order, forfeiture of EMD/PBG and prohibition in the participation in the future purchase of Government of Gujarat. GIL/GoG will not be responsible for any time delay which may arise due to any deviation from the bid technical specification found at the time of inspection and the bidder has to deliver and install the ordered items within prescribed time limit.

#### **Bid documents to be attached**

All the Bidders/Lead bidder are required to submit the copy of documents as per following sequence:

1. Copy of firm Registration is to be submitted.
2. Copy of Goods and Service Tax (GST) Registration is to be submitted.
3. Compliance sheet of specifications item wise as per Annexure-1.
4. The bidder/lead bidder has to submit tender document duly filled & signed with the stamp on each page of the tender document and on the enclosures to show that, the Bidders/Lead bidder have read and understood all the details and terms & conditions of the tender thoroughly.
5. The list of the useful material and it's quantity, list of useful machines and it's quantity and details of the monitoring system if any required to be used, etc. is required to be included in the presentation.

**Annexure 1:**

**Equipment Specifications for Augmented reality and Virtual Reality (AR/VR) Lab - Providing items at L. D. college of Engineering, Ahmedabad**

**Summary (AR/VR) Lab items**

<b>Sr No</b>	<b>Item Name</b>	<b>Quantity</b>	<b>Comprehensive onsite Warranty Years</b>
1.	Mid-Range Server	1	5
2.	Laptop	5	5
3.	Headset for virtual reality experience	30	5
4.	Tablet (VR ready)	5	5
5.	3-D and 360 <sup>0</sup> cameras	5	5
6.	Headset(MR)	5	5
7.	Headset(AR)	5	5
8.	Gaming consoles and accessories	5	5
9.	Podcasting kit	5	5
10	Magic Wand, 3D pointer and other accessories	1	5
11	VR ready Desktops	15	5
12	AR ready Desktops	15	5
13	Interactive VR chair	1	5
14	UPS	1	5
15	VR Headset PC version	5	5
16	AR/MR spectacles	5	5
17	55" Touch Display	1	5
18	HDD 2TB	1	1
19	Speaker 4.1 with Bluetooth	1	1
20	Tripod Stand	5	-
21	Motion Sensor	5	-
22	Pen drive	2	1

**Miscellaneous / site preparation**

<b>Sr. No.</b>	<b>Item Name</b>	<b>Item Description</b>	<b>Qty</b>
1	Air condition ( split AC with inverter with Min. 3 star rating)	1.5 ton	2
2	Air condition for computer lab ( split AC with inverter with Min. 3 star rating)	2 ton	7
3	Necessary Electrification with standard ISI make cable/plug/socket /switch to be done in a lab for required items to be supplied under this bid.		100

4	<p><b>Projector</b></p> <p>Minimum Specifications :</p> <ul style="list-style-type: none"> <li>✓ Technology: LCD/DLP</li> <li>✓ Resolution: 1024*768 or higher</li> <li>✓ Brightness (lumens): 3500 or higher</li> <li>✓ Type of Projector: Standard Throw / Short throw or higher</li> <li>✓ 5 Year Warranty</li> </ul>	With screen	2
5	<p>Multi-functional Duplex printer without fax (Print , scan , Copy)</p> <p>Minimum Specifications:</p> <ul style="list-style-type: none"> <li>✓ Fax Feature: NO</li> <li>✓ Paper Size: A4</li> <li>✓ Duplex Feature: Yes</li> <li>✓ Printing technology: Laser</li> <li>✓ Type of Printing : Mono</li> <li>✓ Flatbed Size : A4</li> <li>✓ Scanning Feature Availability : Yes</li> <li>✓ Network connectivity : Yes</li> <li>✓ Original Document Feeder Type: Platen OR DADF/RADF OR ADF</li> <li>✓ 20ppm or higher</li> <li>✓ 5 years warranty</li> </ul>		4
6	Soft board	3 feet x4 feet	8
7	White board	2 feet x2 feet	4
8	<p>Steel cupboard</p> <p>Minimum Specifications :</p> <p>Without locker/drawer conforming to IS-3312/84 having 1950±10 mm (H) x 910±10 mm (W) x 490±05 mm depth. Each cupboard will have four adjustable shelves of 1.2 mm thick MS CRCA sheet, making five compartments. Shelf supports on four brackets of 1.2 mm thick MS CRCA Sheet. Pedestal is of peripheral type of 125±5 mm (H) having thickness of 1.2 mm made from MS CRCA sheet. Door panels, side &amp; back panels shall be made out of 1.2 mm MS thick sheet. Sheet must be conforming to IS-513/1994.</p> <p>Cabinet should be fitted with 3 way bolting device and with six precision cut ISI Mark –Brass Heavy duty lever lock conforming to IS 729/79 (Reaffirmed 2001) with chrome plated handle conforming to IS 742/1981 (is must). The lock should be as per IS and key should not be interchangeable. The locking arm must be pass from two guideways on both side. The locking plate thickness is 2.00 mm.</p> <p>Phosphate Traatment: the unit is to be Epoxy Polyester Powder coated to the thickness of 50 micron (+/- 5). Sheets to undergo 6 tank of Anti-Rust Pre-treatment: Degreasing (Protective Oil layer), Water Rinse (Removes the chemicals), Phosphating (Form an insoluble metal phosphate surface), Passivation (Reduce the corrosion rate of metal surface). The Pre-treated sheet then to be powder coated.</p>		8

