

# ERNET India

An Autonomous Scientific Society under  
Ministry of Electronics and Information *Technology*,  
Government of India

Tender Document

For

Empanelment to provide Personalized Adaptive learning hardware & Software solutions for  
educational Institutions

**ERNET India**

**(An Autonomous Scientific Society under Ministry of Electronics and Information Technology, GoI)**

**5<sup>th</sup> Floor, Block-I, A Wing, Delhi IT Park, Shastri Park, Delhi-110053**

*Tender No.- EI-D/TECH/55/0001/2020-GA-DG*

**Dated: 07.09.2020**

**Due Date 07.10.2020 & Time: 3:00 PM**

**Opening of Bids: 07.10.2020 & Time: 3:30 PM**

To,

**Subject: - Tender for Empanelment to provide Personalized Adaptive learning hardware & Software solutions for educational Institutions**

Sir/ Madam,

1. ERNET India, an Autonomous Scientific Society under Ministry of Electronic & Information Technology, Govt. of India is mandated to establish and develop world class ICT system for the Education and Research community in India.
2. ERNET India is a nodal network for integrating education & research institutions in the country. Internet service is one of the services being provided by ERNET India to these institutions. The services are provided through various Points of Presence (PoPs) located at the premier education & research institutions in the country.
3. ERNET India as a technology consultant implemented various projects by commissioning ICT infrastructure for teaching aid, Campus Network, Wi-Fi, Domain Registration, eduroam service & other IT infrastructure for various Ministries, Departments, and Academic & Research Institutions/Universities/Colleges/Schools under Central and State Governments. ERNET India is also providing Internet & other VPN access services to various Institutions, universities, colleges, departments and organizations of central / state govt. In continuation, ERNET India intends to Empanelment for System Integrators for Supply, Implementation, Commissioning and support of Personalized Adaptive learning hardware & Software for educational Institutions. The focus is to promote the latest Digital Adaptive learning infrastructure including

equipment and emerging technologies in the education domain in universities/ Institutions and Colleges, schools etc. and also to enhance the business for ERNET.

4. The selected bidder shall be empanelled with ERNET India for a period of 24 months and can be extended for a further period of 6 months, if agreed mutually between both the parties. However, no minimum order value has been guaranteed by ERNET through this empanelment. Rates quoted shall be valid for the period of empanelment and the extended period, if any for similar specific requirement. The empanelled bidder shall have to enter into a written agreement on a non-judicial stamp paper of requisite value with ERNET India for honouring all tender conditions and warranty maintenance support, in executing the purchase orders placed by ERNET India. ERNET India has right to issue the purchase orders against our rate contract as per our actual requirement.
5. Sealed tenders are therefore, invited from the eligible bidders for empanelment w.r.t Supply, Installation & Commissioning of equipments and development & integration of Virtual Reality modules in conformity with Technical Specifications as per Annexure- I & II. *This Tender document is not transferable. Only those, who have purchased this offer document, are entitled to quote. Interested bidders who wish to enter into the empanelment for providing the required equipment/services may download the Tender Document from CPP portal/ERNET India website. Timelines pertaining to this tender are tabulated below:-*

1	Issue of tender Document	07.09.2020
2	Receipt of Queries	Up to 14.09.2020 by 11:00 AM (Queries after above date will not be entertained in any circumstances)
3	Pre-bid meeting	17.09.2020 (03:00 PM onwards) at <i>ERNET India, 5<sup>th</sup> Floor, Block - I, A Wing, Delhi IT Park, Shastri Park, Delhi-110053</i>
4	Response to Queries	By 24.09.2020 (on CPP Portal/ERNET India Website only)
5	Receipt of Bids	Upto 07.10.2020 by 3:00 PM at ERNET India, 5 <sup>th</sup> Floor, Block - I, A Wing, Delhi IT Park, Shastri Park, Delhi-110053

6	Opening of Bids	07.10.2020 by 3.30 pm at above ERNET India office
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\*Bid along with the necessary enclosures must be submitted/delivered as per the schedule indicated above. Bids will be opened in the presence of Bidders' representatives who choose to attend on the specified date and time in person or through video conferencing.

6. Bidders should note that any query related to any terms and conditions of the tender should be strictly submitted in person / Email to Registrar & CPO, ERNET India with due acknowledgement as per above schedule / details and no other form of communication will be accepted. ERNET will not accept/ entertain any query from any prospective bidders beyond the last date of query submission. Queries can also be emailed registrar@eis.ernet.in, & nerproject@eis.ernet.in.
7. ERNET India shall organize a Pre-Bid meeting on the queries submitted (by stipulated date & Time) by the Bidders on the scheduled date and time at ERNET India wherein prospective bidders may attend the meeting in person or through video conferencing(VC) (Details of VC will be inform at ERNET website). ERNET India may incorporate any changes in the Tender based on acceptable suggestions received during the interactive Pre-Bid meeting or as deemed necessary in the interest of work. The decision of ERNET India regarding acceptability of any suggestion shall be final in this regard and shall not be called upon to question under any circumstances. Maximum two authorized persons for each intending bidder's organization will be allowed to attend the Pre-Bid Meeting.
8. Pre-Bid queries /clarifications be sent in writing via email at registrar@eis.ernet.in, nerproject@eis.ernet.in to the ERNET India at least three working days prior to the schedule date of pre-bid meeting so as to examine the queries thoroughly and address the bidders accordingly. Following format may be used for seeking clarifications:

S.No.	Page No.	Clause No.	Description of Clause	Clarification sought /query



9. Response/clarifications of queries received to ERNET or any other changes as deemed necessary in the Tender will be uploaded at CPP portal/ERNET India website. No reply in this regard shall be sent to individual bidders. Bidders are advised to keep visiting CPP Portal/ERNET India Website to keep track of updates/ notices during the complete tender process. ERNET India may, for any reason, whether at its own initiative or in response to a clarification requested by prospective bidders, modify the Tender Document by an amendment. The same will be posted on CPP/ERNET India's website.

10. ELIGIBILITY CRITERIA of Bidder(s) & OEM(s)

A. ELIGIBILITY CRITERIA

S.No	Criteria	Documents to be submitted
1	The Bidder as well as OEM(s) (Digital Interactive Board, All-in One Desktop, Printer, UPS, Access Point and Software development of Virtual reality Modules offered) should be a registered company in India under Companies Act 1956 as amended from time to time, or partnership registered under the India Partnership Act 1932 / Limited Liability Partnership (LLP) registered under LLP Act, 2008 or a Society constituted under the Societies Registration Act 1860 with their registered office in India and should have been in operation for at least three years as on date of tender document.	Copy of the Certificate of Registration/Incorporation should be enclosed.
2	The Bidder must either be OEM(s) (Digital Interactive Board, All-in One Desktop, Printer, UPS, Access Point and Software development of Virtual reality Modules offered) or their authorized business partners as evidenced by copies of relevant certificates. Consortium will not be allowed. Manufacturer Authorization Certificate shall be issued by OEM to maximum 3 bidders (channel partners and distributors taken together).	Manufacturer Authorization Certificate from OEM
3	I. The Bidder or the OEM(s) should have executed/done at least three similar assignments based on ICT solution with educational technologies out of which at least one should be in Government organization/ Educational Institution/ Reputed Organizations/ Institutes/Private Organisation / University/ PSU. a) OEM of All-in-one desktop should have supplied at least one single order of minimum 500 units in last two years.	Copy of appropriate proof should be enclosed for all points.

	<p>b) OEM of Interactive Digital panel should have supplied at least one single order of minimum 200 units of Interactive Digital Panel of 55" screen size or higher in last two years.</p> <p>c) OEM of printer should have supplied at least 200 printers in single order in last two years.</p> <p>II. The Bidder or the software/content developer of content development for Virtual Reality (VR) projects.</p> <p>a) Minimum of 3 Completion certificates of delivering Virtual Reality Projects.</p> <p>b) Should have developed &amp; implemented 3 interactive Virtual Reality (VR) Learning/training solution in Government organization/ Educational Institution/Reputed Organizations/ Institutes/ University/ PSU/Private Organisation/Institutions of repute.</p> <p>c) Should have ready <u>library of at least 20 Virtual Reality educational content.</u></p>	<ul style="list-style-type: none"> <li>• Purchase order/Completion certificate</li> <li>• Purchase order/Completion certificate</li> <li>• Show reel clip of each Interactive content over DVD/Removable USB Storage Device of appx.3minutes each</li> </ul>
4	<ul style="list-style-type: none"> <li>• The Bidder should be ISO 9001 certified or any equivalent Indian Standards.</li> <li>• The OEM of Digital Interactive board should be ISO 9001, ISO 14001 &amp; BS OHSAS 18001 in India or any equivalent Indian Standards.</li> <li>• The OEM of Printer should be ISO 9001 or any equivalent Indian Standards &amp; BIS certification or equivalent global certification.</li> <li>• The OEM of All-in-Desktop should be ISO 9001 equivalent global certification or BIS certification or equivalent any other global certification</li> </ul>	Copy of certificates should be enclosed.
5	The Bidder must have valid GST and PAN number allotted by the respective authorities.	Copies of all the relevant certificates should be enclosed.
6	The products being quoted by the bidder should not have been declared as at "end-of-sale" and "end-of-support" by the respective	Undertaking must be submitted that the product offered will not be

	bidder/OEM/manufacturer.	at end of support & end of sale. It should support including spares, patches, upgrades, updates, etc. for the quoted products/ software shall be available for next 3 years from the date of successful installation & acceptance of the project and will support ERNET.
7	The bidder should not have been barred or black-listed by any of the departments/organizations/PSUs of the central/state Govt. from last three years of bid submission.	A self-declaration certificate/undertaking on company letterhead with seal / stamp from the authorized signatory should be submitted.

#### B. COMMERCIAL ELIGIBILITY CRITERIA

S.No	Criteria	Documents to be submitted
1	The Bidder should have average audited annual turnover of ₹ 25 Crore or more; in financial years 2016-17, 2017-18 and 2018-19	Certificate from a practicing Chartered Account giving year wise turnover & their average as per Annexure – XI
2	OEM of Digital Interactive board should have average audited annual turnover of more than ₹ 100 Crore in financial years 2016-17, 2017-18 and 2018-19	Certificate from a practicing Chartered Account giving year wise turnover & their average as per Annexure – XI
3	OEM of All-in-Desktop should have average audited annual turnover of more than ₹ 100 Crore in financial years 2016-17, 2017-18 and 2018-19	Certificate from a practicing Chartered Account giving year wise turnover & their average as per Annexure – XI
4	OEM of Printer should have average audited annual turnover of more than ₹ 100 Crore in financial years 2016-17, 2017-18 and 2018-19.	Certificate from a practicing Chartered Account giving year wise turnover & their average as per Annexure – XI
5	No proceedings under IBC'2016 should have been initiated which is pending/on-going against the Bidder as well as the OEM(s).	Undertakings from the Bidder as well as the OEM in this regard should be enclosed.
6	The Bidder or its parent company should have a net positive worth as on 31.03.2019.	<ul style="list-style-type: none"> <li>• Certificate from a practicing Chartered Account w.r.t should be submitted.</li> <li>• Relevant document w.r.t to</li> </ul>

		Parent Company should also be submitted.
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**C. SUPPORT SERVICE CRITERIA**

1	The OEM of Digital Interactive board should have their point of presence to provide services at PAN India and especially in all the 8 North Eastern States of India.	Proof of service centre Agreement /Office registration of OEM enclosed.
2	The OEM of All-in-Desktop should have their point of presence to provide services at PAN India and especially in all the 8 North Eastern States of India.	Proof of service Centre Agreement /Office registration of OEM enclosed.
3	The OEM of Printer Should have their point of presence to provide services at PAN India and especially in all the 8 North Eastern States of India	Proof of service centre Agreement /Office registration of OEM enclosed.
4	<ul style="list-style-type: none"> <li>• To provide the support, bidder should have an office in the Delhi state/ NCR at least from last six months from date of tender.</li> <li>• Bidder/OEM should have their own qualified engineer to provide the support services for the faulty systems/subsystem of equipment/software in conformity with the SLA as defined in this tender document. Proper telephone number, email should be provided.</li> <li>• 8 hours X 6 days a week helpline number for service support by Bidder/OEM Minimum two language support (a. English b. Hindi).</li> </ul>	<p>Documentary proof along with undertaking to this effect should be submitted.</p> <p>Documentary proof along with undertaking to this effect should be submitted. Details related to Phone number &amp; email must be submitted.</p>
5	Escalation matrix and contact details for the higher-level authorities for Bidder/OEM support	Details to be provided.

**Note:** The Bidders are requested to furnish documents to establish their eligibility for each of the above clauses. Relevant portions, in the documents submitted in pursuance of eligibility criteria mentioned above, may be highlighted. If bids are not accompanied by all of the above documents mentioned, the same would be rejected out rightly. Undertaking for subsequent submission of any of the above document will not be entertained under any circumstances. However, ERNET India reserves the right to seek clarifications on the already submitted



documents.

During any stage of verification / evaluation / assessment, if in case any information (including any document furnished by the bidder(s)) is found to be forged/ false, their bid shall be summarily rejected and no correspondence on the same shall be entertained.

THE BID SUBMITTED BY ANY BIDDER NOT FULFILLING THE ELIGIBILITY CONDITIONS / CRITERIA STIPULTED ABOVE, WILL NOT BE CONSIDERED.

#### 11. GENERAL CONDITIONS

- i) The bidder must be an authorized representative of the Digital Interactive Board, All-in One Desktop, Printer, UPS, Access Point and Software development of Virtual reality Modules offered. The authority from the manufacturer(s)/OEM(s) for above mentioned components must be submitted along with the bid. Back to Back warranty support certificate needs to be also enclosed from OEMs along with authorization letter.
- ii) Relaxation Micro, Small & Medium Enterprises (MSME) and Start-ups will be provided as per extant guidelines issued by Government of India. To claim the relaxation, bidder has to submit all the requisite certificate/documents.
- iii) This Tender document is not transferable.
- iv) Sealed bids are invited in two-part format (Technical bid and Commercial bid) in two separate sealed covers with both the covers to be sealed in a single cover.
  - (A) First cover indicating "COVER FOR TECHNICAL BID" should consist of following: -
    - a) Bid Security Declaration as per Annxure –V-B
    - b) Bidder's profile as per Annxure -X
    - c) Compliance sheets with supporting documents as per Annxure -III
    - d) Undertaking and all other documents as asked in support of Eligibility Criteria,
    - e) Technical solution, specification, design, configurations of the system/items offered,
    - f) Un-Priced bill of material with make, model details, literature, pamphlets, drawing etc. This cover should contain complete technical specifications, make & model, names of supplier/manufacturer and commercial terms etc. of the system/items offered as per Annexure I & II.
    - g) Signed copy of the Integrity Pact (IP) as given at Annexure-VI

h) Compliance/Undertaking in cofirmity with requirements of all Annexures.

Annexure IV need not be placed in this cover.

(B) Second cover indicating, "COVER FOR FINANCIAL BID" should consist of the price details as per the Price Schedule Format provided in the tender. The prices must be quoted strictly in the formats at Annexure-IV. Both covers (Technical bid and Commercial bid) should first be sealed separately, and then should be kept in a single sealed bigger cover. This cover addressed by name to the officer signing this enquiry should be submitted before due date and time at ERNET India's office at 5<sup>th</sup> Floor, A-Wing, Delhi IT Park, Shastri Park, Delhi-110053. All the covers should be clearly marked "Bids for Tender for Empanelment to Personalized Adaptive learning hardware & Software solutions for educational Institutions". All envelopes should be duly signed and sealed with Company's Stamp.

*Please Note that: Prices should not be indicated in the Technical Bid and should only be indicated in the Price Bid. Any default on the same will lead to reject of bid(s).*

Bids should be valid for a minimum period of 180 days from the due date or any extended date of bid submission. In exceptional circumstances, the ERNET India may request the Bidder(s) for an extension of the period of validity of the bid. The request and the responses thereto shall be made in writing and transmitted through speed post/registered post/courier/Email/fax. The validity of Bid Securing Declaration shall also be required to be suitably extended.

iv) Envelope should bear the inscription:

**"Bids for Tender for Empanelment for providing Personalized Adaptive learning hardware & Software Solutions for educational Institutions**

Tender Enquiry No. : EI-D/TECH/55/0001/2020-GA-DG

"Due Date & Time for Bids submission 07.10.2020 at 3.00 P.M."

