BID DOCUMENT

NATIONAL COMPETITIVE BIDDING

SELECTION OF SYSTEM INTEGRATOR FOR
"DESIGN, SUPPLY & INSTALLATION OF
AUDIO & VIDEO SOLUTION".

TENDER NO.: EdCIL/DES/A&V/2024
dated 14.12.2024.

EdCIL (India) Limited
A Govt. of India Category-I Mini Ratna CPSE
EdCIL House, Plot No. 18A, Sector 16A,
Noida-201301 (U.P.) India
Tel: 0120 – 2512001-006, FAX: 0120-2515372
Reg. Office: 7th Floor, Ambadeep Building,
K G Marg, New Delhi-110001
CIN No. U74899DL1981GOI011882

DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the EdCIL (India) Limited or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an Agreement and is neither an offer nor invitation by EdCIL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (BIDs) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by EdCIL in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the EdCIL, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The EdCIL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

EdCIL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this BID Stage.

EdCIL does not accept liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. EdCIL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP. The issue of this RFP does not imply that EdCIL is bound to select a Bidder or to appoint the Selected Bidder, as the case may be, for the Project and EdCIL reserves the right to reject all or any of the Bidders or BIDs without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its BID including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by EdCIL, site visits, investigations, studies or any other costs incurred in connection with or relating to its BID. All such costs and expenses will remain with the Bidder and EdCIL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the BID, regardless of the conduct or outcome of the Bidding Process.

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(e-Tendering mode)
EdCIL (INDIA) LIMITED
(A Govt. of India Mini Ratna CATEOGRY-I CPSE)
SECTOR 16A, NOIDA

N.I.T. No.: EdCIL/DES/A&V/2024   Date: 14.12.2024

Name of work	SELECTION OF SYSTEM INTEGRATOR FOR "DESIGN, SUPPLY & INSTALLATION OF AUDIO & VIDEO SOLUTION".
The Currency in which payment shall be made	Indian Rupees (INR)
Date of Issue/Publishing	14.12.2024
Pre-Bid Submission	17.12.2024 till 18:00 Hrs
Pre-Bid meeting	18.12.2024 at 12:00 Hrs
Last Date and Time for receipts of Bids	03.01.2025 till 17:00 Hrs. In case a Holiday is declared on the day of the event, the same will be held on the next working day at the same time & venue.
Date and Time of Opening of Technical Bids	03.01.2025 till 17:30 Hrs
Earnest Money Deposit	EMD in form of Bank Guarantee / Demand Draft. Scanned copy to be uploaded with tender documents and original BG/ DD has to be submitted. In case EMD is submitted in the form of BG, the BG should be valid till 45 days after the bid validity date, as per Annexure-X. The list of bank from where the EMD is acceptable is placed at annexure XV. The bidder who is participating for Type I is required to submit ₹ 4,10,000/- against the EMD. The bidder who is participating for Type II is required to submit ₹ 23,50,000/- against the EMD. The bidder who is participating for both types is required to submit ₹ 27,60,000/- against the EMD.
No. of Covers	02 (Two Packets)
Bid Validity days	180 days (From last date of opening of tender)
Performance Bank Guarantee (PBG)	3% of the total work value of the successful bidder. PBG is required to be submitted within 14 days from the date of issue of LOA as per Annexure-XI
Email Address	ninadpatil@edcil.co.in, destenders@edcil.co.in
Corporate Office	EdCIL House, 18-A, Sector 16A, Film City, Noida, Uttar Pradesh 201301

CHAPTER- I

Offline and Online Bid Submission Documents

1.1 Offline Submissions:

The bidder is requested to submit the hardcopy of the below mentioned documents in a Sealed Envelope and the hardware equipments to the following address before the start of Public Online Tender Opening Event.

Address: Plot No. 18A, EdCIL House, Sector 16A, Film city, Noida-201301

The envelope shall bear name (the project name), the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).

I. Original copy of the EMD Security in the form of Demand Draft/BG.
II. Original Power of Attorney / Board Resolution Copy on a non-judicial stamp paper

Note: The Bidder should also upload the scanned copies of all the above-mentioned original documents as Bid-Annexure during Online Bid-Submission.

1.2 Online Submissions:

The Online bids (complete in all respect) must be uploaded online in **one** Envelope as explained below: -

		Envelope – 1 (Following documents to be provided as single PDF file) (File Size should be less than 5 mb)	
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Technical Compliance Sheet as per Annexure-I	.PDF
2.		Declaration Sheet as per Annexure-II	.PDF
3.		Letter of Undertaking as per Annexure-III	.PDF
4.		Undertaking of Non-Blacklisting as per Annexure-IV	.PDF

5.		Financial Statement as per Annexure-V	.PDF
6.		List of Orders Completed for Govt. Organization/Autonomous Institutes in India as per Annexure VI	.PDF
7.		Manufacturer Authorization Form as per Annexure VII	.PDF
8.		Power of Attorney as per Annexure VIII	.PDF
9.		Letter of Bid Submission as per Annexure IX	.PDF
10.		Bank Guarantee towards Bid Security (EMD) as per Annexure X	.PDF
12.		Performa pre contract integrity pact as per Annexure XII	.PDF
13.		Equipment Specification Compliance as per Annexure- XVI	.PDF
14.		Performa for declaration on proceedings under insolvency and bankruptcy code, 2016 Annexure- XVIII	.PDF
15.	Financial Bid	Financial Bid Submission form	.PDF
16.		Price Bid as per Financial bid (Form 1)	.XLS

Note: Technical Bid should not contain any financial terms and pricing.

CHAPTER-II

Term of Reference & Definitions

Term	Definition
Supplier	"Supplier" means any company responding to the "Selection Of System Integrator For "Design, Supply & Installation Of Audio & Video Solution" who has successfully qualified the bid.
Authorized Signatory	The bidder's representative (explicitly, implicitly, or through conduct) with the powers to commit the authorizing organization to a binding agreement. Also called signing officer/authority having the Power of Attorney from the Competent authority of the respective Bidding firm.
Bid	"Bid" means the response to this document presented in Two Packets, Technical Cum Commercial Bid and Financial Bid, which are supplied with necessary documents and forms as given in Annexure, complete in all respect adhering to the instructions and spirit of this document.
Bidder	"Bidder" means any company responding to Request for Proposal and who makes a Bid.
Contract	"The Contract" means the agreement entered into between EdCIL and the selected bidder(s) in terms of clauses mentioned
Day	"Day" means a working day as per rules of EdCIL.
EMD	Earnest Money Deposit
D.D	Demand Draft
EdCIL	EdCIL (India) Limited, Noida (A Mini Ratna Category -I CPSE)
TC	Tender Committee
PBG	Performance Bank Guarantee
Security Deposit (SD)	Amount of the Order Value deposited by the Bidder and retained till the successful completion of the project (as long as the bidder fulfills the contractual agreement).
Services	"Services" means the services to be delivered by the successful bidder and as required to run the project successfully as per the Contract.
RFP/Tender	"**RFP**"/Tender means the Request for Proposals
Goods and Materials	"Goods and Materials" shall mean the articles, materials, equipment, IT Equipment, supplier's drawings, data and other property and all services-including design, delivery, installation, inspection and maintenance support specified or required to complete the order and incidental thereto.
Order	"Order" shall mean the Purchase Order/Work order and its attachments and exhibits.
Consignee	"Consignee" shall mean EdCIL (India) Limited/ end client.
EdCIL/ Purchaser	"EdCIL/ Purchaser" shall mean EdCIL (India) Limited.

Instructions for e-Tendering

Instructions for Online Bid Submission:

1. E-tendering is new technology for conducting public procurement in a transparent and secured manner. As per Government of India's directives, EdCIL (India) Limited has adopted E-tendering.

2. For conducting electronic tendering, EdCIL (India) Limited has decided to use Electronic tender portal link available with detailed information on e-tendering process. This portal built using Electronic tender's software is referred to as www.tenderwizard.com/EDCIL.

3. The bidders are required to submit soft copies of their bids electronically on www.tenderwizard.com/EDCIL e-tendering website, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the Tender Wizard E-Tendering Portal, prepare their bids in accordance with the requirements and submitting their bids online on the Tender Wizard E-Tendering Portal.

4. The scope of work to be tendered is available in the complete bid documents which can be viewed /downloaded from Tender Wizard E-Tendering Portal of www.tenderwizard.com/EDCIL. Both Technical Bid and Financial Bid will be submitted concurrently duly digitally signed in the website www.tenderwizard.com/EDCIL. No claim shall be entertained on account of disruptions of internet service being used by bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.

5. All Corrigendum/Amendment/Corrections, if any, will be published on the website www.tenderwizard.com/EDCIL as well as on EdCIL's website.

6. It is mandatory for all the applicants to have class-III Digital Signature Certificate (in the name of person who will sign the bid document) from any of the licensed certifying agency (Bidders can see the list of licensed Certifying Agencies from the link www.cca.gov.in) to participate in e-Procurement of EDCIL.

7. It is mandatory for the bidders to get their Supplier registered with e-procurement portal of EDCIL, i.e. www.tenderwizard.com/EDCIL to have user ID & password by submitting a non-refundable annual registration charges as follows:

1	Registration charges for 1 year	Rs. 2000/-

(exclusive of taxes, levies, etc.) which can be paid online using the e-payment gateway to KEONICS through the portal address mentioned above. The registration so obtained by the prospective bidder shall be valid for one year from the date of its issue and shall be subsequently renewed.

i. Participant shall safely keep their User ID and password, which will be issued by the service provider i.e. KEONICS Ltd. upon registration, and which is necessary for e-tendering.

ii. Bidders are advised to change the password immediately on receipt of activation mail.

iii. Bidders shall not disclose their User ID as well as password and other material information relating to the e-tendering to any one and safeguard its secrecy.

8. Submit your tender well in advance by relevant documents along with copy of EMD of tender submission deadline on Tender Wizard E-Tendering Portal www.tenderwizard.com/EDCIL, as there could be last minute problems due to internet timeout, breakdown, etc.

9. Tenders should be submitted only through Tender Wizard E-Tendering Portal and obtain the Tender Acknowledgement copy as a proof of successful submission.

10. Vendors are requested to contact at Tender wizard Helpdesk for any information regarding E-tendering / training.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines)   Emergency Mobile Numbers: 9686115318/ 8800496478/ 8800445981   (Please contact in case of emergency during non-working hours.)
To Tender Wizard   harishkumar.kb@etenderwizard.com   ambasa@etenderwizard.com   arijeet@etenderwizard.com   twhelpdesk963@gmail.com   sandeep.g@etenderwizard.com   & cc to: destenders@edcil.co.in & ninadpatil@edcil.co.in

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum/addendum published on the portal before submitting their bids.

2) **Please go through the tender document carefully to understand the documents required to be submitted as part of the bid.** Please note the number of covers in which the bid documents have to be submitted, the

number of documents (including the names and content of each of the document) that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and generally, these can be in PDF format. Bid documents may be scanned with 100dpi with black and white option.

SUBMISSION OF BIDS

1) Bidder should log into the site well in advance for bid submission and complete all formalities of registration (at least two days in advance of the closing date) so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be sole responsible for any delay in uploading of bid within the stipulated time.
2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to pay EMD as applicable through demand draft/BG/direct bank transfer as per tender condition in favor of "EdCIL (India) Ltd" payable at Noida and enter details of the instruments. Original copies of demand draft/BG for EMD are required to be submitted.

4) A standard Financial Bid form has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the financial bid format is found to be modified by the bidder, the bid will be rejected.

5) The server time will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

6) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

ASSISTANCE TO BIDDERS

Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority. For any other tender related queries bidders are requested to contact on below given numbers/email.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines) Emergency Mobile Numbers: 9686115318/ 8800496478/ 8800445981 (Please contact in case of emergency during non-working hours.)
To Tender Wizard harishkumar.kb@etenderwizard.com ambasa@etenderwizard.com arijeet@etenderwizard.com twhelpdesk963@gmail.com sandeep.g@etenderwizard.com & cc to: destenders@edcil.co.in & ninadpatil@edcil.co.in

Offline Submissions: (AS PER TENDER REQUIREMENT)

The bidder is requested to submit documents as mentioned in the **Clause 1.1**

MINIMUM REQUIREMENTS AT BIDDER'S END

- Computer System having configuration with minimum Windows 7 or above, and Broadband connectivity
- Digital Certificate(s)

CHAPTER-III

INSTRUCTION TO BIDDERS

4.1 <u>Due date</u>:
The tender has to be submitted before the due date and time. The offers received after the due date and time will not be considered.

4.2 <u>Preparation of Bids</u>:
The offer/ bid shall be submitted in **two bid systems (i.e.) Technical Bid and Financial Bid.** The technical bid shall consist of all technical details along with commercial terms and conditions. Financial bid shall indicate component wise price for all the mentioned component in the financial bid in the given PDF format. Technical Bid should not contain any financial terms and pricing.

4.3 <u>Language of Proposal</u>:
The proposal prepared by the company and all correspondence and documents relating to the RFP exchanged by the bidder and the Client, shall be written in the English language, provided that any printed literature furnished by the firm may be written in another language so long as accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

4.4 <u>Cost of Bidding</u>:
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 the client and client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
The bidder is expected to carefully examine all instructions, forms, terms and specifications in the bid document. Failure to furnish all information required in the bid document or submission of a bid not substantially responsive to the bid document in every respect will be at the firm's risk and may result in the rejection of the bid.

4.5 <u>EMD:</u>
The Bidder should submit EMD through Demand Draft drawn in favor of "EdCIL (India) Limited" payable at NOIDA. The Bid sent without EMD would be considered as UNRESPONSIVE and will not be considered.

In case EMD is submitted in the form of BG, the BG should be valid till 45 days after the bid validity date, as per Annexure-X. The list of bank is detailed in Annexure XV.

The bidder should enclose EMD in the form of Bank Guarantee/ Demand Draft drawn in favor of EdCIL (India) Limited and payable at NOIDA, with the Technical Bid. The list of bank from where the EMD is acceptable is placed at annexure XV. The bidder who is participating for Type I is required to submit ₹ 4,10,000/- against the EMD. The bidder who is participating for Type II is required to submit ₹ 23,50,000/- against the EMD. The bidder who is participating for both types is required to submit ₹ 27,60,000/- against the EMD.

Note: Bidders registered with MSME and having valid registration certificate issued by NSIC/MSME are exempted for submission of EMD.

4.6   Refund of EMD:

   I.   The EMD will be returned to unsuccessful Bidder(s) after the award of the work order to the successful bidder.
   II.   Earnest money will be forfeited if the bidder unilaterally withdraws the offer, or unilaterally amends, impairs or rescinds the offer within the period of its validity.
   III. In Case of Successful Bidder, the EMD shall be returned after submission of 3% Performance Bank Guarantee from the list of banks detailed in Annexure XV.

4.7   Acceptance/ Rejection of bids:

   I.   EdCIL reserves the right to reject any or all offers without assigning any reason.
   II.   EdCIL based on the requirement without assigning any reason to the Bidder may split work/Scope/Bid offer in stages or in parts according to the need of work for ease of execution of work.

4.9   Amendment in Tender Document

   At any time up to the last date for receipt of RFP, EdCIL may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective company, modify the Bid Document by an amendment. The amendment will be notified on EdCIL's website and will be binding.

CHAPTER-IV

SCOPE OF WORK

EdCIL (India) Limited is a Government of India Mini-Ratna Category-I CPSE under Ministry of Education. It is the only CPSE offering project and consultancy management services in all areas of education and human resource development within India and overseas. EdCIL also works as a turnkey service provider for implementation of the various types of Digital solutions and providing its services.

The company accordingly focuses on all emerging areas of IT/ICT applications in the education sector. The vision of the company is to transform the teaching - learning process by improving communication and Collaboration among the faculty, students and administrators of the college through digital initiatives. The aim is to improve integration of technology into the teaching-learning spectrum and encourage students to become creators of their own learning by incorporating 21st century skills such as creativity and critical thinking.

The main objectives of the solution are as follows:

- Enabling high-quality audio and video for classroom lectures, group discussions, and presentations.

- Enabling lecture capture and streaming services for remote students or for post-class review.

- Enabling in classrooms and group spaces foster collaboration, making it easier for students to share ideas and work together.

- To create a state-of-the-art translation technology lab that is equipped with the latest hardware, software and other resources required for research and development in translation technology. To provide a platform for students to learn about translation technology and develop their skills in using translation technology tools. The objectives are to promote interdisciplinary collaborations among faculty members from various university departments to advance research in translation technology, and to establish industry partnerships that facilitate the exchange of knowledge and technology between academia and industry.

TECHNICAL SPECIFICATION

TYPE-I : AV SOLUTION

Solution 1:

1. **GENERAL**:
   This part covers technical conditions pursuant to the Contract and will form an integral part of the contract. The following provisions shall supplement all the detailed technical specifications and requirements brought out in the Technical Specifications specified below. The Contractor's proposal shall be based upon the use of equipment and materials complying fully with the requirements specified herein. It is to be mentioned here that the Contractor may have standardized the use of certain components, materials, processes or procedures different than those specified herein.

2. **Limit of Contract**:
   Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures, and standard accessories normally provided with such equipment's and/or needed for inspection, completion and safe operation of the equipment's as required by applicable codes though they may not have been specifically detailed in the technical specification, unless included in the list of exclusions.

3. **INTENT OF SPECIFICATION**:
   Equipment and accessories to be furnished by the bidder in accordance with this specification shall include onsite inspection / testing, packing, and forwarding on for Regional Learning Institute. This will include transportation, insurance and carrying out further activities at sites viz. unloading, storage (space to be provided by the owner), further handling, inspection, installation, testing and commissioning successful completion of acceptance tests and any other services specified in the specifications.
   The Bidder shall be responsible for providing all materials, equipment's, and services, specified or otherwise, which are required to fulfill the intent of ensuring operability, maintainability, and reliability of the complete equipment covered under this specification within his quoted price. This work shall comply with all applicable standards, statutory regulations, and safety requirements in force of the date of award of this contract.

4. **SCOPE OF WORK**:

   a. **General Overview**:
      The Scope of Work by the Bidder for supply, installation & commissioning of Audio-visual systems in Class Rooms & Virtual Training halls at Regional Learning Institute shall include:

- Equipment Supply, installation and configuration
- Laying of UTP/STP cable if any required for making the installation complete.

The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability & reliability of the total system, covered under the specification.

b. **Scope of Supply:** The Scope of supply shall cover the following:

a. Complete Equipment as per Bill of quantities consisting necessary licensing, LED display, PTZ Camera, seamless switcher, Full HD video conferencing system, Wireless presentation system, etc.

b. *Packaging:* All the equipment's shall be suitably protected, coated, covered in water-proof packing, and crated to prevent damage or deterioration during transit handling and storage at site till the time of installation. The contractor shall be responsible for any loss or damage during transportation, handling and storage due to improper packing.

c. *Special Tools and Accessories*
The bidder's proposal shall include the list of tools and accessories which shall be furnished with the equipment. However, the prices of these special tools and tackles shall be included in the lump sum bid price and shall be considered for the purpose of bid evaluation.

d. *System Documentation*
The Bidder shall furnish system and equipment instruction manuals and detailed installation, operating and maintenance documentation along with the CDs for the same. Manuals shall describe system operation, shall include detailed system and components description and shall cover the installation, operation, care and maintenance of all system components including diagnostics. Complete parts lists including detailed instructions for ordering shall be furnished. All final system documentation as delivered shall be complete, accurate and fully representative of the supplied system and its elements.

e. *Rating Plates, Name Plates and Labels*
Each equipment is to have permanently attached to it a rating plate of non-corrosive material upon which is to be engraved manufacturer's name, equipment, type or serial number together with details of power supply etc. under which the equipment in question has been designed to operate, and such diagram plates as may be required by the engineer.

f. The Scope of supply shall cover as per Bill of quantities.

c. **Scope of supply, Installation & Commissioning:**
The bidder shall install & commission all the material as per schedule of

quantities within four weeks from the date of delivery of the material.

The Scope of installation and commissioning shall include the following:

a) The exact sitting of the equipment's and cable routing shall be determined by the contractor in consultation with Regional Learning Institute.

b) Laying of cables, conduits, and channels as per approved routing plan. Installation of cabling system components and equipment, distribution of electrical power to various equipment's.

c) Installation and configuration of equipment.

d) Powering on equipment after ensuring correctness of terminations, interfaces and power supply and making the system ready for testing and commissioning. The bidder shall configure/program the equipment as per the requirements of Regional Learning Institute.

e) Cables shall be neatly & properly tied up and dressed using appropriate cable hangers and Velcro bands. All the cables, connectors, sockets, panels etc. shall be labeled for identification purposes.

f) Site acceptance tests to establish satisfactory performance of the equipment as per specs.

d. Scope of Related Services:

The bidder shall furnish all required services supply, installation of Audio-visual system in the classrooms & Virtual Training Halls of Regional Learning Institute. These shall include but not limited to:

a) Onsite warranty for 1 Year followed by Comprehensive Annual maintenance Contract for a period of two years on all Hardware delivered.

b) Provision for Inspection at Owners premises.

5. SPECIAL REQUIREMENTS:

a) All outsourced equipment and services are subject to NTPC site location mentioned above approval. It will be the responsibility of bidder to provide trouble free support & operation for all outsourced equipment offered by them.

b) The Bidder shall ensure availability of spares, repair & maintenance services, and support for the system for a minimum period of five years at reasonable rates.

c) Source of all outsourced hardware and software products shall be furnished with their technical literature and list of customers where the offered type of system is in use.

d) All equipment's must be Rack mountable, and must carry Indian Standard power cables, console cable, rack mount accessories.

6. Authorization from Principles:

Bidder shall submit an undertaking from the manufacturer/OEM towards successful performance of contract including Warranty and subsequent maintenance, Spares & Services.

7. OVERALL TECHNICAL REQUIREMENTS:

The Bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advance technology and safe methods.

The Bidders shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client and shall always support and safeguard the Client's legitimate interests in any dealings with Sub-bidders or third parties.

The Bidder shall furnish complete, well-fabricated and reliably operating and secure systems as described in this document. Design and selection of equipment and software shall be consistent with the requirements of long-term trouble-free operation with the highest degree of reliability and maintainability.

All equipment shall be constructed to operate safely without undue heating, vibration, wear, corrosion, electromagnetic interference or similar problems and all software shall be proven, tested and reliable.

All interconnecting cables required to connect the communication equipment shall be furnished. All cables shall be fully assembled connector pre-terminated, and factory tested as part of overall system checkout.

Reference Standards:
All equipment, accessories, cables supplied and network scanning, under this contract shall be in accordance with the latest applicable recommendations, regulations, and standards of:
-CCITT/ITU -ANSI -IEC -IEEE -IETF -EIA/TIA 568 Standards -International Electro-technical Commission (IEC) –TRAI.
For parameters not covered under the above codes, internationally acceptable standards shall be accepted. The bidder shall furnish a complete list of all standards and codes under which this equipment is designed, manufactured, and assembled along with the bids. No Draft Specification under bodies mentioned above will be accepted.

Environmental Conditions:
The equipment's to be supplied shall operate without any deviation in quality or degradation of system performance and all the parameters detailed in these specifications shall be guaranteed over the following environmental conditions. Operating Temperature: 0 degree C to 45-degree C. Humidity: up to 90% RH (non-condensing)

Power Supply:
Reliable over voltage and over current protection circuits shall be provided in the equipment power supply units. The equipment's power supply units shall be self-protecting and also protect connected equipment's against interference, noise,

voltage dips and surges & impulses that may be present in the mains power supply sources.

Equipment shall be guaranteed for operation over the following AC power range to be made available by the owner:
240 V AC +/-10%, 50 Hz +/-5%
The owner shall provide suitable AC power / PoE+ at a single power point at each of the locations and distribution of this power to the various equipment's shall be responsibility of the bidder for which necessary distribution board, cable etc. shall be provided by the bidder.

Technical Specification:
All Licenses/ Subscriptions/ Authorization to use, on all the devices/ equipment's/ system software and application software quoted by the bidder in this tender must be Perpetual. Non-Perpetual Licenses/ Subscriptions/ Authorization to use shall not be entertained. Bidder must also provide all software updates during the CAMC period also.

Bill of Material:

TRAINING ROOM 2:

S.No.	Name of the Item	Qty
1.	Full HD WUXGA 7000 lumens Laser Projector	1
2.	Custom Heavy Mount for above projector with 4x4 descent	1
3.	Motorised screen 119" 16:10 aspect ratio	1
4.	2x1 4K HDMI Auto Switcher	1
5.	Wall plate with 1 HDMI and USB C	1
6.	HDMI Transmitter	1
7.	HDMI Receiver	2
8.	Headworn Microphone.	1
9.	Wireless Hand held mics	4
10.	Gooseneck Microphone	1
11.	Shock mount for above	1
12.	DSP	1
13.	Amplifier (250 W)	1
14.	Wall mount speakers (100 Speaker)	2
15.	HDMI Patch Cable 6 ft	5
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1
17.	Speaker Cable 14 AWG	1 Meter
18.	Microphone Cable	1 Meter
19.	Audio Sterio / Control Cable	1 Meter

20.	STP Cable	1 Meter
21.	EquipmentRack600x800	1
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1
23.	Cabling and termination charges	1
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1

Training Center 3:

S.No.	Name of the Item	Qty
1.	98" UHD 500 Nits LED Display	2
2.	Swivel wall mount for above display/Ceiling mount for projector	2
3.	PTZ Camera	1
4.	Tracking Camera	1
5.	Ceiling Camera mount	2
6.	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC shoud have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	1
7.	Matrix Switcher	1
8.	4K Wireless Presentation Device	1
9.	Wall plate with 1 HDMI and USB C	1
10.	HDMI Transmitter	2
11.	HDMI Receiver	3
12.	USB Extender Kit	2
13.	Camera Mixer	1
14.	Headworn Microphone.	1
15.	Gooseneck Microphone	17
16.	Shock mount for above	17
17.	DSP	2
18.	Ceiling speakers (30W)	6
19.	Dual Channel Commercial Class D Amplifier (250W)	3

20.	Room Control with Ipad control	1
21.	Tabletop Touch Panel	1
22.	Base Station or table flush bracket with inbuilld charging	1
23.	Docking StationSleeve	1
24.	Software for Ipad	1
25.	Network Switch that Supports 48 port	1
26.	HDMI Patch Cable 6 ft	13
27.	USB A to B cable 6 ft	7
28.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1
29.	Speaker Cable 14 AWG	1 Meter
30.	Microphone Cable	1 Meter
31.	Audio Sterio / Control Cable	1 Meter
32.	STP Cable	1 Meter
33.	Equipment Rack 600x800	1
34.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor,faceplate,DA,etc)	1
35.	Cabling and termination charges	1
36.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1

TRAINING ROOM 4

S.No.	Name of the Item	Qty
1.	Full HD WUXGA 7000 lumens Laser Projector	1
2.	Custom Heavy Mount for above projector with 4x4 descent	1
3.	Motorised screen 119" 16:10 aspect ratio	1
4.	2x1 4K HDMI Auto Switcher	1
5.	Wall plate with 1 HDMI and USB C	1
6.	HDMI Transmitter	1
7.	HDMI Receiver	2
8.	Headworn Microphone.	1
9.	Wireless Hand held mics	4
10.	Gooseneck Microphone	1

11.	Shock mount for above	1
12.	DSP	1
13.	Amplifier (250 W)	1
14.	Wall mount speakers (100 Speaker)	2
15.	HDMI Patch Cable 6 ft	5
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1
17.	Speaker Cable 14 AWG	1 Meter
18.	Microphone Cable	1 Meter
19.	Audio Sterio / Control Cable	1 Meter
20.	STP Cable	1 Meter
21.	Equipment Rack 600x800	1
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1
23.	Cabling and termination charges	1
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1

VIRTUAL TRAINING ROOM 5

S.No.	Name of the Item	Qty
1.	98" UHD 500 Nits LED Display	2
2.	Swivel wall mount for above display/ Ceiling mount for projector	2
3.	PTZ Camera	1
4.	Tracking Camera	1
5.	Ceiling Camera mount	2
6.	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC shoud have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	1
7.	Matrix Switcher	1
8.	4K Wireless Presentation Device	1
9.	Wall plate with 1 HDMI and USB C	1
10.	HDMI Transmitter	2
11.	HDMI Receiver	3

12.	USB Extender Kit	2
13.	Camera Mixer	1
14.	Headworn Microphone	1
15.	Gooseneck Microphone	21
16.	Shock mount for above	21
17.	DSP	3
18.	Ceiling speakers (30W)	6
19.	Dual Channel Commercial Class D Amplifier (250W)	3
20.	Room Control with Ipad control	1
21.	Tabletop Touch Panel	1
22.	Base Station or table flush bracket with inbuilld charging	1
23.	Docking Station Sleeve	1
24.	Software for Ipad	1
25.	Network Switch that Supports 48 port	1
26.	HDMI Patch Cable 6 ft	13
27.	USB A to B cable 6 ft	7
28.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1
29.	Speaker Cable 14 AWG	1
30.	Microphone Cable	1
31.	Audio Sterio / Control Cable	1
32.	STP Cable	1
33.	Equipment Rack 600x800	1
34.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1
35.	Cabling and termination charges	1
36.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting	1

	layouts, schematics etc.) and documentation charges	

TRAINING ROOM 6

S.No.	Name of the Item	Qty
1.	Full HD WUXGA 7000 lumens Laser Projector	1
2.	Custom Heavy Mount for above projector with 4x4 descent	1
3.	Motorised screen 119" 16:10 aspect ratio	1
4.	2x1 4K HDMI Auto Switcher	1
5.	Wall plate with 1 HDMI and USB C	1
6.	HDMI Transmitter	1
7.	HDMI Receiver	2
8.	Headworn Microphone.	1
9.	Wireless Hand held mics	6
10.	Gooseneck Microphone	1
11.	Shock mount for above	1
12.	DSP	1
13.	Amplifier (250 W)	2
14.	Wall mount speakers (100 Speaker)	4
15.	HDMI Patch Cable 6 ft	5
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1
17.	Speaker Cable 14 AWG	1
18.	Microphone Cable	1
19.	Audio Sterio / Control Cable	1
20.	STP Cable	1
21.	Equipment Rack 600x800	1
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA etc)	1
23.	Cabling and termination charges	1
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1

TECHNICAL SPECIFICATIONS

Full HD WUXGA 7000 Lumens Laser Projector

Descriptions	Specifications
Throw	Standard throw projector (1.61-2.76)
Resolution	WUXGA 1920 x 1200 / Full HD 1920 x 1080, Should support 4K input
Technology	LCD/DLP
Brightness	7000 lumens or better
Light Source	Laser
Digital Input	HDMI: 2 or more (HDCP2.3)
Analog Input	Composite: RCA x 1 (Yellow)/Audio Out D-Sub 15Pin / HDMI: 2
Lamp Hours	20000 hrs or higher
Contrast Ratio	2,500,000:1 or better
Aspect Ratio	16:9 or better
Optical Zoom	1.3x or more
Ports	• 02Nos or more VGA / HDMI • 01No HDMI In /Out • 01No Ethernet / RS232 • 01No Audio In / • 01No Audio Out • USB: A-type, B-type / 01No RS-232
Wattage of Speaker	20dB/15W or better

Custom Heavy Mount for Projector

Descriptions	Specifications
Mounting Type	Ceiling Mount
Accessories	Mounting bracket, nuts, bolts, washers, etc. required for assembly and installation for the above projector
Material	Cast iron or Mild Steel

Motorized Screen 119"

Descriptions	Specifications
Size	119 inches
Aspect Ratio	16:9 or better
Color of screen	White
Supported DisplayResolution	1080p or better
Gain	Unity
Type	With Matte White fabric, flame retardant, Tab tensioned with viewing angle
Control	RF remote and should be supplied with Low Voltage controller for control from third party control system
Accessories	Wall Mount Fixtures for each screen

2X1 4K HDMI Switcher

Descriptions	Specifications
Inputs	2No HDMI (On a female HDMI connector)
Outputs	• 1No HDMI (On a female HDMI connector) • 1No Balanced Stereo Audio: On 5–pin terminal block connector
Ports	• Bidirectional RS-232: On a 3–pin terminal block connector • Remote Contact Closure: On an 8–pin terminal block connector • Ethernet: On an RJ–45 connector
Max Data Rate	17.82GBPS (5.94Gbps per graphic channel)
Max Resolution	4K@60 Hz 4:4:4, HDR10
Protection	HDCP2.2 or better
User Interface	Input selection buttons. DIP–switches for configuring switching mode and EDID mode
Security Features	802.1Xauthentication,AESEncryptedStreams, TLS, SSH, and HTTPS