	<p>Powder Coating: Surface coating to be applied in the form of powder and on curing to produce a protective coating of dark grey structure finish shade with more than 50 microns thick layer.</p> <p>Poor workmanship may be one of the reason to reject the sample and goods.</p>		
9	Required network cabling with 3 no. 24 port switch with all accessories along with cable laying. (including I/O, Patch cords etc) for 60 points at various locations		1

## TECHNICAL SPECIFICATIONS

Bidder must quote/offer product with min. specifications as mentioned below only and evaluation will be carried out on following specifications:

Sr. No.	Name of item
1	<p><b>Mid range server</b></p> <p>Processor : 2x Intel OR AMD  Number of Cores per Processor : 20 or higher  Processor Base Frequency (GHz) : 2.2 or higher  Total Cache (L1+L2+L3)(MB) : 38 MB or higher  Maximum number of Sockets available on Server : 2  Maximum number of Sockets populated with Processors available on Server: 2  Availability of Co-Processor /GPU : No  Type of RAM : DDR4 SDRAM with ECC  DDR SDRAM Size(GB) : 256 or above  Type of Interface for Hard Disk Drive : SAS  Total Storage Capacity offered with SAS Drive (GB) : 9600 or above  No of RAID Controller Ports : 8 or above  Speed of RAID Controller Ports (Gbps) : 12  Number of Networking Interface Cards (LAN) : 2  Total Number of Ethernet Ports required in Server : 2 x1G or above  Certifications/Compliance (OS) : Windows ,Red Hat Linux ,Suse Linux ,Ubuntu  Management Features-1 Remoter power On/ Shutdown of server, ,Remote Management of Server over LAN &amp; WAN with SSL encryption through gigabit management port, ,Should have virtual Media support with all required licenses. , Remote KVM ,Server Health Logging ,Out of Band Management</p> <p>OEM of the product quoted should be ISO 9001:2008 Process Certified OEM for manufacturing</p>
2	<p><b>Laptop</b></p> <ul style="list-style-type: none"> <li>✓ Intel core i5 processor OR AMD Ryzen 5 processor or higher,</li> <li>✓ Compatible chipset</li> <li>✓ 2GB Graphics Card</li> <li>✓ 16GB RAM,</li> <li>✓ 500GB or higher HDD/SSD,</li> <li>✓ Windows 10 Prof. OS,</li> <li>✓ 14" Non Touch display</li> <li>✓ Inbuilt Wifi and Bluetooth connectivity, LAN Port, HDMI port, Inbuilt Speaker &amp; Mic, Inbuilt Webcam</li> <li>✓ 5 years warranty</li> </ul>