"Due Date & Time for Opening of Bids: 07.10.2020 at 3.30 P.M

v) The Bids must reach the undersigned on or before the due date, i.e., on : 07.10.2020 by 3.00 pm. Bids received after the due date & time will be rejected. In the event of due date being

- a National or public or declared Holiday for Central Government offices, the due date for above schedule activities will be the following working day at the appointed time & venue.
- vi) All rates for quoted items/services should be in Indian Rupee for delivery at the premises of ERNET India/end user sites or at any other place in India as and when specified by ERNET India, specially in North East Region. Any type of delivery/ installation/ commissioning charges must be inclusive in unit prices quoted by bidders. All prices shall be fixed and shall not be subject to escalation for any reason whatsoever. The rates must be quoted as per the Performa provided in **Annexure: IV**. Bids not quoted in the specified format shall be outrightly rejected. Also, ERNET India reserves the right to correct any of the arithmetical and/or Tax errors in the bidder(s)'s price bids. During evaluation of bids subject to the condition that in no circumstances, ERNET will be liable to pay any higher value against the Grand Total Value (GTV) quoted by the L1 bidder.
- vii) It may specifically be mentioned whether the Bid is strictly as per tender specifications/conditions. If not, deviations must be spelt out specifically. **In the absence of this, the quotation may be rejected.** Deviation on lower side of specifications will not be considered. **No deviations in terms & conditions** of the tender document will be accepted in any case subject to ERNET India's right under clause 11 (xv), below.
- viii) ERNET India also reserves the right to modify/relax any of the terms & conditions of the tender by declaring / publishing such amendments in public domain i.e. on ERNET's website / CPP portal to keep prospective bidder(s) informed about it.
- ix) The bidders should quote the products strictly as per the tendered specifications or of higher specifications giving exact make & model and specifications. All the technical literature for the products offered by the bidder may be enclosed in the bid. Incomplete quotations are liable to be rejected without seeking any additional documents.
- x) Bidder must submit the compliance statement as per **Annexure-III**
- xi) **Bidder shall sign all pages of the bid document including all enclosures to be submitted with the bid.**
- xii) The price shall be for delivery at desired destination in India including installation/commissioning and complete operationalization. In case of any discrepancy between rates mentioned in figures and words, the latter shall prevail.
- xiii) ERNET India reserves the right to place short / part orders in any fraction based on requirements.





- xiv) The bidder must quote for all the items as mentioned in the Annexure-IV. The bids not quoting all the items of Annexure-IV will be summarily rejected. ERNET India reserves the right to order any item/set of items in any combination depending upon the requirement of client organization.
- xv) ERNET India may waive any minor infirmity or non-conformity or irregularity in a bid or may seek any clarification on the bids, if so desired. The decision in this regard shall be taken by the concerned evaluation committees & their decision will be final.
- xvi) Any attempt of negotiation direct or indirect on the part of the bidder with the authority to whom he has submitted the tender or authority who is competent finally to accept it after he has submitted his tender or any endeavour to secure any interest for an actual or prospective bidder or to influence by any means the acceptance of a particular tender will render the tender liable to be excluded from consideration. The decision of ERNET India in this regard will be final & conclusive and no queries/communication will be entertained in this regard.
- xvii) The bidders will have to arrange for all the testing equipment and tools, cables, connectors, extension boxes etc. required for installation, testing, maintenance etc.
- xviii) ERNET India will have the right to reject the components/equipment supplied if it does not comply with the specifications at any point of installation/ inspection.
- xix) Bidder should ensure that interactive boards of all the sizes quoted are of same OEM.

## **12. INSPECTION**

- i) ERNET India or its representative shall have the right to inspect or to test the items to confirm their conformity to the ordered specifications. The supplier shall provide all reasonable facilities and assistance to the inspection team at no charge to ERNET India. In case any inspected or tested goods fail to conform to the specifications, ERNET India may reject them and supplier shall replace the rejected goods with the goods in conformity with the specification required free of cost to ERNET India. Any delay due to above shall attract relevant penalty clauses of the tender.

**13. Bid Securing Declaration (Earnest Money Deposit Declaration)**

Bidders to sign a Bid security declaration accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they' fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of time specified in the request for bids document from being eligible to submit Bids for contracts with the entity that invited the Bids.

Bidder has to sign the declaration at Annexure "V-B"

**14. Payment Terms**

ERNET India shall release the payments on receipt of pre-receipted bill in duplicate as per the following schedule:-

S.No	Payment Milestone	Release of payment on Percentage
1	<ul style="list-style-type: none"><li>i. Payment will be released in batch of completion of work at five sites.</li><li>ii. If sites ordered or remaining to be completed are less than five and /or , the work on some of the ordered site could not be completed due to reasons not attributable to the vendor but to the users, then the remaining completed sites (less than five) can be considered as accepted on the satisfaction of ERNET India.</li><li>iii. Payment will be further subject to condition that ordered hardware has been successfully delivered at all the ordered sites (excluding those where delivery couldn't have to made for reasons not attributable to the vendor but to the users ) to the satisfaction of ERNET India.</li></ul> <p><i>Completion of work include complete ICT solution consisting of successful Delivery, Installation &amp; Commissioning, testing &amp; Satisfactory acceptance of ordered</i></p>	70% of PO value of accepted sites.

	<p><i>hardware and software at the sites along with Development and functionality testing of atleast 20 Virtual Reality (VR) Modules with complete integration (in case ordered).</i></p> <p><i>*In case, VR modules are not ordered along with ICT Equipment then already developed/Ordered VR Modules will need to be integrated with ordered ICT Equipment as per the requirement of ERNET India.</i></p>	
2	On successful demonstration of work done and Training /organizing workshop.	20 % of the PO Value
3	Balance retained payment of hardware and Virtual Reality content.	Balance 10% of PO Value on satisfactory completion of warranty period
4	<p>In case, only of Hardware is ordered (Without Virtual Reality Headsets)then :</p> <p>(i) After successful Delivery, Installation &amp; Commissioning, testing, Training &amp; Satisfactory acceptance of ordered hardware.</p> <p>(ii) On satisfactory completion of warranty period.</p>	<p>90% of PO value</p> <p>10 % of PO value</p>
5	<p>In case, only of Virtual Reality Module is ordered then:</p> <p>(i) After successful implementation, Installation, Commissioning, testing, Training &amp; integration with hardware along with Satisfactory acceptance of ordered software,as per the requirement of ERNET India in this regard.</p> <p>(ii) On satisfactory completion of warranty period</p>	<p>90% of PO value</p> <p>10 % of PO value</p>

**Note:**

- In every stage, Payment will be release after deduction of penalty and/or LD, if any.
- **All the above payments will be released subject to the condition that successful bidder(s) has submitted the Performance Security equivalent to 10% of the total valueof the**

*purchase order(s)*

**15. WARRANTY**

**(A) For Hardware Equipment**

- i. The comprehensive on-site warranty shall be for the period of one year and will begin from the date of acceptance for ordered equipment of each site. (After complete delivery, installation & acceptance from user)
- ii. Onsite warranty services shall be provided at all the specified locations of installation of software/equipment supplied.
- iii. Warranty shall include free maintenance of the whole equipment supplied including free replacement of faulty equipment/parts free software upgrades/ updates/ renewals/ replacement of batteries (if so required based on the measurement of minimum back-up time period asked in the Tender Document). The defects, if any shall be attended to on immediate basis.

**(B) For Software Development**

- i. The comprehensive warranty shall be for the period of one year and will begin from the date of acceptance of each site. (After successfully development, implementation of Virtual Reality module including integration with equipment's (As per requirement of ERNET India).
- ii. During warranty software maintenance, patch upgrades, bug fixing and any other work or service essential and incidental for smooth running of the installed solution will be done by vendor.
  - In warranty period, Monthly log of service calls and problem resolution reports for helpdesk have to be maintained and provided to ERNET India as and when required.
  - Successful empanelled bidder will be required to provide and update time to time all user manuals, training manuals and any other relevant manuals which are required for successful implementation of the project.

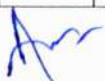
**16. SERVICE LEVEL AGREEMENT (SLA)**



- i) As part of service level commitments, the successful bidder(s)/OEM have to individually setup, maintain & manage a help desk operations support with toll free number/helpline number. It should work from Monday to Saturday from 9a.m. to 5 p.m.
- ii) Bidder has to provide a unique complaint number to keep & track the complaints received via Phone, Email etc.
- iii) In case the user location is inaccessible or non-operational for reasons not attributable to successful bidder then communication from the bidder to the user with copy to ERNET India specifying the reason for not able to make site operational and requesting ERNET India for non consideration of down time till the time that reason persist would be required for excluding this period for calculation of down time penalty.

**17. PENALTY CLAUSE FOR NON-CONFORMANCE TO ABOVE SLA**

S.No	Details	Penalty Imposed
1	In any case, if the installed solution (equipment & Virtual Reality Module) is not made operational within 7 working days from the time of reporting of fault.	Beyond which ERNET India will deduct @ Rs. 500/- per day (subject to the maximum of 10% of relevant PO value).This amount can be recovered from the due payments and/or available performance security.
2	In case the equipment / solution is not made operational within 20 working days.	<ul style="list-style-type: none"> <li>• This will be deemed to be an event of default/ breach of contract and ERNET India may terminate the contract along with debarring/ blacklisting the vendor(s) concerned for at least one year, for further dealings with ERNET India.</li> <li>• Further in such a case, ERNET India may proceed to get the work done from any other vendor and also recover the cost incurred for getting the work done from the due payments or performance security available with ERNET India</li> <li>• If for any reason contract is not terminated by ERNET India, then</li> </ul>





		penalty @Rs. 1000 per day will be imposed beyond the period of 20 working days; till the time problem is resolved or contract is terminated; in such a case, maximum limit of 10% of PO value towards penalty will not be applicable.
*	<i>This down time shall be calculated from the moment when the user logs complaint either Email or Phone to the Vendor complaint center. (Details provided by the vendor).</i>	

## 18. PERFORMANCE SECURITY

- i) At the time of signing of rate contract, the successful bidder(s) shall be required to submit a security deposit of Rs. 3 Lac(Rupees Three Lac only) towards adherence of rate contract in the form of Demand Draft/ Pay Order/EM Fixed deposit/Bank Guarantee of any Nationalized/Scheduled commercial Bank taken in the name of ERNET India, New Delhi. The submitted BG should be valid for a minimum period of 27 months from the date of signing of contract. Security Deposit is liable to be invoked in the case of non-adherence of terms of tender/contract. In case of any extension in the initial period of delivery / installation or any other service liability period, successful bidder(s) have to extend the validity of BG for such period plus 3 months on its own. In case of non-extension (3 months prior to expiry), ERNET India reserves the right to invoke the BG without any notice to the vendor. The security deposit / BG will be returned after the successful expiry of rate contract period.
- ii) The successful bidder shall submit a Performance Security of 10% of the cost of the purchase order at every occasion within 15 days of the placement of purchase order. The Performance Security may be in the form of Demand Draft/Pay Order/Bank Guarantee of any nationalized/scheduled bank. The Bank Guarantee should be valid for the minimum period of its service liability (i.e. delivery & warranty period) + 3 months in respect of individual purchase orders. In case supplier fails to deliver the items/services within delivery/ installation/warranty period, the Performance Security submitted by the firm is liable to be forfeited. Performance Security shall be released immediately after the

warranty is over. No interest will be payable by ERNET India on the any Security deposit submitted by the bidder/vender and/or retained by ERNET India.

- n) The successful bidder has to ensure that if security deposit has been submitted in the form of BGs then submission of all BGs as should be per the latest RBI guidelines.
- m) Non submission/extension of performance security as per above schedule may lead to cancellation of work order. Also, any payment due on ERNET w.r.t work done by the bidder till such date may be withheld/adjusted.

**19. DELIVERY SCHEDULE**

i) The schedule of delivery of hardware & Software is as follows:

S.No	Deliverables	Time Period
1	Procurement and delivery, installation, commissioning of all hardware, software with Acceptance Testing & training along with Virtual Reality Module (in case ordered). Maximum VR Module that can be ordered with set of 5 sites will be 20.	Within 16 weeks from placing the purchase order, Equipment & software should be delivered and installed at Consignee school/institute's location.
2	If VR Module order separately then timeline for Development, installation & integration as follows of up to 20 Virtual Reality modules.	Within 08 weeks from placing the purchase order. Within this period it needs to be developed, delivered, installed and integrated with equipments at user location.

- ii) Any delay by the bidder(s) in the performance of delivery, installation, commissioning, integration, testing/acceptance and imparting of training of items shall render the bidder(s) liable to any or all of the following sanctions-i) forfeiture of its Performance Security Deposit, ii) imposition of liquidated damage as mentioned in tender document iii) cancellation of the purchase order for default, iv) debarring/ blacklisting the vendor.
- iii) Equipment/items will be directly supplied at specified sites for installation (the detailed address of the sites along with its contact official details will be provided along with purchase order). All the expenses involved in shipping the equipment to the sites specified by ERNET India will be borne by the bidder. All aspects of safe delivery & installation shall be the sole responsibility of the successful vendor. ERNET India will have the right to reject the items/equipment supplied, if it does not comply with the specifications at any point of installation/inspections.

**20. LIQUIDATED DAMAGES(LD)**

- i) In the event of the vendor(s)'s failure to complete the delivery, installation, commissioning, integration and testing of the ordered equipment/component along with imparting of training by the date/dates specified in the tender or any extended period, ERNET India may at its discretion withhold any payment, as liquidated damages (and not by way of penalty) at the rate of 2% of the PO value per week of non-installed and accepted sites but to a maximum of 14% for each site (but not exceeding 10% of the total PO value)respective PO value.The amount towards Liquidated Damage would be recovered from the performance security as required or the amounts due to vendor(s). The LD will be imposed only in case the delay is on part of the vendor(s). No, LD will be imposed if the designated sites are not ready for installation.
- ii) In case the delay in installation, development, commissioning, integration of ordered equipments and Virtual Reality Modules beyond the timelines specified in delivery schedule as per S.No. 19 above at any site (for reasons not attributable to the successful vendor) is beyond 7 weeks during the implementation period, ERNET India reserves the right to cancel the purchase order and forfeit all due payments including forfeiture of Security Deposit, besides initiating legal action as per rules/laws and/or debarring / blacklisting the Bidder(s) concerned for at least one year, for further dealings with ERNET India. In such a case ERNET India will initiate action to get the work completed at the cost and risk of bidder(s) and may further distribute such a work to other remaining vendor(s). ERNET India on the request of successful empanelled bidder may at its own discretion may give further time beyond 7 Weeks; but in such a case limit of 14% of each site will not be applicable and Liquidated Damages can go upto a maximum of 20% of respective PO value.

21. Rates quoted by the bidder shall be final and no negotiation will be held. However, it would be subject to the discretion of the Competent Authority in ERNET India.

*Note : Penalties and Liquidated Damages will also arrtact applicable taxes. Further, PO value for this purpose will include PO Value inclusive of taxes.*

**22. Cancellation of Tender**



ERNET India reserves the right to cancel the tender or modify the requirement without assigning any reason. ERNET India will not be under any obligation to give clarifications for doing the aforementioned.