Wall Plate with 1 HDMI and USB C

Descriptions	Specifications
Inputs	• 1No DP Alt Mode & PD 3.0 USB-C: On a USB type–C connector

	• 1No HDMI: On HDMI connector
Outputs	• 1No HDBaseT: On an RJ–45 connector • 1No Unbalanced Stereo Audio: On 3–pin terminal block connector
Ports	• 1No RS-232: On a 3–pin terminal block for serial link extension • 1No RS-232: On a 3–pin terminal block for device serial control • 1No DC Power Input: On a two pin terminal block connector
Max Data Rate	10.2Gbps or more
Max. Resolution	4K@60Hz (4:2:0) 24bpp resolution
Video Compliance	HDCP 2.3 & 1.4
Extension Line Compliance	HDBaseT 1.0
Extended RS-232Baud Rate	300 to 115200
Control RS-232 Baud Rate	115200
Support Features	• Automatic Display Operation • Intelligent EDID Processing • Audio De–embedding • Bidirectional RS–232 Extension • Reliable PoE (Power over Ethernet)

HDMI & Control Twisted Pair Transmitter:

Descriptions	Specifications
Input	HDMI, Controls (RS 232/IR)
Output	01 No. HDBT Output
Transmission distance support	100mtr or more
Resolution Support	4096x2160p@60 Hz, HDR10, Deep color
Compatible & Protection	HDBT & HDCP 2.2 compliant.
Audio Formats	Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS HD High Res, DTS HD Master Audio, LPCM up to 8 channels
Support Features	• HDTV Compatible • HDCP Compliant • HDBaseT Compatible

Compliance	CE/UL, Additional BIS if applicable

HDMI & Control Twisted Pair Receiver:

Descriptions	Specifications
Input	1No HDBT
Output	HDMI Controls (RS 232/IR)
Range	100mtr
Resolution	4096x2160p@60 Hz 4:4:4,HDR10, Deep color
Compatible& Protection	HDBT & HDCP 2.2 compliant.
Audio Formats	Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS HD High Res, DTS HD Master Audio, LPCM up to 8 channels
Support Features	• HDTV Compatible • HDCP Compliant • HDBaseT Compatible
Compliance	CE/UL, Additional BIS if applicable

Wireless handheld mics:

Descriptions	Specifications
Wireless Handheld Microphone	Operating on 35Hz to 20KHz Audio bandwidth, Pick-up Pattern
Network socket	RJ-45
RF Sensitivity	<-98 dBm or better SNR: 120dB, THD: <=0.3% or better SPL
Frequency Range	600MHz to 865MHz or better
Modulation Mode	FM
Maximum Deviation	±40 kHz or better
Casing Material	Metal
Accessories	Detachable Antennas, Rack mount kit
Operating range	100 or more

Audio DSP Processor:

Descriptions	Specifications
Input	10 or more Balanced or unbalanced Mic/line, 1 POTS / VOIP
AEC inputs	8 or more inputs of AEC
Output	4 or more line level

Descriptions	Specifications
DSP Feature	Studio grade 24-bit/48 kHz or better analog-to-digital and digital-to-analog converters
AEC tail length	> 200 msec
Noice Cancellation	0-15 dB or better, software selectable
Controls	Rs232/ Ethernet
Latency	<1.8ms
Frequency Response	20-20kHz

Amplifier (250W)

Descriptions	Specifications
Type	Dual Channel Class D/TD
Audio Inputs	2Nos balanced/unbalanced
Audio output	250 W per channel @ 4 - 8 Ω or 70V/100V
Frequency Response	20 Hz to 20 kHz ±0.5 dB at 1 W
THD+N	<0.1% @ 1 kHz
S/N Ratio	>103 dBA, 20 Hz to 20 kHz
Frequency Response	5 – 22 kHz
Protection from fault	Over Temperature, Over Voltage, Over Current
Compliance	CE/UL, BIS to be shared if applicable
Body Material	Metal

Wall mount Speakers

Descriptions	Specifications
Type	6.5" Surface-Mount Loudspeaker Passive Coaxial surface mount speaker
Total number of channels	2Nos
Total output	240W or better
SNR	96 dBA or better
Frequency Response	5 – 22 kHz
Body Material	Metal
Frequency Range	65 Hz – 30 KHz
Rating	IP64, UL-1480, CE
Dispersion	90 degrees conical

Sensitivity	88dB or better

HDMI Patch Cables (6 ft)

Descriptions	Specifications
Features	2Nos Male HDMI Type A gold Plated Male to Male cables of data rate 20Gbps, support the resolutions 4K @ 60 4:4:4
Construction	30-22 AWG or better
Length	6 ft Flexible
Protection	HDCP 2.2
Version	HDMI 2.1 or latest version

USB 2.0 USB-C(M) TO USB-C(M) 1.8 M (6 FT)

Descriptions	Specifications
USB 2.0 USB-C(M) TO USB-C(M) 1.8 M (6 FT)	SITC of USB 2.0 A (M) to B (M) Cable 6ft Should support Transfer Rates up to 480Mbps. Should also be Compatible with USB Specifications 1.0 and 1.1. Should have CONNECTOR A: USB type–A male CONNECTOR B: USB type–B male CONNECTOR PLATING: Nickel CONDUCTORS: 3–6ft: 28AWG CONDUCTORS: 10–15ft: 28/24AWG

Speaker Cable 14 AWG

Descriptions	Specifications
Body Material	Bare Copper
Size	2x16 AWG (26/30)
Diameter	1.478 mm
Material	PVC
Diameter	5.6 ± 0.19mm

Microphone Cable:

Descriptions	Specifications
Microphone cable	3 core
Conductor Type	Copper

Wire size	2.5 sqmm
Material	PVC
Fire resistant	Yes

Audio Stereo/Control Cable

Descriptions	Specifications
Type	• Stereo Audio Cable
Cable Type	Stereo to RCA Cable 100 Mbps Speed

STP Cable

Descriptions	Specifications
Type	Shielded twisted pair with 4 STP cables
AWG	24 AWG or better
Distance support	100mtrs or more
Conductor Material	Annealed copper
Insulation Material	Skin/Foam/Skin HDPE
Compliance	UL, IEC 61156-5, ISO/IEC 11801

Equipment Rack (600x800)

Description	Specifications
No of Shelves	5Nos
No of Power Sockets	6 no. 5A sockets
Length of Power Cable	4 mtr long cable for connection to 15 Amp power DP
Top & Bottom Cover	CRCA Steel Sheet
Doors Front & Rear	Glass Door
Construction	Bolted Construction
Colour	Black
Standard Finish	Powder Coated (RAL7035)
Certifications	DIN-4194A,EIA-310,IEC-60297
Keyboard trays	1 Nos (Mounted on sides with provision for Mouse placement)
Levelling legs	1 set of 4 legs
Fan Housing Unit	1

Digital Podium

Descriptions	Specifications
Type/Mounting	Free Standing
Construction	The Podium shall be wheel mounted capable of moving in all directions with a facility of lock them while the electronic podium is in use. The enclosure shall be made of Polymer Powder Coated Steel Body with wooden top panels, designed to work in suitable environmental conditions. The wooden top shall have a lock and key and should have a sliding cover for opening/closing easily. The Podium should have housing and connectivity for Visual Presenter while the visualizer is in use and not in use. At the time of using the Visualizer, drawer can be opened, and Visualizer can be used. The construction of the podium should be such that, while the podium is locked and not is use, there should not be any port exposed/ visible on the outer body for breakage/mishandling.
Display	Built-in highly sensitive Interactive Panel with adjustable Motorized tilt & a mechanism to make the Panel stable so that it does not shake while writing with following minimum features:
Display Size	21 inches or higher
Panel Type	IPS Technology
Resolution	1920 x 1080 Full HD or better
Light Source	LED
Brightness	350 cd/m² (typ) or higher
Interactive Method	Electromagnetic resonance method
Connectivity (Minimum)	USB x 1, HDMI x 1, DVI x 1, VGA x 1 or better
Pen Type	Battery Free EM Pen
System Details	
Processor	Intel Core i5 (10th Gen or better processor)
Small Form Factor	Computer should be of 2 liters Volume or less
In-Built Wi-Fi /Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card
RAM	8 GB
Storage	256 GB SSD or better
Ports (Min.)	HDMI x 1, USB ports x 4, LAN Port x 1
Keyboard & Mouse	Wireless

Operating System	Windows 10
Certifications	BIS Certifications Required for Mini PC. BIS of Mini PC should be registered in name of Podium's OEM
Controller	
Ports on front Panel of Controller (Minimum)	VGA, HDMI, USB3.0x2, Audio IN or more
Buttons on front Panel of Controller (Minimum)	Push buttons to control Volume Up& Down, Volume Mute and to switch sources of HDMI Visual Presenter, VGA Visual Presenter, HDMI Laptop, PC HDMI, VGA Laptop, VGA PC and Controller Power On/Off, Display Power ON and Power Off or more
Ports on Rear Panel of Controller (Minimum)	USB 3.0 X 2, VGA Input x 2, VGA Output x 2, RCA Audio IN X 1, RCA Audio Output x 2,HDMI Inputx2,HDMI Outputx2 , Programming Port (Phoenix connector) or more
Built in HDMI Repeater	Yes (HDMI Output port should support 15mtr HDMI cable)
Controller Resolution Output	4K (3840 x 2160) Native
Power	5 V DC (Suitable Adaptor should be supplied with controller)
Built in devices	
Gooseneck Microphone	Gooseneck Microphone with XLR output. It should be Phantom powered so that there is no requirement of batteries thereby eliminating consumable cost. The gooseneck length should be at least 21.5 inch with ON/OFF switch and with LED light indicating ON/OFF status. The gooseneck microphone shall be permanently polarized condenser, highly directional featuring hyper cardioid /lobar directivity.
Sliding Trays	Provision for keeping laptop and Keyboard & Mouse
Power Supply	180 -240V, 50Hz, AC Supply
Security	Integrated authentication System having RFID, Password protection & Physical Key for secure access to system.
Fans	Suitable cooling fans to be provided in the lower body.

98" LED Display

Descriptions	Specifications
Screen Size	98 inches Active LED Display

Resolution	3840*2160 (4K UHD) or better resolution
Brightness	500 Nits or better
Aspect Ratio	16:9 or better
Contrast Ratio	4000:1 or better
Ingres Protection	IP20 / IP30
Viewing Angle	178(V) x 178(H)
Input Ports (minimum)	3 × HDMI, 1x DP,1x VGA, 1x YBPR In, 1 x AV (3.5mm), 1x Mic in (3.5mm), 1x PC Audio In, 1 x TF card (Micro SD), 1 x Slot-in PC (OPS) or Higher
Output Ports (minimum)	1 x HDMI, 1 x AV (3.5mm), 1x Earphone, 1x SPDIF or Higher
USB Ports (minimum)	5 × USB 3.0 Type A, 1 × USB Type C or Higher
Communication Ports (minimum)	1x RS232 In, 2 x RJ45 10/100/1000 Gigabit ethernet port (In & Out) or better
Response Time	8ms or better
Built in Speaker	Stereo Sound with in-built 25-Watt x 2 speakers or better
Smart Multimedia Port	Should have Built in Type-c multimedia port on front side to deliver Video, Audio, Touch control, Internet Sharing and Fast charging using a single USB type C cable
Built in Wi-fi	Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)
Built-in Hotspot	Should have inbuilt Hotspot Dual band (2.4 & 5Ghz) with internet sharing across the connected devices
Wireless screen sharing	Display should allow users to share/mirror the content of Laptop/Desktop and mobile device(Android) wirelessly and should have Screen Share software to show up to 4 Multiple screen at same time.
Play Store Support	Display have Built in Google Play store to download applications direct from Play store
Software based Video conferencing	Device should support software based VC with internal android platforms like Google meet, Cisco Webex , Skype, Microsoft teams & zoom applications.
Smart USB Port	All USB 3.0 port should support Smart USB sharing for Android, Internal PC or other External PC / Device
Multilanguage GUI	Device should have GUI interface in both Hindi and English Language
Enhanced Security	Display have provision to lock all the USB port, Screen Lock, application lock to restrict unwanted access.

Swivel wall mount for above display

Descriptions	Specifications
Mounting Type	Wall Mount
Fit Size	98 inches
Tilt Range	-15°~+5°
Screen Level	-3°~+3°
Swivel Range	-45°~+45°
Material	Aluminum / steel
Compatibility	VESA Compatible

PTZ Camera

Descriptions	Specifications
Imaging Device	1/2.8 inch or better HD CMOS sensor
Signal to Noise Ratio	50 dB or better
Shutter Speed	1/1s to 1/10,000 or more
Preset Position	256 or more
Horizontal Viewing Angle	65° wide or more
Pan Range	-170° ~ +170°
Tilt range	-30° ~ +90°
Resolution	1920 x 1080 or better
Optical Zoom	30x or better
Digital Zoom	12x or better
Video Output	HDMI/DVI & USB 3.0
Control	RS 232/RS 422/Ethernet
Minimum FOV	72° or better
Compatibility	Support PoE and compatible with Virtual USB Driver
Certifications	BIS, CE, RoHS & FCC Certified

Tracking Camera

Descriptions	Specifications
Imaging Device	1/2.8inch Exmor/CMOS sensor or better
Effective Pixel	2.13 megapixel or better
Signal to Noise Ratio	50 dB or better

Minimum illumination	0.5 lux
Field of View	58° or more wide field of view 3.2° or more tele field of view
Shutter Speed	1/1s to 1/10,000 or more
Preset Position	65 or more
Horizontal Viewing Angle	65° wide or more
Pan Range	+170 ~ -170°
Tilt range	+90 ~ -30°
Resolution	1920 x 1080 or better
Optical Zoom	20x or better
Digital Zoom	12x or better
Video Output	USB 3.0 for unified devices, HDMI/Digital DVI-D port and 3G-SDI port
Control	RS 232/ RS422/Ethernet
Minimum FOV	60° or better
Certifications	BIS, CE, RoHS & FCC Certified

Ceiling Camera mount

Descriptions	Specifications
Mounting Type	Ceiling Mount
Size	6 x 4ft
Accessories	Mounting Bracket and other accessories for installation

PC based software for VC with MS license

Descriptions	Specifications
Type	3D computer Desktop
Processor	Intel Core i7-6700 equivalent or better
Memory	16 GB RAM, HDD: 500 GB
Video output	• 2Nos HDMI 1.4 port • 1No USB 2.0 port • 1No USB 3.0 port
Operating System	Windows 11 or latest with MS license

Matrix Switcher

Descriptions	Specifications

Switcher type	6 Input & 2 Output AV Over IP Encoder & Decoder with compatible automatic network switch
Video Resolution	4096x2160p@60 Hz 4:4:4, HDR10, Deep color, Dolby Vision
Protection	HDCP 2.2 or better
Control Ports	1No Bidirectional RS-232 1No IR 1No Ethernet 1No Contact Closure
Input Connectors	6 HDMI Connectors 4 unbalanced stereo audio on 3.5mm mini jacks
Output Connectors	2 HDMI Connectors 2 balanced stereo audio on 5–pin terminal blocks
DigitalAudio	DANTE/ AES 67enabled.
Max Data Rate	8.91Gbps or better
SecurityFeatures	802.1Xauthentication,AESEncryptedStreams, TLS, SSH, and HTTPS
Certification at Encoder & Decoder	CE,UL,RoHS
Additional Support Features	- Programmable Step–In over HDMI Functionality 3D Pass Through EDID Capture - Advanced Auto Switching feature

4K Wireless Presentation Device

Descriptions	Specifications
Network Connectivity	WiFi and/or LAN
Connectors/Ports	1x USB 3.0: On a female USB type-A Connector 1x USB 2.0: On a female USB type-A Connector 1x RJ 45 Gigabit Ethernet 10/100/1000 BaseT 1x HDMI: On a female HDMI connector
Output Resolution Support	4K
Platform Support	Microsoft windows 10/11, Mac OS 10.13 or above, Apple, Android 8.0 or above, Chrome OS
Simultaneous Display	Full screen or four window Simultaneous display of content from 4 different sources through dongle & software app
Storage	Main Memory: 4GB LPDDR4 (2400) and Storage: 32GB eMMC

Wireless Video Playback	Should support any media file playback wirelessly at min1080p at 30 fps
Controls	Should have feature of control via RS 232 or Ethernet from a third party AV control system
WAP	Should have inbuilt WAP or supplied with external WAP
Additional Port for controlling third party devices	CEC, IR, Bidirectional RS-232
Dongle	2x USB Dongle for wireless 4k content sharing
BYOM/BYOD	Should be able to support BYOD/BYOM feature.
Security	802.1x network access control, Active Directory authentication, and AES content encryption
Protection	HDCP 2.2 or higher
Compliance	CE/UL, Additional BIS if applicable

USB Extender Kit

Descriptions	Specifications
Inputs	1x CAT On an RJ–45 female connector for extension line 1 Stereo Analog Unbalanced Audio: On a 3.5mm mini jack connector for audio extension
Outputs	1x CAT On an RJ–45 female connector for extension line 1 Stereo Analog Unbalanced Audio: On a 3.5mm mini jack connector for audio extension
Ports	1 USB: On a USB–B female connector for USB host extension 4 USB: On USB–A female connectors for USB devices extension 1 RS–232: On a 3–pin terminal block connector for serial link extension
Data Rate of USB Port	480Mbps or more
Extended RS-232 Baud Rate	9600 or better
Body Material	Aluminum
Standards Compliance	CE, FCC

Camera Mixer

Descriptions	Specifications
Inputs & Outputs	USB & HDMI Video Mixer cum Convertor Simultaneously capture and mix 2 x USB 2.0 cameras,1 x HDMI source & Analog Audio Input and Output into one 1080p60 USB3.0 signal cum convertor & HDMI Signal
Audio Ports	Analog Audio Input and Output into one 1080p60 USB3.0 signal cum convertor & HDMI Signal

Head worn Microphone:

Descriptions	Specifications
Operating Frequencies	2.4 GHz ISM band (2400 to 2483.5 MHz)
Connectivity Type	XLR
Network socket	RJ-45
Frequency Response	35 Hz to 20 kHz or better
Operating Range	30m or more
Dynamic Range	109 dB or more
Switch Functions	Mute/unmute & On/OFF
Latency	3.8ms or better
No of Channels	10 channel Per Band

Gooseneck microphones& Shock mount

Descriptions	Specification
Type	Gooseneck condenser microphone fully digital of length 400mm or better, detachable from table flush base
Polar pattern	Cardioid / unidirectional condenser or better
RFI	Should be RFI proof
LED	LED status ring
Button	• Mic On/OFF button • Button to set Volume or channel
Connectivity	Should have configurable function button
Mic activation	Two RJ45/ 6 pole circular connectivity to connect to other microphone/control unit, Headphone output
Frequency Response	70-16kHz or more
Signal-to-Noise Ratio	64 dB or better

Dynamic Range	106 dB or better
Audio Sensitivity	134 dB or better

Ceiling Speakers

Descriptions	Specifications
Ceiling Speakers	SITC of 4" Ceiling speaker Speaker Type: Coaxial Ceiling Speaker Driver Size : 1 x 4" LF & 0.79" HF Driver RMS Power : 30 W In-built transformer Tap : 100V / 70V upto 25W /12.5W/ 6.3W Nominal impedance: 8 Ohm Sensitivity: 84dB Maximum SPL : 105dB Peak or better Dispersion: 120 Degree Conical @ 1kHz Frequency Range : 70 Hz-20 kHz Certification: UL 94V-0, EN54-24:2008 certified Type A, UL 1480/UL 2043 Enclosure: Steel Backcan Aluminum, powder coated grill Included Accessories: Metal grille, cable gland, flex conduit, C-ring, tile-bridge kit, paint mask, cutout template

Room control with Ipad Control

Descriptions	Specifications
Type	Compact 16–Port Master / Room Controller with PoE
Connectors/Ports	• 4 RS–232 serial on 3–pin terminal blocks • 4 GPI/O on 2–pin terminal blocks • 1 Ethernet on a RJ–45 connector • 1 mini–USB connector
Inputs	1 built–in IR sensor
Outputs	4 IR out and 4 relays on 2–pin terminal block connector
Support Features	• Processor Speed: 1GHz • Memory: 512MB, 4GB Flash • PoE Power

Table top Touch Panel

Descriptions	Specifications

Type	10" or more Diagonal latest generation Ipad pro
Touch Screen	Capacitive
Resolution	1920 x1280 or better
Brightness	400 cd/m2 (Nits)or better
Contrast	800:1or better
PoE	Should support Power over Ethernet & supplied with a PoE adapter
WiFi Connectivity	Yes
Speakers	Should have built in speakers
Memory	RAM 4 GB, Storage: 64 GB
Ethernet Port	TCP/IP, UDP/IP, SSL, SFTP, IEEE 802.1, SNMP, Active Directory® service authentication, HTTPS.
Compliance	CE/UL, BIS to be shared if applicable

Base Station or Table flush bracket with inbuilt charging

Descriptions	Specifications
Mounting Type	Table Top Mounting
Power supply	Own power supply unit/ PoE+
Connectivity Options	Should have pass through holes/connectors for VGA, Audio, 1x USBC-HDMI, HDMI & LAN cable
Compliance	CE/UL, BIS to be shared if applicable

Docking Station Sleeve

Descriptions	Specifications
Docking Station Sleeve	Compatible for iPad 10.2-inch (7th, 8th, 9th gen)

Software for Ipad

Descriptions	Specifications
Software for Ipad	Ipad compatible software to be installed

Network switch supports 48 Port

Descriptions	Specifications
Network switches	48 Port 10/100/1000 gigabit managed POE Switch, QoS Support, IPV4/IPV6 Support
Switching Capacity in Gbps	104.0Gbps, 1 Gbps
IGMP	IGMP V2/V3, Mac, windows, Linux Compatible

HDMI Cables (6 ft):

Descriptions	Specifications
Features	HDMI gold Plated Male to Male cables
Resolution	4096x2160 @ 60 4:4:4 or better
Construction	30-26 AWG or better
Length	6 ft Flexible
Data Transfer Rate	Up to 20Gbps
Protection	HDCP 2.2
Version	HDMI 2.1

USB A to B Cable (6 FT)

Descriptions	Specifications
Connectors	Connector A: USB 2.0 type–A Male Connector B: USB 2.0 type–B Male
Resolution	4096x2160 @ 60 4:4:4 or better
Cable Length	6 ft Flexible
Data Transfer Rate	Up to 480Mbps

SOLUTION 2

Digital e-Library Solution A state-of-Art e-Library Solution includes combination of innovative hardware and best in class Setup that enhances the level of learning experience of any user. e-Library Solution makes learning more simple, accessible, and convenient. It functions on a minimalistic requirement of a bare room space; rest of the set-up requirements are covered under this solution.

STEM education is a holistic, interdisciplinary approach to learning that combines science, technology, engineering, arts, and mathematics. It harnesses the natural

symbiosis between these disciplines to foster creative problem-solving, collaboration and critical thinking.

The proposed solution is equipped to cover all the requirements of Science, Technology, Engineering, Arts & design, and Mathematics and covers the objectivity as per NEP 2020 Policy with a focus on experimental learning and Intellectual property rights IPR (Content) generation.

It provides setup of a library with physical books & e-books solution, with all required infrastructure require to setup a Digital library, students here can come and study e-books using the AIO PCs as well as physical book as per their convenience.

It also equipped with a solution of Language Lab where students can enhance their Language as a skill for English, Hindi & Sanskrit and prepare themselves for all competitive exams and Interviews where Language will not be a barrier for them.

Components for Digital e-Library Solution includes All in One Computers, Interactive Display, PA System, Almirah for Books, Reading cum reference table, Computer table, Student chairs, table and chairs for librarian, Wifi modem , UPS, Printer, CCTV System, fire Extinguisher and other required components.
The benefits of the solution to students are as follows:

- ➢ Make concepts easier to understand.
- ➢ Learning becomes more interesting and engaging.
- ➢ Perfect complement to the conventional Training & Learning Model.
- ➢ Interactive Learning Techniques.
- ➢ No Geographical Limitation.
- ➢ Online Digital Library e-books accessibility
- ➢ Multi Publishers books accessibility.
- ➢ Enchase Interpersonal Skills.
- ➢ Learn Language as a skill to prepare for Interviews etc.
- ➢ And many more.

It helps students by providing rich searching interface. There are menu driven options available. Features like intimation of New Arrival, Book information, book detailed reports etc. are available for students.

The selected bidder shall provide the signage board of steel material having dimension of 3ft x 2ft at the entry of the room. The text of the sign board shall be provided by EdCIL official.

The selected bidder has to do all the electrification work required for the setting up of the lab as per the expectation and satisfaction of end client/ EdCIL. The required branding as per the need of end client shall be done by the selected bidder. The bill of the material is as follows:

S.No.	Product	Quantity
1.	75-inch Ultra HD 4K Interactive Flat Panel Display with OPS	1
2.	Public announcement System - 120 Watt Sound Bar with inbuilt Speakers and amplifier with external subwoofer and wireless Handheld and Headband microphone	1
3.	All in One Computer i5, 8GB RAM, 512 GB SSD with Keyboard and Mouse with headphone for librarian	20
4.	Language Lab Solution with English Hindi & Sanskrit Languages	20
5.	4 DOOR Almirah with glass front	2
6.	Revolving chair for reading cum reference section	16
7.	Reading cum reference section Table	2
8.	Computer Table	20
9.	Revolving chair for computer table	20
10.	Books & e-books	1
11.	Table for Librarian	1
12.	High Back Chair for Librarian	1
13.	WIFI 6 ACCESS POINT	1
14.	2 ton Split AC including M.S stand, stabilizer and 9 ft. copper pipe	3
15.	6-KVA Online UPS with 1/2 Hours Backup	1
16.	Multifunctional Laser Printer	1
17.	CCTV System - 2 MP Full HD IP Dome Camera (6 Nos) and accessories	1
18.	Fire Extinguisher - ABC Powder fire Extinguisher Cylinder of 6kg	4
19.	News Paper Stand, False ceiling & wall	1

75" INTERACTIVE FLAT PANEL WITH OPS:

Parameters	Specifications
Screen Size	75"

Panel Technology	IPS
Back Light Type	Direct LED/Edge LED
Aspect Ratio	16:9
Native Resolution	3840x2160 (UHD)
Refresh Rate	60Hz
Brightness	440nits or Higher
Contrast Ratio	Minimum 1,200:1
Dynamic CR	5000:1 or Higher
Color Depth	1.07B(10bit)
Viewing Angle(H x V)	178°(H/V)
Response Time	8ms or lower
Surface Treatment(Haze protection)	Haze 25% or higher
Operations hours(Hours/Day)	16/7 grade
Input Ports	3x HDMI(HDCP 2.2/1.4), Audio In, RS232C, LAN, RGB (1, VGA)
	3x USB3.0 Type A, 1x USB2.0 Type A, 1x USB Type-C
Output Ports	HDMI x1 , Audio x1, 1x Touch USB
Touch Response Time	<=5ms
Accuracy	+-1mm
Surface Hardness and Protection	Toughened Glass with 9H Level 7Mohs Standard 3mm Toughened and Conformal Coating on Power board
Depth	90 mm or Low
Operating System Support	Windows 7/8/10/Linux/Mac/Android (Linux/Mac support one point touch)
Multi Touch Point	Max 40 Points
Hardware	Quad Core A55 Processor, 4GB RAM, 32GB Internal Memory, Mail G52MP2, Inbuilt Bluetooth 5.0, Wi-Fi 6, OPS Slot with Built-in power, USB port Block feature
Wake on LAN	Required
Auto Brightness Sensor	Required
Operation Temperature	0 °C to 40 °C
Operation Humidity	10% ~90%RH
Typ. Power consumption	225W with DPM (0.5W)
Max. Power consumption	430W
Power Supply	100-240V~ 50/60Hz
Inbuilt Speaker	15W x 2 or Higher

Product Certification	CE,FCC,ROHS, BIS. As per BIS, OEMs manufacturing facility should be in India in their own name.
Warranty	3 Years on site by OEM

Technical Specifications for OPS	
Parameter	Specifications
Type Detachable	PC module
CPU Intel Core	i5 10th Generation
RAM	8 GB or better
SSD	1 TB SSD or better
Operating system	Windows10
I/O Ports	HDMI x 1, USB ports x 4, LAN Port x 1
Max Power	50W or less
Product Certification	CE,FCC,ROHS, BIS. As per BIS, OEM of Interactive Panel and OPS should be same.

Public announcement System		
S. No.	Parameter	Specifications
1	Amplifier	Inbuilt of 120-Watt audio amplifier or better
2	Speakers	Four Speakers of 20 Watt Each or more
3	Tweeter	One Tweeter of 20 Watt or more
4	Sub-woofer	One External sub-woofer of 20 Watt or better
5	Microphone Receiver	Inbuilt Dual Chanel Microphone receiver
6	Wireless microphone	One Handheld and One Headband Wireless Microphone
7	Connectivity	1x HDMI (ARC), 1x USB, 1x Audio In, 1x Wireless Bluetooth or better
8	Remote control	Should have remote control

All-in-One Computer	
Feature	Description/Specifications
Display	21" or Higher LED Backlight IPS Panel
Native Resolution	Resolution of 1920x1080 or higher.
Contrast ratio	1000:1
Aspect Ratio	16: 09
Brightness	250 nits (cd/m2)
Audio	High Definition Audio

Webcam	2.0 MP Full HD Webcam with Pop-up privacy feature
CPU	Intel Core i5 Intel (10th gen or better)
RAM	8 GB RAM or better
Hard Disk	512 GB SSD or better
In-Built Wi-Fi / Wireless LAN Card	Should have an inbuilt Wi-Fi / Wireless LAN Card
Ports (Minimum)	DP/HDMI x 1, USB 2.0 ports x 2, USB 3 ports x 2, LAN Port x 1
Standard Keyboard	Wired Keyboard
Optical Mouse	Wired Mouse
Operating System	Windows 10
Power supply unit	130 watts or better
English Hindi & Sanskrit Language Lab Software Solution	
Feature	**Specifications**
Hybrid Learning Mode	Language Lab Solution should have provision of Hybrid Learning mode so that it can be accessed within classroom or outside the campus using internet.
Intercom	Two way intercom communication between Teacher & student. The communication should be through text, audio & Video.
Broadcast	Provision for teacher to broadcast text message to one student or to a group of selected students.
Audio Supervision	Provision for teacher to listen to any students recording & check their progress.
Chat	Provision for teacher to send alerts to student through Text Chat.
Assignments	Provision for Teacher to create assignments & broadcast to the class. Provision should be there to assign same/separate tasks to different group of students. There should also be provision to assign task to students with a start and expiry date.
Reports & Analysis	The Teacher's Dashboard should have the following features: Details about all the classes assigned to the teachers, Students performance report both in text as well as Graphical for various tasks assigned to carious classes. Provision for generating various reports to check & analyse progress of students.