	OEM of the product quoted should be ISO 9001:2008 Process Certified OEM for manufacturing
3	<p><b>Headset for virtual reality experience</b>  Head Mounted Device(HMD) - includes Rift headset, 2 x sensors, 2 x Touch controllers, all required connection cables, oculus Rift Earphones with Leap</p>
4	<p><b>Tablet (VR ready)</b>  Large display with narrow bezels (11" LTPS TFT Display, 120Hz). Superior AP performance (N-gen. chipset)  Standing screen display size: 11 Inches of higher  Resolution: 2560x1600  Batteries: 1 Lithium-ion battery (Included)  Processor Brand: Qualcomm  RAM Size: 6 GB  Storage: 128 GB  Graphics Card Description: Dedicated  Connectivity Type: Bluetooth, Wi-Fi  Operating System: Android 10 or higher  Lithium Battery Energy Content: 30.88 Watt Hours  Included Components: Tablet, S Pen, Travel Adapter, USB Type A to Type C Cable, SIM Ejector Tool, Quick Start Guide</p> <p>OEM of the product quoted should be ISO 9001:2008 Process Certified OEM for manufacturing</p>
5	<p><b>3-D and 360° cameras</b>  8 Stereoscopic Pairs (190 Degrees FOV)  1 Top-side Camera (60 Degrees FOV)  Image Sensor Type : CMOS  Sensor Color Depth : 12-bit  Video Coverage Area : 360 degree (H) x 350 degrees (V)  Effective Pixels (Live Streaming) : 4,096 x 4,096 (4K x 4K)  FPS : 30  Image Sensor Size : 1/2.9"  Dynamic Range : 11.7 Stops (70 dB)  Aperture Size : F1.8, F2.8  Exposure Control  Multimeter, Spot Meter, Center Camera  Shutter Type  Rolling, 1/30 – 1/16000  Data Rates : 200 -300 mbps Bitrate (camera -&gt; PC); 5-120 mbps (PC -&gt; CDN); 5-120 mbps (Produced File Bitrates)  Video  Video Format  mp4  Video Codec  h.264, h.265  Audio  Audio Codec  AAC  Battery  Power Source  Working Voltage AC 19V/2.1A, DC 12-19V  Memory  Recording Media  SD Card (UHS-II, SDXC, up to 512 GB), SSD (up to 2 TB), PC</p>

	<p>Connectivity Interface RJ-45/Ethernet Recording Preview Mobile App, PC App Software 360 Round (controller) Live Stream Software, 360 Round Viewer Post Production Software, Mobile App PC Requirements Stitching From Single Camera Operating System: Windows 10 Professional or above, 64 bit CPU: Intel Core i7 or above Graphics Card: NVIDIA GTX 1060 6GB Memory 1 or more RAM: 16 GB DDR4 RAM x 2 or above Power: 850 W Live Streaming From Single Camera Operating System: Windows 10 Professional or above, 64 bit CPU: Intel Core i7 or above Graphics Card: NVIDIA: GTX 1080 Ti x 2 or more RAM: 32 GB DDR4 Power: 1,600 W</p>
6	<p><b>Headset(MR)</b></p> <p>Platform Requirements Graphics Card Compatible GPUs: Integrated Intel HD Graphics 620 or Greater DX12-capable Integrated GPU, Nvidia MX150 discrete GPU, Nvidia GeForce GTX 1050 discrete GPU, Nvidia 965 M Discrete GPU, AMD Radeon RX 460, 560 RAM: 8GB DDR3 Dual Channel Material :ABS Color : Black, Blue Display Type : LCD Display Resolution : 2880 x 1440 Built-in Microphone : No Interface : HDMI Refresh Rate : 90 Sensors : WMR: Accelerometer,Gyro Sensor, Magnetometer and Proximity Sensor, Motion Controllers: IMU Plus Magnetic Sensor and Haptic Feedback Compatible Accessories Headphones Jack: 3.5 mm System Requirements Operating System: Windows 10 Fall Creators Update Processor : Intel Core i5 or AMD Ryzen 5 or higher RAM : 8 GB Disk Space : 10 GB Graphics Driver : Windows Display Driver Model (WDDM) 2.2 Graphics Display Port HDMI 1.4 or Display Port 1.2 USB Type : USB 3.0 Type-A or Type-C Bluetooth Version : 4.0 Field of view : 100 Degree In The Box Windows Mixed Reality Headset, 2 Motion Controllers Dimensions (Preferred): Width18.7 cm, Length10.92 cm, Thickness7.36 cm</p>