### 23. SPECIAL TERMS & CONDITIONS

- i. ERNET India reserves the right to change/modify the requirement under this tender at any stage based on the project requirements and directions of end customers.
- ii. The bidder must be prepared to work with ERNET on exclusive basis for similar opportunities, and undertake not to submit any business proposal (to the end-client where ERNET has submitted its business proposal) through other business partner/Society/PSU etc.
- iii. Empanelled bidder shall have to enter into a written agreement with ERNET for honouring all tender conditions and adherence to all aspects of fair-trade practices in executing the purchase orders placed by ERNET on behalf of its clients.
- iv. ERNET India will empanel the bidder for execution of work. However order will be subject to the condition of suitability & manageability of sites from project implementation viewpoint.
- v. In the event of successful bidder or the concerned division of successful bidder or any of the participating OEM(s) is taken over /bought over by another company, all the obligations and/or execution responsibilities under the agreement with the ERNET India, should be passed on for compliance by the new company in the negotiation for their transfer under intimation to ERNET.
- vi. If the name of the product is changed for describing substantially the same or more in a renamed form; then all techno-fiscal benefits agreed with respect to the original product, shall be passed on to ERNET India/End User and the obligations with ERNET India taken by the empanelled bidder with respect to the product with the old name shall be passed on along with the product so renamed.
- vii. If any product which is declared end-of-life product by OEM before the delivery of equipment, in this case the bidder should supply replaced model in conformity of specifications or next higher model/version of the product without additional cost.
- viii. ERNET will provide the details of specific project locations at the time of issuing of Purchase order. At present, ERNET India is having confirmed requirements for North Eastern States; and in future we may have similar requirements coming from other parts

- of India in future.
- xi. Bidder has to provide five days training program for each location which consists of operation of ICT Infrastructure & Virtual Reality solution supplied. However, detailed schedule of training program will be prepared in coordination with ERNET India. The brief details of the training to be conducted is enclosed at **Annexure VII**.
  - xii. During the empanelment period, successful vendor may be asked to coordinate for Organization and hosting of workshops for emerging technology and activities (mentioned in the scope of work) including arranging logistics and marketing / information material.
  - xiii. In case, bidder fails to meet any of the service conditions and/or found in breach of any condition(s) of tender or supply order, at any stage during the course of its service liability/ empanelment period, ERNET India besides, terminating its empanelment, forfeiting any due payments and/ or Security Deposits may also debar and blacklist the bidder concerned for at least one year, for further dealings with ERNET India and also may initiate legal action as per rules/laws applicable.
  - xiv. ERNET India may, at any time, terminate the empanelment / purchase order by giving written notice to the selected bidder/ OEM without any compensation, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to ERNET India.
  - xv. No deviations from these terms and conditions will be accepted; violation thereof will lead to rejection of the bid and forfeiture of Security Deposit concerning.
  - xvi. If successful L1 bidder fails to deposit the security deposit, as per clause or extended time period if any given than the offer shall be treated as withdrawn. In such a case, ERNET India at its discretion may make an offer to the subsequent successful bidder(s) i.e. L2, L3 and so on, to accept the rates offered by L1 bidder. On acceptance of such an offer by the subsequent bidders, rate contract may be executed with such bidder. All the terms of this tender documents then will apply to such newly selected L2, L3 bidder; as the case may be.
  - xvii. The Bidder shall bear all costs associated with the preparation and submission of its Bid, including cost of presentation for the purposes of clarification of the Bid, if so desired by ERNET. No cost will be reimbursed by ERNET India in this regard.
  - xviii. A detailed Bill of Material as in Annexure – I & II has been prepared as per the defined scope of work & enclosed herewith. However, it is the bidder's responsibility to see the





completeness of the solution and if required bidder may quote for additional items/equipment to complete the proposed solution design.

- xix. The hardware specifications provided in the tender is the minimum required and bidder may quote for higher specifications to optimize as per their solution requirements.
- xx. Selected Bidder may ask to do the site survey of user's location and submit the report on their own expenses.
  
- xxi. **Bank Guarantees: -**
  - a. In case of any violation of any tender terms and condition recovery of any dues, the security deposit(s) is liable to be encashed by Invoking the BG and/ or appropriating the amount of security deposit without giving any prior notice to the bidder.
  - b. The security deposit will be returned to the successful bidder at the end of the warranty period after adjusting any penalty, Liquidated Damages and any other deductions in compliance with this tender/PO terms
  - c. In case submitted Bank Guarantees need to be extended as per the tender terms and the bidder is unable to extend it for further period, the available security deposits with ERNET India will be liable to be encashed /adjusted/appropriated. Such extension will be required to be done by selected bidder on his own in case there is delay in execution of assigned work and such extension needs to be submitted at least 30 days prior to the date of expiry of relevant BGs.
  - d. All Bank Guarantees shall be in the form of an irrevocable and unconditional Bank Guarantee on a Nationalized / Scheduled commercial bank in Indian rupees. The claim period of BGs shall be minimum three months.
  - e. In view of guidelines issued from Ministry of Finance, it is mandatory that all the Bank Guarantees submitted must be routed through Structured Financial Messaging System (SFMS) from issuing Bank to our Bank by sending IFN 760 COV Bank Guarantee Advice Message. Thereafter only physical Bank Guarantee will be acted upon. Our bank details for this purpose are: -

1	Beneficiary Name & Address	ERNET India 5 <sup>th</sup> Floor, Block I A Wing DMRC IT Park, Shastri Park, Delhi-110053
2	Bank Name	Bank of India
3	Bank Branch & Address	Electronics Niketan 6 CGO complex New Delhi – 110003
4	Beneficiary Account No	604810100002033
5	IFSC code	BKID0006048

xxii. Empanelled Bidder may have to provide Field Engineer (FE) at user location wherever required. Manpower will be required for execution of the project. Detailed responsibilities will be discussed with ERNET /end-user at the time of allocation of Purchase order. Deputed Engineer will need to work for 8 working hours per working day basis at assigned location/end customer premises.

#### 24. OTHER TERMS & CONDITIONS

- i. Any clarification issued by ERNET in response to query raised by prospective bidders shall form an integral part of bid documents and it shall amount to an amendment of relevant clauses of the bid documents.
- ii. Please note that if any document/authorization letter/testimonies are found fabricated /false/ fake, the bid will be declared as disqualified. This may also lead the blacklisting of the bidder.
- iii. Bidder may require visiting or do the site survey of client location on their own expenses.
- iv. ERNET will be owner of the source code and it will be property of ERNET/user. All software source code will be handover to ERNET /or to it's users. as per the written instructions in this regard from ERNET India.
- v. ERNET will be the owner of all source code / module offered and copy right of the same will remain with ERNET.
- vi. **Training and Handover**
  - o Bidder has to be provide the hands-on of training on each location.



- All the training materials will be provided by the bidder. User's Manuals & videos for operating the solution.
- Bidder should provide at least 10 copies of manual (for operating the solution) at each location.
- Bidder should design the handover document in coordination with ERNET for user acceptance.

## 25. BID EVALUATION

- i) The evaluation process of the tender proposed to be adopted by the ERNET India is indicative only and to provide the Bidders an idea of the evaluation process that the ERNET India may adopt. However, ERNET India reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidders of any such change.
- ii) When deemed necessary, during the evaluation process, the ERNET India may seek clarifications on documents submitted in their respective bids or ask the Bidders to make Technical presentations/demonstrations on any aspect from any or all the Bidders. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted.
- iii) A duly approved committee will first select eligible Bidders on the basis of eligibility criteria of this tender. The Bids conforming to the eligibility criterion will be considered for further evaluation.
- iv) Bidder should submit the **compliance statement as per Annexure III** in tabular format for each parameter.
- v) A duly approved committee will shortlist Technical Bids on the basis of technical solution, design, conformity of technical specifications, suitability of offered solution, parameters and features offered vis-à-vis tendered specifications requirements. If required, the short-listed Bidders may be asked for a detailed technical presentation/discussion on the solution and products offered in the bid. Further, committee may ask the bidder to bring any selected items/sub items of their quoted products for technical evaluation at ERNET India or any other location decided by committee in specified time limit. In case, vendor fails to bring their quoted products within the stipulated time, for whatever reasons, their



bid will not be considered for further evaluation. The names of technically short-listed bidders will be announced whose bids will qualify for opening the Price/Commercial Bids.

- vi) A tentative sample Bill of Material as in Annexure-I has been prepared & enclosed herewith for reference. The technically short listed bids will be evaluated on the basis of price quoted by bidders as per Annexure-IV; for all items as per Bill of Material (BOM) enclosed as Annexure-I in the tender.
- vii) The items & quantity provided in Annexure-I are only for calculation purposes for deciding L1(Lowest price bid). Actual quantity and/or items may vary during feasibility, supply & installation as per requirements.
- viii) The bidder must quote for all the items as mentioned in the Annexure-IV. The bids not quoting all the items and/or quoted zero value against any item of Annexure-IV will be summarily rejected.
- ix) Commercial bids of only the Bidders who have cleared the technical evaluation will be opened and evaluated.
- x) The Bidder must quote for all the items as mentioned in the Annexure-IV. The bids not quoting all the items of Annexure-IV will be summarily rejected. The price comparison shall be made on the Grand Total value (GTV) of Annexure-IV to determine L1(lowest) price bid. ERNET India has the right to choose any item / combination of items from Annexure – IV for placement of purchase orders. The purchase orders will be placed as per the actual requirements for the items/sub-items& quantities on the unit rates finalized against this tender.

**xi) Successful Evaluated Bidder**

Successful Evaluated Bidder: Comparison of the Price Bids as per Annexure -IV will be made based on the Grand Total Value (GTV) and after completing internal approval process. Bidder whose Bid Price is the lowest and is meeting all the specified criteria will be declared as successful evaluated bidder who will be called L1 Bidder.

- xii) If L1 bidder fails to deposit the security deposit, as per clause or extended time period if any given than the offer shall be treated as withdrawn. In such a case, ERNET India at its discretion may make an offer to the subsequent successful bidder(s) i.e. L2, L3 and so on, to accept the rates offered by L1 bidder . On acceptance of such an offer by the subsequent

bidders, rate contract may be executed with such bidder. All the terms of this tender documents then will apply to such newly selected L2, L3 bidder; as the case may be. The L2 bidder or as the case may be will have to reply within 10 days in respect of their acceptance / non-acceptance of the L1 rates. In case no reply is received from their side within stipulated time (including extended time period, if given), then ERNET's offer will be deemed to be not accepted by them and thereafter offer will be given to next successful bidder(s) to match the L1 rates on same terms and conditions. In the interest of project timelines; ERNET India may; at its own discretion; may also give simultaneous offer to all the remaining bidders (L2, L3...) and in case the same is accepted by more than one bidder then preference will be given to L2, L3... and so on in the ascending order.

*\*Note: In their own interest the bidders are advised to ensure that the equipment quoted by them should conform to all tendered technical parameters/specifications and are functional. Equipment quoted and not meeting complete tender specifications or lower in specification will not be considered for evaluation.*

#### **25.1 Proof of Concept for Solution\***

- Bidder will be required to setup the PoCat ERNET India's office IT Park, Delhi on the notice of seven working days to enable committee to ensure technical compliance as per tender solution requirement w.r.t to the tender. PoC will include one set of solution consist of hardware along with 2 samples of Virtual Reality Module.
- Tender Evaluation committee will check the solution as per the requirements and in case of not meeting the requirements, then ERNET reserve the right to either to give time to the bidder to comply the requirement or may reject the bid.

*\* Subjected to COVID Circumstance or as per Guideline issued by Government of India*

#### **25.2 Insolvency and Bankruptcy**

i) In the event of transfer of ownership/management of the bidder agency or the concerned division, all the obligations and/or execution responsibilities under the agreement with the ERNET India, should be passed on for compliance to the new management and should be intimated to ERNET India. Further for the removal of doubt it is clarified that in case of insolvency/bankruptcy, provisions of insolvency and bankruptcy code 2016 will apply. Bidder need to inform ERNET India whenever such a proceeding is being intended or initiated.

In case of Insolvency and Bankruptcy of any of the qualified bidder or empaneled bidder:

a) **At any stage** if the empanelled bidder becomes insolvent and bankrupt or files insolvency by self or imposed, and is unable to execute the work/accept further POs then ERNET India will forfeit the security deposit and /or performance security.

b) If the bidder becomes insolvent and bankrupt, **during the process of tendering and before the issuance of PO**, ERNET India may offer empanelment to L2 on L1's Price. If L2 agrees to accept the L1's price along with the acceptance of itemized price of the items offered by L1 within 7 days of offer & executes the RC as per the terms and condition of this tender, he will be empanelled & will be awarded 100% work. Else this process may continue with remaining qualified bidders (L3,L4..) in the order of the quoted pricing till empanelment is achieved.

c) In case the bidder becomes insolvent and bankrupt, **during execution of the work**,

- To continue the execution of PO/RC, Bidder will have to produce a letter from RP/IRP that bidder/company has the requisite capability and all means to execute the project. ERNET India reserves the right to allow the bidder to execute the work w.r.t awarded PO, cancel the work order and a retender may be done.
- In case the Bidder is unable to produce such a letter/execute the work, ERNET India reserves the right to cancel the work order and get the work done as per its own discretion and forfeit security deposit, performance security and any due payment.

## 26. SCOPE OF WORK

- i) The bidder(s) will carry out the work at user sites/locations as specified by ERNET India across any identified project states and will be responsible for total system integration in coordination with all the solution Component OEMs and execution of project with full ownership to operate the infrastructure as per requirement.
- ii) Establishment of Advanced ICTInfrastructure and development of Virtual Reality Content through supply, installation, commissioning, integration in any of the identified schools/colleges across multiple state in India conformity with requirement and Technical Specifications (Annexure-II) and terms & conditions of the tender. The ICT setup solution diagram is placed at **Annexure VIII**.
- iii) Bidder has to provide the Turnkey Solution for provide teaching and learning content dissemination in Virtual Reality format for immersive learning experience (As per detailed solution mentioned in Tender Document). The required eco system should be integrated with digital components e.g. Interactive Digital Board, desktop computers and other



instruments like Virtual reality Head sets and audio visual component over wireless communication. The integrated solution would also cover the below activities:

- Development of interactive course work (modules) of classes on Virtual Reality technology as per requirements.
- Development of interactive 3D contents to be seamlessly broadcasted/ streamed to all connected devices (10 Client machines, 1 display board and 10 VR headsets) over a secured Wireless communication for the class.
- Seamless interactivity (zero delay) to be ensured on all connected devices.
- Liaisoning for commissioning of BSNL broadband at each location.
- 5 full days onsite comprehensive training at each site located.
- Organization and hosting of workshop for emerging technology and above activities including logistics and marketing / information material.

*The entire solution is to be approved and supervised by ERNET India.*

- iii) Currently, ERNET India is having requirements for North Eastern States. Bidder has to setup the ICT lab with integrated solution. In each lab, there should 10 All-in-desktops, 1 Display board, 1 Access points, 1 Printer, 11 UPS and 10 VR headsets. 80 Virtual Reality contents needs to be developed and same will run on above said locations. There are 40 locations in North Eastern States. In future we may have similar requirements coming from other parts of India.
- iv) The bidder(s) shall deliver and implement the system in conjunction with a set of best practices guidelines & industry standards for delivery of infrastructure.
- v) The bidder(s) will make all efforts for smooth integration of the offered equipment and software with any existing equipment/network at User sites/locations specified.
- vi) Successful empanelled bidder shall provide user manual in English to the end-users detailing operations of the equipment and on-site user level training at the time of installation after getting approval from ERNET India. Also, the successful empanelled bidder has to perform the work of equipment tagging at all project sites for the purpose of their warranty and AMC servicing purpose. Tags would include details like Equipment S.No., Warranty start date, warranty end date, contact details (phone numbers and email ID) for logging-in the complaints, complaint escalation matrix, email

id of the ERNET India project division.