	The language lab software should automatically generate reports giving details about each individual learner's activities performed, time spent on each such activity on a day-to-day basis. Each students individual report should be available to the student as well as the teacher. The language lab software should also have reports that shows the usage of the software by each of the instructor/faculty/teacher. They should also be able to listen to the recorded exercises of the students. Teacher should be able to give remarks to students on their audio recorded exercises both in text & audio formats. A centralized report should be available to the Administrators/Governing Bodies on the usage of content by both the instructors and students for all the language lab software licenses procured under this project. This should be web based and available to various stakeholders of the project. Provide Management with password protected login, should have the option to view the reports of both teachers and students.
AV Lessons	Provision for teacher to create personal audio video lesson contents. Provision for teacher to assign the pre-recorded lesson for future dates.
E-exam	Paperless e-exam with automatic submission of answer sheets on completion of timelines.
Audio modulation	Provision to automatically generate graphical representation on the recorded audio of the learner as against the originals for self-assessment and evaluation.
Accent	The entire teaching - learning content should be in neutral accent.
Secured Login	The Language Lab Software should have password protected login interface of teacher & students to enable a secure encrypted session with SSL Security to provide secure access of platform
Management Login	Provide Management with password protected login and view various reports of centres,users,

	teacher , students, proctoring and graphical reports
E-Books	The teacher should be able to upload PDF files (e-books) for the students to read and able to provide writing assignments to the students.
External Media	Solution should have provision for teacher to use any external storage device (USB, CD/DVD) to play or display the content files.
OS & Hardware Support	The Software should support on Windows, Linux, & Android. The software should seamlessly work on Desktop/Tablets
Mobile Apps	The Language Lab Software should have Android & iOS supported Mobile App
English Multimedia Content Learning Levels	The Language Lab Software should take into account the following features: - It should enhance the Communicative English skills of the students and have multiple level of learning ranging from Entrant, Competent & Proficient with substantial content to hone the learner skills. The content should be as per the Common European Framework of Reference (CEFR). Content should purely be multimedia based and comprise of graphics, audio, video and should be highly interactive in nature.
	The Language Lab Software should have content for strengthening all the four language skills: - Listening , Speaking, Reading & Writing (LSRW). It should have model Imitation that should facilitate the student to listen to the exact pronunciation of a word and then record one's own and then compare both of them, thereby helping the student to recognize the error and amend the differences. The software should have capabilities of Listening, Recording and Comparing of Speech patterns both via audio and visual. The software should have speech spectrograph for graphical visualization. The software should be based on neutral (Indian) accent and should not use foreign accent. It should have jaw and tongue movement animations for

	all the sounds to facilitate learning of proper articulation of sounds.
	The Language Lab Software should consist of a glossary of words with correct pronunciation in the Indian context. The English language lab software should have components to work on Intonation, Word stress & Syllables. The English language lab software should cater to the basics of English grammar using animated situations and related practice exercises. It should be user friendly so that faculty can take classes with minimal of technical knowledge.
Teaching Pedagogy (Methodology)	The English language lab software should have the following features for proper teaching – learning of English language skills by both the faculty and the students. It should be based on the 'Blended Learning' mechanism, i.e. It should have Instructor Lead Teaching (ILT/ Classroom teaching) content as well as Computer Based Training (CBT/Lab practice) content. The software should have predefined lesson plans with detailed breakup of each session of approximately 30 minutes each. The Instructor/ Faculty / Teacher should be able to create tasks for students to perform in the language lab at a later time which can be pre-defined. The Instructor / Faculty / Teacher should have the option to assign the same task to all the students and/or different tasks to different students of the same batch.
Vocabulary	The English language lab software should have a different section of Vocabulary with phonetics, meaning, usage of the word, which can also be referred as Glossary Of words. A provision of listening the expert voice and recording one's voice following by a Self Evaluation or a Manual Evaluation
MTI Tool	Language lab software should have MTI Tool in each module

Visual Jaw Movements	Language lab software should have Visual Jaw Movements in each module
Idioms/Phrases	The Language Lab Software should have features like Homophone, Synonym, Antonym etc. are practiced in each chapter in Web Based Training (WBT), Idioms and Phrases shall be included in the chapters
Grammar	Grammar topics should also given proper stress in each chapter
Learning Flow	Should have Concept Video + Moral Story/Poems in each chapter introducing the topics in a fun way
Social & Moral Learnings	Syllabus should designed in context of social and moral learnings for the initial classes - with last page of each chapter dedicatedly showing the outcomes.
Gamification & Roleplay	Game page in Web Based Training (WBT) provides leaning with a video game feel along with the virtual roleplay
Advance Content	Should have Separate Modules for Creative Writing, Calligraphy, IELTS, TOFL, Soft skills, Applied Grammar, Reading skills, Linguistics
Sounds	The language software should provide proper articulation for all 44 sounds of English using animation.
MTI	Should have a Mother Tongue Influence (MTI) removal tool
Self-Assessment	Provision for self-assessment & send the exercise to teacher for evaluation at conclusion of every module / lesson plan.
Pronunciation	Provide sample lessons, words, pronunciation sounds, videos, comparison & assessment tools for proficiency in English pronunciation.
Comprehension	Provide lesson plan with focus on expressions, situational dialogues, comprehension, exercises with comparisons & assessment.
Resource Material & Training	Training should be imparted for one day (6 hours) and training modules should include: - • Training on usage of all the features of the language lab software

	· Training on the various aspects of language on its teaching pedagogy Proper detailed trainer manuals to be provided for each level on the delivery mechanism. It should be in depth with minute to minute description of the teaching procedures. Classroom reference material in the form of Flash/ Cue Cards too should be made available for each session. In depth trainer videos should be made available in the software for the teacher to refer to. Students reference material / workbooks in accordance to the software should be made available.
Student Material	Students material in the form work books for each level should be available. This material should be integrated with the content.
Pre Recorded media	Provide Audio / Video recorded files from Poetry Masters, Writers, Speeches, Lectures, Documentary, Movies, News, etc. to improve comprehension of language.
Hindi Multimedia Content	Multimedia content covering Hindi Vowels and Consonants, Combination of letters, Commonly used Words, Greetings, etc.
Hindi through English	Content for learning Hindi Alphabets, Pronunciation, Anuswara & Nasalization, Accent, Pronouns & Nouns, Adjectives & Verbs, Tenses, Adverbs, Conjunctions, Voice & Construction, Order of Words, Standard Devanagari Script, Standardisation of Hindi Spelling
Hindi Literature	Content with reference to Hindi literature, poetry, poems, etc.
Hindi Grammar	Content for covering all components of Hindi grammar like: Alankar, Chand, Pad Parichay, Vachay, Idioms, Synonyms, etc.
Picture Gallery	Multimedia gallery in Hindi for relating to day to day things like: Animals, Body Parts, Colours, Communications, Costumes, Festivals, Musical Instruments, Professionals, Relations, Trees, Universe, etc.
Knowledge bank on Indian Culture & Heritage	Knowledge bank having details on Indian culture & heritage, sharing knowledge about: Indian

	Geography, Economy, Vedas, Upanishad, Ramayana, Mahabharata, Shrimad Bhagavata Geeta, other Literatures, Dance, Music, Ayurveda, Yoga, Spirituality, Food, etc.
Sanskrit language content concept	Software to help in learning Sanskrit from basics and go on to making simple sentences. Introduction to concepts, skills and a section to self-assess your learning. Self-paced, activity based learning software, contains 250+ activities.
Vocabulary Builder	Provide flash card based learning Should have multiple categories with 200+ words and synonyms. Categories should include Sanskrit words for Gods, Animals, Birds, Fruits, Vegetables, Parts of the body, Colours, Food, Relations, Professions, Emotions, Public Places, Sports, Grains, Computer, Musical Instruments, Time, Natural Occurrences and many more. Provide Brain Games for exercising Sanskrit.
Sanskrit Language Lesson Plan	Lesson plan covering noun forms, 200+ Sanskrit words, Learning mode and the Practice mode. Covering Sanskrit Sandhis through animations, charts, tables, interactive exercises, examples and games. Practice the language skills (LSRW) Build your Vocabulary for using the language. Master your communication skills. Build and Re-inforce Foundation in grammar. Apply Language skills + Grammar through simple text and for school.
Licensed User Terminals	License to be provided for 20+1 terminals (Students & Teacher both included) with a validity of three years.

Online UPS	
Parameter	**Specifications**
Phase	Single Phase with Ground
Capacity	6000 VA / 4800 W
Input	
Nominal Voltage	200 / 208 / 220 / 230 VAC
Input Voltage Range	10

Frequency Range	46 Hz ~ 54 Hz @ 50 Hz System 56 Hz ~ 64 Hz @ 60 Hz System
Power Factor	≥ 0.99 @ Nominal Voltage (100% Load)
Output	
Output Voltage	200 / 208 / 220 / 230 VAC
Voltage Regulation	± 1%
Frequency Range (Synchronized Range)	47~ 53 Hz or 57 ~ 63 Hz
Frequency Range (Batt. Mode)	50 Hz ± 0.25 Hz or 60 Hz ± 0.3 Hz
Overload	100% - 110% 10 min., 110% - 130% 1 min., >130% 1 sec
Current Crest Ratio	3:1 Max
Harmonic Distortion	≤ 3 % THD (Linear Load) ≤ 6 % THD (Non-Linear Load)
Transfer Time AC Mode to Battery Model	0 ms.
Transfer Time Inverter to Bypass	0 ms.
Waveform (Batt. Mode)	Pure Sinewave
Efficiency	
AC Mode (Overall)	88%
Battery Mode (Inverter)	83%
Battery	
Backup	30 mins backup on 80% load
Typical Recharge Time	9 Hours Recover to 90% Capacity
Charging Current (max.)	1A ± 10%
Charging Voltage	218.4 VDC ± 1%
Environment	
Operation Temp	0 - 40°C (Battery Life Cycle will be Shorten When Temperature is Above 25°C
Operation Humidity	<95 and Condensing
Noise Level	Less than 55 dB @ 1 meter
Management	
Smart RS-232/USB	Supports Windows 2000 / 2003 / XP / Vista / 2008 / 7 / 8, Linux, Unix and MAC
Optional SNMP	Power Management from SNMP Manager and Web Browser

Technical Specifications of other Products

Sr. No.	Item	Description of Item
1	Almirah – steel bookcase 4 door - glass front	MS CRCA Bookcase having glass front upright sliding scissor doors should be provided having overall Width of 915 mm Depth of 320 mm and height 1750mm. Glass used should be minimum 5mm thick +/-1mm. Individual compartments should be 4 having UDL of min. 40 Kgs. Individual Lock facility for each compartment to be provided. CRCA IS:513 grade Sheet used in top, side panels & back should be of 0.8 mm thick and rest 1 mm minimum. Doors sides should be provided with plastic side & caps to be used at handles while using. All metal parts should be finished with Powder coating after giving pre-treatment. To enable stability on un-even floors levellers having metal inserts should be provided.
2	Revolving chair – chair for reading cum reference section	Seat size should 440 mm depth x 470 mm width and the back size shall be 430 mm width x 515 mm height measured from seat level. Overall height should have to be 950 mm & 710mm for chair base depth / width. Seat should have 15 mm thick commercial plywood and HR foam density 45 and back with HR moulded foam of density 40. (Density in Kgs per meter cube). Seat & back should be fabric upholstered 1 mm thick & 300 gsm. Seat & back Should be fixed with PP black cover. Armrest fixed up single piece PP material should be fixed with seat. Chair should be revolving type with push back mechanism having upright position lock and tilt tension flexibility. Gas lift pneumatic cylinder should be provided for height adjustment of Class 3/4 & tested as per BIFMA X5.1-2011 standard. Chair base should be made up of injection moulded 30% glass filled nylon have PCD 65 cms. with five no's twin wheel 30% glass filled nylon castors tested for BIFMA X5.1-2011.
3	Reading cum reference section Table (Double Sided)	Overall size of Reading table should be 12 feet long x 4 feet width x 2'6" height. PLPB Worktop 25 mm thickness should be provided. PLPB worktop edges should be covered with Rehau make 2 mm thick Edge Banding on through feed machine on visible sides. Middle partition screen of 30 mm thick & 400 mm height made up of Aluminium Extrusion lengths & Al/Zinc alloy connectors on corners with fabric on both user sides to be provided on worktop. Table support structure should be made up of Mild Steel Pipe C-Type Legs

		duly powder coated made up of 50 mm x 50 mm x 1.6 mm thick pipes. Supporting Horizontal should be made up of 40 mm x 20 mm x 1.2 mm thick Mild Steel Pipes having sheet welded to be bolted in the C legs for better strength. Both Ends of the reading table on 4 feet width should be covered with 18 mm PLPB of Height 400 mm.
4	Computer Table	The Booths should be in configuration of One Student Desk / Tables. Overall size of computer table should be SIZE： 750 L x 600 W x 1050 H (mm) minimum Frame Type- Free Standing Table top - 25mm thick pre-laminated particle board finished with 2mm PVC edge banding. Partition - 18mm thick pre-laminated particle board. Under-structure - 18mm thick pre-laminated particle board. Wire Management - Wire carrier is made up of 0.7mm thick metal sheet duly powder coated and Wire manager hole per workstation. Keyboard tray in pre-lam particle board Pre-lam particle board as per IS 12823 Adjustable levellers to accommodate floor undulations.
5	Revolving chair for computer table	Seat size should 440 mm depth x 470 mm width and the back size shall be 430 mm width x 515 mm height measured from seat level. Overall height should have to be 950 mm & 710mm for chair base depth / width. Seat should have 15 mm thick commercial plywood and HR foam density 45 and back with HR moulded foam of density 40. (Density in Kgs per meter cube). Seat & back should be fabric upholstered 1 mm thick & 300 gsm. Seat & back Should be fixed with PP black cover. Armrest fixed up single piece PP material should be fixed with seat. Chair should be revolving type with push back mechanism having upright position lock and tilt tension flexibility. Gas lift pneumatic cylinder should be provided for height adjustment of Class 3/4 & tested as per BIFMA X5.1-2011 standard. Chair base should be made up of injection moulded 30% glass filled nylon have PCD 65 cms. with five no's twin wheel 30% glass filled nylon castors tested for BIFMA X5.1-2011.
6	Books	100 books for Competitive exams Like TET, etc,
7	Table for librarian	Overall size of table 1200 mm X 600 mm X 750mm. The worktop should be made up of 18mm thick PLPB. The

		tabletop edges shall be sealed with 2mm thick Rehau PVC edge banding machine fitted. The worktop top should be supported on MS/CRCA rectangle pipe frame having cross-section area 40mm X 20mm x 1.6mm thickness. The table under structure shall be supplied with MS round pipe having diameter 25 mm x 1.6m m thick. Footstep pipe shall be provided between both side leg of diameter 25 mm x 1.6 mm thickness. Fixed storage pedestal unit shall be supplied with 3 nos. of drawer at one side. All the drawers shall be synchronized locked with central locking mechanism by one single key. The drawer shall be operated with recessed handle.
8	High Back Chair for Librarian	The seat size should be 465 ± 10 mm width x 460 ± 10 mm depth and back size shall be 480 ± 10 mm width X 625 ± 10 mm height from seat & overall height 1060 ± 10 mm. Seat and back should be made of 15 mm thick hot pressed commercial plywood padded with HR moulded PU foam 50mm thick density 40kg/m³ in seat and 40mm thick density 32Kg/m³ in back. Both upholstered with fabric tapestry 1mm thick and 300 GSM. The backrest shall have natural curvature of the spine to provide lumbar support. The seat and back shall be arrested HR steel spine and the armrest shall be used black integral polypropylene arm completely joint with seat. Mechanism used should be synchro tilt 360 degree revolving, upright position locking, tilt tension adjustment, pneumatic seat height adjustment of 100 mm. The pedestal should have five-legged injection moulded in black 30% glass filled nylon having pitch circle Dia. 700mm and fitted with 5 nos. twin wheel castors. The castors of the chair should be injection moulded in black 30% glass filled nylon.
10	2 ton Split AC including cost of M.S stand, stabilizer and 9 ft. copper pipe	Daikin, O General, Mitsubishi
11	Multifunctional Laser Printer with Table	HP/CANON MAKE Print, Scan, Copy, speed 25 ppm, Ram 256 mb, semi duplex, network, ADF, fax,3year Warranty, scan size A4

12	CCTV System	2 MP Full HD IP Dome Camera (8 Nos), 8 CH Network Video Recorder with 4 TB HDD (1 Qty), 8 port PoE Switch with 2 RJ45 uplink (1 Qty), Cat-6 Ethernet Cable (350 Meter), Cable Conduit, etc as per site requirement.
		1. **2MP IP Dome Network Camera**, 0.001Lux,2.8mm Fixed Lens, support Tripwire, Perimeter detection ,256GB Micro SD supported, Video Compression H.265+, H.265, H.264, BIS, CE, FCC, IP66, IK 10 and RoHS certified Copy of certificate need to be provided.
		No Bidder as well as OEM with Investors, Venture Capitalist, Consortium members, Shareholders, directors from neighbouring countries will be allowed to participate in the Bid. Non-compliance shall result in rejection of Bid. A declaration to be submitted by Bidder & OEM
		8 CH Network Video Recorder, ,1 SATA port support HDD up to 10TB, Recording Resolution up to 6MP,Video Compression H.265+, H.265, H.264, Synchronous Playback 1x6MP, 1x5MP, 1x4MP, 1x3MP, 3x1080P, 4x720P, Video Content Analytics VCA detection alarm is supported, BIS,CE, FCC, and RoHS certified Copy of certificate need to be provide.
		8 port PoE Switch 8×10/100 Mbps RJ45 PoE Port 2×10/100/1000 Mbps RJ45 Port uplink ,support network protocol IEEE 802.3, IEEE802.3u, 802.3x, 802.3af, 802.3at Output Power Up to 30Watt Max PoE Power Budget 120 Watt, VLAN Supported , bandwidth 10Gbps ,Forwarding Rate 14.8Mpps,2K MAC Address, Extend Mode Up to 250.
13	Fire Extinguisher	ABC Powder fire Extinguisher Cylinder of 6kg
14	News Paper Stand	News Paper Stand for Library

WIFI 6 ACCESS POINT

Physical Interfaces	One 2550 BASE-T Gigabit Ethernet (RJ-45) ports with Auto Uplink, (Auto MDI-X) supporting IEEE 802.3af or 802.3at Power over Ethernet (PoE)
	Min. Internal 2.4/2.9 dBi (2.4GHz/5GHz)
	Power and Cloud connection; LAN speed; 2.4GHz status; 5.0GHz status
	provision for power connector : 12V DC, 2.5A

Standards	IEEE 802.11AX,IEEE 802.11ac,IEE 802.11n
	IEEE 802.11AX standard, 2.4GHz and 5GHz
	WMM - Wireless MultiMedia Prioritization
	WDS- Wireless Distribution System
	Min. Power over Ethernet (PoE+) 802.3at/af required.
Security	Wi-Fi Protected Access (WPA3)
	Wired Equivalent Privacy (WEP) 64-bit, 128-bit, and 156-bit encryption
	Wireless access control to identify authorized wireless network devices
	MAC address filtering with access control
	Basic Service Set Coloring (BSS Coloring)
	Security Socket Layer (SSL) remote management login
Network Management	Remote configuration and management through Web browser, SNMP or Telnet
	SNMP management supports SNMP
Manageability	As standalone
	remote/Cloud manageble for 5 years
Advanced Wireless Features	Wireless Distribution System (WDS)
	Wireless backhaul to form Mesh Network
	Bridge mode: Point-to-multipoint wireless WDS mode
	Adjustable Transmit Power Control (TPC) Device detection
	AirQual feature enables spectrum analysis and interference identification
Other Specifications	PoE power consumption should not be more than 21.2 Watts
	OFDM and OFDMA both should be available
	AX54000 (5.4Gbps) throughput
	Target Wake Time (TWT)
	Block SSID Broadcast
	Ceiling mounting/ Wall mounting
	Bidir and MU-MIMO
	Deployment Options: Standalone, Mobile App
Warranty and Support	3 Years of Hardware Warranty

False wall

Gypsum Wall to be created for partition in the designated lab room of approx. area
of 620 Sqft.

Ceiling area

False Ceiling tile with gypsum Border to be done in the library area in approx. 3000 Sqft. In the combination of 1x1 feet or 2x2 feet of the false ceiling tiles.

SOLUTION 3:

Objectives of the solution:

1. **Improve Service Delivery:** Streamline operations and enhance the efficiency of services provided to beneficiaries.
2. **Enhance Accessibility:** Ensure vital information and resources are easily accessible to community members through digital platforms.
3. **Empower Anganwadi Workers:** Equip workers with digital tools and training to improve their effectiveness and reach.
4. **Encourage Community Participation:** Foster greater involvement from families and local stakeholders through innovative engagement strategies.

Proposed Features:

1. **Digital Health Monitoring:**
   ○ Implement mobile applications for tracking children's growth and health.
   ○ Facilitate telemedicine consultations to connect families with healthcare professionals.
2. **E-Learning and Training:**
   ○ Introduce digital learning resources for children, promoting interactive and engaging education.
   ○ Provide online training modules for Anganwadi workers in areas like nutrition, child development, and technology use.
3. **Resource Management System:**
   ○ Establish an online inventory management system for supplies and resources.
   ○ Utilize data analytics for monitoring attendance and health trends.

4. **Community Engagement Platforms:**
   ○ Create mobile applications or web portals for parents to access information and services.
   ○ Establish forums for community feedback and suggestions to continuously improve services.
5. **Data-Driven Decision Making:**

○ Implement systems for collecting and analyzing data to inform policy and program adjustments.

Scope of work

The following outlines the scope of work:

1. Doll's Corner

- Procurement of materials: Supply of child-safe and educational dolls, dollhouses, and accessories.
- Set-up and design: Creation of a dedicated space designed for role-play and imagination, including seating, storage, and display for dolls.
- Age-appropriate safety measures: Ensuring all toys are non-toxic and meet safety regulations.

2. Cognitive Corner

- Supply of learning materials: Educational toys, puzzles, blocks, and other materials that enhance cognitive skills.
- Provide boards and racks for organizing and displaying cognitive development games and activities.
- Guided activities: Development of activity guides for Anganwadi workers (AWW) to use for engaging children.

3. Language Corner

- Educational resources: Books, alphabet charts, flashcards, and language development tools.
- Space setup: Comfortable seating, posters with vocabulary, and reading materials for different age groups.
- Training support: Provide manuals and language-teaching kits for AWWs to assist in language learning.

4. Art and Craft Corner

- Art supplies: Stocking of paints, paper, crayons, scissors, glue, and other art and craft materials.
- Craft kits: Ready-to-use kits for different age groups with themes related to festivals, seasons, or local culture.
- Display spaces: Bulletin boards or wall spaces for showcasing the children's artwork.

5. For AWW/Center (Packets for Accessories)

- Customized kits: Provide AWWs with pre-packaged kits containing essential teaching and learning materials such as pens, notebooks, charts, and activity planners.
- Training materials: Handbooks for AWWs to help them use the kits effectively.

6. Books

- Procurement and distribution: Provide age-appropriate books, both storybooks and educational books, in regional languages and English.
- Library setup: Creation of a small library or bookshelf with categorization for different age levels.

7. Integration of Newborn Anthropometry and Other Innovations

- Innovative tools: Provide digital weighing scales, height boards, and growth monitoring tools for newborns.
- Training: Equip AWWs with the skills to use these tools effectively, including data collection and reporting procedures.
- Mobile app or software integration: Support integration of newborn anthropometry data into a centralized digital platform for easy monitoring.

8. Digital Device for Enabling Teaching-Learning, Capacity Building for AWW

- Supply of digital devices: 65" Interactive Digital Board.
- Training and support: Provide training for AWWs on how to use these digital tools effectively in teaching and for their own capacity building.

9. Refurbishment, Basic Whitewash and Ensuring WASH Infrastructure

- Refurbishment services: Interior and exterior painting, whitewashing of the center.
- WASH (Water, Sanitation, and Hygiene) infrastructure: Installation or improvement of water facilities, handwashing stations, and toilets.
- Child-friendly infrastructure: Renovating spaces to make them safe, clean, and engaging for children.

10. Chart Painting

- Wall murals and educational charts: Paint educational charts directly onto the walls, including alphabets, numbers, and health-related information.
- Child-centric designs: Focus on colorful, engaging designs that make learning fun for children.

11. Interior Work

- Furniture supply and installation: Tables, chairs and storage units appropriate for children.
- Interior decor: Child-friendly themes and durable furniture to ensure the space is welcoming and functional.
- Safety measures: Install safe flooring, child-proof doors, windows, and other elements.

12. Hygiene & Health, Natal Care

- Hygiene kits: Provide hygiene supplies such as hand sanitizers, soaps, towels, and disinfectants.
- Health materials: First aid kits, informational charts on maternal and child health, and health monitoring tools.
- Workshops for AWWs: Organize workshops to enhance the capacity of AWWs in providing natal care and maintaining health standards.

13. Garden and Playground Area

- Outdoor equipment supply: Provide swings, slides, and other playground equipment that is age-appropriate and safe.
- Green spaces: Development of a garden area with child-safe plants and gardening tools for children.

14. Toys & Stationery

- Procurement of toys: Age-appropriate, educational, and sensory toys, following safety standards.
- Stationery supply: Pencils, notebooks, rulers, crayons, drawing pads, and other essential learning materials.

15. Festival, Training Implementation

- **Organize Festivals:** Plan and conduct community-centric festivals focused on child development, where various innovations and advancements in Anganwadi services can be showcased. Activities may include interactive games, showcasing STEM projects, and performances that engage both children and parents.
- **Training Implementation:** A comprehensive training program for workers will be implemented, focusing on the integration of modern technologies and educational approaches. The training will follow these steps:
    1. **Orientation:** Introduce AWWs to the vision of NIPUN Bharat, focusing on early childhood care and education, particularly STEM learning.

2. **Hands-on Sessions:** Practical sessions for AWWs on how to use digital devices, teaching kits, and interactive robots for teaching-learning activities.

3. **Monitoring and Feedback:** Continuous monitoring and feedback loops to ensure effective use of the kits and digital tools.

16. Kit Supply

- **STEM Innovation Kits:** To realize the vision of NIPUN Bharat, STEM-focused kits will be supplied to the Anganwadi centers, enhancing learning through technology.
  - **Interactive robots:** Interactive robots designed for engaging children in science, technology, engineering, and mathematics (STEM) learning. These will include user guides for easy operation.
  - **Teacher's Kit Box:** Dedicated kits for teachers, including teaching aids, instructional materials, and interactive learning modules designed to facilitate easy and effective instruction.

Scope of Work:

1. Site Plan and Zoning Plan.

2. Detailed site plan indicating property boundaries, dimensions, and orientation.

3. Zoning plan clearly outlining designated areas for various activities
   1. Activity areas (e.g., classrooms, labs, teacher desk etc.)
   2. Extracurricular activity areas
   3. Storage areas

4. Interior Elevation Drawings

5. Detailed interior elevation drawings for all primary spaces, including: Walls, Ceilings, Floors

6. Clear indication of materials, finishes, and lighting fixtures in drawings

7. Interior Design Drawings

8. Precise interior design drawings showcasing:
   a) Proposed furniture layout and arrangement
   b) Spatial planning and circulation
   c) Detailed dimensions and specifications

9. 3D Renderings.

10. High-quality 3D renderings of the proposed design, providing a realistic visualization of:
    - Overall space planning and layout

- Interior finishes and materials
- Lighting and ambiance

11. At least one view of each wall to showcase the design intent.

12. Scale Model - 3D Scale model

13. A meticulously crafted 1:200 or 1:250 scale model of the site, incorporating:

14. Accurate representation of the proposed design,

15. Detailed layout and visuals of buildings, landscape elements, and other features

16. Clear visualization of the overall project concept.

List of Essential Items to Create a Modern and Child-Friendly centers

S.No.	List of Items	Qty	Unit
	Doll's Corner		
1	Cloth Dolls/ Rag dolls	3	Set
2	Weighing Scale	1	Piece
3	Belan-Chakli	1	Set
4	Plastic Fruits	1	Set
5	Plastic Vegetables	1	Set
6	Plastic Kitchen Set	1	Set
7	Plastic animals set	1	Set
8	Doctor's set	1	Set
9	Mirror	1	Piece
	Cognitive Corner		
1	Wooden Blocks of diff shapes and sizes-36 pieces	1	Set
2	Puzzles	2	Set
3	Beads for threading-30 beads and 2 strings	1	Set
4	Pyramid	1	Piece
5	Abacus	1	Piece
6	Lacing frame	2	Piece
7	Magnet and nails	1	Set
8	Matching Activities: (Flash cards)-5 sets	1	Set
9	TuK-TuK Classroom Bundle	1	Set
	Language Corner		
1	Bhasha Board for English	1	-
2	Bhasha Board for Hindi	1	-

3	Board for Counting	1	-
4	Books	16	-
Art and Craft Corner			
1	Paint Brush (thick)	6	Packet
2	Slates and chalk	6	Packet
3	Blunt scissors	4	Packet
4	Crayons	5	Packet
5	Plasticine/ Play dough	2	Packet
For AWW/center (Packets for accessories)			
1	Powdered color	1	Packet
2	Tub for sand play	1	Set
3	Bowls of different sizes	3	-
4	Shovel, sieve (different sizes)	2	Set
5	Large Plastic jars (for storing things)	3	-
6	Dufflee	1	-
7	Name plate tags	30	-
8	Thick Rope (20 ft)	1	-
9	Scissors	2	Packet
10	Sketch Pens	2	Packet
11	Chart Paper	10	-
12	Kite Paper	5	Set
13	Glue	2	Packet
14	Cloth Clips	2	Set
15	Stapler	2	-
16	Staple Pins -2packets	2	Packet
17	Cello Tape	2	Packet
18	Fevicol-2 bottles	2	Packet
19	Chalk-3 boxes	3	Packet
20	Pencils-5 boxes	5	Packet
21	Erasers-1 pack	1	Packet
22	Sharpener	5	Packet
23	Scale - plastic (15 cm) Per Packet	1	Packet
24	Scale- steel (30 cms) Per Packet	1	Packet
Books			
1	Pehalwan ji aur kela	1	-

2	Aalu Malu Kalu	1	-
3	Food Monster	1	-
4	Haathi ka Bukhar	1	-
5	Bheema Gadha	1	-
6	Lalchi Chuhe ji	1	-
7	Sam ka christmas uphaar	1	-
8	What if ?	1	-
9	Laal Barsati	1	-
10	Chun Chun	1	-
11	Abhi Nahi! Abhi Nahi!	1	-
12	Gali ke Rang	1	-
13	Dekho Dekho Bagh Aaya	1	-
14	Suna Kya?	1	-
15	Susheela Ke Kolam	1	-
16	Nanhe Madadgar	1	-

Refurbishment of Anganwadi Spaces, Basic Whitewash and Ensuring WASH Infrastructure

S.No.	Description		
1	White wash of complete room	500	Sqft
2	To revamp Anganwadi centres and build them as a vibrant joyful learning space which will serve as a learning model	1	Sqft
3	Will provide repair the existing services for the following works in the Anganwadi centres	1	Sqft
4	Stand for Water Filter	1	Piece
5	Handwash Area	1	Piece
6	Plumbing work	500	Sqft
7	Plastering Work	500	Sqft
8	Whitewash and two coats of Putti	500	Sqft
9	Replacement or New Fabrication of windows with labour	1	
10	Coloring of Windows and gate (waterproofing paint) with labour	20	Sqft
11	Specification for 43-Inch Full HD Professional Display Specifications Description Technology : DLED Backlight (IPS) Display size (Diagonal): 43 inch or higher Aspect Ratio: 16:9	1	Pieces

	Resolution: 1920 x 1080 (Full HD) or higher View Angle :178 (H), 178 (V) degree Contrast Ratio: 5000:1 or higher Brightness :400 cd/m2 or higher Display colour: 16.7 million colours or better Remote :One Hand Held Remote Response Time (ms) : 6 ms or better Input/Output Ports(Minimum): 2xHDMI, 1x AV, 1x Audio Out(Earphone) Speaker :Inbuilt Two speakers of minimum 20 Watt each and a subwoofer of 10 watt Other Connectivity: 1x RJ45, 2x USB System Android version: Android 9 or better CPU :Quad core ARM cortex or better Memory(RAM) :1 GB or higher Internal Storage: 8 GB or higher Miracast Allow user to mobile wirelessly with the help of preinstalled Miracast app Media/File Support On Android Audio, Video, Image, & Docs: XLS,PPT,PDF (can be accessed from supporting apps) Tempered Glass Inbuilt minimum 4 mm Tempered Glass or better Power supply requirement: AC 110 - 210V, 50/60 Hz Max Power consumption: Maximum 75 Watts, Standby <0.5W Accessories to be suppliedAC Power cord, User Manual, Remote control, Wall mount bracket necessary cables and connectors shall be provided to make it a complete operable unit.		
	Chart Painting and Art Park		
1	Alphabets Chart	1	Painting Sqft
2	Number Chart (1-20)	1	Painting Sqft
3	Days of the Week (bilingual)	1	Painting Sqft
4	Months of the Year	1	Painting Sqft
5	Height Measurement Chart	1	Painting Sqft
6	shapes	1	Painting Sqft
7	Animals	1	Painting Sqft
8	Seasons	1	Painting Sqft
9	Body parts	1	Painting Sqft
10	Fruits and vegetables	1	Painting Sqft
11	Colors	1	Painting Sqft

12	Fans (rainbow)	1	Painting Sqft
13	Patterns (using railing)	1	Painting Sqft
	Interior Work		
1	POP False Ceiling with Gypsum	360	Sqft.
2	Labour for Gypsum Board	360	Sqft.
3	Providing & Making stand alone Tree structure of 8.8 Ft high with Seating Space made from CNC cut Plywood	1	Lump sum
4	Labour charges for stand alone Tree	1	Lump sum
5	PVC Vinyl Mat Flooring	360	Sqft
6	Labour charge for PVC Flooring	360	Sqft
	Garden and Playground Area		
1	Play area outdoor: plantations and play area in 480 sq ft area (3 mayurpankh plants, 8 ficus plants, 5 duranta plants, play area using colorful painted jumbo size 10 tyres , Pavers blocks on ground for fun activities)	1	Material of play area, colorful tyres, plants, ficus
2	Labour for plantation, digging , setup of paver blocks and leveling	1	-
	Toys & Stationery		
1	Wooden Educational Toys for students (Alphabets, Numbers, Shapes) 20.3L x 2W (cm)	4	set
2	Wooden and Soft Foam Safe to Play Angle Geometric Shape Sorter Blocks, Sorting & Stacking Toys for students 15 L x 15 W x 15 H (cm)	4	set
3	Multipurpose Plastic Modular Chest Storage Organizer ,6 Drawers MultiColor	1	set
4	Stackable Blocks Toys Building and Construction Block Set for Children (Multicolor) 30 Lx 22 Wx 6 H (cm)	4	set
5	Indian Mandi Hopscotch Count & Jump Game Play Mat ,Unique Balancing Game matt	1	set
6	Plastic Boat Rocker, Ride On Push Rider, Rider n Rocker with footrest Support for Kids, Indoor and Outdoor.	1	set
7	Scoot Hoot Ride On for Kids	Curved Seat	Long Tail for Back Support	made of plastic	1	set
8	Wall Clock 11 inch analog clock	1	set
9	Bags with 3 partitions (25L)	15	set
10	WHO Chart growth chart (a2 size)	2	set
11	Water bottle 500ml made of non-toxic plastic	15	set
12	Junior basket ball	Basketball Portable Set with	1	set

	Hanging Board, Ring Net for Indoor and Outdoor Games		
13	Bat Ball Toy,200g ABS Plastic	4	set
14	1 Table and 4 Chairs Plastic Set for Kids	2	set
Hygiene & Health, Natal Care			
1	Stadiometer, roll-up height measurement scale for kids & Adults, made of plastic, 12.5 x 14.5 x 3.5 cms	1	Packet
2	Two Ladder step stool, lightweight plastic 32 x 8 x 8 cm	1	Packet
3	Dr. Morepen ST01 Deluxe Stethoscope	1	Packet
4	MCP Healthcare Fetal Doppler - Portable for Pregnancy: 50-230M Measuring Hz, LCD Display, Pocket Size	1	Packet
5	Primelife Plastic Rectangular Medicine Box, Medical Box, First aid Box, Multi Purpose Box, Multi Utility Storage with Handle 10L x 10W x 10H (cm)	1	Packet
6	Hygiene Kit (comb, nail cutter, bathing soap, hand towel, tooth brush, tongue cleaner, tooth paste, savlon/dettol, pamphlet)	3	Set
7	Mild Steel Plain Examination bed 180x60x75cm ,load capacity 180kg	1	Packet
8	Electronic Digital Hanging Stainless Steel HookPortable Scale with LCD Display Capacity 50Kg for infants	1	-
9	Weight Machine LCD	1	Packet

10	First Aid Kit Set
	    Adhesive bandages (various sizes) - 10 pieces
	    Sterile gauze pads (2"x2") - 2 pieces
	    Adhesive tape - 1 roll
	    Antiseptic wipes - 5 pieces
	    Cotton swabs - 10 pieces
	    Scissors - 1 piece
	    Pain relievers (like paracetamol) - 2 packets
	    Instant cold pack - 1 piece
	    First aid manual - 1 piece
		1	Packet

SOLUTION 4:

PROPOSED SOLUTION

A. Digital Hardware

- Setting up of Digital Hardware to create state-of-the-art Training Classroom
- The Hardware shall be critical in enhanced utilization and effectiveness of

the Digital Learning solutions provided below.