	<p>Other Dimensions (Preferred)  Motion Controllers Dimensions (Preferred): 152.7 x 119.1 x 119.1 mm, Height: 7.36 cm, Width: 19.55 cm, Depth: 10.92 cm, Weight (Preferred): 0.84 kg, Without Battery Weight (Preferred): 125.6 g, With Battery Weight (Preferred): 171 g</p>
7	<p><b>Headset(AR)</b></p> <p>Technical specifications</p> <ul style="list-style-type: none"> <li>• Display size: 2.89 in diagonal (x2)</li> <li>• Display resolution: Per eye: 1440 x 1440 Combined: 2880 x 1440</li> <li>• Display refresh rate: 90Hz when paired to HDMI 2.0 port 60Hz when paired to HDMI 1.4 port</li> <li>• Field of view: 95 degrees horizontal (Fresnel-Aspherical)</li> <li>• Tracking cameras: 2 front-facing cameras</li> <li>• Audio input/output: 3.5mm combo audio jack</li> </ul> <p>Additional information</p> <ul style="list-style-type: none"> <li>• UPC: 191628276264</li> <li>• Unpackaged dimensions (Preferred): 6.93 in x 13.34 in x 5.03 in</li> <li>• Packaged dimensions (Preferred): 12.8 in x 11.42 in x 9.37 in</li> <li>• Unpackaged weight (Preferred):: 1.84 lb</li> <li>• Packaged weight (Preferred):: 4.3 lb</li> <li>• Pallet dimensions (Preferred):: 47.24 in (L/D) x 39.37 (W) x 89.45 in (H) approx.</li> <li>• Pallet weight (Preferred):: 496.32 lb approx.</li> <li>• Layers per pallet: 9</li> <li>• Products per layer: 12</li> <li>• Total products per pallet: 108</li> </ul>
8	<p><b>Gaming consoles and accessories</b></p> <p>Product name : PlayStation®4  Product code : CUH-2000 series  Main processor : Single-chip custom processor  CPU : x86-64 AMD “Jaguar”, 8 cores  GPU : 1.84 TFLOPS, AMD Radeon™ based graphics engine  Memory : GDDR5 8GB  Storage size* : 500GB, 1TB  External dimensions  Approx. 265×39×288 mm (width × height × length) (Preferred)  (excludes largest projection)  Mass : Approx. 2.1 kg (Preferred):  BD/ DVD drive  (read only)  BD × 6 CAV  DVD × 8 CAV  Input/ Output  Super-Speed USB (USB 3.1 Gen1) port × 2  AUX port × 1  Networking  Ethernet (10BASE-T, 100BASE-TX, 1000BASE-T) ×1  IEEE 802.11 a/b/g/n/ac  Bluetooth®v4.0  Power  AC 100-240V, 50/60Hz</p>

	<p>Power consumption Max. 165W Operating Temperature 5 °C – 35°C AV output HDMI™ out port (HDR output supported)</p>
9	<p><b>Podcasting kit</b></p> <p>Frequency Range Mic Inputs: 20 Hz – 20 kHz, -3dB at 20 Hz (high-pass filter)</p> <p>Monitor Outputs: 20 Hz – 20 kHz better than ±0.5dB Input Impedance 600Ω (Mic Preamplifiers) Equivalent Noise –125dBA (A-Weighted, measured as per IEC651) Maximum Output Level +3dBu (Monitor Outputs) Headphone Output Power Max output power at 1% THD: 32Ω → 220mW   300Ω → 31mW Dynamic Range 100 dBA (Mic Preamplifiers) Gain Range 0dB – 55dB (Mic Preamplifiers) Power Requirements External DC power supply 12 - 15v DC, 1A Output Connection USB-C, 1/4" Balanced TRS STEREO (Monitor Outputs) Computer Connectivity USB Bit Depth 24-Bit Sample Rates 48 kHz Storage microSD™ card slot, 512MB internal memory for storing sounds for programmable pads OS Requirements macOS 10.11</p> <p>Windows 10 Mechanical Specification Colour Black Weight (g) 1980 (Preferred): Dimensions (L x W x H, mm) 350 x 275 x 82 (Preferred): Packed Weight (g) 2850 (Preferred): Package Dimensions (L x W x H, mm) 412 x 338 x 127 (Preferred):</p>
10	<p><b>Magic Wand, 3D pointer and other accessories</b></p>
11	<p><b>VR ready Desktops</b></p> <p>VR Workstation with Processor: 2X Intel® Xeon® Gold Processor; 18 core Chipset :Intel C621 or higher RAM: Min 32 GB , HDD: 1TB SATA SSD Graphics Card: Nvidia Quadro RTX5000, 16GB, DP X 4, Virtual Link (XX20T) Optical Devices: DVD+/-RW Network: integrated Gigabit Ethernet ports Ports: USB 3.0/USB 2.2/Serial/VGA Monitor: 23.8 inch or higher Flicker Free LED</p>
12	<p><b>AR ready Desktops</b></p> <p>AR Workstation with Processor: Quad Core Intel i7 ; Supports ECC Memory, HDD: 1TB SATA SSD Graphics Card: Nvidia GE Force 3060, 8GB, DP X 4, Virtual Link (XX20T) Optical Devices: DVD+/-RW Network: integrated Gigabit Ethernet ports Ports: USB 3.0/USB 2.2/Serial/VGA Monitor: 23.8 inch, or higher Flicker Free LED</p>