- vii) The bidder(s) has to comply with the standard government guidelines / policy for such installation and non-disclosure requirements.
- viii) The methodology of installation work, to be adopted, has to ensure minimum damage to the existing finish and no loss to the aesthetic beauty of the floors & Walls. Any damage to the existing flooring / walls etc. shall be made good by the bidder.
- ix) The bidder(s) shall coordinate and organize a training program. Training shall be organized at any of the project site. All necessary space and permissions to be provided by ERNET/ respective location in-charge. All the training material will be provided by the bidder(s).
- x) The bidder(s) will ensure the availability of services from professionally qualified team during implementation of the work order. And to provide the required on-site warranty/ support for 01 year.
- xi) The OEM(s) will be liable for any software maintenance/patch updates/bug fixing without any extra cost during warranty period. Also, OEM will be responsible for on-site repair / replacement of faulty system / sub-system during the warranty period.
- xii) On completion of the work the bidder(s) shall submit the detailed diagram/drawings & documentation of the project, training manual to the end user/ERNET India and obtain a receiving/delivery certificate from the End user, which will be submitted to ERNET India along with the bills.
- xiii) Bidders have to furnish details of helpdesk for operations and maintenance.
- xiv) Successful bidder will have to Supply, install and commission all the items mentioned in respective Purchase order(s).
- xv) The scope of work also include fixing and setting up the equipment (Interactive Digital board), wall mounting with up to 10mtrs of power cable and LAN cable with proper casing & capping at the respective institutes, configuring all the software associated with it.
- xvi) Bidder has to supply and install the UPS with accurate wiring required at site upto 20 mtrs.
- xvii) For installation of each and every items mentioned in the tender document. All the necessary accessories e.g. Basis wiring, Power cabling, socket, cable ,switch, connectors should be part of supply.
- xviii) A Vendor will coordinate with BSNL for provisioning of Internet broadband at the site. However, the bill of BSNL would be paid directly by ERNET India.

## 27. Software Development practice -

- i) Content should develop in advanced visualization techniques Virtual Reality (VR)&3D.
- ii) Bidder will create a common video content for VR & 3D.
- iii) The content shall be gamified for enhanced engagement outcomes during the learning process. Content shall be distributed from a common platform. Development of a common Content Management & Distribution Platform. Users shall be able to track the content learned and get recommendations basis their completion, performance and interests.
- iv) Bidder shall take the approval from ERNET/users forevery story line before development of any topic content video.

## 28. Software Solution Deployment Methodologies-

Bidder need to provide the deployment methodologies for VR contents for the classroom environment, a bidder will provide the combination of content broadcast system and content management. It would be either deployed locally at university/school level.The content would broadcast on student VR devices. There should be assessment feature after every module.

The locally deployed content shall be accessible to teachers/instructors who could broadcast this internally among students. Due to more optimization resources, entire content catalogue couldn't reside on it at once. The PC version of the app should be able to sync-in with the virtual reality head set on demand in a single click to content streamlining across platforms.

### Feature of Software behaviour:

1. Bidder need to provide deployment methodologies for Individual consumption as well as for classroom environment (group)
  - i. VR solution(Desktop and VR Hardware) should compliance to Industry standards to provide user friendly interface which allows the users to navigate the content catalogue subject-wise, topic-wise, grade-wise etc. (or as provided during the development stage). Once, the user clicks on the content to launch, the system should setup and start the module without any further clicking, configuration requirements with a maximum wait time of 10 seconds.
  - ii. The vendor shall provide aintegrated robust solution( Interactive board, Desktop and VR hardware) to provide seamless access to desired content by the instructor and student.
- iii. **Mode of Virtual Reality Operations:**
  - The student shall be able to launch the Virtual Reality driven learning modules via navigating through the catalogue on the associated PC/Computer in the

in network or standalone mode. This will allow a student with complete flexibility in exploring the learning content.

- The Teacher/instructor shall be able to launch/conduct the session Virtual Reality based driven lab/classroom in a synchronized mode.
- vi. System should also provide native access of the content to the student's on the desktops even without the VR headsets.
- vii. The system must ensure the seamless distribution of the contents through wi-fi network to the student's desktops, Virtual Reality Headsets & Interactive Boards/Displays in syn mode without any delay.
- viii. Any visual experience shall not deliver below 60 fps of frame rate and the entire software/network operations shall operate under 30 ms latency.

*\*The detailed deployment matrix will be shared at the time of issuing a purchase order.*

## **29. INDEMNITY**

The successful bidder(s) shall indemnify the ERNET India/End-user departments against all third-party claims of infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied items and related services or any part thereof. ERNET India/End-user department stand indemnified from any claims that the bidder's manpower may opt to have towards the discharge of their duties in the fulfilment of the purchase orders. ERNET India/End-user department also stand indemnified from any compensation arising out of accidental loss of life or injury sustained by the bidder's manpower while discharging their duty towards fulfilment of the rate contract and purchase orders. The bidder shall solely responsible for any damage, loss or injury which may occur to any property or to any person by or arising out the execution of the works or temporary works or in carrying out of the contract otherwise than due to the matters referred to in this agreement hereinbefore. The bidder would ensure for observance of all labour and other laws applicable in the matter and shall indemnify and keep indemnified the ERNET/its customers against the effect of non-observance of any such laws.

## **30. FORCE MAJEURE**

If at any time, during the period of contract, the performance in whole or in part by either party of any obligation under the project is prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions,



epidemics quarantine restrictions, pandemic, strikes, lockouts or acts of God (hereinafter referred to as "events"), provided notice of happenings of any such event is duly endorsed by the appropriate authorities/chamber of commerce in the country of the party giving notice, is given by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof and satisfies the party adequately of the measures taken by it, neither party shall, by reason of such event, be entitled to terminate the contract, nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of the purchaser as to whether the deliveries have so resumed or not, shall be final and conclusive, provided further, that if the performance in whole or in part or any obligation under the contract is prevented or delayed by reason of any such event for a period exceeding 60 days, the purchaser may at its option, terminate the contract.

### 31. TERMINATION FOR DEFAULT

- i) Default is said to have occurred
  - a) If the bidder fails to deliver any or all of the equipment/ software/ services within the time period(s) specified in the purchase order or any extension thereof granted by ERNET India.
  - b) If the bidder fails to perform any other obligation(s) under the contract.
  - c) If the vendor fails to accept the purchase order(s).
- ii) If the bidder, in either of the above circumstances, does not take remedial steps within a period of 10 days after receipt of the default notice from ERNET India (or takes longer period in spite of what ERNET India may authorize in writing), ERNET India may terminate the purchase order in whole or in part. In addition to above, ERNET India may at its discretion also take the following actions: i) forfeiture of its Performance Security Deposit and/or any due payment, ii) imposition of liquidated damage iii) Initiate legal action as per rules/laws applicable iv) debarring/ blacklisting the bidder.
- iii) ERNET India may procure, upon such terms and in such manner, as it deems appropriate, goods similar to the undelivered items/products and the defaulting bidder(s) shall be



liable to compensate ERNET India for any extra expenditure involved towards goods and services to complete the scope of work in totality and 10% of the total value of purchase order as cancellation charges. For this purpose EI reserves the right to withheld any payment due/not to release any security deposit of the bidder till the time of successful placement of order for the remaining work to some other vendor or till one year from the date of cancellation of order, whichever is earlier.

### **32. ARBITRATION**

- i) Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof which cannot be amicably resolved between the parties; within 90 days from the date of raising of dispute by any of the party; shall be settled by arbitration in accordance with the Rules of Domestic Commercial Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on the parties.
- ii) The venue of Arbitration shall be Delhi.
- iii) The law governing arbitration shall be Arbitration and conciliation Act, 1996.
- iv) The language of the arbitration shall be English.
- v) Pending reference to arbitration, the parties shall make all endeavours to complete the work in all respect. Disputes, if any, will finally be settled in the arbitration.

### **33. APPLICABLELAW**

- i) The bidder shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercialdealings/processing.
- ii) All disputes in this connection shall be settled in Delhi jurisdictiononly.
- iii) ERNET India, without assigning any further reason can reject any bid(s), in which any prescribed condition(s) is/are found incomplete in anyrespect.
- iv) ERNET India reserves the right to cancel this tender or modify the requirement without assigning any reasons. ERNET India will not be under obligation to give clarifications for doing the aforementioned.
- v) ERNET India also reserves the right to modify/ any of the terms & conditions of the tender.
- vi) ERNET India also reserves the right to empanel on quality/technical basis, which depends on quality/capability of the system and infrastructure of the firm. Bidder(s) are, therefore, directed to submit the tender carefully along with complete technical features



of the products/systems as well as other documents required to access the capability of the bidder.

**34. CARE OF WORK**

From the commencement to the completion of the works on individual POs, the bidder(s) should ensure to take full responsibility for the care thereof and of all temporary works and in case any damages loss or injury happens to the works or to any part thereof or to any temporary works due to lack of precaution or negligence on the part of Bidder(s), the loss shall be made good at its own cost.

**35. DAMAGE TO PERSON AND PROPERTY**

The bidder shall (except, if and so far as this agreement provides otherwise), indemnify and keep indemnified the ERNET India & its all customers against all losses and claims for injuries or damage to any person or property arising out of or in consequence of the construction and maintenance of the works by them and against all claims demands, proceedings, damages, loss charges and excesses whatsoever in respect of or in relation thereof.

**36. DEFECT LIABILITY PERIOD**

The bidder shall arrange for maintenance for a period of warranty from the date/dates of installation of the project regarding rectification/removal of defects if any observed during this period. If the bidder does not arrange to rectify the defects observed during the maintenance period within a reasonable time, the ERNET/End user shall be at liberty to get such defects rectified at the cost and risk of the bidder.

**37. Procurement (Preference to Make in India)/ Domestic Manufacturer Clause**

1. In pursuance of Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India ORDER No. P-45021/2/2017-PP(BE-II),




dated: 4th June, 2020 contains revisions w.r.t. Public Procurement (Preference to Make In India), Order-2017 and Notifications for Electronic Products under Public Procurement Order 2017 (Public Procurement (Preference to Make in India) Order 2017 (PPP-MII Order 2017) bidder need to confirm having quoted not less than 20% of the sum total of unit price (excluding taxes) of items (as specified in Annexure-IV) as Local contents. Bidders quoting less than 20% of the total bid value of local contents may not be considered for evaluation. Bidders quoting 50% or more than 50% of local contents, then purchase preference will be given in accordance with Government of India ORDER No. P-45021/2/2017-PP(BE-II), dated: 4th June, 2020. Bidder has to submit the declaration as prescribed in Price Bid (Annexure -IV)

### **38. PERT/CPM/TIME SCHEDULE CHART**

At the outset of the works, the bidder will submit a daily progress report using Pert/CPM/Time schedule chart bringing out completion of various activities in the project to ERNET/its customers. Thereafter, the bidder shall organize a weekly meeting at ERNET, Delhi to discuss the weekly implementation progress and future plan activities for each of the assigned sites. While getting the project executed, apart from adherence to time schedule the bidder shall strictly adhere to quality norms applicable. While getting the project executed, apart from adherence to time schedule the bidder shall strictly adhere to quality norms applicable. In case of delay of the project and/or non-adherence to the norms as set in the tender, suitable penalty clauses as per tender will be attracted.

### **39. MISCELLANEOUS**

- i) The work under this tender is not assignable by the selected bidder. The selected bidder(s) shall not assign its contractual authority to any other third party. The selected bidder shall be obliged to render services /supplies to ERNET India and its customer organizations. Any default or breach in discharging obligations under this tender by the selected bidder while rendering services / supplies to ERNET India or its customers, shall invite all or any actions / sanctions, as the case may be, including forfeiture of security deposit, invocation of performance guarantee stipulated in this



tender document.

- i) The decision of ERNET India arrived at as above will be final and no representation of any kind will be entertained on the above. Any attempt by any Bidder to bring pressure of any kind, may disqualify the Bidder for the present tender and the Bidder may also be liable to be debarred from bidding for ERNET India tenders in future for a period of at least one year.
- ii) Any conditions mentioned in their tender bids by the bidders which are not in conformity to the conditions set forth in the tender will not be accepted by ERNET India. All the terms and conditions for the supply, testing and acceptance, payment terms penalty etc. will be as those mentioned herein and no change in the terms and conditions set by the bidders will be acceptable. Alterations, if any, in the tender bid should be attested properly by the bidders, failing which the bid will be rejected.
- iii) ERNET India reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon Project priorities vis-à-vis urgent commitments. ERNET India also reserves the right to accept /reject any bid, to cancel / abort tender process and / or reject all bids at any time prior to award of work, without thereby incurring any liability to the affected agencies on the grounds of such action taken by the ERNET India.
- iv) Any default by the bidders in respect of tender terms & conditions will lead to rejection of the bid & forfeiture of Security Deposit.
- v) This Tender document is not transferrable. Bidders are advised to study the tender document carefully. Submission of bid shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications. The response to this tender should be full and complete in all respects. Incomplete or partial bids shall be rejected. Bidders shall bear all costs associated with the preparation and submission of the bid, including cost of presentation and demonstration for the purposes of clarification of the bid, if so desired by ERNET India. ERNET India shall in no event be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- vi) In the event of breach of contract as may be referred in various clause of this tender, ERNET reserves the right to withhold and/or forfeit any due payments and/ or Security Deposits. ERNET may also debar and blacklist the bidder(s) concerned for at least three



years, for further dealings with ERNET India and further initiate legal action as per rules/laws applicable.

#### 40. ACCEPTANCE TESTINGPROCESS

- i) The items must be supplied in full as per ordered configuration for acceptance.
- ii) No item with short supply or alternate product with different technical specifications shall be taken up for conduct of acceptance testing under any circumstances. The supplier must ensure the availability of ordered items/spares in their stock before accepting the purchase order.
- iii) The acceptance tests will include the functional testing, interoperability test of the items quoted by vendor and training. The methodology of acceptance based on Technical Verification Data Sheet (TVDS) may be by physically visiting the site or through video conferencing.
- iv) Failure to fulfill any of the aforementioned conditions will entail cancellation of the Purchase Order along with forfeiture of the Security Deposit. Further, ERNET India may procure same items from alternate sources at the risk and cost of the defaulting vendor.
- v) No acceptance testing will be undertaken by ERNET India unless the Technical Verification Data Sheet (TVDS) concerned with offered products, is provided to ERNET, at least 15-Days in advance prior to date from which the actual acceptance testing is to start.
- vi) The schedule for conduct of acceptance testing dates shall be provided along with comprehensive material details by supplier within 15 working days from the date of purchase order to ERNET, mentioned in the purchase order.
- vii) ERNET India reserves the right to reject any item, if found unsuitable and /or not conforming to the approved specifications. The rejected items, if any, shall have to be taken back and replaced by good items forthwith at the cost of the vendor. No payment will be made for rejected items.
- viii) The equipment supplied should work under the specified solution design. It shall be the exclusive responsibility of the bidder(s) supplying the equipment to provide



- appropriate device drivers and solutions for these system software platforms.
- ix) Acceptance form agreed with ERNET needs to be signed and stamped by the nodal officer/head of user organization/institute/ERNET.

#### **41. GST Clauses**

Bidder(s) should be registered under Goods and Service Tax (GST) and should comply to all provisions of GST. Rates should be quoted giving the basic price, GST etc., if any as per Annexure IV. Bidder(s) should undertake that in case of non-compliance by the Bidder of the GST provisions which results in blockage/reversal of any input tax credit to ERNET India, Bidder(s) shall be liable to indemnify the ERNET India any such loss of input credit including interest, penalty and all incidental expenses incurred by ERNET India. Such indemnification may also be by way of invocation of any security deposit, deduction from any payment that ERNET India has to make to the Bidder(s), as per the discretion of the ERNET India. ERNET India reserves the right to review the Vendor/ bidder documents to ensure that they are GST compliant and in such a case bidder shall forthwith provide all such documents as may be required by ERNET India. In case, in future any GST liability is required to be borne by ERNET India; which was the responsibility of the bidder(s), then the same shall be claimed from the Vendors by way of raising debit notes. In case of any variation in the GST rates (upward/ downward) than the quoted rates, the rate applicable on the date of raising of invoices will be paid. ERNET India will not bear any additional tax burden due to change in tax rate for delay on account of delivery, installation and commissioning by the vendor.

#### **42. Representation and Warranties Clause**

- a) The vendor represents that they are registered under Goods and Service Tax (GST) and compliant of GST provisions. The vendor is required to submit the GST Registration Certificate clearly stating the GSTIN and category of registration of the vendor, in case of registration as composite dealer same may also be mentioned very clearly, along with all necessary documentary proofs substantiating the category of registration.
- b) In case of unregistered supplier, the vendor needs to submit a certificate duly certified by a Practicing CA, certifying that they are not required to be registered under GST law



and they that will immediately intimate ERNET India, in case they obtain registration at a later date.