B. **Teacher-training and Capacity Building:**
- On-ground training workshop shall be conducted to train and guide teachers for adapting these digital tools and hardware as part of their regular curriculum.
- The successful bidder shall be providing the trainings to Teachers and Administrations:
  o Induction Training – Training sessions during initiation of the program

BILL OF THE MATERIAL:

S.No.	Name of the Item	Qty
1	Interactive Digital Board-98"	8
2	OPS PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	6
3	Audio System	6
4	Smart Podium with 200 Watt audio output Speakers and 250 Watt Amplifier and PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	2
5	Ceiling Document Scanner	8
6	Delivery, Installation and Commissioning, One time teacher's training at College level and 3 Years Warranty for Sr. No. 1 to 5.	8

TECHNICAL SPECIFICATIONS:

1. **98" INTERACTIVE DIGITAL BOARD:**

Feature	Descriptions
Interactive display	
Screen size	98" or higher

Resolution	UHD 3840 × 2160 pixels or Higher
Brightness (typical)	450 nits or Higher
Contrast ratio (typical)	Native 1100:1, DCR -5000:1 or Higher
Response time	4 ms or Better
Light life (typical)	50,000 hrs or Higher
Smart Eye protection	Interactive display should have smart eye protection.
Viewing Angle	H=178, V=178
Glass Hardness	4 mm tempered AG Glass or Better with 9H Hardness
Anti-glare coating	Interactive display should have Anti-glare coating
Touch screen	
Touch technology	Infrared touch
Touch points	20 touch points or Higher
Touch response time	4 ms or Better
System	
CPU	Quad core 1.9 Ghz. or Better
Memory	8GB DDR4 or Higher
Storage	64 GB or Higher and expandable up to 512 GB
OS	Android 11.0 or Better
Input/ Output ports	
Input Ports (minimum)	3 × HDMI, 1x DP,1x VGA, 1x YBPR In, 1 x AV (3.5mm), 1x PC Audio In, 1 x TF card (Micro SD), 1 x Slot-in PC (OPS) or Higher
Output Ports (minimum)	1 × HDMI, 1 x AV (3.5mm), 1x Earphone, 1x SPDIF or Higher
USB Ports (minimum)	5 × USB 3.0 Type A, 1 × USB Type C, 2 × USB Type B (touch) or Higher
Communication Ports (minimum)	1x RS232 In, 2 x RJ45 10/100 ethernet port (In & Out) or Better
Built-in peripherals	
Speaker	Stereo Sound with in-built 25 Watt x 2 speakers or better
Magnetic pen holder	Should have inbuilt magnetic pen holder with up to two pens
Front Control buttons	Should have control buttons on Interactive display like Volume UP/Down, Home, Back, Input, Interactivity functionality on/off & Power Buttons for ease in teaching.

Quiz	Should have in built tool to allow participants to submit answers from their Smart Phones (Answering/Voting/Messaging)
Smart Multimedia Port	Should have Built in Type-c multimedia port on front side to deliver Video, Audio, Touch control, Internet Sharing and Fast charging using a single USB type C cable
SD Card Support	Should have provision to connect SD card supports up to 512 GB of Storage
Built in Wi-fi	Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)
Built-in Hotspot	Should have inbuilt Hotspot Dual band (2.4 & 5Ghz) with internet sharing across the connected devices
Built-in Bluetooth	Should have inbuilt Bluetooth version 5.0 or latest
Stylus	Should have minimum 2 Nos of Stylus
Remote control	Should have remote control to operate the Interactive display
Software	
Whiteboard Interactive Software (Android)	Should have inbuilt whiteboard software for teaching/ training using Interactive display with features like AI Pen, Shape Pen, Handwriting Recognition, Sticky Notes, E-mail and others like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows), Magnifier, Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background colour and different pen colour), on screen annotation. Quiz results should be imported into whiteboard application Interactive software should be of the same OEM. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.
Windows Interactive software for (Windows)	Pen Box (Normal pen, Text pen (Fonts, Size) Gesture pen, Texture pen, Highlighter pen, Laser pointer,

	Fountain Pen, Stamp pen), Thickness of pen, Multiple colors for pen, Eraser (Normal eraser, circle eraser and Slide right to clear), Selection tool (circle select, Frame select and Select all), Drag option, Shapes (Lines, dotted line, Ray, dotted single side arrow, Double arrow, Square, rectangle, Circle, Triangle, Parallelogram, Quadrilateral, Octagon, Sun, Flame, Smiley, Badge , Heart, Cloud, Thumps up, Flower, Flag, Star, Sun, Brackets, Add symbol, subtract symbol, Multiply symbol, Division symbol and etc.), Text Box (Style, fonts), Screen shot (Area screenshot, Free hand screenshot and Hide current window), Insert Table, Undo/Redo, Drag toolbar, Software minimize, Magnifier, Spot Light, Camera, screen recording, Countdown timer, Screen lock, Screen curtain, G Browser, Math tools (Roller, compass, Protractor, Set square 45 degree, set square 30 degree, 3D shapes, Draw angles with degree, Equations (symbol, Fraction, Subscript, Radical, Trigonometric function, Bracket, Logarithm and Miscellaneous symbols), Mathematical function (Linear function, Quadratic function, Log function, Exponential function, Power function and Trigonometric function. Chemical equation, Planets, Color box, Chemical symbols (Metrical instrument, instruments available for heating, An instrument for taking/storing substances and other instruments), Physical symbol (Dynamics, Calorific, Optics, Electromagnetism, Circuit diagram Legend, Create new page, Back ground color for page, Page layout (Title and content, Left Side, Content and icons, section titles, content only, Title only), Page animation (Fade in, Push, Circle, Erase, Blinds, Resolve and Wave), Toolbar switching (Right to left and Left to right), Page percentage (Increase/Decrease), Aspect ratio, New course, Import, Save, save as, settings, About us, Exit, Mind map, The Software should be of same OEM as Interactive Display.
Device Management Software	*Software should shows Device Usage Time Duration for which a Interactive Panel was On and Off– Daily, weekly and monthly basis *Details of Online, offline (Interactive Panel) should be

	visible on Dashboard *Platform should have provision to install application as well as details of installed application & Provision to uninstall application *Centralized Reports should be generated school wise, district wise, Block wise and state wise (fields should be customizable according to user) *Usage tracking application shall Sync the usage details to cloud based application over internet *In absence of internet connectivity, the usage tracking application shall store the logs locally & shall send the details to cloud based application once the internet connectivity is available. *The access to cloud-based application for usage tracking shall be provided in the form of user ID & password for secure access *Details of Applications used/run on IFPD with Start time, end time and duration and application name the reports should be in graphical form *Platform and application should have provision to fetch the location where IFPD is running *Notification alert should be given if any IFPD Not functioning properly, if someone install/uninstall the application etc. *Platform should have provision to export reports in excel *Platform should show push notification to be displayed, when the system is On line *Role management and assignment of Users should be available in the Platform. The Software should be of the same OEM as Interactive Display to avoid any compatibility issues.
Wireless screen sharing	Interactive display should allow user to share/mirror the content of Laptop/Desktop and mobile device(Android) wirelessly and should have Screen Share software to show up to 4 Multiple screen at same time.
Wireless File Transfer	Should have built in feature to transfer Data from Mobile to IFPD via QR Code.

Quick access tool	Floating Tool should be available on all screen for quick access tools and same should be customized as per user requirement.
Play Store Support	Should have Built in Google Play store to download applications direct from Play store
YouTube	Should have Built in YouTube application and should support up to 4K resolution.
Inbuilt Cloud drive	Interactive display should have inbuild cloud drive access from Google drive & one drive
Software based Video conferencing	Device should support software based VC with internal android platform like Google meet, Cisco WebEx , Skype, Microsoft teams & zoom applications.
Multiple controlling menu	Should have Multi Controlling menu including Side menu, floating menu and pull up menu.
Gesture Control	Should have gesture control like Hold five fingers on screen for Interactive display sleep mode, hold and move three fingers on screen for Floating menu & swipe the screen Upside for Pull up menu control.
Split Screen	Interactive display should have inbuilt split screen user should be able to split the screen to operate multitask like play a video in half of screen and open whiteboard in other half side also capable to choose any two application side by side use.
Smart USB Port	All USB 3.0 port should support Smart USB sharing for Android, Internal PC or other External PC / Device
Multilanguage GUI	Device should have GUI interface in both Hindi and English Language
Virtual Keyboard	Device should have inbuilt virtual keyboard with English to Hindi writing support.
Enhanced Security	Should have provision to lock all the USB port, Screen Lock, application lock to restrict unwanted access.
Interactivity On/Off Button	Should have physical button on front of panel to enable and disable the touch functionality of Display (Touch feature on/off)
Sound enhancement	Should have inbuilt Volume equalizer and surround sound support to enhance the sound quality.
Screen Recording	Should have built in Screen recording feature supports up to full HD resolutions or better
Screen Shot	Should have built-in screen shot option using single click

Web Camera (external)	Solution should provide with external web Camera (4K, 30 Fps or higher, the field view should be min. 120 degree, with built in dual Microphone auto framing, participant tracking with 5x digital zoom, Handheld remote with 3 Preset buttons) BIS certifications required
Power	
Power	AC 100-240V 50/60Hz
Maximum Power Consumption	650 W or Better
Standby Power Consumption	<0.5 W or Better
Environment	
Operating temperature	0°C ~ 45°C or Better
Operating Humidity	10% ~ 80% RH Non-Condensing or Better
Accessories	Wall mount Kit, 1x HDMI Cable (1.5 Meter), 1x USB A to B cable (1.5 Meter), 1x Power Cable (1.5 Meter)
Certifications	BIS certification required. As per BIS, Manufacturing facility of OEM should be in India in their own name. OEM should have direct manufacturing facility in India to manufacture Interactive panel with valid manufacturing license and BIS registration.
OEM Criteria	OEM should have Indian average annual turnover of Rs. 200 Cr during the last three financial years i.e. FY2021-22, FY2022-23 and FY2023-24. OEM should have ISO 14001, ISO 9001, ISO 45000 from appropriate authority.

2. <u>OPS PC FOR IFP:</u>

Parameters	Specifications
CPU	Intel Core i5 12th Generation
Chipset	SoC
Graphics	Intel Iris Xe Graphics
Multiple Display	Supports Dual Display
Display Interface	1 x HDMI1.4 (4K30Hz) 1 x 80 PIN (HDMI2.0 4K60Hz output + DP1.2 4K60Hz output)
Memory	16 GB Dual Channel SO-DIMM DDR4-3200MHz support Upto 32GB
Storage	1TB 1 x M.2 2280 size for NVMe/SATA SSD
Ethernet	1 x Realtek 8111H 1000M Ethernet RJ45 Port

Wireless	1 x M.2 2230 slot for WIFI_BT Module
I/O Ports	1 x HDMI1.42 x USB 3.1 1 x USB2.0 1 x Type-C(USB3.1) 1 x RJ451 x MIC IN & 1 x Line-out Connector 2 x Wi-Fi/BT Antenna
OPS Interface	1 x 2.5/5.5 DC IN JACK 1 x HDMI2.01 x 4K60Hz output 2 x USB2.01 x USB3.0 1 x TTL Other Control Signals
TPM	Optional
Power Inputs	12 - 19V DC IN, 2.5/5.5 DC Jack & JAE 80 pin DC IN
Dimensions	119(L) x 180(W) x 30(H) mm
Operating Temperature	0 to 40C
Storage Temperature	20 to 70C
Operating Humidity	10% - 90% non-Condensing
Operating System Support	Windows 11/Windows IoT
Warranty	3 Years on site

3. <u>AUDIO SOUND BAR WITH ACCESSORIES:</u>

S.No.	Parameter	Specifications
1	Amplifier	Inbuilt of 120 Watt audio amplifier or better
2	Speakers	Four Speakers of 20 Watt Each or more
3	Tweeter	One Tweeter of 20 Watt or more
4	Sub-woofer	One External sub-woofer of 20 Watt or better
5	Microphone Receiver	Inbuilt Dual Chanel Microphone receiver
6	Wireless microphone	One Hand Held and One Headband Wireless Microphone
7	Connectivity	1x HDMI (ARC), 1x USB, 1x Audio In, 1x Wireless Bluetooth or better
8	Remote control	Should have remote control

4. <u>SMART PODIUM:</u>

S.No.	Particulars	Details
1	Type/Mounting	Free Standing

2	Construction	The Podium shall be wheel mounted capable of moving in all directions with a facility of lock them while the Electronic podium is in use. The enclosure shall be made of Polymer Powder Coated Steel Body with wooden top panels, designed to work in suitable environmental conditions. The wooden top shall have lock and key and should have a sliding cover for opening/closing easily. The Podium should have housing and connectivity for Visual Presenter while the visualiser is in use and not in use. At the time of using the Visualiser ,drawer can be opened and Visualiser can be used. The construction of the podium should be such that, while the podium is locked and not is use, there should not be any port exposed/ visible on the outer body for breakage/mishandling.
3	Display	Built-in highly sensitive Interactive Panel with adjustable Motorized tilt & a mechanism to make the Panel stable so that it does not shake while writing with following minimum features -
	Display Size	21 inch or higher
	Panel Type	IPS Technology
	Active area(mm)	476.064(H)x267.786(V) or better
	Resolution	1920 x 1080 Full HD or better
	Light Source	LED
	Brightness	350 cd/m² (typ) or higher
	Contrast Ratio	1200:1 or higher
	Colours	16.7M or better
	Aspect Ratio	16:09
	Response Time (Typical GTG)	8ms or better
	Operational Hours	30000 Hours or higher
	Viewing Angles	178º horizontal, 178º vertical
	Curvature	Flat
	Colour Gamut	72% or better
	Interactive Method	Electromagnetic resonance method
	Touch Type	Pressure-sensitive, cordless, battery-free
	Resolution	5080LPI

	Pressure levels	8192 Levels
	Tracking speed	266PPS
	Touch Accuracy	±0.5mm(center);±1mm(edge)
	Touch Response	First touch:30ms;Continuous touch:5ms
	Touch Screen	Multi-touch Points
	Control Buttons	Power, Menu, +/-, Auto or more
	Connectivity (Minimum)	USB x 1, HDMIx 1, DVI x 1, VGA x 1 or better
	Pen Type	Battry Free EM Pen
	Pen Control	Two Key and Pen tip Control
	Interactive Method	Electromagnetic resonance method
	Display Stand	Should support tilting and Table standing type
	Power Supply	12V DC
4	**System Details**	
(a)	Processor	Intel Core i5 (10th Gen or better processor)
(b)	Small Form Factor	Computer should be of 2 liters Volume or less
(c)	In-Built Wi-Fi /Wireless LAN Card	Should have a inbulit Wi-Fi / Wireless LAN Card
(d)	RAM	16 GB
(e)	Storage	1 TB SSD or better
(f)	Ports (Min.)	HDMI x 1, USB ports x 4, LAN Port x 1
(g)	Keyboard & Mouse	Wireless
(h)	Operating System	Windows 10
(i)	Certifications	BIS Certifications Required for Mini PC. BIS of Mini PC should be registered in name of Podium's OEM
5	**Controller**	
(a)	Ports on front Panel of Controller (Minimum)	VGA,HDMI,USB3.0x2,Audio IN or more
(b)	Buttons on front Panel of Controller (Minimum)	Push buttons to control Volume Up& Down, Volume Mute and to switch sources of HDMI Visual Presenter, VGA Visual Presenter, HDMI Laptop, PC HDMI,VGA Laptop,

		VGA PC and Controller Power On/Off, Display Power On and Power Off or more
(c)	Ports on Rear Panel of Controller (Minimum)	USB 3.0 X 2,VGA Input x 2, VGA Output x 2, RCA Audio IN X 1,RCA Audio Output x 2,HDMI Inputx2,HDMI Outputx2 , Programming Port (Phoenix connector) or more
(d)	Built in HDMI Repeater	Yes (HDMI Output port should support 15mtr HDMI cable)
(e)	Controller Resolution Output	4K (3840 x 2160) Native
(f)	Power	5 V DC (Suitable Adaptor should be supplied with controller)
6	Built in devices	
(a)	Gooseneck Microphone	Gooseneck Microphone with XLR output. It should be Phantom powered so that there is no requirement of batteries thereby eliminating consumable cost. The gooseneck length should be at least 21.5 inch with ON/OFF switch and with LED light indicating ON/OFF status. The gooseneck microphone shall be permanently polarised condenser, highly directional featuring hyper cardioid /lobar directivity.
(b)	Built in Amplifier Power	Amplifier ： Class DRated Power ： 250 W or betterImpedance ： MIC input: 5mV / 600Ω balanced; AUX1,2 input: 350mV / 10KΩ unbalanced RCA connection terminalMic Input ： Minimum 4 input or betterLine Input ： Minimum 2 input or betterOutput ： MIX OUT: 1000mV / 470Ω unbalanced RCA connectorTone ： Bass: ± 10dB at 100Hz; Treble: ± 10dB at 10KHzFrequency Response ： 80Hz ~16KHz (+ 1dB, -3dB)SNR ： MIC1,2,3: 66dB; AUX1,2: 85dBTHD ： < 0.05% (at 1KHz, 1/3 rated power)Mute Function ： MIC 1 is prior to MIC2-4, AUX1-2 audio input; EMC is prior to all audio inputsChannel Crosstalk Attenuation ： ≥50dBHeat Dissipation ： Side-in and rear-out forced fan cooling; fan starts automatically when the device is turned on; infinitely variable speedProtection ： Overheat protection, overcurrent protection, short circuit protectionPower Supply ： AC ~ 220V / 50HzPower Consumption ： 300W

		Four speakers of Minimum 50 W each shall be a part of standard supply.
(c)	Speakers	Speaker Type : 2 Way drivers Effective frequency range : 80 Hz – 20 kHz Rated power : 50 watts Sensitivity : 90 dB or Better Impedance : 200Ω ohm IP Rated : IP66 or better LF transducer : 5-inch woofer or better HF transducer : 1.5-inch tweeter or better
(d)	Wireless Microphone Units	Wireless Hand Held & Lapel microphone with receiver.
7	Sliding Trays	Provision for keeping laptop and Keyboard & Mouse
8	Power Supply	180 -240V, 50Hz, AC Supply
9	Security	Integrated authentication System having RFID, Password protection & Physical Key for secure access to system.
10	Fans	Suitable cooling fans to be provided in the lower body.
11	Logo	Should be provided with Acrylic logo

5. <u>CEILING DOCUMENT SCANNER:</u>

Parameter	Specifications
Camera Sensor	CMOS Sensor
Effective Pixels	Min. 2 Mega Pixel or better
Frame Rate	Min. 60fps or better
Video Output	It should provide the following resolutions
	HDMI: Full HD (1080p), HD (720p), SXGA (1280 x 1024), XGA (1024 x 768); USB: Full HD (1080p), SXGA (1280 x 1024), XGA (1024 x 768), SVGA (800 x 600), VGA (640 x 480), QVGA(320 x 240); VGA: HD (1360 x 768), WXGA (1280 x 800), SXGA (1280 x 1024), XGA (1024 x 768)
Video Recording	Full HD (1080p), HD (720p), SXGA (1280 x 1024), XGA (1024 x 768)
Shooting Area	Minimum A3/A2 or better
Optical Zoom	Should Have minimum 20x optical zoom or better
Digital Zoom	Minimum 10x Digital zoom or better

Denoise	Devise should have Image Denoise Function to provide clear and crisp image quality.
Text Enhancer	Devise should have Text Enhancer Function to provide clear image quality of Text book/paper.
Focus Adjustment	It should have option of Auto/ Manual Focus Adjustment
White Balance	Auto
Image Rotation	90°/180°/270° or better
Multimedia Function	Freeze, Focus Adjustment, Brightness Adjustment, Video Capture, Image Rotation(0/180degrees), Image Mirror
File Format	JPEG (1920 x 1080), VGA (720p)
Connectivity ports	minimum 1x HDMI 1x USB 3.0, 1x RJ45 or more
Remote Control	Device should available with fully functional remote control
Certification	BIS certification required

6. TEACHER'S TRAINING:

1. Basic IT usage.
2. Onsite Training to be provided at end client location (or as per the requirement of the end client).
3. Classroom Management and soft skills.
4. One Batch of 25 teachers shall be trained once after the installation and commissioning of the project.

SOLUTION 5:

BILL OF MATERIAL:

S.No.	Name of the Item	Qty
1	75" Interactive panel with OPS	1
2	86" Interactive panel with OPS	2
3	Camera for IFP	3
4	75" Interactive panel Stand	1
5	Smart Podium	1

1. 75" Interactive Flat Panel with OPS PC:

Feature	Descriptions
Interactive display	
Screen size	75" or higher
Resolution	UHD 3840 × 2160 pixels or Higher
Brightness (typical)	350 nits or Higher
Contrast ratio (typical)	1100:1 or Higher

Response time	4 ms or Better
Light life (typical)	50,000 hrs or Higher
Smart Eye protection	Interactive display should have smart eye protection.
Glass	
Hardness	4 mm tempered AG Glass or Better
Anti-glare coating	Interactive display should have Anti-glare coating
Touch screen	
Touch technology	Infrared touch
Touch points	20 touch points or Higher
Touch response time	< 4 ms or Better
System	
CPU	Quad core 1.9 Ghz or Better
Memory	4GB DDR4 or Higher
Storage	32GB or Higher and expandable up to 512 GB
OS	Android 11.0 or Better
Input/ Output ports	
Input Ports (minimum)	3 × HDMI, 1x VGA, 1x Audio in, 1 x Slot-in PC (OPS) or Higher
Output Ports (minimum)	1x Audio out or Higher
USB Ports (minimum)	4 × USB 3.0 Type A, 1 × USB 2.0 Type A, 2 × USB Type B (touch) or Higher
Communication Ports (minimum)	1x RS232 In, 1 x RJ45 ethernet port or Better
Built-in peripherals	
Speaker	Stereo Sound with in-built 20 Watt x 2 speakers
Magnetic pen holder	Should have inbuilt magnetic pen holder with up to two pens
Tutor friendly experience	Should have control buttons on Interactive display like Volume UP/Down, Home, Back, Menu, Interactivity functionality on/off & Power Buttons for ease in teaching.
Quiz	Should have in built tool to allow participants to submit answers from their Smart Phones (Answering/ Voting/ Messaging)
Built in Wi-fi	Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)
Built-in Hotspot	Should have inbuilt Hotspot with internet sharing across the connected devices
Built-in Bluetooth	Should have inbuilt Bluetooth version 5.0 or latest
Stylus	Should have minimum 2 Nos of Stylus

Remote control	Should have remote control to operate the Interactive display
Software	
Whiteboard Interactive Software (Android)	Should have inbuilt whiteboard software for teaching/ training using Interactive display with features like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows),Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background colour and different pen colour), on screen annotation. Interactive software should be of the same OEM. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.
Windows Interactive software for (Windows)	Pen Box (Normal pen, Text pen (Fonts, Size) Gesture pen, Texture pen, Highlighter pen, Laser pointer, Fountain Pen, Stamp pen), Thickness of pen, Multiple colors for pen, Eraser (Normal eraser, circle eraser and Slide right to clear), Selection tool (circle select, Frame select and Select all), Drag option, Shapes (Lines, dotted line, Ray, dotted single side arrow, Double arrow, Square, rectangle, Circle, Triangle, Parallelogram, Quadrilateral, Octagon, Sun, Flame, Smiley, Badge , Heart, Cloud, Thumps up, Flower, Flag, Star, Sun, Brackets, Add symbol, subtract symbol, Multiply symbol, Division symbol and etc.), Text Box (Style, fonts), Screen shot (Area screenshot, Free hand screenshot and Hide current window), Insert Table, Undo/Redo, Drag toolbar, Software minimize, Magnifier, Spot Light, Camera, screen

	recording, Countdown timer, Screen lock, Screen curtain, G Browser, Math tools (Roller, compass, Protractor, Set square 45 degree, set square 30 degree, 3D shapes, Draw angles with degree, Equations (symbol, Fraction, Subscript, Radical, Trigonometric function, Bracket, Logarithm and Miscellaneous symbols), Mathematical function (Linear function, Quadratic function, Log function, Exponential function, Power function and Trigonometric function. Chemical equation, Planets, Color box, Chemical symbols (Metrical instrument, instruments available for heating, An instrument for taking/storing substances and other instruments), Physical symbol (Dynamics, Calorific, Optics, Electromagnetism, Circuit diagram Legend, Create new page, Back ground color for page, Page layout (Title and content, Left Side, Content and icons, section titles, content only, Title only), Page animation (Fade in, Push, Circle, Erase, Blinds, Resolve and Wave), Toolbar switching (Right to left and Left to right), Page percentage (Increase/Decrease), Aspect ratio, New cource, Import, Save, save as, settings, About us, Exit, Mind map, The Software should be of same OEM as Interactive Display.
Wireless screen sharing	Interactive display should allow user to share/mirror the content of Laptop/Desktop and mobile device(Android) wirelessly and should have Screen Share software to show up to 4 Multiple screen at same time.
Quick access tool	Floating Tool should be available on all screen for quick access tools and same should be customized as per user requirement.
Play Store Support	Should have Built in Google Play store to download applications direct from Play store
YouTube	Should have Built in YouTube application and should support up to 4K resolution.
Inbuilt Cloud drive	Interactive display should have inbuild cloud drive access from Google drive & one drive

Software based Video conferencing	Device should support software based VC with internal android platform like Google meet, Cisco WebEx , Skype, Microsoft teams & zoom applications.
Multiple controlling menu	Should have Multi Controlling menu including Side menu, floating menu and pull up menu.
Gesture Control	Should have gesture control like Hold five fingers on screen for Interactive display sleep mode, hold and move three fingers on screen for Floating menu & swipe the screen Upside for Pull up menu control.
Split Screen	Interactive display should have inbuilt split screen user should be able to split the screen to operate multitask like play a video in half of screen and open whiteboard in other half side.
Smart USB Port	All USB 3.0 port should support Smart USB sharing for Android, Internal PC or other External PC / Device
Multilanguage GUI	Device should have GUI interface in both Hindi and English Language
Virtual Keyboard	Device should have inbuilt virtual keyboard with English to Hindi writing support.
Enhanced Security	Should have provision to lock all the USB port, Screen Lock, application lock to restrict unwanted access.
Interactivity On/Off Button	Should have physical button on front of panel to enable and disable the touch functionality of Display (Touch feature on/off)
Sound enhancement	Should have inbuilt Volume equalizer and surround sound support to enhance the sound quality.
Screen Recording	Should have built in Screen recording feature supports up to full HD resolutions or better
Screen Shot	Should have built-in screen shot option using single click
Power	
Power	AC 100-240V 50/60Hz
Environment	
Operating temperature	0°C ~ 45°C or Better

Operating Humidity	10% ~ 80% RH Non-Condensing or Better
Accessories	Wall mount Kit, 1x HDMI Cable (1.5 Meter), 1x USB A to B cable (1.5 Meter), 1x Power Cable (1.5 Meter)
Certifications	BIS certification required

Technical Specifications for OPS

Parameter	Specifications
Type Detachable	PC module
CPU Intel Core	i5 10th Generation
RAM	8 GB or better
SSD	1 TB SSD or better
Operating system	Windows10
I/O Ports	HDMI x 1, USB ports x 4, LAN Port x 1
Max Power	50W or less
Integration	For better compatibility and to avoid any integration issues OPS & Interactive panel should be from same OEM.
Certifications	BIS certification required, as per BIS manufacturing facility should be in India in own name of OEM & Product catalogue should be available on OEM website, Non-compliance shall result the rejection of bid.