13	<p><b>Interactive VR chair</b></p> <ul style="list-style-type: none"> <li>• Motorized features enhance and transform all types of VR experiences</li> <li>• Roto VR Head Tracker enables 360 degrees exploration in complete comfort</li> <li>• Feel the experience with Roto VR Simulator Double Rumble Packs</li> <li>• Roto’s accessories to enhance VR experience.</li> <li>• Walk (whilst seated) using the Roto VR Touch Pedals</li> <li>• Full HMD compatibility and upgradable with Roto VR Cable Magazines</li> <li>• Cable Magazine upgrades are coming soon.</li> <li>• Compatible headsets are HTC Vive, Oculus Quest, Oculus Go, Oculus Rift CV1.</li> </ul>
14	<p><b>5KVA UPS</b></p> <p>Online UPS with PWM Technology suitable for single Phase AC input voltage</p> <p>UPS shall be housed in rugged enclosure made of M.S. Sheet 1.2 mm (minimum) thick, aesthetically finished, duly pre-treated and powder coated.</p> <p>UPS shall be free from workmanship defects, sharp edges, nicks, scratches, burs etc. All fasteners shall be fixed properly. The equipment shall be complete with all parts and all parts shall be functional</p> <p>Enclosures shall conform to protection requirement of IP2L1 to ISI:3947 (Part 1)/1993 (reaffirmed 1998)</p> <p>Certifications UPS should meet CE and ROHS standards (PIs submit certificates along with bid)</p> <p>Bypass Switch Manual and Static by-pass switch shall be provided for maintenance of UPS with provision for Enable/Disable of Bypass mode</p> <p>UPS shall supply output power and charging current at the same time</p> <p>Switching Device Switching Device shall be IGBT</p> <p>Switching frequency shall be 19 KHz or above</p> <p>UPS shall be provided with USB &amp; serial communication port RS 232 for computer interface for data exchange of electrical parameters of UPS like voltage, current, frequency, charging status, mode of operation etc.</p> <p>Rating The rating specified is a unity power factor</p> <p>INPUT</p> <p>Voltage Range 160 V – 280 V</p> <p>Frequency Range 50 Hz +/- 10% Hz</p> <p>Phase Single Phase AC</p> <p>OUTPUT</p> <p>Voltage Regulation 230 V +/-2% (with alternative setting for 220V +/- 2%)</p> <p>Output Frequency 50 Hz +/- 1 Hz Single Phase (In inverter mode)</p> <p>Voltage regulation From on load to full load Should be within +/-1% in both the cases, UPS shall also have facility for operation in synchronous mode in which output frequency shall be same as that of mains frequency</p> <p>Harmonic Distortion 3% max. on resistive load</p> <p>Communication Fully functional SNMP card required; RS 232 &amp; USB port with software for UPS status monitoring</p> <p>Efficiency At rated Output voltage and Frequency</p> <p>Inverter 90% (min)</p> <p>Overall 85% (min)</p> <p>Power Factor</p> <p>Load Power Better than 0.65 lagging</p>

Factor	
UPS power factor	Better than 0.9 lagging
Over load	UPS shall withstand 20% overload for 5 minutes and 50% overload for 1 minute
ENVIRONMENT	Noise Level – less than 55 db at a distance of 1 meter
Protection	Over voltage, short circuit and overload at UPS output terminal, Under voltage at battery terminal, Overshoot and undershoot shall not be greater than 4% of rated voltage for duration of 60 msec
Indicators	Mains Presence, Battery Charging and Discharging, Low battery voltage
Digital meters	“Input AC Voltage, Output AC Voltage, I/o Frequency, O/p Frequency, Output Current, Battery Voltage, Load Percentage, Battery Backup available in percentage, (with LED \ LCD display)”
Misc	ECO Mode Operation with Enable/Disable function
	Emergency Power Off (EPO)
	UPS to be compatible with DG supply
	Cables : With all necessary cables and plug and Battery links
	Rack: Suitable Metallic Rack for housing of SMF Batteries to be provided
Battery Detail	8000 VAH for 5 KVA - 60 min
Battery Type	Sealed Maintenance Free ( VRLA)
Battery Make	Battery Sr. No on OEM Letter Head with Warranty Assurance of 1 years at the time of delivery)
15	<p><b>VR Headset PC version</b></p> <p>Headset :</p> <p>Screen: Dual OLED 3.5" diagonal  Resolution:1440 x 1600 pixels per eye (2880 x 1600 pixels combined)  Refresh rate:90 Hz  Field of view :110 degree  Audio:Hi-Res-certified headset, Hi-Res-certified headphone (removable),High-impedance headphone support,  Enhanced headphone ergonomics  input:Dual Integrated microphones  sensors:SteamVR Tracking, G-sensor, Gyroscope, Proximity, Eye Comfort Setting (IPD),Eye tracking</p> <p>Controller specs:  sensor:SteamVR Tracking 2.0  Input:Multifunctiontrackpad,Gripbuttons,Dual-stage trigger,Systembutton,Menu button  Connections: Micro USB charging ports</p> <p>Eye Tracking Specs:  Gaze data output frequency (binocular):120Hz  Calibaration: 5 point  Data output (eye information):Timestamp (device and system),Gaze origin,Gazedirection,Pupilposition,Pupilsizesize,Eye openness</p>
16	<p><b>AR/MR spectacles</b></p> <p>display : equivalent of 640 x 360 screen  Audio: speaker  sensors: ambient light sensor, a digital compass, a wink sensor, and a blink sensor  Wifi connectivity  Camera: support for still images and video  storage:16 GB or higher</p>