**43. Indemnity Clause**

The vendor undertakes that in case of non-compliance by the vendor of the GST provisions which results in blockage/reversal of any input tax credit to ERNET India, the vendor shall be liable to indemnify the ERNET India for any such loss of input credit including interest, penalty and all incidental expenses incurred by ERNET India. Such indemnification may also be by way of invocation of any security deposit, deduction from any payment that ERNET India has to make to the vendor, as per the discretion of the ERNET India.

**44. Non-Compliance with Payment terms**

Vendor has to raise invoice within 30 days from the date the payment is due as per payment and other terms & conditions of tender. In case invoice is raised and submitted before the due date of payment; then ERNET India reserves the right to return the invoice to the vendor at any point of time. In such a situation ERNET India will process the payment only when the invoice in current date is issued by the vendor.

**45. Provision for raising Debit Notes/Invoices**

In case, in future any GST liability is required to be borne by ERNET India due to improper/un-timely invoicing or any dispute, then the same shall be claimed from the vendor by way of raising debit notes/invoice and also GST liability thereon will be recovered from the vendor.

**46. Review / Audit Right**

ERNET India reserves the right to review the vendor documents to ensure that they are GST compliant and in such a case the vendor will provide all such documents as may be required by ERNET India.



If the vendor fails to adhere the terms & conditions of the P.O. and ERNET deducts Liquidated damages for the delay, under GST regime ERNET India may need to discharge GST liability on LD & penalty recovered from the vendor. Hence GST shall also be additionally recoverable from the vendor on such recovery.

Yoursfaithfully,



(Arun Kr. Singh)

Registrar&CPO

ERNETIndia




## Bill of Material

S.No.	Description	Quantity	
1	Digital Interactive Board - 55 inches *	01	
2	Digital Interactive Board - 65 inches *	01	
3	Digital Interactive Board - 75 inches *	01	
4	Digital Interactive Board - 85 inches *	01	
5	Standalone Virtual Reality (VR) Headset-I	10	
6	Standalone Virtual Reality (VR) Headset-II	10	
7	All-in-one Desktop	10	
8	Access Point	01	
9	Field Engineer (per month basis)	01	
10	Printer	01	
11	UPS	11	
12	Content development for school & higher education level subject to follow the Software Development practice -		
	Class v- as per course Curriculum		
	12.1	12.1.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class vi - as per course Curriculum		
	12.2	12.2.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class vii - as per course Curriculum		
	12.3	12.3.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class viii- as per course Curriculum		
	12.4	12.4.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class ix- as per course Curriculum		
	12.5	12.5.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class x- as per course Curriculum		
	12.6	12.6.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class xi- as per course Curriculum		
	12.7	12.7.1 Virtual Reality Content with 3D Animation	Per Topic content
	Class xii- as per course Curriculum		
	12.8	12.8.1 Virtual Reality Content with 3D Animation	Per Topic content
Higher education content video			
12.9	12.9.1 Virtual Reality Content with 3D Animation	Per Topic content	

**Note:** Detailed specification are given in Annexure II

- \* *The scope of work of Interactive Digital Board(S.No1,2,3& 4)also include fixing and setting up the equipment, wall mounting with upto 10mtrs of power cable and LAN cable with proper casing & capping at the respective schools/ institutes, configuring all the software associated with it.*
- ❖ *VR&3D content will be required as per the course curriculum as per the requirement.*
- ❖ *Developed Content should work on Interactive Digital board, All-in-one-Desktop, laptop and tablet.*



### Specification of the Solution

#### 1.1. Digital Interactive Board- 55 inches

Required Specifications		
<b>PANEL</b>	Screen Size	Minimum 55 inches
	Panel Technology	Display type: LED
	Contrast Ratio	1000:1 and above
	Native Resolution	Minimum 1920 x 1080- FHD
	Brightness	Minimum 330 cd/m2
	Viewing Angle (H x V)	Wide angle 176 x 176
	Response Time	Not more than 12 ms
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same
	Lifetime (Typ.)	50,000 Hrs
	Duty Cycle	Minimum 16 x 7
	Orientation	Landscape
	Aspect Ratio	16:09
<b>CONNECTIVITY</b>	Input	Minimum requirement: HDMI Nos.2, USB Type 2.0 or Type 3.0) Nos.1
	Output	Audio Out
<b>SPECIAL FEATURES</b>	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage	
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dualband), Built-in Speaker (10W+10W), Whiteboard interactive usage facility	
	casting support software, Inbuilt OS	
<b>ENVIRONMENTAL CONDITIONS</b>	Operation Temperature	0°C to 40°C
	Operation Humidity	10% to 80%
<b>POWER</b>	Power Supply	100 to 240V AC, 50/60Hz
<b>STANDARD (CERTIFICATION)</b>	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS, BS OHSAS/ISO45001 in India
	EMC	FCC Class "A" / CE / KCC UL
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting.
		Should have facility to connect to Android device through Cast or any other similar technology.
<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.
		Wall mounting brackets/kit to be Provided
<b>TOUCH</b>	Touch Type	IR
	Scan Time	10 ms



	Protection Glass Thickness	Anti-glare protection glass to the panel
Operating System	Operating System Support	Android/Linux/open source based
Warranty	1 year warranty	
Embedded Interactive White Board Software		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail
Interactive Features		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be available
Hardware		Quad processor min 1.0 GHz,

## 2.1 Digital Interactive Board- 65 inches

Required Specifications		
PANEL	Screen Size	Minimum 65 inches
	Panel Technology	Display type: LED
	Contrast Ratio	1000:1 and above
	Native Resolution	Minimum 3840 x 2160 (4K)
	Brightness	Minimum 330 cd/m <sup>2</sup>
	Viewing Angle (H xV)	Wide angle 176 x 176
	Response Time	Not more than 12 ms
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same
	Lifetime (Typ.)	50,000 Hrs
	Duty Cycle	Minimum 16 x 7
	Orientation	Landscape
	Aspect Ratio	16:09
CONNECTIVITY	Input	Minimum requirement: HDMI Nos.2, USB Type 2.0 or Type 3.0) Nos.1
	Output	Audio Out
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage	
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dualband), Built-in Speaker (10W+10W), Whiteboard interactive usage facility	
	casting support software, Inbuilt OS	
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C
	Operation Humidity	10% to 80%
POWER	Power Supply	100 to 240V AC, 50/60Hz

<b>STANDARD (CERTIFICATION)</b>	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS, BS OHSAS/ISO45001 in India
	EMC	FCC Class "A" / CE / KCC UL
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting.
		Should have facility to connect to Android device through Cast or any other similar technology.
<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.
		Wall mounting brackets/kit to be Provided
<b>TOUCH</b>	Touch Type	IR
	Scan Time	10 ms
	Protection Glass Thickness	Anti-glare protection glass to the panel
Operating System	Operating System Support	Android/Linux/open source based
Warranty	1 year warranty	
Embedded Interactive White Board Software		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail
Interactive Features		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be available
Hardware		Quad processor min 1.0 GHz,

### 3.1 Digital Interactive Board- 75 inches

Required Specifications		
<b>PANEL</b>	Screen Size	Minimum 75 inches
	Panel Technology	Display type: LED
	Contrast Ratio	1000:1 and above
	Native Resolution	Minimum 3840 x 2160 (4K)
	Brightness	Minimum 300 cd/m <sup>2</sup>
	Viewing Angle (H x V)	Wide angle 176 x 176
	Response Time	Not more than 12 ms
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same

	Lifetime (Typ.)	50,000 Hrs
	Duty Cycle	Minimum 16 x 7
	Orientation	Landscape
	Aspect Ratio	16:09
<b>CONNECTIVITY</b>	Input	Minimum requirement: HDMI Nos.2, USB Type 2.0 or Type 3.0) Nos.1
	Output	Audio Out
<b>SPECIAL FEATURES</b>	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage	
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dual band), Built-in Speaker (10W+10W), Whiteboard interactive usage facility	
	casting support software, Inbuilt OS	
<b>ENVIRONMENTAL CONDITIONS</b>	Operation Temperature	0°C to 40°C
	Operation Humidity	10% to 80%
<b>POWER</b>	Power Supply	100 to 240V AC, 50/60Hz
<b>STANDARD (CERTIFICATION)</b>	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS, BS OHSAS/ISO45001 in India
	EMC	FCC Class "A" / CE / KCC UL
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting. Should have facility to connect to Android device through Cast or any other similar technology.
<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.
		Wall mounting brackets/kit to be Provided
<b>TOUCH</b>	Touch Type	IR
	Scan Time	10 ms
	Protection Glass Thickness	Anti-glare protection glass to the panel
Operating System	Operating System Support	Android/Linux/open source based
<b>Warranty</b>	1 year warranty	
<b>Embedded Interactive White Board Software</b>		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail
<b>Interactive Features</b>		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available
<b>Hardware</b>		Quad processor min 1.0 GHz,

#### 4.1 Digital Interactive Board- 85 inches

Required Specifications		
PANEL	Screen Size	Minimum 85 inches
	Panel Technology	Display type: LED
	Contrast Ratio	1000:1 and above
	Native Resolution	Minimum 3840 x 2160 (4K)
	Brightness	Minimum 330 cd/m <sup>2</sup>
	Viewing Angle (H x V)	Wide angle 176 x 176
	Response Time	Not more than 12 ms
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same
	Lifetime (Typ.)	50,000 Hrs
	Duty Cycle	Minimum 16 x 7
	Orientation	Landscape
CONNECTIVITY	Aspect Ratio	16:09
	Input	Minimum requirement: HDMI Nos.2, USB Type 2.0 or Type 3.0) Nos.1
	Output	Audio Out
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage	
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dual band), Built-in Speaker (10W+10W), Whiteboard interactive usage facility	
	casting support software, Inbuilt OS	
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C
	Operation Humidity	10% to 80%
POWER	Power Supply	100 to 240V AC, 50/60Hz
STANDARD (CERTIFICATION)	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS, BS OHSAS/ISO45001 in India
	EMC	FCC Class "A" / CE / KCC UL
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting. Should have facility to connect to Android device through Cast or any other similar technology.
ACCESSORIES	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.
		Wall mounting brackets/kit to be Provided
TOUCH	Touch Type	IR
	Scan Time	10 ms
	Protection Glass Thickness	Anti-glare protection glass to the panel

Operating System	Operating System Support	Android/Linux/open source based
Warranty	1 year warranty	
Embedded Interactive White Board Software		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail
Interactive Features		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available
Hardware		Quad processor min 1.0 GHz,

### 5.1 Standalone Virtual Reality Headset-I

S.No	Description	Values
1	Virtual Reality HMD unit Type	Standalone VR headset with inbuilt processor
2	Storage & Memory	Minimum 32 GB, RAM 3 GB or higher
3	Processor	Qualcomm Snapdragon 821 or equivalent / higher
4	Resolution	2560 X 1440 resolution or better
5	Speaker	Inbuilt speaker; Standard 3.5mm headphone jack
6	Controller Type	3DoF/6DoF controller feature for trigger
7	Input type	Trackpad, and a back and menu button
8	Networking	802.11b/g/b/ac, Bluetooth 4.1
9	Ports	Micro-USB
10	Other Accessories	Built-in speakers with controller, proximity sensor, 3DOF/6DoF sensors (both headset and controller)
11	Size	190 x105x115mm

*A*



12	Weight	600g or lighter
13	Battery	2600mAh or better

### 6.1 Standalone Virtual Reality Headset-II

S.No	Description	Values
1	Virtual Reality HMD unit Type	Standalone VR headset with inbuilt processor
2	Storage & Memory	Minimum 64 GB, RAM 4 GB or higher
3	Processor	Qualcomm Snapdragon 835 or equivalent / higher
4	Resolution	1,440 x 1600 per eye resolution, OLED Screen
5	Speaker	Inbuilt speaker; Standard 3.5mm headphone jack
6	Controller Type	6DoF controller feature for trigger
7	Input type	Trackpad, and a back and menu button
8	Networking	802.11b/g/b/ac, Bluetooth 4.1 or higher
9	Ports	Micro-USB
10	Other Accessories	Built-in speakers with controller, proximity sensor, 6DOF sensors (both headset and controller)
11	Size	190 x105x115mm
12	Battery	2600mAh Lithium-ion or better



## 7.1 All-in-one Desktop

S.No.	Description	Values
1	Processor Description	More than 4 core or higher
2	Operating System (Factory Pre-Loaded)	Windows 10 SL with MS Office 365
3	RAM Size (GB)	8
4	RAM Expandability up to (using spare DIMM Slots in GB)	32
5	Total HDD Capacity (GB)	1000
6	Display Size (INCHES)	19 or above
7	Display Resolution (PIXELS)	1600*900
8	On Site OEM Warranty (Year)	1
9	Number of USB Version 3 point 0 / 3 point 1, Gen 1 Ports	4
10	Number of USB Version 3 point 1, Gen 2 Ports	2
11	Number of HDMI Ports	1
12	Optical Drive	DVD
13	Power Supply Capacity (Watt)	120
14	Minimum Power Efficiency (%)	85
15	Operating System	Should be supplied with Licensed preloaded latest Windows OS
16	Keyboard & Mouse	Same Make as OEM Multimedia Keyboard and Mouse
17	Wireless Connectivity	802.11ac 2 x 2 + Bluetooth® 4.0 and above

*Ar*

## 8.1 Access Point

S.No	Description	Values
1	Wireless Speed	Up to 8 SSID on 2.4 & 5 Ghz (combined) (04 band each) 2600Mbps (2.4 Ghz + 5Ghz)
2	SDRAM	128MB
3	Flash	16MB
4	Antenna Type	External Fixed Antenna (4x4+4x4)
5	WAN	1(10/100/1000)
6	LAN	4 (10/100/1000)
7	USB 2.0/3.0	USB 3.0 + USB2.0
8	Static IP	Yes
9	Dynamic IP (DHCP)	Yes
10	PPPoE	Yes
11	L2TP	Yes
12	PPTP	Yes
13	Static IPv6	Yes
14	PPPoE (IPv6 over PPPoE)	Yes
15	WPS (Wi-Fi Protect Setup)	Yes (PIN/Button)
16	WPA-PSK (Personal)	Yes
17	WPA2-PSK (Personal)	Yes
18	Guest Zone	Yes
19	MU-MIMO	Yes
20	Wi-Fi	Yes
21	Quick VPN	Yes
22	USB Sharing (FTP)	Yes
23	USB Sharing (SAMBA)	Yes

## 9.1 Field Engineer

S.No	Description
1	Monthly basis (Minimum 8 working hours per day for all working days upto 6 days a week)
2	Qualification: <ul style="list-style-type: none"> <li>• Diploma, B. Tech/B.E/MCA or equivalent with at least one year experience.</li> <li>• Having capability for maintaining ICT hardware and software.</li> <li>• Having sufficient knowledge and experience of managing Virtual Realty devices</li> <li>• Good Technical knowledge of Networking/ TCP/IP, LAN/WAN protocols, Switching/Wi-Fi devices</li> </ul>

## 10.1 Printer

S.No	Description	Values
1	Printer Type	Print, Scan, Copy
2	Printing Technology	On-demand inkjet (Piezoelectric)
3	Nozzle Configuration	180 x 1 nozzles Black, 59 x 1 nozzles per colour (Cyan, Magenta, Yellow)
4	Print Direction	Bi-directional printing
5	Maximum Resolution	5760 x 1440 dpi (with Variable-Sized Droplet Technology)
6	Minimum Ink Droplet Volume	3 pl
<b>Print Speed</b>		
7	Draft Text - Memo, A4 (Black/ Colour)	Up to 33 ppm / 15 ppm
8	ISO 24734, A4 (Black / Colour)	Simplex: Up to 10 ipm / 5.0 ipm
9	Photo Default - 10 x 15 cm / 4 x 6 "	Approx. 69 sec per photo (Border) / 90 sec per photo (Borderless)
10	Printer Language	ESC / P-R
<b>Copy Speed</b>		
11	ISO 29183, A4, Simplex (Black / Colour)	Up to 7.7 ipm / 3.8 ipm
12	Copy Quality	Colour / Black-and-White; Draft / Standard
13	Maximum Copies from Standalone	20 copies
14	Maximum Copy Size	A4, Letter
<b>Scanning</b>		
15	Scanner Type	Flatbed colour image scanner
16	Sensor Type	CIS
17	Optical Resolution	1200 x 2400 dpi
18	Maximum Scan Area	216 x 297 mm (8.5 x 11.7 ")
<b>Scanner Bit Depth</b>		
19	Colour	48-bit input, 24-bit output
20	Grayscale	16-bit input, 8-bit output
21	Black & White	16-bit input, 1-bit output
<b>Scan Speed (Flatbed)</b>		
22	Monochrome 200 dpi	11 sec
23	Colour 200 dpi	28 sec
<b>Paper Handling</b>		
24	Paper Feed Method	Friction feed
25	Number of Paper Trays	1
<b>Paper Hold Capacity</b>		
26	Input Capacity	100 sheets, A4 Plain paper (80 g/m2) Up to 20 sheets-Premium Glossy Photo Paper 10 sheets-Envelope, 30 sheets-Postcard