86" Interactive Flat Panel with OPS PC:

Feature	Descriptions
Interactive display	
Screen size	86" or higher
Resolution	UHD 3840 × 2160 pixels or Higher
Brightness (typical)	350 nits or Higher
Contrast ratio (typical)	1100:1 or Higher
Response time	4 ms or Better
Light life (typical)	50,000 hrs or Higher
Smart Eye protection	Interactive display should have smart eye protection.
Glass	
Hardness	4 mm tempered AG Glass or Better
Anti-glare coating	Interactive display should have Anti-glare coating

Touch screen	
Touch technology	Infrared touch
Touch points	20 touch points or Higher
Touch response time	< 4 ms or Better
System	
CPU	Quad core 1.9 Ghz or Better
Memory	4GB DDR4 or Higher
Storage	32GB or Higher and expandable up to 512 GB
OS	Android 11.0 or Better
Input/ Output ports	
Input Ports (minimum)	3 × HDMI, 1x VGA, 1x Audio in, 1 x Slot-in PC (OPS) or Higher
Output Ports (minimum)	1x Audio out or Higher
USB Ports (minimum)	4 × USB 3.0 Type A, 1 × USB 2.0 Type A, 2 × USB Type B (touch) or Higher
Communication Ports (minimum)	1x RS232 In, 1 x RJ45 ethernet port or Better
Built-in peripherals	
Speaker	Stereo Sound with in-built 20 Watt x 2 speakers
Magnetic pen holder	Should have inbuilt magnetic pen holder with up to two pens
Tutor friendly experience	Should have control buttons on Interactive display like Volume UP/Down, Home, Back, Menu, Interactivity functionality on/off & Power Buttons for ease in teaching.
Quiz	Should have in built tool to allow participants to submit answers from their Smart Phones (Answering/ Voting/ Messaging)
Built in Wi-fi	Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)
Built-in Hotspot	Should have inbuilt Hotspot with internet sharing across the connected devices
Built-in Bluetooth	Should have inbuilt Bluetooth version 5.0 or latest
Stylus	Should have minimum 2 Nos of Stylus
Remote control	Should have remote control to operate the Interactive display
Software	

Whiteboard Interactive Software (Android)	Should have inbuilt whiteboard software for teaching/ training using Interactive display with features like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows),Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background colour and different pen colour), on screen annotation. Interactive software should be of the same OEM. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.
Windows Interactive software for (Windows)	Pen Box (Normal pen, Text pen (Fonts, Size) Gesture pen, Texture pen, Highlighter pen, Laser pointer, Fountain Pen, Stamp pen), Thickness of pen, Multiple colors for pen, Eraser (Normal eraser, circle eraser and Slide right to clear), Selection tool (circle select, Frame select and Select all), Drag option, Shapes (Lines, dotted line, Ray, dotted single side arrow, Double arrow, Square, rectangle, Circle, Triangle, Parallelogram, Quadrilateral, Octagon, Sun, Flame, Smiley, Badge , Heart, Cloud, Thumps up, Flower, Flag, Star, Sun, Brackets, Add symbol, subtract symbol, Multiply symbol, Division symbol and etc.), Text Box (Style, fonts), Screen shot (Area screenshot, Free hand screenshot and Hide current window), Insert Table, Undo/Redo, Drag toolbar, Software

	minimize, Magnifier, Spot Light, Camera, screen recording, Countdown timer, Screen lock, Screen curtain, G Browser, Math tools (Roller, compass, Protractor, Set square 45 degree, set square 30 degree, 3D shapes, Draw angles with degree, Equations (symbol, Fraction, Subscript, Radical, Trigonometric function, Bracket, Logarithm and Miscellaneous symbols), Mathematical function (Linear function, Quadratic function, Log function, Exponential function, Power function and Trigonometric function. Chemical equation, Planets, Color box, Chemical symbols (Metrical instrument, instruments available for heating, An instrument for taking/storing substances and other instruments), Physical symbol (Dynamics, Calorific, Optics, Electromagnetism, Circuit diagram Legend, Create new page, Back ground color for page, Page layout (Title and content, Left Side, Content and icons, section titles, content only, Title only), Page animation (Fade in, Push, Circle, Erase, Blinds, Resolve and Wave), Toolbar switching (Right to left and Left to right), Page percentage (Increase/Decrease), Aspect ratio, New cource, Import, Save, save as, settings, About us, Exit, Mind map, The Software should be of same OEM as Interactive Display.
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Quick access tool	Floating Tool should be available on all screen for quick access tools and same should be customized as per user requirement.
Play Store Support	Should have Built in Google Play store to download applications direct from Play store

YouTube	Should have Built in YouTube application and should support up to 4K resolution.
Inbuilt Cloud drive	Interactive display should have inbuild cloud drive access from Google drive & one drive
Software based Video conferencing	Device should support software based VC with internal android platform like Google meet, Cisco WebEx , Skype, Microsoft teams & zoom applications.
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Interactivity On/Off Button	Should have physical button on front of panel to enable and disable the touch functionality of Display (Touch feature on/off)
Sound enhancement	Should have inbuilt Volume equalizer and surround sound support to enhance the sound quality.
Screen Recording	Should have built in Screen recording feature supports up to full HD resolutions or better

Screen Shot	Should have built-in screen shot option using single click
Power	
Power	AC 100-240V 50/60Hz
Environment	
Operating temperature	0°C ~ 45°C or Better
Operating Humidity	10% ~ 80% RH Non-Condensing or Better
Accessories	Wall mount Kit, 1x HDMI Cable (1.5 Meter), 1x USB A to B cable (1.5 Meter), 1x Power Cable (1.5 Meter)
Certifications	BIS certification required
Technical Specifications for OPS	
Parameter	**Specifications**
Type Detachable	PC module
CPU Intel Core	i5 10th Generation
RAM	8 GB or better
SSD	1 TB SSD or better
Operating system	Windows10
I/O Ports	HDMI x 1, USB ports x 4, LAN Port x 1
Max Power	50W or less
Integration	For better compatibility and to avoid any integration issues OPS & Interactive panel should be from same OEM.
Certifications	BIS certification required, as per BIS manufacturing facility should be in India in own name of OEM & Product catalogue should be available on OEM website, Non-compliance shall result the rejection of bid.

EXTERNAL CAMERA TO BE PROVIDED WITH IFP:

- Camera Resolution: 4k@30fps or better,
- Camera Sensor- 8 Mega Pixel CMOS Sensor or better,
- Zoom: 8x or higher, Field of View 120 degrees or better,
- Minimal Illumination: 0.5 Lux @ (F1.8, AGC ON),
- Shutter: 1/30s ~ 1/10000s or better,
- White Balance Auto, Indoor, Outdoor, One Push, Manual,
- Camera bracket: bracket with damper,
- Backlight – Compensation,

- Should support Backlight Compensation,
- Digital Noise Reduction: 2D & 3D Digital Noise Reduction, HDR,
- Should Support High Dynamic Range,
- Preset- Should have 3 Presets on Remote control,
- Resolution Should support 4K Ultra HD with super resolution up to 4K@30fps/25fps encoding output, and down compatible with 1080p,720p.
- Video Output: Should support USB 3.0 Video output suitable for software-based video conference,
- Auto Focus Lens: Should be Complete customizable auto focus non-distortion lens, view angle up to 120°,
- Should support EPTZ,
- Built in Microphone: Should available Built in beamforming microphone array with noise suspension and automatic gain algorithm with audio pickup distance up to 4 meters or better,
- AI Powered Tracking: Should support Person Tracking, Auto framing with advance AI tracking Method,
- Remote control: All the parameters of the camera should be remote controlled using IR remote control,
- Interface: 1x USB 3.0 Type C or more,
- Input Voltage: 5V (USB power supply)

Smart Podium:

Type/Mounting	Free Standing
Construction	The Podium shall be wheel mounted capable of moving in all directions with a facility of lock them while the Electronic podium is in use. The enclosure shall be made of Polymer Powder Coated Steel Body with wooden top panels, designed to work in suitable environmental conditions. The wooden top shall have lock and key and should have a sliding cover for opening/closing easily. The Podium should have housing and connectivity for Visual Presenter while the visualiser is in use and not in use. At the time of using the visualiser, drawer can be opened and visualiser can be used. The construction of the podium should be such that, while the podium is locked and not is use, there should not be any port exposed/ visible on the outer body for breakage/mishandling.
Display	Built-in highly sensitive Interactive Panel with adjustable Manual tilt & a mechanism to

	make the Panel stable so that it does not shake while writing with following minimum features -
Display Size	21 inch or higher
Panel Type	IPS Technology
Active area(mm)	476.064(H)x267.786(V) or better
Resolution	1920 x 1080 Full HD or better
Light Source	LED
Brightness	350 cd/m² (typ.) or higher
Contrast Ratio	1200:1 or higher
Colours	16.7M or better
Aspect Ratio	16:09
Response Time (Typical GTG)	8ms or better
Operational Hours	30000 Hours or higher
Viewing Angles	178º horizontal, 178º vertical
Curvature	Flat
Colour Gamut	72% or better
Interactive Method	Electromagnetic resonance method
Touch Type	Pressure-sensitive, cordless, battery-free
Resolution	5080LPI
Pressure levels	8192 Levels
Tracking speed	266PPS
Touch Accuracy	±0.5mm(center);±1mm(edge)
Touch Response	First touch:30ms;Continuous touch:5ms
Touch Screen	Multi-touch Points
Control Buttons	Power, Menu, +/-, Auto or more
Connectivity (Minimum)	USB x 1, HDMIx 1, DVI x 1, VGA x 1 or better
Pen Type	Battery Free EM Pen
Pen Control	Two Key and Pen tip Control
Interactive Method	Electromagnetic resonance method
Display Stand	Should support tilting and Table standing type
Power Supply	12V DC
System Details	
Processor	Intel Core i5 (10th Gen or better processor)
Small Form Factor	Computer should be of 2 liters Volume or less
In-Built Wi-Fi /Wireless LAN Card	Should have a inbulit Wi-Fi / Wireless LAN Card
RAM	8 GB
Storage	256 GB SSD or better

Ports (Min.)	HDMI x 1, USB ports x 4, LAN Port x 1
Keyboard & Mouse	Wireless
Operating System	Windows 10
Certifications	BIS Certifications Required for Mini PC. BIS of Mini PC should be registered in name of Podium's OEM
Controller	
Ports on front Panel of Controller (Minimum)	VGA, HDMI, USB3.0x2, Audio IN or more
Buttons on front Panel of Controller (Minimum)	Push buttons to control Volume Up& Down, Volume Mute and to switch sources of HDMI Visual Presenter, VGA Visual Presenter, HDMI Laptop, PC HDMI, VGA Laptop, VGA PC and Controller Power On/Off, Display Power On and Power Off or more
Ports on Rear Panel of Controller (Minimum)	USB 3.0 X 2, VGA Input x 2, VGA Output x 2, RCA Audio IN X 1, RCA Audio Output x 2, HDMI Inputx2, HDMI Outputx2, Programming Port (Phoenix connector) or more
Built in HDMI Repeater	Yes (HDMI Output port should support 15mtr HDMI cable)
Controller Resolution Output	4K (3840 x 2160) Native
Power	5 V DC (Suitable Adaptor should be supplied with controller)
Built in devices	
Gooseneck Microphone	Gooseneck Microphone with XLR output. It should be Phantom powered so that there is no requirement of batteries thereby eliminating consumable cost. The gooseneck length should be atleast 21.5 inch with ON/OFF switch and with LED light indicating ON/OFF status. The gooseneck microphone shall be permanently polarized condensor, highly directional featuring hypercardioid/lobar directivity.
Built in Amplifier Power	Amplifier : Class D Rated Power : 150 W or better Impedance : MIC input: 5mV / 600Ω balanced; AUX1,2 input: 350mV / 10KΩ unbalanced RCA connection terminal Mic Input : Minimum 4 input or better Line Input : Minimum 2 input or better

	Output : MIX OUT: 1000mV / 470Ω unbalanced RCA connector Tone : Bass: ± 10dB at 100Hz; Treble: ± 10dB at 10KHz Frequency Response : 80Hz ~16KHz (+ 1dB, -3dB) SNR : MIC1,2,3: 66dB; AUX1,2: 85dB THD : < 0.05% (at 1KHz, 1/3 rated power) Mute Function : MIC 1 is prior to MIC2-4, AUX1-2 audio input; EMC is prior to all audio inputs Channel Crosstalk Attenuation : ≥50dB Heat Dissipation : Side-in and rear-out forced fan cooling; fan starts automatically when the device is turned on; infinitely variable speed Protection : Overheat protection, overcurrent protection, short circuit protection Power Supply : AC ~ 220V / 50Hz Power Consumption : 180W
Speakers	Two speakers of Minimum 50 W each shall be a part of standard supply. Speaker Type : 2 Way drivers Effective frequency range : 80 Hz – 20 kHz Rated power : 50 watts Sensitivity : 90 dB or Better Impedance : 200Ω ohm IP Rated : IP66 or better LF transducer : 5-inch woofer or better HF transducer : 1.5-inch tweeter or better
Sliding Trays	Provision for keeping laptop and Keyboard & Mouse
Power Supply	180 -240V, 50Hz, AC Supply
Security	Physical Key for secure access to system.
Fans	Suitable cooling fans to be provided in the lower body.

TYPE-II : LEARNING BASED CLASSROOM SOLUTION

<u>Objective and Benefits:</u>

Post-pandemic, there have been dedicated efforts by Government (central and states), social sector organizations, technology companies and corporates/PSUs to drive digital education in schools. Importance of Technology adoption and use in schools has been strongly emphasized in National Education Policy as well as state education

policy. Solutions such as ICT Labs, VSAT-based learning, AV based smart class are few examples of technology interventions aimed towards usage of technology in schools. However, these solutions are aimed towards only specific goals and lack the robustness required for systematic upgradation of schools. For systematic upgradation of government schools, they required to be equipped with technology designed specifically for accelerating learning outcomes through school's digital infrastructure improvement, teacher capacity building and upskilling and a robust technology platform facilitating all needs including learning (in-class / at-home / teacher-led / self-paced) as well as administration. Furthermore, such solution should have easily adaptable and secure educational technology tools that empower teachers and students to be 21st Century Educators and Learners.

The proposed Digital Learning Platform with Smart Classroom for Schools is designed to be aligned with the guidelines in NEP 2020. The program aims to deliver high-quality education to all learners in an equitable manner and support the education ecosystem to prepare the future workforce and maximize the economic boost attainable through the highest demographic dividend expected by India during 2030s.

The main objectives of the solution are:
- Enabling Government Schools with Essential Digital infrastructure such as Smart Classroom for enriching the Teaching-Learning Process.
- Making Delivery of Education simple and highly effective through a blended learning platform that connects all Teachers, Students, and Administration in Government Schools.
- Transforming education for most marginalized students in under-developed districts across the country (preferably aspirational districts) through meaningful technology interventions.

Project Overview:

21st Century is the era of digital transformation. We can see this transformation taking place in all industries across the globe and in all walks of life. Technology usage across various industries, job-roles is expected to advance exponentially with rapid digitization of processes and systems across organizations, emergence of disruptive technologies.

This raises the need for a holistic school digitization solution that has been designed to deeply integrate technology, both hardware and software, across the entire

learning journey that happens with an Indian school classroom for both curriculum and co-curricular learning.

S. No.	Focus Areas of the Proposed Solution	Conventional Classrooms	Classrooms with Proposed Solution
1	Access to Devices	Teachers have limited access to devices, with very few teachers using personal devices like mobile phones. Students have no access to devices in class.	Teachers will get access to one-to-many teaching devices (IFP) along with required training to use the devices for teaching.
2	Teacher's Capability to use technology for Education	Teachers are not proactively exposed to technology in classrooms, with limited or no guidelines and handholding on usage of technology.	Teachers will be encouraged to use technology in the classroom which will be enabled through integrated devices and digital tools designed to enhance teaching methods. Teachers, on an individual level will also be able to plan their lessons, create assessments, and upskill themselves on technology-based pedagogy techniques for improving learning outcomes.
3	Learning capability of students	Students learn through conventional methods and have limited access to engaging content, and learning resources	Teachers will use technology with the targeted objective of increasing learning outcomes of students through multimedia content, assessments, quizzes.
4	Attention / Interest level in class	Low interest and attention level of students in class due to lesser student-teacher	Teachers will be able to create an engaging learning experience through the use of

		engagement and unavailability of interactive teaching tools. Limited view and control over individual attentiveness and interest of students.	digital learning devices and platform by using multimedia content, assessments, live tests and interactive quizzes.

Roles and Responsibilities of the Selected Bidder for Type II:

To supply, install and maintain the Proposed Solution along with the following activities:

a) Supply of required hardware as per the specification mentioned below.
b) Installation of Hardware equipment in all identified schools
c) Installation of software as per the specification mentioned below.
d) Teacher training.
e) Project Management for 3 Years.
f) Onsite comprehensive warranty support of 3 Years.

Details about Solution of Type-II:

Solution 6:

Bill of Material:

S.No.	Name of the Item	Qty
1.	65" Interactive panel with OPS	16
2.	Protective casing for Panel	16
3.	Power Backup	16
4.	Teacher's training (5 Teachers per Classroom)	9

TECHNICAL SPECIFICATIONs:

Interactive Flat Panel with OPS PC:

	Resolution	3840(H) ×2160 (V)
	Diagonal size	65"
	Display Color	1.07Billon Colors
	Brightness	400cd/m2*
	View Angle	R/L 178 (Min.), U/D 178 (Min.)
Sound/speaker feature	speaker output	15 W × 2 or higher

	HDMI Input	2
	Multi-Media USB	USB2.0: * 2 and 1* USB 3.0 or more
	RS232	1
	RJ-45	1
	Touch input	1
	Bluetooth	BT 5.0
Inputs & Outputs	WIFI	Dual WIFI (5G & 2.4G)802.11ac/b/g/n/a,Hotspot or better
	VGA in	1
	Cover Glass	3mm Toughened Glass with 9H Toughness or better
	Touch Accuracy	1mm
	Annotation Over Any Source	Yes
Touch screen	Response Time	Not more than 8 ms
	Pen and Touch Differentiation	Yes
	Pens Included	2 Stylus
	OS Version	ANDROID 11.0 or better
	Flash	32 GB EMM
	RAM	4 GB
Android	Touch	20 points
	Write	20 points
Wall Mount		VESA Standard
Power		AC:100~240V 60/50HZ
Typical Power Watt		≤230W
Power Saving or Sleep Mode		≤0.5W
Accessories	User manual, remote control, power cable, touch cables, HDMI cable, touch pens (2 stylus, 1 extendable)	
Onsite Warranty	3 Years	
Product Quality Certification	BIS, CE, FCC, UL and RoHS	
Embedded software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.	
	Teachers should be able to create and customize lesson plans using the software.	

	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms. • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results. • Video Summarizer: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.

	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
OPS PC	- Intel i5 12th Gen or AMD R5 or above. - Minimum 8GB RAM expandable upto 32 GB. - SSD - 1 TB - Window 10 or higher

Power Backup:
- 1 KVA online UPS
- 30 minutes battery back-up on product load single phase input and single-phase output.
- Input Voltage: 200V~250V AC, Frequency: 50 Hz
- Output Voltage: 220V, Frequency: 50Hz
- Battery Stand
- Protection: Discharge, Overcharge and Overload Protection
- Product Quality Certifications: ISO 9001, ISO14001, ISO 45001
- Warranty: 3 Years

Protective Casing for Interactive Panel:
- Outer Length of Frame: As per the dimension of panel
- Outer width of Frame: As per the dimension of panel
- Thickness of Frame (Depth): 210 mm
- Frame is made of Aluminium with Bronze color anodizing.
- 4 numbers boards are fitted in size of 890 mm x 1205mm (2 boards are fixed and 2 boards are movable with lock & key. Base material with 14 mm thickness.
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is color coated/ GI sheet with thickness of 0.2-0.3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

Teacher's Training
- Basic IT usage.

- Onsite Training to be provided at end client location.
- Usage of Multimedia Content.
- Classroom Management and soft skills.
- Deployment of the trainer
- Need Analysis
- Content Development for training
- Organizing training sessions
- Training Manuals and Report

Solution 7

Bill of Material:

S.No.	Name of the Item	Qty (A)
1.	65" Interactive panel with OPS	4
2.	Content with LMS for 3 years	4
3.	Power Backup	4
4.	Project management and teacher training	4

TECHNICAL SPECIFICATIONs:

Interactive Flat Panel with OPS PC:

	Resolution	3840(H) ×2160 (V)
	Diagonal size	65"
	Display Color	1.07Billon Colors
	Brightness	400cd/m2*
	View Angle	R/L 178 (Min.), U/D 178 (Min.)
Sound/speaker feature	speaker output	15 W × 2 or higher
Inputs & Outputs	HDMI Input	2
	Multi-Media USB	USB2.0: * 2 and 1* USB 3.0 or more
	RS232	1
	RJ-45	1
	Touch input	1
	Bluetooth	BT 5.0

	WIFI	Dual WIFI (5G & 2.4G)802.11ac/b/g/n/a, Hotspot or better
	VGA in	1
Touch screen	Cover Glass	3mm Toughened Glass with 9H Toughness or better
	Touch Accuracy	1mm
	Annotation Over Any Source	Yes
	Response Time	Not more than 8 ms
	Pen and Touch Differentiation	Yes
	Pens Included	2 Stylus
Android	OS Version	ANDROID 11.0 or better
	Flash	32 GB EMM
	RAM	4 GB
	Touch	20 points
	Write	20 points
Wall Mount		VESA Standard
Power		AC:100~240V 60/50HZ
Typical Power Watt		≤230W
Power Saving or Sleep Mode		≤0.5W
Accessories	User manual, remote control, power cable, touch cables, HDMI cable, touch pens (2 stylus, 1 extendable)	
Onsite Warranty	3 Years	
Product Quality Certification	BIS, CE, FCC, UL and RoHS	
Embedded software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.	
	Teachers should be able to create and customize lesson plans using the software.	
	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective	
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.	

	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results. • Video Summarizer: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.

OPS PC	- Intel i5 12th Gen or AMD R5 or above. - Minimum 8GB RAM expandable upto 32 GB. - SSD - 1 TB - Window 10 or higher

Power Backup:
- 1 KVA online UPS
- 30 minutes battery back-up on product load single phase input and single-phase output.
- Input Voltage: 200V~250V AC, Frequency: 50 Hz
- Output Voltage: 220V, Frequency: 50Hz
- Battery Stand
- Protection: Discharge, Overcharge and Overload Protection
- Product Quality Certifications: ISO 9001, ISO14001, ISO 45001
- Warranty: 3 Years

Content with LMS:
- **Readymade lesson plan structure:** Teacher can access readymade lesson plan structure, within the LMS, mapped to Board-Class-Subject-Topic of the current curriculum
- **Customizable lesson plan structure:** The above mentioned lesson plan structures are **customizable (add, remove, change name and order of lessons)** by the users themselves within the LMS application as and when needed as per pedagogical needs from time to time
- **Assessment Creation: LMS Application can** allow teachers to create assessments in class using classroom device (Interactive Display Panel) or any other android-based device. The LMS can have inbuilt capability to allow teachers to create Assessments by importing questions through a pre-loaded **question bank** repository of minimum **10L+ questions for K12, Competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.** While using the pre-loaded question bank, teachers can also have the option to make their own customizations to their own assessments such as add/remove questions. In addition, The LMS Application can also allow teachers to create Assessments by typing or uploading questions in user friendly manner
- **Assessment Delivery:** LMS Application can have flexibility to allow multiple modes of assessment - 1) By displaying questions one-by-one on the LMS Application itself, 2) By printing and distributing offline question papers and 3) Integrating with any student device (android based) using the same LMS (with student Login) which may be available with student in-class or at-home.

- **Self-Paced Practice Question banks for students for curricular and competitive exams:** Through the same LMS Application, Students can be able to login individually with their login-IDs and should be able to access the Classroom study material / Content and self-practice Question banks (for all grades and subjects) to increase their learning levels and performance. Students can be able to open any topic of their choice and access the practice tests. Practice tests can provide students with personalized journeys to learn any topic or subject for curricular as well as competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.
- **Digital Community for State wide Teacher Collaboration:** The teachers can have access to an inbuilt digital community of the Teachers wherein they can access digital content (Homework and Question banks) created by other teachers. On a voluntary basis, if the teachers wish to contribute to the digital community, the LMS Application should allow the teachers to do so from any Android-based smart device.
- **User Interface availability in English:** The LMS Application User Interface for teachers and students can be available in English / regional language. The User can be able to change the language setting easily as per their need.
- **Digital Content Delivery:** Teachers can be able to upload videos, documents, questions to the LMS Application using any android device anytime as per their convenience and be able to use it in the class through the classroom device. The LMS Application should also support using Youtube videos as part of the lesson plans.
- **Remedial Virtual Live Classes:** Teachers can conduct remedial virtual live classes with an in-built Live Class feature within the LMS application itself. These live classes shall have education-specific features such as live poll, automated attendance, whiteboard, screen and document sharing with annotations, Automated Class recordings and classroom controls such as student chat on/off, audio on/off, video on/off. Live Class platform is in-built within the application and supports at least 200 users in 2-way communication mode and at least 500 users in webinar mode.
- **Recording, Storage and Sharing:** Teachers can be able to record the live classes and access them in future from within the LMS Application itself only. The LMS App shall allow the teachers to share the recordings with students for easy access for revision as and when they find it appropriate to share.
- **Student Attendance Reporting:** Teachers can be able to mark student attendance in-class using the LMS Application via Classroom device or any android based device. The attendance reports shall be accessible, after the attendance is marked, to all stakeholders (Department, Admin, Teachers) online from anywhere online with an option to download and print for record keeping

purposes. The LMS Application shall always maintain the attendance history of each student.

- **Communication:** Teachers should be able to Chat with Students individually and in groups as per requirement. Teachers should be able to manage Chat preferences and permissions of Student Chat
- **Multiple Login Options:** The LMS Application should provide secure multiple login options and at least include Login via phone number and via email with password and One-time-password.
- **Gamification:** Teachers can assign Student Performance and Behaviour Motivation Badges and Recognitions. The student should be able to see these Badges and Recognitions through their individual login ID on the LMS Application.
- **Setup or User Registration portal:** The LMS Platform should have a facility that enables the department / administrators to register users (Teachers and Students) at the start of the project, and also add/remove/edit/manage student database include personal information, demographic, health records, parent/guardian details and contact details, past academic details, etc.
- **Help Section including How-to-use Video Tutorials for Users :** The User can be provided with video-based how-to-use tutorial videos for all major features of the LMS Application. These tutorial videos should be easy to understand as well as easily accessible from within the LMS Application itself. The Help section of the App should also allow for users to contact the centralized customer support via email for support as well as for sharing feedback.

Teacher's Training
- Basic IT usage.
- Onsite Training to be provided at end client location.
- Usage of Multimedia Content.
- Classroom Management and soft skills.
- Deployment of the trainer
- Need Analysis
- Content Development for training
- Organizing training sessions
- Training Manuals and Report

Solution 8:

Bill of Material:

S.No.	Name of the Item	Qty

1.	75" Interactive Panel with OPS	8
2.	Power Back Up (1 kVA Online UPS, 30-min backup)	8
3.	Protective Casing for Interactive Flat Panel	8
4.	LMS Application (3-Year License)	8
5.	Teacher Training (2 Teachers per classroom)	8
6.	Site Preparation	8

TECHNICAL SPECIFICATIONs:

1. **75" Interactive Flat Panel with OPS PC:**

	Resolution	3840(H) ×2160 (V)
	Diagonal size	75"
	Display Color	1.07Billon Colors
	Brightness	400cd/m2*
	View Angle	R/L 178 (Min.), U/D 178 (Min.)
Sound/speaker feature	speaker output	15 W × 2 or higher
Inputs & Outputs	HDMI Input	2
	Multi-Media USB	USB2.0: * 2 and 1* USB 3.0 or more
	RS232	1
	RJ-45	1
	Touch input	1
	Bluetooth	BT 5.0
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	VGA in	1
Touch screen	Cover Glass	3mm Toughened Glass with 9H Toughness or better
	Touch Accuracy	1mm
	Annotation Over Any Source	Yes
	Response Time	Not more than 8 ms
	Pen and Touch Differentiation	Yes
	Pens Included	2 Stylus
Android	OS Version	ANDROID 11.0 or better
	Flash	32 GB EMM
	RAM	4 GB
	Touch	20 points
	Write	20 points
Wall Mount		VESA Standard
Power		AC:100～240V 60/50HZ
Typical Power Watt		≤230W

Power Saving or Sleep Mode	≤0.5W
Accessories	User manual, remote control, power cable, touch cables, HDMI cable, touch pens (2 stylus, 1 extendable)
Onsite Warranty	3 Years
Product Quality Certification	BIS, CE, FCC, UL and RoHS
Embedded software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.
	Teachers should be able to create and customize lesson plans using the software.
	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per classroom)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms

	• Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results. • Video Summarizer: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
High Adhesive Dome/Chrome Sticker	• The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
OPS PC	• Intel i5 12th Gen or AMD R5 or above. • Minimum 8GB RAM expandable upto 32 GB. • SSD - 512 GB • Window 10 or higher

2. **1 KVA Online UPS:**
   - 1 KVA online UPS
   - 30 minutes battery back-up on product load single phase input and single-phase output.
   - Input Voltage: 200V~250V AC, Frequency: 50 Hz
   - Output Voltage: 220V, Frequency: 50Hz
   - Battery Stand
   - Protection: Discharge, Overcharge and Overload Protection
   - Certifications: ISO 9001, ISO14001, ISO 45001

3. <u>Protective Casing for Interactive Flat Panel:</u>
   - Outer Length of Frame: 3600 mm/ As per the dimension of panel
   - Outer width of Frame: 1300 mm/ As per the dimension of panel
   - Thickness of Frame (Depth): 210 mm
   - Frame is made of Aluminium with Bronze color anodizing.
   - 4 numbers boards are fitted in size of 890 mm x 1205mm / As per requirement for safe and secure fitting (2 boards are fixed and 2 boards are movable with lock & key. Base material with 14 mm thickness.
   - Front metal sheet is having thickness 0.3 mm.
   - Back Side metal sheet is color coated/ GI sheet with thickness of 0.2-0.3mm.
   - The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for smooth movement.
   - Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

4. <u>LMS Application</u>:
   - **Readymade lesson plan structure:** Teacher can access readymade lesson plan structure, within the LMS, mapped to Board-Class-Subject-Topic of the current curriculum
   - **Customizable lesson plan structure:** The above mentioned lesson plan structures are **customizable (add, remove, change name and order of lessons)** by the users themselves within the LMS application as and when needed as per pedagogical needs from time to time
   - **Assessment Creation: LMS Application can** allow teachers to create assessments in class using classroom device (Interactive Display Panel) or any other android-based device. The LMS can have inbuilt capability to allow teachers to create Assessments by importing questions through a pre-loaded **question bank** repository of minimum **10L+ questions for K12, Competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.** While using the pre-loaded question bank, teachers can also have the option to make their own customizations to their own assessments such as add/remove questions. In addition, The LMS Application can also allow teachers to create Assessments by typing or uploading questions in user friendly manner
   - **Assessment Delivery:** LMS Application can have flexibility to allow multiple modes of assessment - 1) By displaying questions one-by-one on the LMS Application itself, 2) By printing and distributing offline question papers and

3) Integrating with any student device (android based) using the same LMS (with student Login) which may be available with student in-class or at-home.

- **Self-Paced Practice Question banks for students for curricular and competitive exams:** Through the same LMS Application, Students can be able to login individually with their login-IDs and should be able to access the Classroom study material / Content and self-practice Question banks (for all grades and subjects) to increase their learning levels and performance. Students can be able to open any topic of their choice and access the practice tests. Practice tests can provide students with personalized journeys to learn any topic or subject for curricular as well as competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.

- **Digital Community for State wide Teacher Collaboration:** The teachers can have access to an inbuilt digital community of the Teachers wherein they can access digital content (Homework and Question banks) created by other teachers. On a voluntary basis, if the teachers wish to contribute to the digital community, the LMS Application should allow the teachers to do so from any Android-based smart device.

- **User Interface availability in English:** The LMS Application User Interface for teachers and students can be available in English / regional language. The User can be able to change the language setting easily as per their need.

- **Digital Content Delivery:** Teachers can be able to upload videos, documents, questions to the LMS Application using any android device anytime as per their convenience and be able to use it in the class through the classroom device. The LMS Application should also support using Youtube videos as part of the lesson plans.

- **Remedial Virtual Live Classes:** Teachers can conduct remedial virtual live classes with an in-built Live Class feature within the LMS application itself. These live classes shall have education-specific features such as live poll, automated attendance, whiteboard, screen and document sharing with annotations, Automated Class recordings and classroom controls such as student chat on/off, audio on/off, video on/off. Live Class platform is in-built within the application and supports at least 200 users in 2-way communication mode and at least 500 users in webinar mode.

- **Recording, Storage and Sharing:** Teachers can be able to record the live classes and access them in future from within the LMS Application itself only. The LMS App shall allow the teachers to share the recordings with students for easy access for revision as and when they find it appropriate to share.

- **Student Attendance Reporting:** Teachers can be able to mark student attendance in-class using the LMS Application via Classroom device or any android based device. The attendance reports shall be accessible, after the

attendance is marked, to all stakeholders (Department, Admin, Teachers) online from anywhere online with an option to download and print for record keeping purposes. The LMS Application shall always maintain the attendance history of each student.

- **Communication:** Teachers should be able to Chat with Students individually and in groups as per requirement. Teachers should be able to manage Chat preferences and permissions of Student Chat
- **Multiple Login Options:** The LMS Application should provide secure multiple login options and at least include Login via phone number and via email with password and One-time-password.
- **Gamification:** Teachers can assign Student Performance and Behaviour Motivation Badges and Recognitions. The student should be able to see these Badges and Recognitions through their individual login ID on the LMS Application.
- **Setup or User Registration portal:** The LMS Platform should have a facility that enables the department / administrators to register users (Teachers and Students) at the start of the project, and also add/remove/edit/manage student database include personal information, demographic, health records, parent/guardian details and contact details, past academic details, etc.
- **Help Section including How-to-use Video Tutorials for Users :** The User can be provided with video-based how-to-use tutorial videos for all major features of the LMS Application. These tutorial videos should be easy to understand as well as easily accessible from within the LMS Application itself. The Help section of the App should also allow for users to contact the centralized customer support via email for support as well as for sharing feedback.