17	<p><b>55" Touch Display</b></p> <p>Technology : LED Backlit  Screen Size : 55" or higher  Screen Type : Touch  Panel Technology : In Plane Switching (IPS)  Orientation : Landscape  Native Resolution (Pixels): 3840 x 2160 (UHD)  Aspect Ratio : 16:9  Brightness (Nits) Minimum : 350  Viewing Angle (Horizontal:Vertical) 178:178  Number of Speakers: 2  Arrangement of Speakers: Inbuilt  BIS Registration under CRS of Meity : Yes  Power Supply 230 V AC, 50 Hz</p>
18	<p><b>USB HDD 2TB</b></p> <p>Digital Storage Capacity 2 TB  Compatible Devices Laptop, Desktop  Hard Disk Interface USB 2.0/3.0</p>
19	<p><b>Speaker 4.1 with Bluetooth</b></p> <p>Speaker Type Main Speaker  Amplification Method Passive Speaker  If Powered , Amplifier Class Class A  Configuration One Way  Number of Speakers 1  Frequency Response (Hz) 20-20,000 Hz  Low Frequency Unit with Size in Inches 65  High Frequency Unit with Size in inches 85  Sound Pressure Level (SPL) (1W/1m) (dB) 96  Maximum Level Sound Pressure Level (dB) 25  LED Indicators Yes</p>
20	<p><b>Tripod Stand</b></p> <p>Components of Mini Extension Pole Cum Tripod / Shooting Grip for Action Camera Extension Pole Cum Tripod,Swivel Base with Thumb Screw / Fixing mechanism,Remote Control Mount,Wrist Lanyard  Twist-lock design for quick and easy use Yes  Adjustable length Yes  Built-in Tripod Yes  Height of the Pole in Collapsed condition 200 millimeter  Height of the Pole in extended condition 225 millimeter  Material of the pole Steel  Water resistant Pole Yes  OEM part number 19  Compatible Model of Action Camera supported 19  Additional Features, if any 19  List of Items and Quantity of each item included in the offer 18</p>
21	<p><b>Motion Sensor</b></p> <p>USB accessory to capture hand and finger gestures</p>

22	<p><b>Pen Drive</b></p> <p>64GB Storage or higher USB 3.0</p>
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**Note : All the proposed hardware should be compatible with offered software framework/tool/module/application to impart the training as proposed in scope of work.**

<b>1. Training</b>	
Overall Program	These program courses shall be offered to students (from both Engineering and Non-Engineering domains) in varying formats and duration in the field of AR/VR
Global Recognition for the Certificate / Digital Badge for Students:	The coveted Digital Badge directly issued by the industry partner and recognized globally shall be awarded to all students passing the program. The students shall be able to display/showcase the Digital badge on their email closing information, Social media platforms and Electronic resume.
Train the Teachers' program:	Train the Teachers' program conducted by industry subject matter experts (on each of the specialization subjects) for selected faculty members, who will also be awarded certificates on successful completion of Train the Teacher's program, to ensure smooth transition, delivery and management of the new curriculum.
Lab Guidance & Support:	Industry experts' guidance in setting up the required Labs.
Project Based Learning:	The focus on projects and applied learning shall be offered from the very beginning. The theory courses shall be augmented by adequate project and applied work, which will help the students apply the knowledge they gain in classroom.
Vibrant Concurrency of Courseware:	The programs and courses offered shall be regularly reviewed and adjusted at the periodic intervals for their concurrency.
Online & Printed Courseware availability:	The program courseware must be made available to participating students in online mode and a set of printed copies of the courseware made available for faculty reference.
	The online platform must have the ability to accurately track how much of the course has been completed by the student.
	The online platform must produce a course report displaying the student's grade on each of the activities along with the date of completion.
	It must be able to support interactive self-assessment for each of the courses.
	Facilitate online Discussion Forum.
	It must have the ability for online submission of Assignments by the students.
Course Module	<p>Training must be provided to participants in a batch of 30 participants. Probable topics for the training can further be refined as per industry need and standards.</p> <ul style="list-style-type: none"> <li>• <b>Module-1</b> (Introduction to AR/VR, Unity software and working with AR/VR devices) Duration: 40 Hrs.</li> <li>• <b>Module-2</b> (Application/Project development using Unity Software and integration with AR/VR)</li> </ul>