27	Output Capacity	30 sheets, A4 Plain Paper 20 sheets, Premium Glossy Photo Paper
28	Paper Size	Legal, Indian-Legal (215 x 345 mm), 8.5 x 13", Letter, A4, 16K (195 x 270 mm), B5, A5, B6, A6, Hagaki (100 x 148 mm), 5 x 7", 4 x 6", Envelopes: #10, DL, C6
29	Maximum Paper Size	215.9 x 1200 mm (8.5 x 47.24")
30	Print Margin	0 mm top, left, right, bottom via custom settings in printer driver*3
<b>Interface</b>		
31	USB	USB 2.0
32	Network	WiFi IEEE 802.11b/g/n, WiFi Direct
33	Network Protocol	TCP/IPv4, TCP/IPv6
34	Network Management Protocols	SNMP, HTTP, DHCP, APIPA, PING, DDNS, mDNS, SLP, WSD, LLTD
<b>Printer Software</b>		
35	Operating System Compatibility	Windows XP / Vista / 7 / 8 / 8.1 / 10, Windows Server 2003 / 2008 / 2012 / 2016 Only printing and scanning functions are supported for Windows Server OS, Mac OS X 10.6.8 or later
<b>Electrical Specifications</b>		
36	Rated Voltage	AC 220 – 240 V
37	Rated Frequency	50 – 60 Hz
<b>Power Consumption</b>		
38	Operating	12 W
39	Standby	3.9 W
40	Sleep	0.4 W
41	Power off	0.3 W
42	Warranty	1 year


## 11.1 UPS

S.No	Description	Values
1	Rating in KVA/ min VAH capacity of battery (KVA/VAH)	0.8/480
2	Technology	MOSFET-PWM
3	Type of battery	SMF-VRLA confirming to JISC-8702 Pt 1,2 &3
4	Rated Output (Volt)	Single Phase Quasi-Sin-wave 230 V AC, 50 Hz
5	Degree of protection	IP 20
6	Inverter Efficiency (%)	> / = 60%
7	Warranty for the battery from the date of delivery	1 Year

8	Warranty for Line Interactive UPS	1 Year
9	AC out put for printer (not through inverter)	Yes
10	Overload Time (Minutes)	> / = 5 minutes
11	Load power factor	> / = 0.6
12	Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230 Volts +/-15%, 50 +/-3 Hz
13	Type of enclosure	ABS
14	Total harmonic distorsion (%)	< / = 40%
15	Input (Volt)	Single phase sinewave(160-280v)
16	Switching over time (Mili sec)	Maximum 10 milli seconds
17	Overload Time (Minutes)	> / = 10 minutes
18	Load power factor	> / = 0.6
19	Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230 Volts +/-9%, 50 +/-3 Hz
20	Overload (%)	>/=10%
21	Variation in output voltage in battery mode (%) (UPS output voltage in battery mode)	230 Volts +/- 10%
22	Variation on output frequency in battery mode (Hz)	</=0.5

### 12.1 Specification of Development of Virtual Reality(VR) & 3D content

S.No	Description
A	<p><b>Content Development Scope as per requirements</b></p> <p>Class v, class vi, class vii, class viii, class ix, class x, class xi, class xii</p> <p>Each content of VR&amp; 3D should be appx.12-15 minute duration</p>
B	<ol style="list-style-type: none"> <li>i. Development of various Educational Content Library in Virtual Reality (VR) &amp; 3D.</li> <li>ii. Each part of content should be proper animations and with bi-lingual (English and one more Indian language) voice overs.</li> <li>iii. The content shall be gamified for enhanced engagement outcomes during the learning process.</li> <li>iv. There should be familiarization section for virtual reality controls at the start.</li> <li>v. Bidder should follow all procedures of Software Development Life Cycle (SDLC)</li> <li>vi. There should be a common Content Management &amp; Distribution Platform. Content can be broadcast from guide/coordinator side to users' side. Same content should be displayed on all user VR Headsets with full controllability residing at the guide/coordinator's end.</li> <li>vii. The content shall be gamified for enhanced engagement</li> </ol>

	<p>outcomes during the learning process.</p> <p>viii. At the end of every module, there should be assessment feature.</p> <p>ix. Bidder should follow the Software solution Methodology with all feature of software behaviour mentioned clause 28 of tender document.</p> <p>x. All VR modules should run in any VR device</p>
<p><b>C</b></p>	<p>Specification: -</p> <p>i) Bidder should ensure that they will provide the best quality. The minimum Virtual Reality Content Quality Criteria will be: -</p> <ul style="list-style-type: none"> <li>• Bit rate: 30 Mbps or above</li> <li>• Frame Rate : 60 FPS</li> <li>• Resolution : 4K</li> <li>• Refresh rate : 80Hz</li> <li>• All animation should be fluent and no jerks.</li> <li>• 3D model or assets should be equal or above following samples:</li> </ul> <div style="text-align: center;">  </div>

*Handwritten signature or mark in blue ink.*

### 13.1 Electrical cabling

S. No	Requirement	Values
1	Total Electric Points	10 points
2	Single electrical point	Every single electrical point would be considered as one fixed electrical extension board on the wall having one switch and three female sockets together of 5/15 amp or 6/16Amp
3	Switches and sockets:	Modular design (ISI approved)
4	Cable Rating	From Electric meter to Computer room :10 mm Inside computer room for computers: 6 MM.
5	Cabling	Electric cabling should be done through conduit pipe of branded make and not be visible from outside
6	MCB Box	(6 way,8 way)





**1.1.1 Compliance sheet – Technical Specification****Interactive Digital Board - 55 inches**

Required Specifications			Compliance YES/NO and Page No.
PANEL	Screen Size	Minimum 55 inches	
	Panel Technology	Display type: LED	
	Contrast Ratio	1000:1 and above	
	Native Resolution	Minimum 1920 x 1080- FHD	
	Brightness	Minimum 350 cd/m <sup>2</sup>	
	Viewing Angle (H xV)	Wide angle 176 x 176	
	Response Time	Not more than 12 ms	
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same	
	Lifetime (Typ.)	50,000 Hrs	
	Duty Cycle	Minimum 16 x 7	
	Orientation	Landscape	
	Aspect Ratio	16:09	
CONNECTIVITY	Input	Minimum requirement: HDMI Nos.2, USB Type 2.0 or Type 3.0) Nos.1	
	Output	Audio Out	
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage		
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dualband), Built-in Speaker (10W+10W), Whiteboard interactive usage facility		
	casting support software, Inbuilt OS		
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C	
	Operation Humidity	10% to 80%	
POWER	Power Supply	100 to 240V AC, 50/60Hz	
STANDARD (CERTIFICATION)	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS,BS OHSAS/ISO45001in India	
	EMC	FCC Class "A" / CE / KCC UL	
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting. Should have facility to connect to Android device through Cast or anyother similar technology.	

<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.	
		Wall mounting brackets/kit to be Provided	
<b>TOUCH</b>	Touch Type	IR	
	Scan Time	10 ms	
	Protection Glass Thickness	Anti-glare protection glass to the panel	
Operating System	Operating System Support	Android/Linux/open source based	
<b>Warranty</b>	1 year warranty		
<b>Embedded Interactive White Board Software</b>		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail	
<b>Interactive Features</b>		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available	
<b>Hardware</b>		Quad processor min 1.0 GHz,	

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## 2.1.1 Compliance sheet – Technical Specification

### Digital Interactive board (65 inches)

Required Specifications			Compliance YES/NO and Page No.
PANEL	Screen Size	Minimum 65 inches	
	Panel Technology	Display type: LED	
	Contrast Ratio	1000:1 and above	
	Native Resolution	Minimum 3840 x 2160 (4K)	
	Brightness	Minimum 350 cd/m <sup>2</sup>	
	Viewing Angle (H x V)	Wide angle 176 x 176	
	Response Time	Not more than 12 ms	
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same	
	Lifetime (Typ.)	50,000 Hrs	
	Duty Cycle	Minimum 16 x 7	
Orientation	Landscape		
Aspect Ratio	16:09		
CONNECTIVITY	Input	Minimum requirement: HDMI Nos. 2, USB Type 2.0 or Type 3.0 Nos.1	
	Output	Audio Out	
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage		
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dual band), Built-in Speaker (10W+10W), Whiteboard interactive usage facility		
	casting support software, Inbuilt OS		
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C	
	Operation Humidity	10% to 80%	
POWER	Power Supply	100 to 240V AC, 50/60Hz	
STANDARD (CERTIFICATION)	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS, BS OHSAS/ISO45001in India	
	EMC	FCC Class "A" / CE / KCC UL	
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting.	
		Should have facility to connect to Android device through Cast or anyother similar technology.	

<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.
		Wall mounting brackets/kit to be Provided
<b>TOUCH</b>	Touch Type	IR
	Scan Time	10 ms
	Protection Glass Thickness	Anti-glare protection glass to the panel
	Multi Touch Point Compatibility	Minimum 4 points
	Input for Touch	Finger, Gloved Finger, Opaque object/Touch Pen
Operating System	Operating System Support	Android/Linux/open source based
<b>Warranty</b>	1 year warranty	
<b>Embedded Interactive White Board Software</b>		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail
<b>Interactive Features</b>		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available
<b>Hardware</b>		Quad processor min 1.0 GHz,

### 3.1.1 Compliance sheet – Technical Specification

#### Digital Interactive board (75 inches)

Required Specifications			Compliance YES/NO and Page No.
PANEL	Screen Size	Minimum 75 inches	
	Panel Technology	Display type: LED	
	Contrast Ratio	1000:1 and above	
	Native Resolution	Minimum 3840 x 2160 (4K)	
	Brightness	Minimum 300 cd/m <sup>2</sup>	
	Viewing Angle (H x V)	Wide angle 176 x 176	
	Response Time	Not more than 12 ms	
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same	
	Lifetime (Typ.)	50,000 Hrs	
	Duty Cycle	Minimum 16 x 7	
	Orientation	Landscape	
	Aspect Ratio	16:09	
CONNECTIVITY	Input	Minimum requirement: HDMI Nos. 2, USB Type 2.0 or Type 3.0) Nos.1	
	Output	Audio Out	
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage		
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dual band), Built-in Speaker (10W+10W), Whiteboard interactive usage facility		
	casting support software, Inbuilt OS		
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C	
	Operation Humidity	10% to 80%	
POWER	Power Supply	100 to 240V AC, 50/60Hz	
STANDARD (CERTIFICATION)	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS.BS OHSAS/ISO45001in India	
	EMC	FCC Class "A" / CE / KCC UL	
		Browser, PDF Viewer, Media player with standard codec, factory resetting.	
	Application	Should have facility to connect to Android device through Cast or anyother similar technology.	

<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.	
	Installation Fittings	Wall mounting brackets/kit to be Provided	
<b>TOUCH</b>	Touch Type	IR	
	Scan Time	10 ms	
	Protection Glass Thickness	Anti-glare protection glass to the panel	
	Multi Touch Point Compatibility	Minimum 4 points	
	Input for Touch	Finger, Gloved Finger, Opaque object/Touch Pen	
Operating System	Operating System Support	Android/Linux/open source based	
<b>Warranty</b>	1 year warranty		
<b>Embedded Interactive White Board Software</b>		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail	
<b>Interactive Features</b>		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available	
<b>Hardware</b>		Quad processor min 1.0 GHz,	

#### 4.1.1 Compliance sheet – Technical Specification

##### Digital Interactive board (85 inches)

Required Specifications			Compliance YES/NO and Page No.
PANEL	Screen Size	Minimum 85 inches	
	Panel Technology	Display type: LED	
	Contrast Ratio	1000:1 and above	
	Native Resolution	Minimum 3840 x 2160 (4K)	
	Brightness	Minimum 350 cd/m <sup>2</sup>	
	Viewing Angle (H x V)	Wide angle 176 x 176	
	Response Time	Not more than 12 ms	
	Surface Treatment	Hard surface, Anti scratch & Anti-glare treatment of the front polarizer or same	
	Lifetime (Typ.)	50,000 Hrs	
	Duty Cycle	Minimum 16 x 7	
	Orientation	Landscape	
Aspect Ratio	16:09		
CONNECTIVITY	Input	Minimum requirement: HDMI Nos. 2, USB Type 2.0 or Type 3.0) Nos.1	
	Output	Audio Out	
SPECIAL FEATURES	File Play with USB, Internal Memory (RAM) 2GB, 8 GB storage		
	Built-in RJ45 LAN, Wi-Fi Built-in (802.11n/b/g/ac combo, dual band), Built-in Speaker (10W+10W), Whiteboard interactive usage facility		
	casting support software, Inbuilt OS		
ENVIRONMENTAL CONDITIONS	Operation Temperature	0°C to 40°C	
	Operation Humidity	10% to 80%	
POWER	Power Supply	100 to 240V AC, 50/60Hz	
STANDARD (CERTIFICATION)	Safety	UL / cUL / CB / TUV / KCUL, FCC, BIS, ISO-9001, CE, ROHS.BS OHSAS/ISO45001in India	
	EMC	FCC Class "A" / CE / KCC UL	
	Application	Browser, PDF Viewer, Media player with standard codec, factory resetting.	
		Should have facility to connect to Android device through Cast or anyother similar technology.	