5. **Teacher Training:**
   - Induction Training (2 teachers per classroom)
   - On-ground training workshop shall be conducted to train and guide teachers for adapting these digital tools and hardware as part of their regular curriculum.

6. **Site Preparation:**
   Electrical work for all the components in the classroom and earthing as per the specification below. Plate Earthing as per IS:3043 with copper Earth plate of size 600mm x 600mm x 3.0mm by embodying 4feet below the ground level with 25 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, alternate layers of salt and coke/charcoal, testing of earth resistance as required.

SOLUTION 9

Scope of Work:

Scope of work includes

a) Conducting an exhaustive Baseline survey in the identified schools under this project

b) Installation and Commissioning of smart classrooms in the identified schools.

c) Conducting teacher training sessions

d) Measuring progress/capturing impact

e) Providing Annual Maintenance Contract (AMC) support of the Smart Classroom for a period of 3 years from the date of installation.

f) The successful bidder shall display prominently the name and logo/Signage of "name of the PSU" contribution at appropriate places of the Project and at appropriate places on the structures/equipment etc. funded by "name of the PSU".

g) The successful bidder shall prepare a 2-to-3-minute audio-visual clip explaining the Project, its need and relevance to the beneficiaries in such a manner that it gives acknowledgment of "name of the PSU" support. The video shall be made presentable so that the same can be put on the website.

h) The successful bidder shall submit monthly progress report of the Project to the EdCIL. The report may also include details of Project activities along with geo-tagged photographs of machine/equipment/location/ implementation activities etc. The report of Baseline Survey conducted by the successful bidder to be submitted to EdCIL. Further, the successful bidder shall furnish related data as sought by EdCIL from time to time.

i) Final Comprehensive Completion Report of the program/Project will be submitted by the successful bidder within 3 (three) months of completion of the Project, to assess the impact of the program. A report clearly indicating activities undertaken and objectives attained and details of the number of beneficiaries under the Project providing their names, age, category as SC/ST/PH/Others would be required to be submitted by the successful bidder.

j) The successful bidder shall conduct the Impact Assessment of the project and submit to EdCIL.

k) EdCIL shall be entitled to monitor the various centers and their authorized representative may undertake planned / surprise visit to inspect the progress of the Project and ensure proper implementation of the same.

l) EdCIL shall be entitled to seek clarifications/information whatsoever from successful bidder with respect to Project. Any such clarifications/information

sought by successful bidder shall be responded by successful bidder within 15 (fifteen) working days.

m) EdCIL shall, at its discretion, undertake inspection/evaluation of the impact/progress of the Project. Such inspection shall be carried out anytime during the tenure of the Project and after the completion of the project. Successful bidder shall, as and when required, provide EdCIL or its authorized representative(s) reasonable cooperation and access to their records for such inspection carried out in connection with this MOA.

n) The successful bidder shall upon receipt of prior notice, will permit and make suitable arrangements for EdCIL representatives, at such intervals as EdCIL may determine for smooth and successful completion of the project.

o) Proper branding for the CSR initiative should be carried out by the selected bidder as per the satisfaction of EdCIL/end Client.

Bill of Material:

S.No.	Name of the Item	Qty
1.	75" Interactive Flat Panel	400
2.	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	400
3.	Protective Casing for Interactive Flat Panel	400
4.	Audio System with Necessary wiring	400
5.	External camera for IFP	400
6.	Interactive Teacher led e- Learning digital Content	400
7.	English Language Learning Software	400
8.	3D Virtual Lab Simulations	400
9.	Device Management Console	400
10.	Baseline, Midline and Endline Assessment (Impact Assessment)	50
11.	Project Management and Teacher Training	50
12.	175 K-Watt Solar Solution with 2 Hours Back up	1
13.	1 K-Watt Solar Solution with 2 Hours Back up	225

TECHNICAL SPECIFICATIONs

75" INTERACTIVE FLAT PANEL:

Parameters	Specifications
Screen Size	75"
Panel Technology	IPS
Back Light Type	Direct LED/Edge LED
Aspect Ratio	16:9
Native Resolution	3840x2160 (UHD)

Refresh Rate	60Hz
Brightness	440nits
Contrast Ratio	1,200:1
Color Depth	1.07B(10bit)
Viewing Angle(H x V)	178°(H/V)
Response Time	8ms or lower
Surface Treatment(Haze protection)	Haze 24% or higher
Operations hours(Hours/Day)	16/7
Input Ports	3x HDMI(HDCP 2.2/1.4), Audio In, RS232C, LAN (Gigabit)-1, RGB (1, VGA)
	4x USB3.0 Type A, 1x USB2.0 Type A, 1x USB Type-C
Output Ports	HDMI x1 , Audio x1, 1x Touch USB
Touch Response Time	<=5ms
Accuracy	+-1mm
Surface Hardness	Toughened Glass with 9H Level 7 Mohs Standard 3mm Toughened
Operating System Support	Windows 7/8/10/Linux/Mac/Android (Linux/Mac support one point touch)
Multi Touch Point	Max 20 Points
Hardware	Quad Core A55 Processor, 8GB RAM, 64GB Internal Memory, Mail G52MP2, Inbuilt Bluetooth 5.0, Wi-Fi, OPS Slot with Built-in power, USB port Block feature
Software	Android 13, EDLA Certified, Booting Logo Image, Picture In Picture (PIP) and Picture By Picture for Multi-Screen Share, Screen Share (Able to connect and show upto 9 devise wirelessly on screen), Whiteboard(educational templates and teaching tools such as a ruler, table, and sticky notes, allowing for active engagement by students and enabling intuitive classes), Resources can be saved and imported directly to and from Google Drive or OneDrive, and files can be imported from a USB drive (Users can browse resources saved on USB storage), Screen Lock. The boot screen should be customized to show the message "CSR initiative of the "name of the PSU"" and logo of EdCIL/ End client's/Both logos during the booting of IFP. IFP should have feature to run customised logo as per departments instructions.
Operation Temperature	0 °C to 40 °C
Operation Humidity	10% ~90%RH
DPM	0.5 Watt or less
Typ. Power consumption	230W+5%

Max. Power consumption	430W±5%
Power Supply	100-240V~ 50/60Hz
Wake on LAN	Should Support
Smart Energy Saving	Should Support
Auto Brightness Sensor	Should Support
Speaker	15W x 2 or Higher
Product Certification	CE,FCC,ROHS Report, BIS
Accessory	Power Cable-1,USB Cable-1,HDMI Cable-1, IR Remote-1,Digital Pen-2
Warranty	3 Years on site by OEM
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
Technical and Financial Capabilities of OEM of IFP	- Manufacturer of Interactive Panel should have active business in India from last 10 years - Manufacturer of Interactive Panel Should have experience of Manufacturing Interactive Panel in India from last 5yrs (Required document from OEM: Manufacturing License copy with ISO 9001, 14001, 45001) - Manufacturer of Interactive Panel should have valid Manufacturing License, PF Registration, PAN & GST registration certificate from 5 Years - Manufacturer of Interactive Panel should have owned registered office in UP and MP State from last 5 years for onsite support - Manufacturer of Interactive Panel should have own functional Local Service Branch in UP and MP state to manage onsite service support from last 5 years with Shop license and GSTN copy as proof with Skilled manpower, with toll free Number for Call logging - Manufacturer of Interactive Panel should have minimum turnover of 500 Cr in last 5 financial years in India from Interactive Panels. 75' Interactive Panel shall be manufactured in own factory of quoted Brand & OEM; Same address shall be on BIS certificate. - Manufacturer of Interactive Panel shall have experience of supplying minimum 5000 Units Interactive Panels direct or through partners in any State/Central Government/ PSU project in last 3 years

HIGH END OPS PC FOR IFP:

Parameters	Specifications
CPU	Intel Core i5 12th Generation
Chipset	SoC
Graphics	Intel Iris Xe Graphics
Multiple Display	Supports Dual Display
Display Interface	1 x HDMI1.4 (4K30Hz) 1 x 80 PIN (HDMI2.0 4K60Hz output + DP1.2 4K60Hz output)
Memory	16 GB Dual Channel SO-DIMM DDR4-3200MHz support Upto 32GB
Storage	2TB 1 x M.2 2280 size for NVMe/SATA SSD
Ethernet	1 x Realtek 8111H 1000M Ethernet RJ45 Port
Wireless	1 x M.2 2230 slot for WIFI_BT Module
I/O Ports	1 x HDMI1.42 x USB 3.1 1 x USB2.0 1 x Type-C(USB3.1) 1 x RJ451 x MIC IN & 1 x Line-out Connector 2 x Wi-Fi/BT Antenna
OPS Interface	1 x 2.5/5.5 DC IN JACK 1 x HDMI2.01 x 4K60Hz output 2 x USB2.01 x USB3.0 1 x TTL Other Control Signals
TPM	Optional
Power Inputs	12 - 19V DC IN, 2.5/5.5 DC Jack & JAE 80 pin DC IN
Dimensions	119(L) x 180(W) x 30(H) mm
Operating Temperature	0 to 40C
Storage Temperature	20 to 70C
Operating Humidity	10% - 90% non-Condensing
Operating System Support	Windows 11/Windows IoT
Warranty	3 Years on site

PROTECTIVE CASING FOR THE INTERACTIVE FLAT PANEL:
- Outer Length of Frame: 3780 mm/ As per the dimension of panel

- Outer width of Frame: 1210 mm/ As per the dimension of panel
- Thickness of Frame (Depth): 200 mm
- Frame is made of Aluminium with Bronze colour anodizing.
- 1 number boards are fitted as per requirement for safe and secure fitting (1 board to be fixed with movable with lock & key.
- Base material with 14 mm thickness.
- Metal L- Clamp for mounting frame is 8 nos. with thickness of 5 mm, Movable board is having lock system to safe IFPD from vandalism
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is colour coated/ GI sheet with thickness of 0.20-3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for
- smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

EXTERNAL CAMERA TO BE PROVIDED WITH IFP:
- Camera Resolution: 4k@30fps or better,
- Camera Sensor- 8 Mega Pixel CMOS Sensor or better,
- Zoom: 8x or higher, Field of View 120 degrees or better,
- Minimal Illumination: 0.5 Lux @ (F1.8, AGC ON),
- Shutter: 1/30s ~ 1/10000s or better,
- White Balance Auto, Indoor, Outdoor, One Push, Manual,
- Camera bracket: bracket with damper,
- Backlight – Compensation,
- Should support Backlight Compensation,
- Digital Noise Reduction: 2D & 3D Digital Noise Reduction, HDR,
- Should Support High Dynamic Range,
- Preset- Should have 3 Presets on Remote control,
- Resolution Should support 4K Ultra HD with super resolution up to 4K@30fps/25fps encoding output, and down compatible with 1080p,720p.
- Video Output: Should support USB 3.0 Video output suitable for software-based video conference,
- Auto Focus Lens: Should be Complete customizable auto focus non-distortion lens, view angle up to 120°,
- Should support EPTZ,
- Built in Microphone: Should available Built in beamforming microphone array with noise suspension and automatic gain algorithm with audio pickup distance up to 4 meters or better,

- AI Powered Tracking: Should support Person Tracking, Auto framing with advance AI tracking Method,
- Remote control: All the parameters of the camera should be remote controlled using IR remote control,
- Interface: 1x USB 3.0 Type C or more,
- Input Voltage: 5V (USB power supply),

AUDIO SYSTEM:
- Power Output: 120-Watt (20Watt + 10 Watt) x 4,
- Features: Fully Functional IR Remote, Multi Playability of Aux, USB and Bluetooth, USB Support of 32 GB, Analogue Control of Volume, Bass.
- Informative LED Display, Immersive Glowing Lights with Music.

ENGLISH LEARNING SOFTWARE:

- **Purpose:** Comprehensive English Language Skills Programme for School Students
- **Target Audience:** School students for Class 1 to 12
- **Content: 30 chapters** per grade, incorporating individual and group activities, focusing on all four language skills (**Listening**, **Speaking**, **Reading**, and **Writing**)
- **Curriculum Alignment:** Mapped to the Common European Framework of Reference for Languages (**CEFR**) with specific **"Can Do"** statements to define learning outcomes.
- **Additional Resources:** CEFR mapping booklet should be included in the Teacher kit.

The key features of the software which is designed to enhance English language skills for school students are as follows.

- **Teachers Dashboard -** where they can access all the features and to manage classes and assignments.
- Within the software teachers can access all the classes from 1-12.
- **Chapters** – In the software, teachers will have 30 chapters in each class. Additionally, **TOFEL** content will be available from **class 3-9** and each class will have **22 chapters**.
- **Attendance Dashboard Feature** - This feature in the software should allow the teachers to quickly and accurately mark student's presence or absence.
- **Chapter Activities Feature**– Each Chapters will have individual and group activities, focusing on all four language skills (**Listening**, **Speaking**, **Reading**, and **Writing**). These activities will include concept videos followed by the LSRW activities.

- **Automatic group creation feature**: This eliminates the need for manual group assignments, saving valuable instructional time and streamlining classroom organization.
- **Teacher Grading feature** - Teacher can then assign her grades to each group.
- **Peer-to-Peer grading feature** – This encourages students to critically evaluate their own work and that of their peers, promoting self-reflection and providing valuable feedback for improvement.
- **Assignments Feature** - The software shall includes features like giving assignments to students, track student progress.
- **Adding Students Feature** - Teachers can add learners one by one or can do bulk uploads within the software.
- **Feedback** - Provide feedback, allowing teachers to monitor individual and class-level performance.
- **Content Presentation:** High-quality multimedia content, including videos, animations, and interactive exercises.
- It shall work on the Interactive Flat Panel provided in the classroom.

Assessment and Progress Tracking:

o Placement tests to assess students' initial proficiency levels
o Pre-, mid-, and post-assessments to measure learning outcomes
o Real-time attendance tracking and reporting
o Detailed reports on student and teacher progress.

Offline Mode: Offline functionality should be made available. It shall run in offline mode also.

Content Structure

- **Four Skills Approach:** Each chapter includes activities targeting Listening, Speaking, Reading, and Writing skills.
- **Grammar and Vocabulary:** Graded grammar instruction and vocabulary building exercises integrated into each chapter.
- **Group Activities:** Emphasis on collaborative learning through group discussions, role-plays, and presentations

Benefits

- **Enhanced Language Proficiency:** Comprehensive curriculum aligned with CEFR standards ensures systematic development of English language skills.

- **Interactive Learning:** Engaging multimedia content and activities promote active participation and improve learning outcomes.
- **Focus on Communication:** Emphasis on speaking and listening activities builds confidence and fluency in real-life situations.
- **Personalized Learning:** Placement tests and progress tracking enable tailored instruction and targeted support.
- **Teacher Empowerment:** TTT program and support resources equip teachers to deliver the curriculum effectively.

INTERACTIVE TEACHER LED e-LEARNING DIGITAL CONTENT

The 3D interactive content should be **aligned with the Madhya Pradesh board,** which shall empower teachers and students with interactive teaching-learning content, fostering a unified and enriched educational experience.

The content for following subjects and classes should be available
- Class 1 - 10: Science, Mathematics and Social Studies
- Class 11 - 12: Physics, Chemistry, Biology and Mathematics

The content should be made available both in English and Hindi. The interactive content should have the following content elements.

1. **Interactive Pre-built Lessons:** Curriculum-aligned Interactive lessons that can be directly used by the teachers for effective and engaging classroom teaching. These standardised prebuilt lessons save teachers significant time and bring us closer to unified teaching.
2. **Labelled 3D Models:** labelled 3D models as learning tools that effectively illustrate and connect key concepts.
3. **3D Immersive Videos:** Utilise immersive videos to provide an engaging and comprehensive learning experience.
4. **Practice Lessons:** This should contain practice lessons featuring 2D and 3D interactive quizzes and more, all based on the selected chapter and topics.
5. **Textbook questions:** Questions should be classified based on varying difficulty levels (Easy, Moderate, and Hard), incorporating Previous Year Questions and essential questions as per the MP board's curriculum. This should empowers teachers to filter question types and difficulty levels for customised assessments.
6. **Images and Illustrations:** Detailed and well-illustrated visual representation of the studied concept.

7. Important & High-weightage Tags: All the topics with high weightage in the exam and important for the upcoming exams should be tagged as "Important".

8. Captivating Visual for Storylines: The content should be designed keeping in mind the compelling and interesting narratives or storylines of the textbook.

9. 3D Models for Better Visualisation: The content should have immersive 3D models which transform complex subjects into engaging and tangible experiences.

10. 3D Animated Videos for Deeper Understanding: The content should consist of 3D immersive videos which make complex subjects easier to grasp by showing them in a visually exciting way.

11. Interactive Flashcard-based Activities: The content should have flashcard-based activities, providing an interactive platform that enhances the memorization of various correlations. Each flashcard should engage learners in actively recalling and reinforcing connections, contributing to a more effective and engaging learning experience.

12. Interactive Quizzes: Questions that should be posed between chapters are reimagined into diverse interactive quiz formats, including drag-and-drop, connecting the bubbles, and correcting the sequence. The objective of this transformation should be two-fold - to elevate the cognitive engagement of learners by requiring thoughtful interactions, and to bolster their confidence for continued learning. The platform should have a question bank with a minimum of 5 lakh questions in English and Hindi, including hints and step-by-step solutions, covering Grades 1 to 12 for Maths, Science and Social Science subjects.

13. Back-of-the-Chapter Questions: The content should have the conventional back-of-the-chapter questions which are transformed into interactive formats, including Drag and Drop, Connecting the Bubbles, Matrix Match Type, Puzzles, and more.

14. Theorem and Derivations: Teachers should be able to provide interactive learning experiences for high-scoring questions that often revolve around derivations in school exams, to improve students' application of the concepts.

15. Class Analytics: Teachers should be able to check class activity details such as Time Spent, Number of Assets Used, Question Attempt Analysis, and Slide-wise Teacher Activity Graph and Details.

16. Online Sync Facility and Dashboard Analytics: Principals and administrators should be able to view analytics reinforcing the commitment to quality education.

17. The content should have followings:
    1. 5000+ prebuilt interactive lessons.
    2. 4000+ 3D Immersive Videos either in English or Hindi.
    3. 12,000+ Labelled 3D Models with Curriculum Tagging
    4. 5,000+ Interactive Quizzes and

5. 8000+ Curriculum aligned 2D Animations and Images

18. The platform should have all the questions with Hint and complete solution from the prescribed text book of MP Board for Maths and Science (for class 6 to 12) and should also have ample questions from other NCERT author books. The questions should have tagging with Concept, Difficulty level and learning outcome as prescribed by NCF.

19. The platform should have search engine covering academic/board based content on 3D Models, 3D Images, 3D Videos, and 3D Simulations from a minimum repository of 30,000 assets.

20. The user should be able to navigate the application in a book like flow i.e. table of chapters and associated topics. Each topic should have multiple 3D learning videos and questions.

21. The application should be able to function with and without internet availability.

22. All the content should be made available in offline mode also.

The Platform and its teaching-learning resources should be user-friendly, allowing teachers to easily navigate through the book's table of contents format at a chapter and topic level. The content should be compatible with the Interactive flat panel in the proposed solution.

3D VIRTUAL LAB SIMULATIONs:

The 3D interactive simulations for science lab experiments aligned with the Madhya Pradesh board shall having the following components for effective learning outcomes delivery.

1. **Aim and Apparatus:** A 3D video should introduce the experiment's aim and essential equipment. This video should also illustrate the experimental setup required to experiment.

2. **Theory:** A 3D video should explain the underlying scientific concepts behind that particular experiment.

3. **Virtual Lab Environment:** The DIY experiment should be a virtual 3D lab simulation that guides students through selecting materials, conducting experiments, and forming conclusions with real-time instructions and observation tools.

4. **Step-by-Step Guide:** These instructions should enhance the learning experience, ensuring the smooth execution of experiments with clear instructions for a seamless virtual experiment experience.

5. **Academic Keywords:** Important terms and phrases in the experiment should be highlighted upon clicking a pop-up with a definition, along with the related video(s) for a deeper understanding of the selected academic keyword should be served.

6. **Molecular Level Visualisation:** 3D molecular visualisation should help in understanding interactions and changes in reactants, thus enhancing clarity and comprehension of how the product(s) is formed.
7. **Interactive Validating Questions:** A gamified approach should be inculcated in conducting experiments with Question-Based Interaction during experiments, enhancing user engagement.
8. **Remedial Actions:** The remedial feedback should give the user insight into how the action performed is wrong without giving a direct answer or action to that step.
9. **Observation Table:** Students should be able to replicate the authentic practice of noting observations in an observation table, mirroring the procedures followed in a physical lab setup.
10. **Lab Manual:** Virtual Lab experiments should offer a detailed lab manual with content organized into various steps or stages of the experiment.
11. **Viva Questions:** This section should contain important questions from the viewpoint of Viva voice. Students should be able to practice these questions to prepare for their school viva
12. **Performance Report:** The evaluation should have questions allowing users to assess their understanding through a user-friendly interface with instant feedback on correct and incorrect answers.
13. **Retake Flexibility:** User should be able to retake the evaluation test multiple times.
14. **Dashboard and Analytics:** The dashboard and analytics section should encompass key metrics such as active users, percentage of completion, time spent, average session duration, and other engagement metrics, providing a comprehensive overview of user interaction and performance.
15. The experiments should be available in both English and Hindi mediums.
16. 300+ curriculum-aligned Virtual Lab Experiments for class 1 to 12. The content should be compatible with the Interactive flat panel in the proposed solution.

Project Management:
- On-ground training workshop shall be conducted to train and guide teachers for adapting these digital tools and hardware as part of their regular curriculum.
- The Training sessions to Teachers and Administrations during initiation of the program shall be provided.
- Complete project management shall be provided for the 3 years duration of the project.
- 2 teachers per classroom shall be trained from the school based on the nomination of teachers from HoI of the School.
- Additionally, continuous support and guidance shall be provided.

- Training shall be provided in following manner:
  - 6 Rounds of training during 1st Year of Warranty Period.
  - 3 Rounds of training during 2nd Year of Warranty Period.
  - 3 Rounds of training during 3rd Year of Warranty Period.

Impact Assessment:

The selected bidder has to carry out the impact assessment (Baseline, Midline and Endline survey) for all school with the help of the technology driven digital Assessment devices. The technology driven digital Assessment devices should have the following technical features:

Receiver	• 2.4GHz digital two-way RF technology, 32 RF channels
	• Should have common channel for all receivers as set up frequency for configuration
	• Should be able to change operating channel in real-time from the application
	• Port: USB port
	• Should be integrated with Virtual Classroom application
	• Onsite Warranty: 3 Years
Transmitter Devices – 40 Nos.	• Button to press 0-10, ABCDEF, true/false, like/dislike and hand-raise question
	• Text on the tools should be inscribed in English languages
	• Min 11 buttons with Functional Test report*#
	• Three modes configurable–RF receiver, Bluetooth and Local Storage
	• 2.4GHz two-way RF with resting and operating channel managed by application
	• Should be able to send data over Bluetooth without receiver
	• Store capacity of responses of 500 questions and auto-sync on Bluetooth/RF
	• LED status: green and red with various status indication
	• ID Address mapping from Application for real-time Roll number allocation
	• Firmware can be upgraded over the air

	• Reliable communication with Acknowledgment
	• Transmission distance: around 50 meters*#
	• Transmission angle:360 degree
	• Vibration test as per IS-9000*#
	• Drop Test as per IS9000*#
	• Operable environment (-10°Cto55°C) as perIS-9000*#
	• Color coded (Red, Green, Yellow, Blue)
	• Battery: AAA
	• Transmitting Distance of 10-50 meters controllable from application real-time
	• Onsite Warranty: 3 Years
Software Features	• The dynamic mapping of student devices with the student roll numbers should be enabled during sessions, and this student unique ids/roll number should be registered to the student in computer-based database.
	• Teacher should have the ability to poll the class on their understanding of concept being taught by asking true or false questions, single choice/multiple choice questions, and yes or no questions.
	• The Analytics System should support concurrent gathering and analysis of the data from all Classrooms for generating immediate response to teacher for decision making.
	• The software should have the required question bank for carrying out the assessment of learning level of the students of class 1 to 12.
	• Teacher should be able to see Real-time student participation during the session and based on 'hand raise' indicators from students using the assessment devices to indicate a hard spot, they should be able to identify the area of difficulty in the lesson through an AI (Artificial Intelligence) supported mechanism. AI should be able to provide customized database feedback.
	• The schools should also have access to the individual record of each and every student's answer in Teacher Dashboard section of

	the application which should help in monitoring class progress and understanding.
	• Comprehensive dashboards should be made available for decision makers of the department at multiple levels. Performance reports are to be made available at student /school /district /state levels. The analytics system should derive reports with different aspects of student learning performance such as in which subjects and topics an individual student is lagging behind, comparison of results between schools, conceptual understanding of students in particular district, etc.
	The student analytics system should integrate gauging different aspects of cognitive rigor of students such as Memory, Understanding, Knowledge Application, and HOTS (Higher Order Thinking Skills). The application should derive various details of student performance such as level of knowledge gained, speed of answering, difficulty level mastered, and analytical skills. The performance report should be based on weighted average (AI driven) of at least these four parameters: • Cognitive Rigor Objectives mainly (Memory, Understanding, Application and Higher Order Thinking Skills) • Difficulty level of the question, • Time taken to solve (response time) and • Accuracy (to avoid random selection). Analysis should be on the Cumulative weighted score and not on just score taken in test.

Scope of Impact Assessment:

- The baseline survey shall be carry out at the start of the project to measure the learning levels of the students.

- The Midline survey shall be carry out at the mid of the project to measure the learning levels of the students.

- The endline survey shall be carry out at the end of the project to measure the learning levels of the students.

- Bidder should provide 40 Student Digital Assessment devices and a receiver per school for assessing student involvement, performance and for carrying out the impact assessment.

- The dynamic mapping of student devices with the student roll numbers should be enabled during sessions, and this student unique ids/roll number should be registered to the student in computer-based database.

- The digital Assessment devices can be used any time during the 3 years of the project to evaluate the learning levels of the students.

- Bidder shall submit the individual detailed report for Baseline, midline and endline respectively.

DETAILS OF THE SOLAR CAPACITY:

S.No.	Plant Capacity (KW)	Inverter Capacity(KVA)	Inverter Volt	No. Of Battery
1	20	10 +10	120V + 120V	20
2	7.5	7.5	96V	8
3	7.5	7.5	96V	8
4	25	10+10+5	120V + 120V +48V	25
5	20	10+10	120V + 120V	20
6	10	10	120V	10
7	5	5	48V	4
8	2	2	24V	2
9	3	3	36V	3
10	5	5	48V	4
11	3.5	3.5	48V	4
12	3.5	3.5	48V	4
13	3	3	36V	3
14	7.5	7.5	96V	8
15	20	10+10	120V +120V	20
16	7.5	7.5	96V	8
17	10	10	96V	8
18	10	10	120V	10
19	5	5	48V	4

SOLAR MODULES:

INVERTERS:

Parameters	Specification
Capacity(kVA)	160 KVA
Nominal Battery Voltage (Vdc)	As per Inverter configuration from as per sheets.
Output Waveform	Sinewave
SOLAR PHOTOVOLTAIC INPUT	
Type of Charger	MPPT
Maximum PV power	160 KW
Solar Input Voltage (Voc)	As per Inverter configuration from as per sheets
Solar Input Voltage range (Vmp)	As per Inverter configuration from as per sheets
No. of MPPT Channels	As per Inverter configuration from as per sheets
GRID INPUT	
Input Supply Phase	Single Phase
Input Voltage Mains mode (Regulated UPS Mode)	As per Inverter configuration from as per sheets
Mains mode (Unregulated UPS Mode)	As per Inverter configuration from as per sheets
BATTERY	
No. of Batteries	As per Inverter configuration from as per sheets
Battery Charging Current from Solar	As per Inverter configuration from as per sheets
Battery Charging Current from Grid	As per Inverter configuration from as per sheets
Charging Stages	Boost, Absorption, Float
Type of Battery	Tubular
INVERTER	
Switching Element	As per Inverter configuration from as per sheets

Control	As per Inverter configuration from as per sheets
Nominal Output Voltage (V)	230V + 5%
Output Supply Phase	1 Phase 2 Wire
Nominal Frequency	50 Hz
Nominal Output Current	As per Inverter configuration from as per sheets
Output Voltage Distortion(THD)	<= 5%
SYSTEM DATA	
Transfer Time	<20 mS
Protection	Overload Mains Load, Overload on Battery, Reverse Polarity, Short Circuit, Over Temperature, Low Battery
Display Parameters	As per Inverter configuration from as per sheets
indications	As per Inverter configuration from as per sheets
ENVIRONMENT	
IP Protection Level	IP20
Operating Temperature	0-45 degree C
Storage Temperature	0-50 degree C
Cooling	Forced Air Cooling
Max. Relative Humidity @ 25 'C	Up to 95% (non-condensing)
GENERAL	
Status indications	As per Inverter configuration using LED's
System parameters	All system parameters shall be displayed on LCD display such as battery voltage, output(load) voltage, load current etc
Output connection	To, out comer MCB/MCCB provided in inverter cabinet for load isolation

STRUCTURE FOR PV MODULE

The array structure is so designed that it will occupy minimum space without sacrificing the output from SPV panels.

- The structure shall be designed to allow easy replacement of any module.
- The structure shall be made of HDG Mild Steel (suitable galvanized thickness) of suitable size. The detail design drawing will be submitted after approval of this document and final site measurement.

- The foundation for the mounting structure shall be made based on site condition in such a way so that it can with stand wind speed up to 150 kmph.
- The module structure will be designed such a way that natural air cooling will be happening to get the maximum efficiency from the module.

Parameters	Specifications
Type	Roof Top Fixed Tilt/ Ground Top as per the requirement of the site
Tracking	as per site condition
Materials	MS - Galvanized
Wind withstands	150 KM/hrs.
Foundation	PCC 1:2:4
Ground Clearance	As per site requirement

ACDB:

This connects the output of the Inverter to the local grid. This panel is fitted with MCB/ MCCBS, bus bars/ connectors etc. During installation as well maintenance this facilitates isolations of parts. This also provides protection against overloading and short circuit in the system.

Parameters	Description
Material	Thermoplastic/MS Powder Coated
Protection Class	IP54/Indoor
Bus Bar	As per rated current
SPD	Applicable
Glands & Terminal	As per inverter required.

ARRAY JUNCTION BOXES:

- Junction boxes shall used for bundling module strings and safely routed to Inverters.
- The array junction box should be dust, vermin & water proof and made of FRP/ABS plastic.
- The junction boxes should have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming &outgoing cables.
- All junction boxes will be outdoor type and will be of IP65 grade.
- Junction boxes should be provided with class-II Surge Protective Device, terminals wiring of required sizes and number.

Parameters	Description
Type	DCDB
Make	Reputed IEC standard
Monitoring parameters	As per inverter required.
Other details	NA

COPPER CABLES (AC & DC):

Cables will be of following characteristics.

- Temperature range: -15°C to +70°C
- Voltage rating :1100V
- Conductors are electrolytic grade bright annealed copper which provides maximum conductivity.
- Conductors are insulated with specially formulated PVC compound having high insulation resistance, Di-electric, strength, high critical oxygen index and high temperature index.
- The separate insulated cores are to be assembled to form multi core cable. Cables are provided with exclusively formulated PVC compound for sheathing.
- Flame retardant.
- Flexible / armoured type as required at site condition
- DC cables Fulfils EN-IEC 60332-1
- All AC side cables will conform to IS 694
- Sizes of DC and AC cabling will be made to minimize the loss in the system

Parameters	Specification
DC Cable Type	DC Cable, Halogen free, UV resistant, Outdoor application
DC Cable Standard	IEC 60228
DC Cable Size	4sq mm single core flexible
AC Cable	6/10/16 sqmm 2core as per required.
AC Cable Type	PVC
AC Cable Standard	IS 694

SOLAR BATTERY:

- Type : C- 10 tubular battery

- Capacity : 150 Ah.