	devices ) Duration: 40 Hrs..
	Content of each module should be finalized through collaboration of faculties and industry experts.
	Total participants for Module-1 : 90 (60 students + 30 faculties) Total participants for Module-2 : 90 (60 students + 30 faculties)

## Financial bid

### A) Hardware Cost :

Sr No	Item Name	Quantity	Unit price in RS. with tax	Total price in Rs. with tax
1.	Mid-Range Server	1		
2.	Laptop	5		
3.	Headset for virtual reality experience	30		
4.	Tablet (VR ready)	5		
5.	3-D and 360 <sup>o</sup> cameras	5		
6.	Headset(MR)	5		
7.	Headset(AR)	5		
8.	Gaming consoles and accessories	5		
9.	Podcasting kit	5		
10	Magic Wand, 3D pointer and other accessories	1		
11	VR ready Desktops	15		
12	AR ready Desktops	15		
13	Interactive VR chair	1		
14	UPS	1		
15	VR Headset PC version	5		
16	AR/MR spectacles	5		
17	55" Touch Display	1		
18	USB HDD 2TB	1		
19	Speaker 4.1 with Bluetooth	1		
20	Tripod Stand	5		
21	Motion Sensor	5		
22	Pen drive	2		
<b>Total A</b>				

### B ) Miscellaneous / site preparation Cost :

Sr. No.	Item Name	Item Description	Qty	Unit price in Rs. with tax	Total price in Rs. with tax
1	Air condition ( split AC with inverter with Min. 3 star rating)	1.5 ton	2		
2	Air condition for computer lab ( split AC with inverter with Min. 3 star rating)	2 ton	7		
3	Necessary Electrification with standard ISI make cable/plug/socket /switch to be done in a lab for required items to be supplied under this bid.		100		
4	projector	With screen	2		



5	Multi-functional Duplex printer without fax ( Print , scan , Copy)		4		
6	Soft board	3 feet x4 feet	8		
7	White board	2 feet x2 feet	4		
8	Steel cupboard		8		
9	Required network cabling with 3 no. 24 port switch with all accessories along with cable laying. (including I/O, Patch cords etc) for 60 points at various locations		1		
<b>Total B</b>					

**C) Training Cost**

Sr. No.	Item Name	price in Rs. with tax
1	Training for faculty and students for the period of 3 years Total participants for Module-1 : 90 (60 students + 30 faculties) Total participants for Module-2 : 90 (60 students + 30 faculties)	
<b>Total C</b>		

<b>Grand total ( A+ B+C)</b>	
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**Note: For QCBS evaluation, lowest of Grand total (A + B + C): L1 will be awarded 100% score.**

In financial bid, bidders will have to submit detailed price breakup for item wise rates quoted as per Performa given in above tables.

Evaluation Technical Assessment (Submit Documents in the bid online on GeM portal)

Criteria	Maximum score
<p><b>TEAM STRUCTURE &amp; EMPLOYEE DETAILS &amp; Company Profile</b></p> <p>a) Details about the business clients (national and international) that the sole bidder/ lead bidder in case of consortium/training provider is closely engaged with-in various capacities in the different Industries/Universities/Institutes.</p> <p>b) The proposal suggests a suitable team will be employed to deliver the required works for installation and configuration.</p> <p>c) The Tenderer’s proposals for managing the different stages of the Contract are appropriate and adds value.</p>	<p>10</p> <p>05</p> <p>05</p>
<p><b>QUALITY ASSURANCE</b></p> <p>a) Providing the effective way of utilizing all equipments/items/software and a ‘round the clock’ call handling service with commitment from OEM</p> <p>b) Access to equipment/item/materials in case of failure of such item and Systematic work plan for post-inspections, and performance assessment.</p> <p>c) Commitment to delivering a quality service and support from OEM</p>	<p>10</p> <p>05</p> <p>05</p>
<p><b>SERVICING &amp; MAINTENANCE</b></p> <p>a) Bidder/OEM have sufficient knowledge to service, and diagnose of faults in equipments, training modules and debugging the code.</p> <p>b) Previous experience of providing the required services of similar nature to sites with a varying range of customer counts.</p>	<p>10</p> <p>10</p>
<p><b>Training, Post Training REPORTING and support</b></p> <p>a) The sole bidder/ any consortium member in case of consortium/training provider provided the training modules which are state of art/as per industry requirements.</p> <p>b) The trainer has relevant certificates in the training modules specified.</p> <p>c) Training plan, Evaluation process and Post evaluation feedback reports available.</p> <p>d) Availability of tools for statistical analysis of participants who undertook training.</p> <p>d) The details such as the number of trainees trained, employed / job opportunities generated, feedback of trained participants</p> <p>e) Courses and Course Material should be developed and delivered by Globally renowned Organizations in the IT field.</p>	<p>5</p> <p>5</p> <p>10</p> <p>05</p> <p>05</p> <p>10</p>