<b>ACCESSORIES</b>	Basic	Remote Controller (optional), Power Cord, QSG, stylus minimum Nos.2.	
	Installation Fittings	Wall mounting brackets/kit to be Provided	
<b>TOUCH</b>	Touch Type	IR	
	Scan Time	10 ms	
	Protection Glass Thickness	Anti-glare protection glass to the panel	
	Multi Touch Point Compatibility	Minimum 4 points	
	Input for Touch	Finger, Gloved Finger, Opaque object/Touch Pen	
Operating System	Operating System Support	Android/Linux/open source based	
<b>Warranty</b>	1 year warranty		
<b>Embedded Interactive White Board Software</b>		PC Less Interactive White Board mode feature for teaching should be available, Content Management system & application to support Writing, drawing, Eraser, Screen Capture, video player, Storage, File and folder manager, storage Management, Recording/Print/ E-mail	
<b>Interactive Features</b>		Writing, Pen, Eraser, Save, Screen Capture, Storage, etc. should be Available	
<b>Hardware</b>		Quad processor min 1.0 GHz,	

#### 5.1.1 Standalone Virtual Reality Headset-I:-

S.No	Description	Values	Compliance (Yes/No and Page No)
1	Virtual Reality HMD unit Type	Standalone VR headset with inbuilt processor	
2	Storage & Memory	Minimum 32 GB, RAM 3 GB or higher	

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3	Processor	Qualcomm Snapdragon 821 or equivalent / higher	
4	Resolution	2560 X 1440 resolution or better	
5	Speaker	Inbuilt speaker; Standard 3.5mm headphone jack	
6	Controller Type	3DoF/6DoF controller feature for trigger	
7	Input type	Trackpad, and a back and menu button	
8	Networking	802.11b/g/b/ac, Bluetooth 4.1	
9	Ports	Micro-USB	
10	Other Accessories	Built-in speakers with controller, proximity sensor, 3DOF/6DoF sensors (both headset and controller)	
11	Size	190 x105x115mm	
12	Weight	600g or lighter	
13	Battery	2600mAh or better	

### 6.1.1 Standalone Virtual Reality Headset-II:-

S.No	Description	Values	Compliance (Yes/No and Page No)
1	Virtual Reality HMD unit Type	Standalone VR headset with inbuilt processor	
2	Storage & Memory	Minimum 64 GB, RAM 4 GB or higher	
3	Processor	Qualcomm Snapdragon 835 or equivalent / higher	
4	Resolution	1,440 x 1600 per eye resolution, OLED Screen	



5	Speaker	Inbuilt speaker; Standard 3.5mm headphone jack	
6	Controller Type	6DoF controller feature for trigger	
7	Input type	Trackpad, and a back and menu button	
8	Networking	802.11b/g/b/ac, Bluetooth 4.1 or higher	
9	Ports	Micro-USB	
10	Other Accessories	Built-in speakers with controller, proximity sensor, 6DOF sensors (both headset and controller)	
11	Size	190 x105x115mm	
12	Battery	2600mAh Lithium-ion or better	

### 7.1.1 All-in-one Desktop

S.No.	Description	Values	Compliance (Yes/No and Page No)
1	Processor Description	More than 4 core or higher	
2	Operating System (Factory Pre-Loaded)	Windows 10 SL and MS Office 365	
3	RAM Size (GB)	8	
4	RAM Expandability up to (using spare DIMM Slots in GB)	32	
5	Total HDD Capacity (GB)	1000	
6	Display Size (INCHES)	Minimum 19 or above	
7	Display Resolution (PIXELS)	1600*900	

8	On Site OEM Warranty (Year)	1	
9	Number of USB Version 3 point 0 / 3 point 1, Gen 1 Ports	4	
10	Number of USB Version 3 point 1, Gen 2 Ports	2	
11	Number of HDMI Ports	1	
12	Optical Drive	DVD	
13	Power Supply Capacity (Watt)	120	
14	Minimum Power Efficiency (%)	85	
15	Operating System	Should be supplied with Licensed preloaded latest Windows OS	
16	Keyboard & Mouse	Same Make as OEM Multimedia Keyboard and Mouse	
17	Wireless Connectivity	802.11ac 2 x 2 + Bluetooth® 4.0& above	

### 8.1.1 Access Point

S.No	Specifications	Values	Compliance Yes/No and Page No
1	Wireless Speeds	2600Mbps (2.4 Ghz + 5Ghz)	
2	SDRAM	128MB	
3	Flash	16MB	
4	Antenna Type	External Fixed Antenna (4x4+4x4)	
5	WAN	1(10/100/1000)	
6	LAN	4 (10/100/1000)	
7	USB 2.0/3.0	USB 3.0 + USB2.0	
8	Static IP	Yes	

9	Dynamic IP (DHCP)	Yes	
10	PPPoE	Yes	
11	L2TP	Yes	
12	PPTP	Yes	
13	Static IPv6	Yes	
14	PPPoE (IPv6 over PPPoE)	Yes	
15	WPS (Wi-Fi Protect Setup)	Yes (PIN/Button)	
16	WPA-PSK (Personal)	Yes	
17	WPA2-PSK (Personal)	Yes	
18	Guest Zone	Yes	
19	MU-MIMO	Yes	
20	Wi-Fi	Yes	
21	Quick VPN	Yes	
22	USB Sharing (FTP)	Yes	
23	USB Sharing (SAMBA)	Yes	
24	Up to 8 SSID on 2.4 & 5 Ghz (combined) (04 band each)	YES	

### 9.1.1 Field Engineer

S.No	Description	Compliance Yes/No and Page No
1	Monthly basis (Minimum 8 working hours per day for all working days upto 6 days a week)	
2	Qualification: <ul style="list-style-type: none"> <li>• Diploma, B. Tech/B.E/MCA or equivalent with at least one year experience.</li> <li>• Having capability for maintaining ICT hardware and software.</li> <li>• Having sufficient knowledge and experience of managing Virtual Realty devices</li> <li>• Good Technical knowledge of Networking/ TCP/IP, LAN/WAN protocols, Switching/Wi-Fi devices</li> </ul>	

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### 10.1.1 Printer

S.No	Description	Values	Compliance Yes/No and Page No
1	Printer Type	Print, Scan, Copy	
2	Printing Technology	On-demand inkjet (Piezoelectric)	
3	Nozzle Configuration	180 x 1 nozzles Black, 59 x 1 nozzles per colour (Cyan, Magenta, Yellow)	
4	Print Direction	Bi-directional printing	
5	Maximum Resolution	5760 x 1440 dpi (with Variable-Sized Droplet Technology)	
6	Minimum Ink Droplet Volume	3 pl	
<b>Print Speed</b>			
7	Draft Text - Memo, A4 (Black/ Colour)	Up to 33 ppm / 15 ppm	
8	ISO 24734, A4 (Black / Colour)	Simplex: Up to 10 ipm / 5.0 ipm	
9	Photo Default - 10 x 15 cm / 4 x 6 "	Approx. 69 sec per photo (Border) / 90 sec per photo (Borderless)	
10	Printer Language	ESC / P-R	
<b>Copy Speed</b>			
11	ISO 29183, A4, Simplex (Black / Colour)	Up to 7.7 ipm / 3.8 ipm	
12	Copy Quality	Colour / Black-and-White; Draft / Standard	
13	Maximum Copies from Standalone	20 copies	
14	Maximum Copy Size	A4, Letter	
<b>Scanning</b>			
15	Scanner Type	Flatbed colour image scanner	
16	Sensor Type	CIS	
17	Optical Resolution	1200 x 2400 dpi	
18	Maximum Scan Area	216 x 297 mm (8.5 x 11.7 ")	
<b>Scanner Bit Depth</b>			
19	Colour	48-bit input, 24-bit output	
20	Grayscale	16-bit input, 8-bit output	
21	Black & White	16-bit input, 1-bit output	
<b>Scan Speed (Flatbed)</b>			
22	Monochrome 200 dpi	11 sec	
23	Colour 200 dpi	28 sec	
<b>Paper Handling</b>			
24	Paper Feed Method	Friction feed	
25	Number of Paper Trays	1	
<b>Paper Hold Capacity</b>			



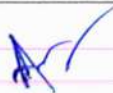
26	Input Capacity	100 sheets, A4 Plain paper (80 g/m2) Up to 20 sheets-Premium Glossy Photo Paper 10 sheets-Envelope, 30 sheets-Postcard
27	Output Capacity	30 sheets, A4 Plain Paper 20 sheets, Premium Glossy Photo Paper
28	Paper Size	Legal, Indian-Legal (215 x 345 mm), 8.5 x 13", Letter, A4, 16K (195 x 270 mm), B5, A5, B6, A6, Hagaki (100 x 148 mm), 5 x 7", 4 x 6", Envelopes: #10, DL, C6
29	Maximum Paper Size	215.9 x 1200 mm (8.5 x 47.24")
30	Print Margin	0 mm top, left, right, bottom via custom settings in printer driver*3
<b>Interface</b>		
31	USB	USB 2.0
32	Network	WiFi IEEE 802.11b/g/n, WiFi Direct
33	Network Protocol	TCP/IPv4, TCP/IPv6
34	Network Management Protocols	SNMP, HTTP, DHCP, APIPA, PING, DDNS, mDNS, SLP, WSD, LLTD
<b>Printer Software</b>		
35	Operating System Compatibility	Windows XP / Vista / 7 / 8 / 8.1 / 10, Windows Server 2003 / 2008 / 2012 / 2016 Only printing and scanning functions are supported for Windows Server OS, Mac OS X 10.6.8 or later
<b>Electrical Specifications</b>		
36	Rated Voltage	AC 220 – 240 V
37	Rated Frequency	50 – 60 Hz
<b>Power Consumption</b>		
38	Operating	12 W
39	Standby	3.9 W
40	Sleep	0.4 W
41	Power off	0.3 W

### 11.1.1 UPS

S.No	Description	Value	Compliance Yes/No and Page No
1	Rating in KVA/ min VAH capacity of battery (KVA/VAH)	0.8/480	
2	Technology	MOSFET-PWM	
3	Type of battery	SMF-VRLA confirming to JISC-8702 Pt 1,2 &3	
4	Rated Output (Volt)	Single Phase Quasi-Sin-wave 230 V AC, 50 Hz	
5	Degree of protection	IP 20	
6	Inverter Efficiency (%)	> / = 60%	
7	Warranty for the battery from the date of delivery	1 Year	
8	Warranty for Line Interactive UPS	1 Year	
9	AC out put for printer (not through inverter)	Yes	
10	Overload Time (Minutes)	> / = 5 minutes	
11	Load power factor	> / = 0.6	
12	Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230 Volts +/-15%, 50 +/-3 Hz	
13	Type of enclosure	ABS	
14	Total harmonic distorsion (%)	< / = 40%	
15	Input (Volt)	Single phase sinewave(160-280v)	
16	Switching over time (Mili sec)	Maximum 10 milli seconds	
17	Overload Time (Minutes)	> / = 10 minutes	
18	Load power factor	> / = 0.6	
19	Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230 Volts +/-9%, 50 +/-3 Hz	
20	Overload (%)	>/=10%	
21	Variation in output voltage in battery mode (%) (UPS output voltage in battery mode)	230 Volts +/- 10%	
22	Variation on output frequency in battery mode	</=0.5	

### 12.1.1 Specification of Development of Virtual Reality (VR) & 3D content

S.No	Description	Compliance Yes/No and Page No
A	<p><b>Content Development Scope as per requirements</b></p> <p>Class v, class vi, class vii, class viii, class ix, class x, class xi, class xii</p> <p>Each content of VR&amp; 3D should be appx. 12-15 min duration</p>	
B	<ul style="list-style-type: none"> <li>i. Development of various Educational Content Library in Virtual Reality (VR) &amp; 3D.</li> <li>ii. Each part of content should be proper animations and with bi-lingual (English and one more Indian language) voice overs.</li> <li>iii. The content shall be gamified for enhanced engagement outcomes during the learning process.</li> <li>iv. There should be familiarization section for virtual reality controls at the start.</li> <li>v. Bidder should follow all procedures of Software Development Life Cycle (SDLC)</li> <li>vi. There should be a common Content Management &amp; Distribution Platform. Content can be broadcast from guide/coordinator side to users' side. Same content should be displayed on all user VR Headsets with full controllability residing at the guide/coordinator's end.</li> <li>vii. The content shall be gamified for enhanced engagement outcomes during the learning process.</li> <li>viii. At the end of every module, there should be assessment feature.</li> <li>ix. Bidder should follow the Software solution Methodology with all feature of software behaviour mentioned clause</li> </ul>	





28 of tender document.

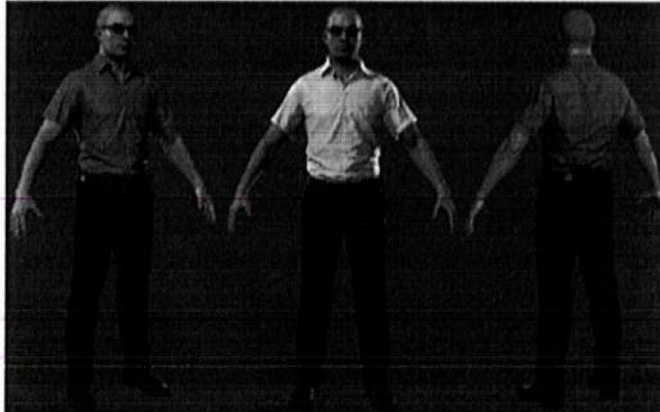
x. All VR modules should run in any VR device.

C

**Specification: -**

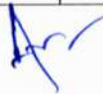
ii) Bidder should ensure that they will provide the best quality. The minimum Virtual Reality Content Quality Criteria will be: -

- Bit rate: 30 Mbps or above
- Frame Rate : 60 FPS
- Resolution : 4K
- Refresh rate : 80Hz
- All animation should be fluent and no jerks.
- 3D model or assets should be equal or above following samples:



## 12.1 Electrical cabling

S. No	Requirement	Values	Compliance Yes/No and Page No
1	Total Electric Points	10 points	
2	Single electrical point	Every single electrical point would be considered as one fixed electrical extension board on the wall having one switch and three female sockets together of 5/15 amp or 6/16Amp	
3	Switches and sockets:	Modular design (ISI approved)	
4	Cable Rating	From Electric meter to Computer room :10 mm Inside computer room for computers: 6 MM.	
5	Cabling	Electric cabling should be done through conduit pipe of branded make and not be visible from outside	
6	MCB Box	(6 way,8 way)	



**PRICE SCHEDULE FOR ITEMS LISTED AT ANNEXURE-I**

To,

The Registrar & CPO  
ERNET India  
5<sup>th</sup> floor, Block-I, A Wing  
Delhi IT Park, Shastri Park, Delhi-110053

TenderNo. \_\_\_\_\_ Date of Opening.....

We hereby offer to supply the following items at the prices and within the period indicated below:

**Table-A**

**(Amount in Rs.)**

S.No.	Item Description as per Annexure-I	Qty (A)	Unit price (B)	Rate of GST (in %) (C)	Amount of GST (D=B*C)	Total unit price (E=B+D)	Total Price (F=A*E)
1	Digital Interactive Board - 55 inches	01					
2	Digital Interactive Board - 65 inches	01					
3	Digital Interactive Board - 75 inches	01					
4	Digital Interactive Board - 85 inches	01					
5	Standalone Virtual Reality (VR) Headset-I	10					
6	Standalone Virtual Reality (VR) Headset-II	10					
7	All-in-one Desktop	10					
8	Access Point	01					

9	Field Engineer (per month basis)	01					
10	Printer	01					
11	UPS	11					
12.1	Virtual Reality Content with 3D Animation-Class v	01					
12.2	Virtual Reality Content with 3D Animation-Class vi	01					
12.3	Virtual Reality Content with 3D Animation-Class vii	01					
12.4	Virtual Reality Content with 3D Animation-Class viii	01					
12.5	Virtual Reality Content with 3D Animation-Class ix	01					
12.6	Virtual Reality Content with 3D Animation-Class x	01					
12.7	Virtual Reality Content with 3D Animation-Class xi	01					
12.8	Virtual Reality Content with 3D Animation-Class xii	01					
12.9	Virtual Reality Content with 3D Animation-higher education content	01					
13	Electrical cabling	01					
<b>G</b>		<b>Total Unit Price without GST in Rs. _____ (sum total of Unit Price (B) from S. No. 1 to 13)</b>					
<b>H</b>		<b>Grand Total Value (GTV) in Rs. (in figures) (sum total of Total Price (F) from S. No. 1 to 13)</b>					
		<b>Grand Total Value (GTV) in Rs. (in words) (sum total of Total Price (F) from S. No. 1 to 13)</b>					



We (bidder) hereby undertake and confirm that:

**1. Declaration of Make in India Purchase Preference**

This is to certify that value of local contents is Rs....., which equivalent to .....% (percentage) of total unit price (as mentioned in S.No. "G" of row titled Total Unit Price (without GST) in the Schedule IV-Price Schedule).

2. The L-1 (lowest) bid will be evaluated based on GTV mentioned in S. No. "H".
3. We understand that quantities mentioned in Schedule IV are only for evaluation purpose and does not anyway indicate the minimum quantities to be ordered.
4. Prices (GTV) are inclusive of all charges and taxes/ duties there on at user sites. Payment will be subject to deduction of TDS.
5. Unit Prices are inclusive of transit insurance, delivery, installation, commissioning charges, etc and custom duty (if applicable).
6. Unit Price of Virtual Reality Module is inclusive of development, delivery, implementation, commissioning & integration charges.
7. All items quoted are inclusive of all necessary accessories and software charges.
8. The Bidder must quote price of each line item of above table. Bids received without these details are liable to be rejected.
9. In case of any arithmetical error (omission or commission) of any item/value, the evaluation committee may correct such a value based on its unit price mentioned in the price bid.
10. Any situation arising out of correction in the arithmetical error which if changes the L1 bidder, in such a case the committee may have the right to declare the new L1 bidder. Also, all the terms & conditions as specified in the tender for L1 bidder will apply to the new L1 bidder.
11. All the equipment and components quoted, have one year comprehensive warranty. The comprehensive warranty includes on-site warranty with parts/spares.
12. The quotation has been submitted for all items strictly as per the specifications and been given compliance in this regard.
13. There are No deviations in the specifications as asked in the tender.
14. During warranty, services will be provided directly to ERNET India and/or its customers at sites.
15. The onsite support services for all the items will be available as per the working hours of user site.
16. All the prices are quoted in the format as above provided by ERNET India failing which the bid will be rejected out rightly. Also, any conditional Price Bid will be rejected.
17. If a bidder quotes 'NIL' charges / consideration, the bid shall be treated as non-responsive and will not be considered for evaluation.