- Voltage: 12 Volts

- Warranty: 3 Years

Three Steps Protection:

Grounding/ Earthling: Three step protection starts with Stable, Low resistance/low impedance grounding system to bond all electrically conductive surface together. The mechanical frame structure of the PV yard, Inverters, and other control equipment will be grounded properly using existing Earth Pits available at site or new earth pit will be constructed.

b. The Second step of protection comes from a properly installed surge protective device or SPD (Surge Protective Device) which reduces the magnitude of random high energy, short duration electrical power anomalies. These occurrence are typically caused by atmospheric phenomena (such as lightning strike) utility switching, inductive load switching and internally generated over voltages.

SPDs are provided in Junction boxes & grid Interfacing panels to safe guard all the devices in the solar system.

Finally a well-designed lightning protection system will be installed to safeguard total facilities from direct lightning strikes. In this case we are not providing any external lighting since sufficient protection available in the site.

AMC FOR SOLAR PLANT: Solar AMC services include a Solar plant inspection to find out the problems and their causes, and the use of standard preventive measures to prevent future issues to ensure the system functions efficiently for many years. This service is provided at a required time throughout 3 year.

Water Sprinkle System for Solar Module Cleaning should be installed for cleaning of the modules. Water sprinkle system shall be installed if water tank available on Rooftop. In case Water tank is not available, this system shall not be provided.

SOLUTION 10:

Bill of Material:

S.No.	Name of the Item	Qty
1.	75" Interactive panel with OPS	16
2.	Power Backup	16

TECHNICAL SPECIFICATIONs:

1. ## Interactive Flat Panel:

Parameter	Specifications
Display Panel Diagonal size	75 Inches
Resolution	3840 x 2160 (4K or Higher)
Display Colour	1.07 Billion or Higher
Brightness	400 cd/m² or better
Viewing Angle	±178 ° or better viewing angle
Response Time	Not more than 8 ms
Aspect Ratio	16:9
Display Type	LCD
Backlight Technology	LED
Lifetime	50,000 hours or more
Touch Interactive Display - Audio System	
Speakers	2 x 18 Watts or Higher
Touch Interactive Display - Touch Technology	
Deployment of Touch Technology	Advanced Infrared
Thickness of the touch glass	4mm Toughened Glass with 9H Toughness or better
Surface technology	Anti-Glare
Touch accuracy	1mm or better
Touch Points in Windows	Must have a touch capability of minimum 20 points
Touch Interactive Display - Connectivity Ports	
Front Interface	USB2.0*2
Power Supply Voltage in AC (Volts)	100-240
Maximum Power consumption (Watts)	340
Operating Temperature Range (degree Celsius)	-10 to 50
Operating Humidity(%) RH	10 % to 75%
Rear Interface	USB 3.0 : 1 USB 2.0 : 1, TOUCH : 1, HDMI IN : 2, VGA : 1, AUDIO IN : 1, RS232 : 1, RJ45 IN : 1
Smart System(Android)	
CPU	8 core A55 or better
GPU	Quad-core MaliG52 or better

Android version	Android 12.0 or Higher (With Playstore)
Built-in Software:	File manager, Screen mirroring, Chrome, google play store, You tube, WPS, Welcome Page, Settings, Calculator, User Manual, Float tool, Side tool bar, Note, Vote, Screen recording, Wireless Content sharing, text recognition. 4 Application split screen, screen recording, screen capture, Wireless File sharing from mobile phones.
White Board Feature	Menu bar includes new whiteboard, storage, sharing, closing, and setting functions, Page management, Painting brush-preset 9 monocolors and 2 gradient, Thickness: preset 6 brush sizes, support ordinary brush, marker, pen three brush styles, as well as text recognition brush and graphics recognition brush two intelligent brush, eraser, Table, Timer, Voting, Withdrawal and redo, Single point / multi point, Mini whiteboard: QR code: Scan the QR code in the web link for to use the mobile terminal to scan the annotation content (picture format).
Inbuilt Wi Fi	Dual WIFI (5G & 2.4G) 802.11ac/b/g/n/a Hotspot or better
Bluetooth	BT5.0 or better
RAM	4 GB or higher
Number of electronic pen or stylus to be supplied with the board (Nos)	2 or more
Installation Kit to be supplied along with the Panel	Yes
All connecting Cables and accessories to be supplied along with the Panel	Yes
ROM	32 GB or Higher
Embedded Software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected

	Classroom accounts on the IFP by the following modes: QR code scan.
	Teachers should be able to create and customize lesson plans using the software.
	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms. • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results • Video Summariser: Convert classroom videos into clear, concise text summaries.

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	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Software should have Two - Way Live Conferencing Feature with education specific features with at least 300 minutes per month per teacher for a classroom size of upto 100 students. Live conferencing feature should also enable recording which gets directly uploaded to cloud.
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
Certification	BIS (Indian),UL, CE, FCC & ROHS certification.
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
Warranty	3 Years

OPS PC:

OPS Parameter	OPS Specifications
Processor	It should have Intel i5 processor with 12th Generation or higher with Licensed Windows 11 professional OS.
RAM	It should have RAM of 8GB

ROM / Storage memory	It should have memory storage of 1TB SSD or higher
Interface	It should have USB2.0 x 2 ports,
	USB3.0x 4 ports,
	DP outx1 port,
	HDMI out x1 port.
Network	It should have RJ45 LAN port x 1
Wi-Fi	It should have inbuilt Wi-Fi with two antennas.
Bluetooth	It should have Bluetooth version 4.0 or above
Audio ports	It should have 3.5mm with Mic/Line-inx1 port, Line-out 3.5mmx 1 port.

1 KVA Offline UPS with 15 mins Back up:

S. No.	Specification
1.	Single Phase Input & Single Phase Output
2.	Frequency: 50 Hz
3.	Input Voltage: 160 V – 260 V, 50 Hz +/- 3 Hz
4.	Output: 220 V +-5%, 50 Hz +/- 3 Hz
5.	Power Factor: 0.6 or more
6.	Battery Type: Sealed Maintenance Free (SMF)

SOLUTION 11:

Bill of Material:

S.No.	Name of the Item	Qty
1.	65" Interactive panel with OPS	2
2.	Protective casing for Panel	2
3.	Content with LMS	2
4.	Power Backup	2
5.	Teacher's training	2

TECHNICAL SPECIFICATIONs:

Interactive Flat Panel with OPS PC:

	Resolution	3840(H) ×2160 (V)
	Diagonal size	65"
	Display Color	1.07Billon Colors
	Brightness	400cd/m2*

	View Angle	R/L 178 (Min.), U/D 178 (Min.)
Sound/speaker feature	speaker output	15 W × 2 or higher
Inputs & Outputs	HDMI Input	2
	Multi-Media USB	USB2.0: * 2 and 1* USB 3.0 or more
	RS232	1
	RJ-45	1
	Touch input	1
	Bluetooth	BT 5.0
	WIFI	Dual WIFI (5G & 2.4G)802.11ac/b/g/n/a,Hotspot or better
	VGA in	1
Touch screen	Cover Glass	3mm Toughened Glass with 9H Toughness or better
	Touch Accuracy	1mm
	Annotation Over Any Source	Yes
	Response Time	Not more than 8 ms
	Pen and Touch Differentiation	Yes
	Pens Included	2 Stylus
Android	OS Version	ANDROID 11.0 or better
	Flash	32 GB EMM
	RAM	4 GB
	Touch	20 points
	Write	20 points
Wall Mount		VESA Standard
Power		AC:100～240V 60/50HZ
Typical Power Watt		≤230W
Power Saving or Sleep Mode		≤0.5W
Accessories		User manual, remote control, power cable, touch cables, HDMI cable, touch pens (2 stylus, 1 extendable)
Warranty		3 Years
Product Quality Certification		BIS, CE, FCC and RoHS
Embedded software		Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The

	Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.
	Teachers should be able to create and customize lesson plans using the software.
	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms. • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results Video Summariser: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher

	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
OPS PC	• Intel i5 12th Gen or AMD R5 or above. • Minimum 8GB RAM expandable upto 32 GB. • SSD - 512 GB • Window 10 or higher
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.

Power Backup:
- 1 KVA online UPS
- 30 minutes battery back-up on product load single phase input and single-phase output.
- Input Voltage: 200V~250V AC, Frequency: 50 Hz
- Output Voltage: 220V, Frequency: 50Hz
- Battery Stand
- Protection: Discharge, Overcharge and Overload Protection
- Product Quality Certifications: ISO 9001, ISO14001, ISO 45001
- Warranty: 3 Years

Protective Casing for Interactive Panel:
- Outer Length of Frame: As per the dimension of panel
- Outer width of Frame: As per the dimension of panel
- Thickness of Frame (Depth): 210 mm

- Frame is made of Aluminium with Bronze color anodizing.
- 4 numbers boards are fitted in size of 890 mm x 1205mm (2 boards are fixed and 2 boards are movable with lock & key. Base material with 14 mm thickness.
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is color coated/ GI sheet with thickness of 0.2-0.3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

Content with LMS:
- **Readymade lesson plan structure:** Teacher can access readymade lesson plan structure, within the LMS, mapped to Board-Class-Subject-Topic of the current curriculum
- **Customizable lesson plan structure:** The above mentioned lesson plan structures are **customizable (add, remove, change name and order of lessons)** by the users themselves within the LMS application as and when needed as per pedagogical needs from time to time
- **Assessment Creation: LMS Application can** allow teachers to create assessments in class using classroom device (Interactive Display Panel) or any other android-based device. The LMS can have inbuilt capability to allow teachers to create Assessments by importing questions through a pre-loaded **question bank** repository of minimum **10L+ questions for K12, Competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.** While using the pre-loaded question bank, teachers can also have the option to make their own customizations to their own assessments such as add/remove questions. In addition, The LMS Application can also allow teachers to create Assessments by typing or uploading questions in user friendly manner
- **Assessment Delivery:** LMS Application can have flexibility to allow multiple modes of assessment - 1) By displaying questions one-by-one on the LMS Application itself, 2) By printing and distributing offline question papers and 3) Integrating with any student device (android based) using the same LMS (with student Login) which may be available with student in-class or at-home.
- **Self-Paced Practice Question banks for students for curricular and competitive exams:** Through the same LMS Application, Students can be able to login individually with their login-IDs and should be able to access the Classroom study material / Content and self-practice Question banks (for all grades and subjects) to increase their learning levels and performance. Students can be able to open any topic of their choice and access the practice tests. Practice tests can provide

students with personalized journeys to learn any topic or subject for curricular as well as competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.

- **Digital Community for State wide Teacher Collaboration:** The teachers can have access to an inbuilt digital community of the Teachers wherein they can access digital content (Homework and Question banks) created by other teachers. On a voluntary basis, if the teachers wish to contribute to the digital community, the LMS Application should allow the teachers to do so from any Android-based smart device.

- **User Interface availability in English:** The LMS Application User Interface for teachers and students can be available in English / regional language. The User can be able to change the language setting easily as per their need.

- **Digital Content Delivery:** Teachers can be able to upload videos, documents, questions to the LMS Application using any android device anytime as per their convenience and be able to use it in the class through the classroom device. The LMS Application should also support using Youtube videos as part of the lesson plans.

- **Remedial Virtual Live Classes:** Teachers can conduct remedial virtual live classes with an in-built Live Class feature within the LMS application itself. These live classes shall have education-specific features such as live poll, automated attendance, whiteboard, screen and document sharing with annotations, Automated Class recordings and classroom controls such as student chat on/off, audio on/off, video on/off. Live Class platform is in-built within the application and supports at least 200 users in 2-way communication mode and at least 500 users in webinar mode.

- **Recording, Storage and Sharing:** Teachers can be able to record the live classes and access them in future from within the LMS Application itself only. The LMS App shall allow the teachers to share the recordings with students for easy access for revision as and when they find it appropriate to share.

- **Student Attendance Reporting:** Teachers can be able to mark student attendance in-class using the LMS Application via Classroom device or any android based device. The attendance reports shall be accessible, after the attendance is marked, to all stakeholders (Department, Admin, Teachers) online from anywhere online with an option to download and print for record keeping purposes. The LMS Application shall always maintain the attendance history of each student.

- **Communication:** Teachers should be able to Chat with Students individually and in groups as per requirement. Teachers should be able to manage Chat preferences and permissions of Student Chat

- **Multiple Login Options:** The LMS Application should provide secure multiple login options and at least include Login via phone number and via email with password and One-time-password.
- **Gamification:** Teachers can assign Student Performance and Behaviour Motivation Badges and Recognitions. The student should be able to see these Badges and Recognitions through their individual login ID on the LMS Application.
- **Setup or User Registration portal:** The LMS Platform should have a facility that enables the department / administrators to register users (Teachers and Students) at the start of the project, and also add/remove/edit/manage student database include personal information, demographic, health records, parent/guardian details and contact details, past academic details, etc.
- **Help Section including How-to-use Video Tutorials for Users :** The User can be provided with video-based how-to-use tutorial videos for all major features of the LMS Application. These tutorial videos should be easy to understand as well as easily accessible from within the LMS Application itself. The Help section of the App should also allow for users to contact the centralized customer support via email for support as well as for sharing feedback.

Teacher's Training
- Basic IT usage.
- Onsite Training to be provided at end client location (or as per the requirement of the end client).
- Usage of Multimedia Content.
- Classroom Management and soft skills.
- Deployment of the trainer
- Need Analysis
- Content Development for training
- Organizing training sessions

SOLUTION 12:
Bill of Material:

S.No.	Name of the Item	Qty
1.	75" Interactive panel with OPS	17
2.	Protective casing for Panel	17

TECHNICAL SPECIFICATIONs:
1. **Interactive Flat Panel:**

Parameter	Specifications
Display Panel Diagonal size	75 Inches

Resolution	3840 x 2160 (4K or Higher)
Display Colour	1.07 Billion or Higher
Brightness	400 cd/m² or better
Viewing Angle	±178 ° or better viewing angle
Response Time	Not more than 8 ms
Aspect Ratio	16:9
Display Type	LCD
Backlight Technology	LED
Lifetime	50,000 hours or more
Touch Interactive Display - Audio System	
Speakers	2 x 18 Watts or Higher
Touch Interactive Display - Touch Technology	
Deployment of Touch Technology	Advanced Infrared
Thickness of the touch glass	4mm Toughened Glass with 9H Toughness or better
Surface technology	Anti-Glare
Touch accuracy	1mm or better
Touch Points in Windows	Must have a touch capability of minimum 20 points
Touch Interactive Display - Connectivity Ports	
Front Interface	USB2.0*2
Power Supply Voltage in AC (Volts)	100-240
Maximum Power consumption (Watts)	340
Operating Temperature Range (degree celsius)	-10 to 50
Operating Humidity (%) RH	10 % to 75%
Rear Interface	USB 3.0 : 1 USB 2.0 : 1, TOUCH : 1, HDMI IN : 2, VGA : 1, AUDIO IN : 1, RS232 : 1, RJ45 IN : 1
Smart System(Android)	
CPU	8 core A55 or better
GPU	Quad-core MaliG52 or better
Android version	Android 12.0 or Higher (With Playstore)
Built-in Software:	File manager, Screen mirroring, Chrome, google play store, You tube, WPS, Welcome Page, Settings, Calculator, User Manual, Float tool, Side tool bar, Note, Vote, Screen recording, Wireless Content sharing, text recognition. 4 Application split screen, screen recording, screen capture, Wireless File sharing from mobile phones.

White Board Feature	Menu bar includes new whiteboard, storage, sharing, closing, and setting functions, Page management, Painting brush-preset 9 monocolours and 2 gradient, Thickness: preset 6 brush sizes, support ordinary brush, marker, pen three brush styles, as well as text recognition brush and graphics recognition brush two intelligent brush, eraser, Table, Timer, Voting, Withdrawal and redo, Single point / multi point, Mini whiteboard: QR code: Scan the QR code in the web link for to use the mobile terminal to scan the annotation content (picture format).
Inbuilt Wi Fi	Dual WIFI (5G & 2.4G) 802.11ac/b/g/n/a Hotspot or better
Bluetooth	BT5.0 or better
RAM	4 GB or higher
Number of electronic pen or stylus to be supplied with the board (Nos)	2 or more
Installation Kit to be supplied along with the Panel	Yes
All connecting Cables and accessories to be supplied along with the Panel	Yes
ROM	32 GB or Higher
Embedded Software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.
	Teachers should be able to create and customize lesson plans using the software.
	Teachers should be able to create assessments through below modes using Connected Classroom app. • In-built pre-loaded question bank. • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the

	application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)
	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms. • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results • Video Summariser: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Software should have Two - Way Live Conferencing Feature with education specific features with at least 300 minutes per month per teacher for a classroom size of upto 100 students. Live conferencing feature should also enable recording which gets directly uploaded to cloud.
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security.

	The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
Certification	BIS (Indian), UL, CE, FCC & ROHS certification.
Warranty	3 Years
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
Teacher' Training	1 Day onsite

OPS PC:

OPS Parameter	OPS Specifications
Processor	It should have Intel i5 processor with 12th Generation or higher with Licensed Windows 11 professional OS.
RAM	It should have RAM of 8GB
ROM / Storage memory	It should have memory storage of 1TB SSD or higher
Interface	It should have USB2.0 x 2 ports,
	USB3.0x 4 ports,
	DP outx1 port,
	HDMI out x1 port.
Network	It should have RJ45 LAN port x 1
Wi-Fi	It should have inbuilt Wi-Fi with two antennas.
Bluetooth	It should have Bluetooth version 4.0 or above
Audio ports	It should have 3.5mm with Mic/Line-inx1 port, Line-out 3.5mmx 1 port.

Protective Casing for Interactive Panel:
- Outer Length of Frame: As per the dimension of panel
- Outer width of Frame: As per the dimension of panel
- Thickness of Frame (Depth): 210 mm
- Frame is made of Aluminium with Bronze color anodizing.

- 4 numbers boards are fitted in size of 890 mm x 1205mm (2 boards are fixed and 2 boards are movable with lock & key. Base material with 14 mm thickness.
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is color coated/ GI sheet with thickness of 0.2-0.3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

Solution 13:

Bill of Material:

S.No.	Name of the Item	Qty
1	65" Interactive panel with OPS	28
2	Protective casing for Panel	28
3	Content with LMS	28
4	Power Backup	28
5	Teacher's training (5 Teachers per Classroom)	28

TECHNICAL SPECIFICATIONs

1. Interactive Flat Panel:

Screen Size	65"
Display Resolution	True 4K UHD / 3840X2160@60Hz
Processor	Octa core (processor > 2.0 GHz)
RAM	8 GB
ROM	128 GB
Android Version	Android 13
Inbuilt Camera	Yes, 4K (48MP)
Inbuilt Mic	8 Array Omni Directional
Speaker	Inbuilt Speakers (40 Watt | 20W X 2| 8Ω)
Inbuilt NFC Card Reader	Yes
WiFi	Dual Band (2.4GHz & 5GHz)
Bluetooth	2.1+EDR/4.2/5.2
Hardness	4mm Toughened Glass MoHS Level 7 hardness
Brightness	450 nits
Visual Ratio	16:09

Display Colours	10 Bit / 1.07 Billion
Contrast Ratio	Typ: 1200:1
Viewing angle	178 degrees
Technology	LED Back Lit (DLED)
Response time	<5 ms
Touch Resolution	32767x32767
Accuracy	± 0.1 mm
Touch Object Size	≧1.6 mm
Touch	20 Point IR Multi-Touch (Android) / 40 Point IR Multi-Touch (Windows)
Type C	x 2
HDMI In	x 2
VGA	x 1
USB 2.0	x 1
USB 3.0	x 4
Touch USB	x 3
LAN (RJ45) In	x 1
LAN (RJ45) Out	x 1
DP In Port	x 1
HDMI Out	x 1
MIC In	x 1
Audio Out	x 1
Audio In	x 1
Working Life	50,000 Hours
Power Consumption (w/o OPS)	<300W
Operating Voltage Range	100 V ~ 240 V/AC, 50/60 Hz
Operating Temperature Range	0°C ~ 40°C
Storage Temperature Range	-10°C ~ 60°C
Humidity Range	Working Humidity: 10% to 80% RH Non-Condensing, Storage humidity: 5% to 90%
Native Support for Airplay & Transcreen	Yes
Multi-Device Casting	Upto 9 devices simultaneously
Included Accessories	Remote, Power Cable, USB touch Cable, HDMI Cable (1.5M), User Manual, Wall Mount Set, 2 Stylus
Certifications	BIS, UL, CE, FCC, ROHS
Embedded software	Embedded Software (Inbuilt Integrated Education Software) should have Interactive

	White Board with Connected Classroom app. The Connected Classroom app should be accessible to Teachers and Students via Android and iOS applications on multiple devices for remote / hybrid teaching and learning. Teachers should be able to login to their respective Connected Classroom accounts on the IFP by the following modes: QR code scan.
	Teachers should be able to create and customize lesson plans using the software.
	Teachers should be able to create assessments through below modes using Connected Classroom app • In-built pre-loaded question banks • Typing and uploading their own questions Following question types supported: MCQ, Subjective
	Study Material: Teachers should be able to upload videos, YouTube videos, documents, images to the application from their device and be able to use it in the class through the Connected Classroom app.
	Teachers should be able to create and assign Homework and Study Material to the students. Students should be able to access the Homework and Study material shared by the teachers via Connected Classroom App
	Reports: Detailed reports for Attendance, Assessments, Study Material, should be available
	White Board should have auto-save option to cloud for saving content taught in class and sharing with students for access through their application (Cloud storage of 5 GB to be provided per teacher)

	White Board software should have smart tools – Simulations, Graphs, Calculator, Dictionary, Interactive Periodic Table.
	Embedded software should have in-built Generative AI capability to search and import filtered content relevant to Class and Subject. Software should be able to: • Create Lesson Plans: Create Lesson Plans for diverse subjects and classrooms. • Generate Assessments: Generate tailored classroom assessments & in-class quizzes. • Safe Search: Ensure age-appropriate, and academic focused results Video Summariser: Convert classroom videos into clear, concise text summaries.
	Smart Notes: Teachers should be able to generate summary of lecture and through smart notes feature using content of the White Board pages created by the teacher
	Administrators should be able to access to view the whiteboard saved by the teachers and monitor the usage via Admin reports
OEM Criteria	The OEM of the IFP and the Embedded Software should be same IFP OEM must own the complete IP and Source code of the Embedded Software. It must be developed and hosted on server based in India for user's data privacy and security. The Embedded Software should be available on Play Store for teacher and student access. The Application should have at least 1 Crore downloads on the Google Play Store. OEM should submit an undertaking to confirm above points along with Google Play Store download link and screenshot showcasing no. of downloads.
	Point-wise compliance for all technical specifications to be submitted on OEM letterhead. If required, the OEM will be asked

	to demonstrate the features as per the compliance. Any deviation may lead to technical disqualification and potential blacklisting.
High Adhesive Dome/Chrome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.

OPS PC

Parameters	Specifications
CPU	Intel Tiger Lake Mobile Processor Intel Core i5 12th Generation
Chipset	SoC
Graphics	Intel Iris Xe Graphics
Multiple Display	Supports Dual Display
Display Interface	1 x HDMI1.4 (4K30Hz) 1 x 80 PIN (HDMI2.0 4K60Hz output + DP1.2 4K60Hz output)
Memory	16 GB Dual Channel SO-DIMM DDR4-3200MHz Upto 32GB
Storage	1 TB SSD 1 x M.2 2280 size for NVMe/ SATA SSD
Ethernet	1 x Realtek 8111H 1000M Ethernet RJ45 Port
Wireless	1 x M.2 2230 slot for WIFI_BT Module
I/O Ports	1 x HDMI1.4, 2 x USB3.1, 1x USB2.0, 1 x Type-C(USB3.1), 1 x RJ451 x MIC IN & 1 x Line-out Connector 2 x Wi-Fi/BT Antenna
OPS Interface	1 x 2.5/5.5 DC IN JACK, 1 x HDMI2.01 x 4K60Hz output, 2 x USB2.01 x USB3.0, 1 x TTL Other Control Signals
Power Inputs	12 - 19V DC IN, 2.5/5.5 DC Jack & JAE 80 pin DC IN
Dimensions	119(L) x 180(W) x 30(H) mm
Operating Temperature	0 to 40C
Storage Temperature	20 to 70C
Operating Humidity	10% - 90% non-Condensing
Operating System Support	Windows 11/Windows IoT
Warranty	3 years on site

Content with LMS:

- **Readymade lesson plan structure:** Teacher can access readymade lesson plan structure, within the LMS, mapped to Board-Class-Subject-Topic of the current curriculum
- **Customizable lesson plan structure:** The above mentioned lesson plan structures are **customizable (add, remove, change name and order of lessons)** by the users themselves within the LMS application as and when needed as per pedagogical needs from time to time
- **Assessment Creation: LMS Application can** allow teachers to create assessments in class using classroom device (Interactive Display Panel) or any other android-based device. The LMS can have inbuilt capability to allow teachers to create Assessments by importing questions through a pre-loaded **question bank** repository of minimum **10L+ questions for K12, Competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.** While using the pre-loaded question bank, teachers can also have the option to make their own customizations to their own assessments such as add/remove questions. In addition, The LMS Application can also allow teachers to create Assessments by typing or uploading questions in user friendly manner
- **Assessment Delivery:** LMS Application can have flexibility to allow multiple modes of assessment - 1) By displaying questions one-by-one on the LMS Application itself, 2) By printing and distributing offline question papers and 3) Integrating with any student device (android based) using the same LMS (with student Login) which may be available with student in-class or at-home.
- **Self-Paced Practice Question banks for students for curricular and competitive exams:** Through the same LMS Application, Students can be able to login individually with their login-IDs and should be able to access the Classroom study material / Content and self-practice Question banks (for all grades and subjects) to increase their learning levels and performance. Students can be able to open any topic of their choice and access the practice tests. Practice tests can provide students with personalized journeys to learn any topic or subject for curricular as well as competitive exams like JEE, NEET, NDA, CA, NTSE, RRB, etc.
- **Digital Community for State wide Teacher Collaboration:** The teachers can have access to an inbuilt digital community of the Teachers wherein they can access digital content (Homework and Question banks) created by other teachers. On a voluntary basis, if the teachers wish to contribute to the digital community, the LMS Application should allow the teachers to do so from any Android-based smart device.
- **User Interface availability in English:** The LMS Application User Interface for teachers and students can be available in English / regional language. The User can be able to change the language setting easily as per their need.

- **Digital Content Delivery:** Teachers can be able to upload videos, documents, questions to the LMS Application using any android device anytime as per their convenience and be able to use it in the class through the classroom device. The LMS Application should also support using Youtube videos as part of the lesson plans.
- **Remedial Virtual Live Classes:** Teachers can conduct remedial virtual live classes with an in-built Live Class feature within the LMS application itself. These live classes shall have education-specific features such as live poll, automated attendance, whiteboard, screen and document sharing with annotations, Automated Class recordings and classroom controls such as student chat on/off, audio on/off, video on/off. Live Class platform is in-built within the application and supports at least 200 users in 2-way communication mode and at least 500 users in webinar mode.
- **Recording, Storage and Sharing:** Teachers can be able to record the live classes and access them in future from within the LMS Application itself only. The LMS App shall allow the teachers to share the recordings with students for easy access for revision as and when they find it appropriate to share.
- **Student Attendance Reporting:** Teachers can be able to mark student attendance in-class using the LMS Application via Classroom device or any android based device. The attendance reports shall be accessible, after the attendance is marked, to all stakeholders (Department, Admin, Teachers) online from anywhere online with an option to download and print for record keeping purposes. The LMS Application shall always maintain the attendance history of each student.
- **Communication:** Teachers should be able to Chat with Students individually and in groups as per requirement. Teachers should be able to manage Chat preferences and permissions of Student Chat
- **Multiple Login Options:** The LMS Application should provide secure multiple login options and at least include Login via phone number and via email with password and One-time-password.
- **Gamification:** Teachers can assign Student Performance and Behaviour Motivation Badges and Recognitions. The student should be able to see these Badges and Recognitions through their individual login ID on the LMS Application.
- **Setup or User Registration portal:** The LMS Platform should have a facility that enables the department / administrators to register users (Teachers and Students) at the start of the project, and also add/remove/edit/manage student database include personal information, demographic, health records, parent/guardian details and contact details, past academic details, etc.

- **Help Section including How-to-use Video Tutorials for Users :** The User can be provided with video-based how-to-use tutorial videos for all major features of the LMS Application. These tutorial videos should be easy to understand as well as easily accessible from within the LMS Application itself. The Help section of the App should also allow for users to contact the centralized customer support via email for support as well as for sharing feedback.

Power Backup:
- 1 KVA online UPS
- 30 minutes battery back-up on product load single phase input and single-phase output.
- Input Voltage: 200V~250V AC, Frequency: 50 Hz
- Output Voltage: 220V, Frequency: 50Hz
- Battery Stand
- Protection: Discharge, Overcharge and Overload Protection
- Product Quality Certifications: ISO 9001, ISO14001, ISO 45001
- Warranty: 3 Years

Protective Casing for Interactive Panel:
- Outer Length of Frame: As per the dimension of panel
- Outer width of Frame: As per the dimension of panel
- Thickness of Frame (Depth): 210 mm
- Frame is made of Aluminium with Bronze color anodizing.
- 4 numbers boards are fitted in size of 890 mm x 1205mm (2 boards are fixed and 2 boards are movable with lock & key. Base material with 14 mm thickness.
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is color coated/ GI sheet with thickness of 0.2-0.3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

Teacher's Training:
- Basic IT usage.
- Onsite Training to be provided at end client location (or as per the requirement of the end client).
- Usage of Multimedia Content.