**Bidder should get Minimum 60 marks in technical evaluation to qualify for opening of financial bid.**

**Lead Bidder and Consortium Member (if applicable) Details to be submitted at the time of bidding :**

<<To be printed on Lead Bidder Company’s Letterhead and signed by Authorized Signatory>>

Date:DD/MM/YYYY

To,  
<<Name of Dept.>>

**Subject:**Lead Bidder and Consortium

Dear Sir,

Please find below details of lead bidder and other consortium members for participation in “Bid no. \_\_\_\_\_”.

NOTE: To be filled for the lead bidder and each consortium member.

Particulars	Lead Bidder	Consortium Member
Name of the Organization		
Type of Organization (Private Ltd./Public Limited)		
Country of Registered Office		
Address of Registered Office		
Company Registration Details		
Date of Registration		
Details of any Global Certifications (ISO/ITIL/Comma etc.)		
GST Number		
PAN/Equivalent		
Address of Registered Office in India		
No. of Year of Operation in India		
Stake in Consortium (%)		
Authorized Signatory Name		
Authorized Signatory Designation		
Authorized Signatory Contact Details		

Thanking you,  
Yours faithfully

(Signature of the Authorized signatory of the Bidding

Organization) Name :

Designation :

Date :

Company Seal :

Business Address :

**Undertaking as per Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 & Office Memorandum No.: F.18/37/2020-PPD dated 08.02.2021 of Ministry of Finance, Dept. of Expenditure, Public Procurement division :**

Bidders are requested to kindly go through the Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 & Office Memorandum No.: F.18/37/2020-PPD dated 08.02.2021 of Ministry of Finance, Dept. of Expenditure, Public Procurement division related restrictions on procurement from border countries. As per this GR, bidders are required to quote/offer the product which adheres to this GR. The undertaking as from bidder as well as from offered product OEM is required to be submitted along with bid as per given Performa.

**On letterhead of Bidder**

**Sub: Undertaking as per Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 & Office Memorandum No.: F.18/37/2020-PPD dated 08.02.2021 of Ministry of Finance, Dept. of Expenditure, Public Procurement division**

**Ref: Bid Number: \_\_\_\_\_**

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I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. I certify that we as a bidder and quoted product from following OEMs are not from such a country or, if from such a country, these quoted products OEM has been registered with competent authority. I hereby certify that these quoted product & its OEM fulfils all requirements in this regard and is eligible to be considered for procurement for Bid number: \_\_\_\_\_

No.	Item Category	Quoted Make & Model
1		
2		

In case I'm supplying material from a country which shares a land border with India, I will provide evidence for valid registration by the competent authority, otherwise GIL/End user Dept. reserves the right to take legal action on us.

(Signature)

Authorized Signatory of M/s <<Name of Company>>

On letterhead of OEM

**Sub: Undertaking as per Office Memorandum No.: F. No.6/18/2019-PPD dated 23.07.2020 & Office Memorandum No.: F.18/37/2020-PPD dated 08.02.2021 of Ministry of Finance, Dept. of Expenditure, Public Procurement division**

**Ref: Bid Number:** \_\_\_\_\_

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Dear Sir,

I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. I certify that our quoted product and our company are not from such a country, or if from such a country, our quoted product and our company have been registered with competent authority. I hereby certify that these quoted product and our company fulfils all requirements in this regard and is eligible to be considered for procurement for Bid number: \_\_\_\_\_

No.	Item Category	Quoted Make & Model

In case I'm supplying material from a country which shares a land border with India, I will provide evidence for valid registration by the competent authority; otherwise GIL/End user Dept. reserves the right to take legal action on us.

(Signature)

Authorized Signatory of **M/s <<Name of Company>>**