18. It is hereby confirmed that we have understood the terms and conditions of the tender and have thoroughly examined specifications and are thoroughly aware of the nature of goods required and our offer is to supply goods strictly in accordance with the requirement and terms and conditions of the tender. We agree to abide by the terms and conditions of the tender if the contract is awarded to us.
19. We hereby offer to supply the goods detailed above or such portion thereof as you specify in the purchase order at the price quoted/ accepted and agree to hold this offer open for acceptance for a period of 180 days from the date of opening of bid.
20. Declaration w.r.t to Bid Security is enclosed.

(Signature and stamp of Bidder)

Dated \_\_\_\_\_ 2020



**BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY**

(To be stamped in accordance with stamp Act)

(The non-judicial stamp paper should be in the name of issuing Bank)

B.G.NO. \_\_\_\_\_  
Date of issue \_\_\_\_\_  
Amount (Rs.) \_\_\_\_\_  
Valid up to \_\_\_\_\_  
Claim Amount up to \_\_\_\_\_

To,

ERNET India  
5th floor, Block-I, A Wing  
Delhi IT Park, Shastri Park, Delhi-110053

Dear Sirs,

In consideration of the ERNET India, Department of Ministry of Electronic & Information Technology (hereinafter referred as the '**Owner**', which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s. \_\_\_\_\_ (name, constitution and address) (herein referred to as the '**Contractor**', which expression shall unless repugnant to the context of meaning thereof, include its successors, administrator, executors and assigns) a Purchase Order No. \_\_\_\_\_ dated \_\_\_\_\_ valued at \_\_\_\_\_ (hereinafter referred to as Contract) and the Contractor having agreed to provide a Bank Guarantee towards Performance of the entire Contract equivalent to Rs. \_\_\_\_\_ (amount of BG) (i.e. \_\_\_\_\_ per cent of the said value of the Contract) to the Owner.

We \_\_\_\_\_ (name of the Bank) having its Registered Office at \_\_\_\_\_ and Corporate/Head Office at \_\_\_\_\_ (hereinafter referred to as the '**Bank**', which expression shall, unless repugnant to the context or meaning thereof, include the successors, administrators, executors and assigns) do hereby guarantee and undertake to pay at any time up to \_\_\_\_\_ (day/month/year including claim period) an amount not exceeding Rs. \_\_\_\_\_, within ten (10) calendar days from the date of receipt by us on first written demand by Owner; through hand delivery or registered A.D. Post or by speed post or by courier, stating that "Contractor" has failed to

~~perform its obligations under the Contract. Aforesaid payment will be made without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the owner the Bank shall be conclusive and binding notwithstanding any difference between the Owner and Contractor or any dispute pending before any court, tribunal or any authority.~~

The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee. The owner shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forebear to enforce any covenants, contained or implied, in the Contract between the Owner and the Contractor or any other course of or remedy or security available to the Owner. The Bank shall not be relieved of its obligations under these presents by any exercise by the owner or by any other matters or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank. The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Owner may have in relation to the Contractors liabilities.

This Guarantee can be invoked in one or more trenches and in such a case Owner will not be required to submit the original Guarantee along with submission of claim.

Notwithstanding anything mentioned herein above our liability under this guarantee is restricted to Rs. \_\_\_\_\_ and it shall remain in force up to and including \_\_\_\_\_ shall be extended from time to time for such period as may be desired by the Contractor on whose behalf this guarantee has been issued.

WITNESS

BANK

Signature

Signature

Name \_\_\_\_\_

Name \_\_\_\_\_

(Bank's Rubber Stamp)

Seal, name & address of the Bank and address of the Branch

Designation with Bank Stamp

Attorney as per Power of Attorney No. \_\_\_\_\_

Date: \_\_\_\_\_

Place :





**Bid Securing Declaration Form**

Date: \_\_\_\_\_

Tender No. \_\_\_\_\_

To  
ERNET India  
5<sup>th</sup> Floor, Block-I, A Wing  
Delhi IT Park, Shastri Park, Delhi-110053

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We :

- a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Security deposit, in accordance with the requirements of the tender.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed \_\_\_\_\_ (insert signature of person whose name and capacity are shown)  
in the capacity of \_\_\_\_\_ (insert legal capacity of person signing the Bid Securing Declaration)

Name: \_\_\_\_\_ (insert complete name of person signing he Bid Securing Declaration) Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on \_\_\_\_\_ day of (insert date of signing)

Corporate Seal (where appropriate)



**Integrity Pact (IP)**

ERNET India hereinafter referred to as "ERNET" and-----  
[bidder (s) participating in this tender] hereinafter referred to as "The Bidder/Contractor"

**Preamble**

ERNET India to monitor implementation of project under this contract through reputed system integrators who will be selected through the tender for Supply, Installation, Commissioning & Integration of ICT Infrastructure for adaptive learning for educational Institutions.

1. Section 1- Commitments of ERNET

1. ERNET commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

- a. No employee of ERNET, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. ERNET will during the tender process treat all Bidder(s) with equity and reason. ERNET will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder (s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
- c. ERNET will exclude from the process all known prejudiced persons.

2. If ERNET obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or it there be a substantive suspicion in this regard, ERNET will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

2. Section 2- Commitments of the Bidder(s) / Contractor(s)

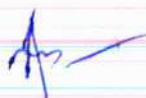
1. The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. The bidder commits himself to observe the following principles during his participation in the tender process and during the contract execution:

- a. The Bidder(s) / contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of ERNET's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or during the execution of the contract.
- b. The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) / Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by ERNET as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure.
- e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

3. Section 3: Disqualification from tender process and exclusion from future contracts

- If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, ERNET is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the Government/ERNET India's procedure on banning of the business dealings/bidders/contractors, etc.



4. Section 4: Compensation for Damages
- a. If ERNET has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, ERNET is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security
  - b. If ERNET has terminated the contract according to Section 3, or if ERNET is entitled to terminate the contract according to Section 3, ERNET shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value and/or the amount equivalent to Performance Bank Guarantee.

5. Section 5: Previous Transgression

- a. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
- b. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

6. Section 6: Equal treatment of all Bidders/Contractors/Subcontractors


- a. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to ERNET before contract signing.
- b. ERNET will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
- c. ERNET will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

7. Section 7: Criminal charges against violation Bidder(s)/ Contractor(s)/Sub contractor(s)

If ERNET obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if ERNET has substantive suspicion in this regard, ERNET will inform the same to the Chief Vigilance Officer.

8. Section 8: Independent External Monitor/Monitors

1. ERNET appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.



2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Director General, ERNET.
  3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of ERNET including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
  4. ERNET will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between ERNET and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
  5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of ERNET and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
  6. The Monitor will submit a written report to the Director General, ERNET within 8 to 10 weeks from the date of reference or intimation to him by ERNET and, should the occasion arise, submit proposals for correcting problematic situations.
  7. Monitor shall be entitled to compensation on the same terms as being extended to / provided to Director level in the ERNET India or as decided by Director General of ERNET India.
  8. If the Monitor has reported to the Director General ERNET, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Director General ERNET has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
  9. The word 'Monitor' would include both singular and plural
9. Section 9 - Pact Duration
1. This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract or after 10 months from the expiry of Rate Contract (RC) whichever ever be later and for all other Bidders 12 months from the contract has been awarded.
  2. If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by Director General of ERNET.



10. Section 10 - Other provisions

1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of ERNET, i.e. NewDelhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not beenmade.
3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortiummembers.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come toan agreement to their originalintentions.

(For & on behalf of ERNET)

(For & on behalf of Bidder/Contractor) (Office Seal)  
(Office Seal)

Place-----

Date-----





## Training Schedule

The training activities will be as under:

### **i) Operational Training of the use of Virtual Reality System**

- Teachers and instructing staff would be trained/familiarized with the complete workflow of the systems and its operations. This would include familiarization with all the VR modules and their usage along with other supplementary contents. This training would include introduction to the technology basics around Virtual Reality. It would help the audience acquire an overview of the complete technological paradigm and how it is helping the learner covering in depth of the topics covered in particular class of the school.
- This training would include the detailed explanation of processes followed by the creator while developing the VR content. This would enable the educators to relate more with the content creation process and actively participate in the feedback/suggestions process.

### **ii) Learning through Interactive Board**

- Interactive classes are a modernized method of education in Indian education scenario which provides quality education to students by helping them in better concept formation, concept elaboration, improvement in reading skills and academic achievement.
- All feature w.r.t to Digital Interactive panel should provide to teachers e.g.
  - Whatever teacher can write on digital board, it can be save and email to student.
  - How to connect Laptops, tablets and smart phones will be connected to display board.
  - Quick response & Intuitive touch: Realistic handwriting and can express complex content like a drawing.
  - There should be feature for selecting the objects. It will also have provision of multi-color pens
  - How to use of audio, video etc.
  - Teaching can easily done connecting through Brower & Email

### **iii) Training Program Schedule: -**

The details of training schedule are as below:-

- Day 1: Introduction covering learning and teaching using smart digital technology
- Day 2 & 3: Familiarization Virtual Reality Equipment & content
  - a) Virtual Reality setup components

b) Content using Virtual Reality / AR environment

c) Awareness of making content in VR Technology/AR Technology

- Day 4& 5: Training on Digital Interactive Board and Assessment & Feedback

v) **Assessment & Feedback Process**

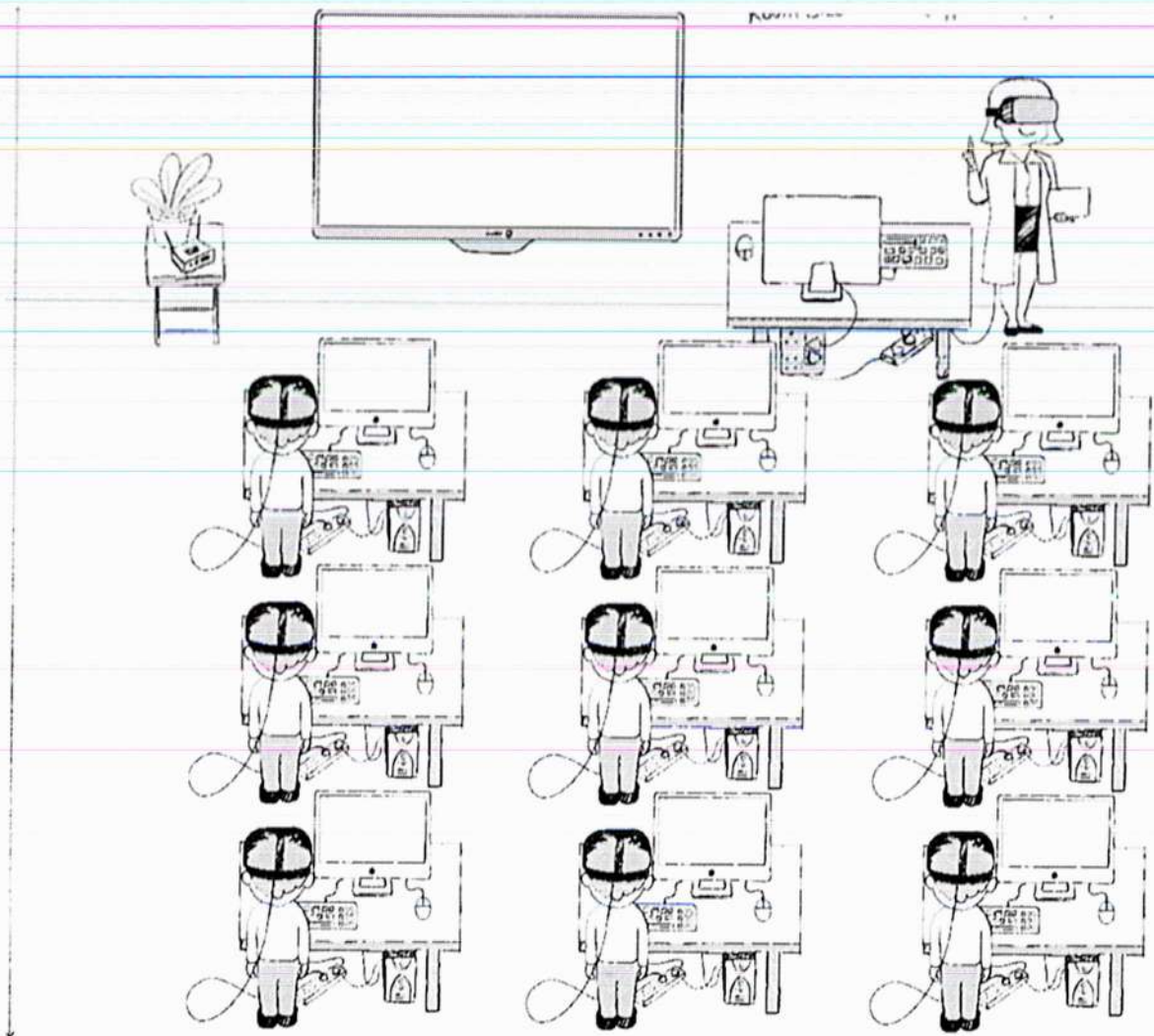
- At the end of the training program, there should be digital assessment for module for store the feedback of training.

*\*5 full days onsite comprehensive training at each site location(specially in North East) to the staff and handing soft and hard (printed) copies of SOPs, training material and technical manuals (10 copies each at each location).*

***\*The detailed training program will be discussed with ERNET official at the time of awarding the Purchase order***







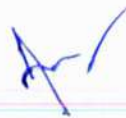
\* Interactive 3D VR content to be seamlessly broadcasted/ streamed to all connected devices (At least 10 Client machines, 1 Digital Interactiveboard and 10 VR headgear) over a secured Wireless communication for the class. Seamless interactivity (zero delay) to be ensured on all connected devices.

**Order Memorandum F.No. 6/18/2019-PPD**  
**Ministry of Finance, Department of Expenditure, Public Procurement Division**

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint Venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means:-
  - a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose *beneficial owner* is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or
  - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The *beneficial owner* for the purpose of (iii) above will be as under:
  1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

    - a) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
    - b) "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
  2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of capital or profits of the partnership;
  3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
  5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.





- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

#### Model Certificate

*"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India, I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached]."*

**Bidder Profile:**

Details of the Bidder (Organization)		
1	Name	
2	Postal Address and E-mail of the Registered Office in India	
3	Postal Address and E-Mail of the Headquarters	
4	Legal Status of the Organization (Public Ltd/ Pvt. Ltd etc.)	
5	Date of Incorporation /Registration	
6	Whether MSME/ Start-up	Yes/ No If yes, then relevant document / certificate enclosed
7	GST registration no PAN Number	
8	Name & Designation of the contact person to whom all references shall be made regarding this Tender	
9	Telephone No. a. Mobile number b. Office land line number (along with STD Code)	
10	E-Mail of the contact person:	
11	Fax No. (with STD Code)	
12	Website	
13	Other Relevant Information	

### Financial Information

Certificate No. –

Date:

It is certified that ..... having registered office at .....

6. Last three-year Turnover details are: -

S.No.	FINANCIAL YEAR	ANNUAL TRUNOVER
1	2016-17	
2	2017-18	
3	2018-19	

7. The average turnover is Rs.....in past threeyears.

\*The above turnover shown in the statement has been verified from books of accounts and records produce before us for verification.

*The above information has to be duly certified by practicing Chartered Account with UDIN*



PLACE: .....