- Classroom Management and soft skills.
- Deployment of the trainer
- Need Analysis
- Content Development for training
- Organizing training sessions
- Training Manuals and Report

Solution 14

Bill of Material:

S.No.	Name of the Item	Qty
1.	75" Interactive Flat Panel	350
2.	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	350
3.	Protective Casing for Interactive Flat Panel	350
4.	Audio System with Necessary wiring	350
5.	External camera for IFP	350
6.	Interactive Teacher led e- Learning digital Content	350
7.	English Language Learning Software	350
8.	3D Virtual Lab Simulations	350
9.	Device Management Console	350
10.	Training for Capacity Building of Teachers	350
11.	Power Backup	350

TECHNICAL SPECIFICATIONs:

75" INTERACTIVE FLAT PANEL:

Parameters	Specifications
Screen Size	75"
Panel Technology	IPS
Back Light Type	Direct LED/Edge LED
Aspect Ratio	16:9
Native Resolution	3840x2160 (UHD)
Refresh Rate	60Hz
Brightness	440nits
Contrast Ratio	1,200:1
Color Depth	1.07B(10bit)
Viewing Angle(H x V)	178°(H/V)
Response Time	8ms or lower
Surface Treatment(Haze protection)	Haze 24% or higher

Operations hours(Hours/Day)	16/7
Input Ports	3x HDMI(HDCP 2.2/1.4), Audio In, RS232C, LAN (Gigabit)-1, RGB (1, VGA)
	4x USB3.0 Type A, 1x USB2.0 Type A, 1x USB Type-C
Output Ports	HDMI x1 , Audio x1, 1x Touch USB
Touch Response Time	<=5ms
Accuracy	+-1mm
Surface Hardness	Toughened Glass with 9H Level 7 Mohs Standard 3mm Toughened
Operating System Support	Windows 7/8/10/Linux/Mac/Android (Linux/Mac support one point touch)
Multi Touch Point	Max 20 Points
Hardware	Quad Core A55 Processor, 8GB RAM, 64GB Internal Memory, Mail G52MP2, Inbuilt Bluetooth 5.0, Wi-Fi, OPS Slot with Built-in power, USB port Block feature
Software	Android 13, EDLA Certified, Booting Logo Image, Picture In Picture (PIP) and Picture By Picture for Multi-Screen Share, Screen Share (Able to connect and show upto 9 devise wirelessly on screen), Whiteboard(educational templates and teaching tools such as a ruler, table, and sticky notes, allowing for active engagement by students and enabling intuitive classes), Resources can be saved and imported directly to and from Google Drive or OneDrive, and files can be imported from a USB drive (Users can browse resources saved on USB storage), Screen Lock. The boot screen should be customized to show the message "CSR initiative of the "name of the PSU"" and logo of EdCIL/ End client's/Both logos during the booting of IFP. IFP should have feature to run customised logo as per departments instructions.
Operation Temperature	0 °C to 40 °C
Operation Humidity	10% ~90%RH
DPM	0.5 Watt or less
Typ. Power consumption	230W+5%
Max. Power consumption	430W+5%
Power Supply	100-240V~ 50/60Hz
Wake on LAN	Should Support
Smart Energy Saving	Should Support
Auto Brightness Sensor	Should Support
Speaker	15W x 2 or Higher
Product Certification	CE,FCC,ROHS Report, BIS

Accessory	Power Cable-1,USB Cable-1,HDMI Cable-1, IR Remote-1,Digital Pen-2
Warranty	3 Years on site by OEM
High Adhesive Dome Sticker	The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.
Technical and Financial Capabilities of OEM of IFP	• Manufacturer of Interactive Panel should have active business in India from last 10 years • Manufacturer of Interactive Panel Should have experience of Manufacturing Interactive Panel in India from last 5yrs (Required document from OEM: Manufacturing License copy with ISO 9001, 14001, 45001) • Manufacturer of Interactive Panel should have valid Manufacturing License, PF Registration, PAN & GST registration certificate from 5 Years • Manufacturer of Interactive Panel should have owned registered office in UP and MP State from last 5 years for onsite support • Manufacturer of Interactive Panel should have own functional Local Service Branch in UP and MP state to manage onsite service support from last 5 years with Shop license and GSTN copy as proof with Skilled manpower, with toll free Number for Call logging • Manufacturer of Interactive Panel should have minimum turnover of 500 Cr in last 5 financial years in India from Interactive Panels. • 75' Interactive Panel shall be manufactured in own factory of quoted Brand & OEM; Same address shall be on BIS certificate. • Manufacturer of Interactive Panel shall have experience of supplying minimum 5000 Units Interactive Panels direct or through partners in any State/Central Government/ PSU project in last 3 years

HIGH END OPS PC FOR IFP:

Parameters	Specifications
CPU	Intel Core i5 12th Generation
Chipset	SoC
Graphics	Intel Iris Xe Graphics
Multiple Display	Supports Dual Display

Display Interface	1 x HDMI1.4 (4K30Hz) 1 x 80 PIN (HDMI2.0 4K60Hz output + DP1.2 4K60Hz output)
Memory	16 GB Dual Channel SO-DIMM DDR4-3200MHz support Upto 32GB
Storage	2TB 1 x M.2 2280 size for NVMe/SATA SSD
Ethernet	1 x Realtek 8111H 1000M Ethernet RJ45 Port
Wireless	1 x M.2 2230 slot for WIFI_BT Module
I/O Ports	1 x HDMI1.42 x USB 3.1 1 x USB2.0 1 x Type-C(USB3.1) 1 x RJ451 x MIC IN & 1 x Line-out Connector 2 x Wi-Fi/BT Antenna
OPS Interface	1 x 2.5/5.5 DC IN JACK 1 x HDMI2.01 x 4K60Hz output 2 x USB2.01 x USB3.0 1 x TTL Other Control Signals
TPM	Optional
Power Inputs	12 - 19V DC IN, 2.5/5.5 DC Jack & JAE 80 pin DC IN
Dimensions	119(L) x 180(W) x 30(H) mm
Operating Temperature	0 to 40C
Storage Temperature	20 to 70C
Operating Humidity	10% - 90% non-Condensing
Operating System Support	Windows 11/Windows IoT
Warranty	3 Years on site

PROTECTIVE CASING FOR THE INTERACTIVE FLAT PANEL:
- Outer Length of Frame: 3780 mm/ As per the dimension of panel
- Outer width of Frame: 1210 mm/ As per the dimension of panel
- Thickness of Frame (Depth): 200 mm
- Frame is made of Aluminum with Bronze color anodizing.
- 1 number boards are fitted as per requirement for safe and secure fitting (1 board to be fixed with movable with lock & key.
- Base material with 14 mm thickness.

- Metal L- Clamp for mounting frame is 8 nos. with thickness of 5 mm, Movable board is having lock system to safe IFPD from vandalism
- Front metal sheet is having thickness 0.3 mm.
- Back Side metal sheet is color coated/ GI sheet with thickness of 0.20-3mm.
- The magnet is provided in the system which will get locked when it is completely open and the boards are having wheels with bearing for
- smooth movement.
- Whole system is mounted on the wall with the help of 6 metal clamps having thickness of 3mm.

EXTERNAL CAMERA TO BE PROVIDED WITH IFP:
- Camera Resolution: 4k@30fps or better,
- Camera Sensor- 8 Mega Pixel CMOS Sensor or better,
- Zoom: 8x or higher, Field of View 120 degrees or better,
- Minimal Illumination: 0.5 Lux @ (F1.8, AGC ON),
- Shutter: 1/30s ~ 1/10000s or better,
- White Balance Auto, Indoor, Outdoor, One Push, Manual,
- Camera bracket: bracket with damper,
- Backlight – Compensation,
- Should support Backlight Compensation,
- Digital Noise Reduction: 2D & 3D Digital Noise Reduction, HDR,
- Should Support High Dynamic Range,
- Preset- Should have 3 Presets on Remote control,
- Resolution Should support 4K Ultra HD with super resolution up to 4K@30fps/25fps encoding output, and down compatible with 1080p,720p.
- Video Output: Should support USB 3.0 Video output suitable for software-based video conference,
- Auto Focus Lens: Should be Complete customizable auto focus non-distortion lens, view angle up to 120°,
- Should support EPTZ,
- Built in Microphone: Should available Built in beamforming microphone array with noise suspension and automatic gain algorithm with audio pickup distance up to 4 meters or better,
- AI Powered Tracking: Should support Person Tracking, Auto framing with advance AI tracking Method,
- Remote control: All the parameters of the camera should be remote controlled using IR remote control,
- Interface: 1x USB 3.0 Type C or more,
- Input Voltage: 5V (USB power supply),

<u>**AUDIO SYSTEM:**</u>

- Power Output: 120-Watt (20Watt + 10 Watt) x 4,
- Features: Fully Functional IR Remote, Multi Playability of Aux, USB and Bluetooth, USB Support of 32 GB, Analogue Control of Volume, Bass.
- Informative LED Display, Immersive Glowing Lights with Music.

<u>**ENGLISH LEARNING SOFTWARE:**</u>

- **Purpose:** Comprehensive English Language Skills Programme for School Students
- **Target Audience:** School students for Class 1 to 12
- **Content: 30 chapters** per grade, incorporating individual and group activities, focusing on all four language skills (**Listening**, **Speaking**, **Reading**, and **Writing**)
- **Curriculum Alignment:** Mapped to the Common European Framework of Reference for Languages (**CEFR**) with specific "**Can Do**" statements to define learning outcomes.
- **Additional Resources:** CEFR mapping booklet should be included in the Teacher kit.

The key features of the software which is designed to enhance English language skills for school students are as follows.

- **Teachers Dashboard** - where they can access all the features and to manage classes and assignments.
- Within the software teachers can access all the classes from 1-12.
- **Chapters** – In the software, teachers will have 30 chapters in each class. Additionally, **TOFEL** content will be available from **class 3-9** and each class will have **22 chapters**.
- **Attendance Dashboard Feature** - This feature in the software should allow the teachers to quickly and accurately mark student's presence or absence.
- **Chapter Activities Feature**– Each Chapters will have individual and group activities, focusing on all four language skills (**Listening**, **Speaking**, **Reading**, and **Writing**). These activities will include concept videos followed by the LSRW activities.
- **Automatic group creation feature**: This eliminates the need for manual group assignments, saving valuable instructional time and streamlining classroom organization.
- **Teacher Grading feature** - Teacher can then assign her grades to each group.
- **Peer-to-Peer grading feature** – This encourages students to critically evaluate their own work and that of their peers, promoting self-reflection and providing valuable feedback for improvement.
- **Assignments Feature** - The software shall includes features like giving assignments to students, track student progress.

- **Adding Students Feature** - Teachers can add learners one by one or can do bulk uploads within the software.
- **Feedback** - Provide feedback, allowing teachers to monitor individual and class-level performance.
- **Content Presentation:** High-quality multimedia content, including videos, animations, and interactive exercises.
- It shall work on the Interactive Flat Panel provided in the classroom.

Assessment and Progress Tracking:

o Placement tests to assess students' initial proficiency levels
o Pre-, mid-, and post-assessments to measure learning outcomes
o Real-time attendance tracking and reporting
o Detailed reports on student and teacher progress.

Offline Mode: Offline functionality should be made available. It shall run in offline mode also.

<u>Content Structure</u>

- **Four Skills Approach:** Each chapter includes activities targeting Listening, Speaking, Reading, and Writing skills.
- **Grammar and Vocabulary:** Graded grammar instruction and vocabulary building exercises integrated into each chapter.
- **Group Activities:** Emphasis on collaborative learning through group discussions, role-plays, and presentations

<u>Benefits</u>

- **Enhanced Language Proficiency:** Comprehensive curriculum aligned with CEFR standards ensures systematic development of English language skills.
- **Interactive Learning:** Engaging multimedia content and activities promote active participation and improve learning outcomes.
- **Focus on Communication:** Emphasis on speaking and listening activities builds confidence and fluency in real-life situations.
- **Personalized Learning:** Placement tests and progress tracking enable tailored instruction and targeted support.
- **Teacher Empowerment:** TTT program and support resources equip teachers to deliver the curriculum effectively.

INTERACTIVE TEACHER LED e-LEARNING DIGITAL CONTENT

The 3D interactive content should be **aligned with the Madhya Pradesh board,** which shall empower teachers and students with interactive teaching-learning content, fostering a unified and enriched educational experience.

The content for following subjects and classes should be available
- Class 1 - 10: Science, Mathematics and Social Studies
- Class 11 - 12: Physics, Chemistry, Biology and Mathematics

The content should be made available both in English and Hindi. The interactive content should have the following content elements.

1. **Interactive Pre-built Lessons:** Curriculum-aligned Interactive lessons that can be directly used by the teachers for effective and engaging classroom teaching. These standardised prebuilt lessons save teachers significant time and bring us closer to unified teaching.
2. **Labelled 3D Models:** labelled 3D models as learning tools that effectively illustrate and connect key concepts.
3. **3D Immersive Videos:** Utilise immersive videos to provide an engaging and comprehensive learning experience.
4. **Practice Lessons:** This should contain practice lessons featuring 2D and 3D interactive quizzes and more, all based on the selected chapter and topics.
5. **Textbook questions:** Questions should be classified based on varying difficulty levels (Easy, Moderate, and Hard), incorporating Previous Year Questions and essential questions as per the MP board's curriculum. This should empowers teachers to filter question types and difficulty levels for customised assessments.
6. **Images and Illustrations:** Detailed and well-illustrated visual representation of the studied concept.
7. **Important & High-weightage Tags:** All the topics with high weightage in the exam and important for the upcoming exams should be tagged as "Important".
8. **Captivating Visual for Storylines:** The content should be designed keeping in mind the compelling and interesting narratives or storylines of the textbook.
9. **3D Models for Better Visualization:** The content should have immersive 3D models which transform complex subjects into engaging and tangible experiences.
10. **3D Animated Videos for Deeper Understanding:** The content should consist of 3D immersive videos which make complex subjects easier to grasp by showing them in a visually exciting way.
11. **Interactive Flashcard-based Activities:** The content should have flashcard-based activities, providing an interactive platform that enhances the memorization of various correlations. Each flashcard should engage learners in actively recalling and

reinforcing connections, contributing to a more effective and engaging learning experience.

12. **Interactive Quizzes:** Questions that should be posed between chapters are reimagined into diverse interactive quiz formats, including drag-and-drop, connecting the bubbles, and correcting the sequence. The objective of this transformation should be two-fold - to elevate the cognitive engagement of learners by requiring thoughtful interactions, and to bolster their confidence for continued learning. The platform should have a question bank with a minimum of 5 lakh questions in English and Hindi, including hints and step-by-step solutions, covering Grades 1 to 12 for Maths, Science and Social Science subjects.

13. **Back-of-the-Chapter Questions:** The content should have the conventional back-of-the-chapter questions which are transformed into interactive formats, including Drag and Drop, Connecting the Bubbles, Matrix Match Type, Puzzles, and more.

14. **Theorem and Derivations:** Teachers should be able to provide interactive learning experiences for high-scoring questions that often revolve around derivations in school exams, to improve students' application of the concepts.

15. **Class Analytics:** Teachers should be able to check class activity details such as Time Spent, Number of Assets Used, Question Attempt Analysis, and Slide-wise Teacher Activity Graph and Details.

16. **Online Sync Facility and Dashboard Analytics:** Principals and administrators should be able to view analytics reinforcing the commitment to quality education.

17. The content should have followings:
    - 5000+ prebuilt interactive lessons.
    - 4000+ 3D Immersive Videos either in English or Hindi.
    - 12,000+ Labelled 3D Models with Curriculum Tagging
    - 5,000+ Interactive Quizzes and
    - 8000+ Curriculum aligned 2D Animations and Images

18. The platform should have all the questions with Hint and complete solution from the prescribed text book of MP Board for Maths and Science (for class 6 to 12) and should also have ample questions from other NCERT author books. The questions should have tagging with Concept, Difficulty level and learning outcome as prescribed by NCF.

19. The platform should have search engine covering academic/board based content on 3D Models, 3D Images, 3D Videos, and 3D Simulations from a minimum repository of 30,000 assets.

20. The user should be able to navigate the application in a book like flow i.e. table of chapters and associated topics. Each topic should have multiple 3D learning videos and questions.

21. The application should be able to function with and without internet availability.

22. All the content should be made available in offline mode also.

23. The Platform and its teaching-learning resources should be user-friendly, allowing teachers to easily navigate through the book's table of contents format at a chapter and topic level. The content should be compatible with the Interactive flat panel in the proposed solution.

3D VIRTUAL LAB SIMULATIONs:

The 3D interactive simulations for science lab experiments aligned with the Madhya Pradesh board shall having the following components for effective learning outcomes delivery.

1. **Aim and Apparatus:** A 3D video should introduce the experiment's aim and essential equipment. This video should also illustrate the experimental setup required to experiment.
2. **Theory:** A 3D video should explain the underlying scientific concepts behind that particular experiment.
3. **Virtual Lab Environment:** The DIY experiment should be a virtual 3D lab simulation that guides students through selecting materials, conducting experiments, and forming conclusions with real-time instructions and observation tools.
4. **Step-by-Step Guide:** These instructions should enhance the learning experience, ensuring the smooth execution of experiments with clear instructions for a seamless virtual experiment experience.
5. **Academic Keywords:** Important terms and phrases in the experiment should be highlighted upon clicking a pop-up with a definition, along with the related video(s) for a deeper understanding of the selected academic keyword should be served.
6. **Molecular Level Visualisation:** 3D molecular visualisation should help in understanding interactions and changes in reactants, thus enhancing clarity and comprehension of how the product(s) is formed.
7. **Interactive Validating Questions:** A gamified approach should be inculcated in conducting experiments with Question-Based Interaction during experiments, enhancing user engagement.
8. **Remedial Actions:** The remedial feedback should give the user insight into how the action performed is wrong without giving a direct answer or action to that step.
9. **Observation Table:** Students should be able to replicate the authentic practice of noting observations in an observation table, mirroring the procedures followed in a physical lab setup.
10. **Lab Manual:** Virtual Lab experiments should offer a detailed lab manual with content organized into various steps or stages of the experiment.
11. **Viva Questions:** This section should contain important questions from the viewpoint of Viva voice. Students should be able to practice these questions to prepare for their school viva

12. **Performance Report:** The evaluation should have questions allowing users to assess their understanding through a user-friendly interface with instant feedback on correct and incorrect answers.
13. **Retake Flexibility:** User should be able to retake the evaluation test multiple times.
17. **Dashboard and Analytics:** The dashboard and analytics section should encompass key metrics such as active users, percentage of completion, time spent, average session duration, and other engagement metrics, providing a comprehensive overview of user interaction and performance.
18. The experiments should be available in both English and Hindi mediums.
19. 300+ curriculum-aligned Virtual Lab Experiments for class 1 to 12. The content should be compatible with the Interactive flat panel in the proposed solution.

<u>Power Backup:</u>

- 1 KVA online UPS
- 30 minutes battery back-up on product load single phase input and single-phase output.
- Input Voltage: 200V~250V AC, Frequency: 50 Hz
- Output Voltage: 220V, Frequency: 50Hz
- Battery Stand
- Protection: Discharge, Overcharge and Overload Protection
- Product Quality Certifications: ISO 9001, ISO14001, ISO 45001
- Warranty: 3 Years

<u>Teacher Training:</u>
- On-ground training workshop shall be conducted to train and guide teachers for adapting these digital tools and hardware as part of their regular curriculum.
- The Training sessions to Teachers and Administrations during initiation of the program shall be provided.
- Complete project management shall be provided for the 3 years duration of the project.
- 2 teachers per classroom shall be trained from the school based on the nomination of teachers from HoI of the School.
- Additionally, continuous support and guidance shall be provided.

<u>SOLUTION 15</u>:

1. **Interactive Flat Panel:**

Display
- **Panel Size:** 65 inches

- **Brightness:** 400 cd/m²
- **Contrast Ratio:** Typical 1,100:1,
- **Native Resolution:** 4K Ultra-HD (3840 x 2160)
- **Viewing Angle:** 178° horizontal/vertical

Interactivity
- **Technology:** Infrared Touch
- **Touch Points:** 20-point
- **Surface Protection:** Anti-glare thick toughened glass
- **Touch Tools:** Finger, stylus
- **Operating System**
- **System Version:** Android 11.0 or more
- **RAM:** 8GB DDR4
- **Internal Storage:** 256GB

Connectivity
- **Inputs:** HDMI (x3), Microphone (3.5mm) (x1)
- **Outputs:** HDMI (x1), Audio-Out (3.5mm) (x1), SPDIF-Out (x1)
- **Internet:** Dual LAN (RJ45)
- **Control:** RS232-In
- **Wireless:** IEEE802.11ax Wi-Fi (2.4GHz/5GHz) and Bluetooth 5.2
- **USB Ports:** USB 3.0 (x3), USB 2.0 (x1), USB-C (x1)

Other Specifications
- **Speakers:** 15W (x2)
- **Power Supply:** AC 100-240V, 50/60Hz (4.8A)
- **Power Consumption:** ≤300W (typical), ≤0.5W (standby)

Accessories
Includes AC power cord, two styluses, remote control with batteries, wall mount kit, HDMI cable (3m), touch cable (3m), and a documentation kit.

Wireless collaboration Software

- Wireless collaboration to connect Windows/Mac/ Android devices
- Must have moderator feature, who can allow users to share the screen.
- Live Screen Broadcasting to any device on Mac/ Windows/Android within the same network with the help of QR Code or URL
- Sharing file/Videos/Webpages to all the participants connected, Participants can annotate on the screen during wireless sharing thru the software only.

Product Quality Certifications: BIS
OEM Certifications: ISO 9001 and ISO14001 Certificate
High Adhesive Dome/Chrome Sticker: The logo of EdCIL/ End client's/Both logos should be sticked on the body of the IFP.

2. **UPS 1 KVA**
- Capacity: 1 KVA Output Power: 750W Output: 220V, 50Hz
- Waveform: Sine wave
- DC to ac Efficiency: Greater than 80%
- Digital Signal Controller-based design or better
- Battery Voltage: 24V DC
- Backup requirement: 30 minutes for the classroom setup.
- Power Management: Automatic
- Display: LCD/LED
- Protection: Overload, Short circuit, Overcharge, Overheat, Battery Low
- Cooling: Speed control
- Battery stand

TERMS AND CONDITIONS

1. INSURANCE & TRANSPORTATION:
- The successful Bidder shall be responsible for acquiring comprehensive insurance including transit insurance, liability insurance and any other insurance as required for all the equipment till the delivery, installation and commissioning at the respective end client location/school level (whichever applicable).
- For delivery of goods at the end client's location, the insurance should be obtained by the Supplier in an amount equal to 110% of the value of the goods from "supplier location to end client location" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance should be valid for a period of not less than 3 months after the completion of installation and commissioning. If orders placed on CIF/CIP basis, the insurance should be up to End Client place.
- The Supplier should make all arrangements towards safe and complete delivery at End Clients Location. Such responsibility on part of the supplier will include taking care of insurance, freight, octroi, state level permits etc. as applicable.
- The supplier should also take care of transit insurance, comprehensive insurance or any other insurance as required which may have direct bearing on the delivery of the items / equipment's at End Clients location.
- It is the total responsibility of supplier to complete all formalities to transit of goods from the place of dispatch to End Clients Location.
- The bidder should ensure that no person can engage in the business of a common carrier unless he has granted a certificate of registration to do so for supply of items at End Clients Location.

- The transportation of goods through unregistered common carrier is illegal. The bidder should ensure to comply the carriage by latest Road Act and any other relevant.
- The supplier will keep EdCIL informed about various stages of deliveries & installation.
- All costs related to insurance shall be borne by the successful Bidder for goods supplied under the Agreement against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery etc. A copy of Insurance Certificate should be provided to EdCIL.

2. <u>UNLOADING AND UNPACKING:</u>
   Unless specified otherwise in the purchase order, Unloading and storage of the same at the designated place should be undertaken by the successful bidder. The Unpacking of the materials should also be arranged by successful bidder.

3. <u>PRE-DELIVERY INSPECTION:</u>
   - The pre-delivery inspection of the goods should be carried out (at the location provided by the supplier) by the EdCIL officials to check whether the goods are in conformity with the technical specifications attached to the purchase order. A team including the representative of the end client would inspect the material if required.
   - The successful Bidder shall facilitate and make available a random 20% sample of each equipment type being supplied by them for a Pre-dispatch Inspection (PDI) by a committee comprising of EdCIL and end client. The PDI will be a key requirement prior to shipment of the equipment. As part of the preparation for PDI, the successful Bidder will provide to EdCIL PDI preparation report.
   - The inspection test will be conducted by the EdCIL officials, their consultant or other such person nominated by the EdCIL and by the end client (if required), in the presence of supplier's representatives. The inspection will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There should not be any additional charges for carrying out inspection test. No malfunction, partial or complete failure of any part of the equipment is expected to occur.
   - Successful conduct and inspection of the acceptance test for the installed goods and equipment should also be the responsibility and at the cost of the Supplier.
   - The time taken for pre-dispatch inspection is inclusive of the scheduled completion time of the delivery & installation of the equipment's. Only the

line item certified by the EdCIL official should be dispatched to the end client.

- If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, unmerchantable or not in accordance with the description/specification or otherwise faulty, the EdCIL official or the official from end client (if required) will have the right to reject the equipment or its part. All damaged or unapproved goods should be returned at suppliers cost and risk and the incidental expenses incurred thereon should be recovered from the supplier.

- In the event of the hardware and software failing to pass the PDI, as per the specifications given, a period not exceeding 3 calendar days will be given to the successful Bidder to rectify the failure and clear the inspection, failing which, EdCIL reserves the right to cancel the Purchase Order and levy appropriate penalties in addition to the Liquidated Damages. EdCIL/client will not be responsible for any costs associated with such rejection. The bidder will be responsible for all equipment supplied till they are delivered and commissioned at the designated location/end client location.

- Additionally, the bidder shall replace the complete lot of equipment belonging to an equipment type, if more than 25% of the sample size for the equipment type are found defective during the PDI. If the lots for two consecutive types of equipment are rejected, the entire shipment of equipment by the manufacturer shall stand rejected and shall have to be replaced by the successful Bidder with a fresh batch of equipment for shipment and related PDI. Any cost impacts of rejection at any stage shall be borne by the Bidder. If the complete shipment is rejected, EdCIL reserves the right to cancel the Purchase Order and levy penalties in addition to the Liquidated Damages. All penalty calculation are explained in detail in SLA.

4. <u>**DELIVERY, INSTALLATION AND COMMISSIONING**</u>:
    - Delivery, Installation and commissioning at the school level or the desired location should be made within a maximum of 60 calendar days from the date of placement of purchase order.
    - The successful bidder to provide absolute supply and Commissioning schedule within 7 days from the receipt of Purchase Order.
    - Within 24 hours of dispatch, the supplier should notify the EdCIL by cable/ telex/ fax/ e- mail the full details of the shipment.
    - Till the EdCIL/end client takes over/ receives the equipment/ items, the supplier should be responsible to keep the same in safe custody and the charges (if any) to be borne by the successful bidder.
    - As part of commissioning of the delivered equipment, the successful bidder shall depute its technically qualified representative(s) to facilitate the

conduct of inspection of 100% of the delivered quantity in presence of the EdCIL Official(s) and End Client (s), if required. This inspection shall start immediately after delivery of the equipment's at the centralized location.

- After completion of the inspection, all the equipment shall be repackaged. Rejected equipment if any shall be returned back to the authorized representative of the successful bidder. The numbers of such rejected equipment shall be struck off from the Delivery Receipt/Acceptance Receipt and from the Invoice claimed by the bidder.
- The equipment to be commissioned for a specific schools/ colleges shall be decided by EdCIL and End client. The power supply and internet connectivity for commissioning will be arranged by End Client. Until the equipment is handed over to respective school authorities/end client location, successful bidder will be solely responsible for the security of all the equipment.
- The successful bidder shall carry out for delivery of all the equipments to the school level/end client location provided by EdCIL and its subsequent installation in the classrooms.

5. <u>FINAL ACCEPTANCE SIGN OFF FROM END CLIENT:</u>
Against the Delivery and Installation & Commissioning in each school, the selected Bidder shall get a Delivery Certificate and Installation & Commissioning Sign-off certificate from the Headmaster/Teacher/authorised representative of the respective school/college. In all likelihood, the Delivery Certificate and Installation & Commissioning Sign-off certificate for a school/college shall be provided to the successful Bidder on the same day of successful delivery and commissioning of the equipment for that school. The damaged/defective equipment, if any shall be taken back by the successful Bidder.

6. <u>WARRANTY AND SUPPORT SERVICES:</u>
- The successful bidder is required to provide a standard onsite warranty support for all solution except solution 3 for the period of Three (03) Year Warranty. The successful bidder is required to provide a standard onsite warranty support for solution 3 for the period of one (01) Year. The warranty would ensure that the goods/ articles would continue to conform to the standards and specifications as prescribed in the RFP for the entire duration of the Contract.
- All infrastructure procured by the successful bidder for this Project must adhere to the minimum requirements.

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- The period of warranty for all equipment shall commence after project commissioning sign-off date from the end client.

7. <u>LIQUIDATED DAMAGES:</u>
   - Delay in delivery: In case of non/partial supply of the equipment within the stipulated period, penalty @ 1% of the total contract value for every week of delay on the defaulted amount shall be applicable, subject to maximum of 10% of the contract value. After reaching the penalty to maximum, EdCIL will have the right to take appropriate disciplinary actions including termination of the contract.
   - Purchaser reserves its right to recover these amounts by any mode such as adjusting from any payments to be made by Purchaser to the Bidder.

8. <u>INDEMNITY:</u>
   The successful Bidder shall execute and furnish to EdCIL a Deed of Indemnity in favor of "EdCIL" in a form and manner acceptable to EdCIL, indemnifying EdCIL from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Agreement period out of:
   a) Any negligence or wrongful act or omission by the selected Bidder or the selected Bidder's Team in connection with or incidental to this Agreement; or
   b) A breach of any of the terms of selected Bidder Bid as agreed, the RFP and this Agreement by the Bidder or the selected Bidder's Team.

   The indemnity shall be to the extent of 100% in favor of EdCIL.

9. <u>TECHNOLOGY ADVANCEMENT:</u>
   According to the technology advancement successful L1 bidder has to provide upgraded product without any extra cost to meet the technology advancement of the market.

10. <u>MANUALS AND DRAWINGS:</u>
   a. Before the goods and equipment are taken over by the EdCIL, the Supplier should supply operation and maintenance manuals. These should be in such details as will enable the EdCIL to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
   b. The Manuals should be in the ruling language (English) in such form and numbers as stated in the contract.

c. Unless and otherwise agreed, the goods equipment should not be considered to be completed for the purpose of taking over until such manuals and drawing have been supplied to the EdCIL.

11. **DEVIATION CLAUSE:**

EdCIL reserves the right to increase or decrease the quantity by 100% to be ordered up to any number of bid quantity at the time of placement of contract as per client requirements. The purchaser also reserves the right to increase the ordered quantity by 100% of the contracted quantity during the currency of the contract at the contracted rates. The selected Bidder are bound to accept the orders accordingly. The contract shall be valid for 1 year from the date of issue of PO.

12. **DOCUMENTATIONS TO BE PRODUCED BY THE SUCCESSFUL BIDDER DURING PROJECT:**

- Original Delivery report duly signed and stamped from the Headmaster/Teacher/authorised representative of the respective school/college for acknowledgement of delivery.
- Original Installation and Commissioning certificate issued from Headmaster/Teacher/authorised representative of the respective school/college with sign and stamp for acknowledgement of Commissioning.
- Warranty Certificate in original of all the items supplied to client.
- School wise coloured photographs and videos of 1-minute duration (in soft copy) of every school/college when the product is installed within 30 days from the date of commissioning of the project. The video must capture the functionality of the device(s) in presence of any official/teache

Eligibility and Bid Evaluation

6.1 Bid Evaluation Process:

Evaluation will be based on the bidder meeting the eligibility criteria and subsequently evaluation of financial bid. It is mandatory for the bidder to fulfil all the eligibility criteria to be qualified for technical evaluation.

6.2 Eligibility Criteria:

TYPE-I:

S.No.	PQ Criteria	Description of the Criteria	Documents to be Submitted
1	Legal Entity	The firm should be a company registered in India under Companies Act 1956, Act 2013 or Proprietorship or a partnership registered under the India Partnership Act 1932 or Partnership firm registered under Limited Liability Partnership Act 2008 with their registered office in India in operation for the last seven years. Consortium of companies/ firms is not allowed. **For MSME/NSIC registered bidder:** The firm should be a company registered in India under Companies Act 1956, Act 2013 or Proprietorship or a partnership registered under the India Partnership Act 1932 or Partnership firm registered under Limited Liability Partnership Act 2008 with their registered office in India in operation for the last five years. Consortium of companies/ firms is not allowed.	• Valid copy of certificate of incorporation and registrationcertificates. • Copy of GST registration. Copies of relevant certificates of registration income tax • PAN

2	Turnover	Bidder must have minimum average annual turnover of Rs. 1.5 crores during the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must be profit making in each of the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must have positive net-worth as on 31st March, 2024. **For MSME/NSIC registered bidder:** Bidder must have minimum average annual turnover of Rs. 1.2 crores during the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must be profit making in each of the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must have positive net-worth as on 31st March, 2024.	• Audited Profit and Loss Statement and Balance sheets for FY 2021-22, 2022-23 and 2023-24. • Auditor Certificate clearly specifying the turnover along with Profit and Net-worth during the FY 2021-22, 2022-23 and 2023-24. • MSME Bidder should produce valid registration certificate from NSIC/MSME.
3	Blacklisting certificate	The BIDDER should not have been blacklisted by the Central Government, State Governments, PSU or any Government Corporations in India, preceding bid due date.	Copy of undertaking signed by authorized signatory of bidder should be submitted with the technical bid. Format enclosed as Annexure IV
4	Technical Capability	The bidder should have the experience of implementation of at least four training rooms in Govt. School/Govt. College **For MSME/NSIC registered bidder:** The bidder should have the experience of implementation of at least three training rooms in Govt. School/Govt. College	Copy of work order/MoU and completion certificate from client /email from client on project completion/Installation Certificate duly certified from client. The work order should be issued from Center/State Govt/Autonomous bodies only. The quantity of the training rooms should be clearly mentioned in the work order

			and completion certificate from client /email from client on project completion/Installation Certificate duly certified from client.
5	Bidder Quality Certification	The Bidder should have the following certificates: ○ ISO 9001:2015 or latest ○ ISO 14001:2015 or latest ○ ISO 27001:2013 or latest.	Copies of the valid certificates.
6	Power of Attorney	A Power of Attorney / Board Resolution in the name of the person signing of the tender.	Original Power of Attorney / Board Resolution Copy on a non-judicial stamp paper as per Annexure VIII
7	Insolvency/ Bankruptcy	The BIDDER must not have been declared insolvent/ bankrupt or should not have filed for insolvency/ bankruptcy or in the process of being declared bankrupt before any designated authority preceding bid due Date	A Self Declaration on the Letter head of the BIDDER regarding BIDDER Company not being bankrupt or in process of being declared insolvent / bankrupt as on date as per Annexure XVIII.
8	Undertaking	The bidder has to give undertaking for acceptance of terms of "Restrictions on procurement from a bidder of a country which shares a land border with India"	Undertaking as per Annexure-XIX.
9	MAF	The bidder has to provide the MAF for the products mentioned at Annexure XXI.	MAF as per Annexure VII.
10	Solvency	The bidder should have the solvency of Rs. 1.5 Crore. The solvency certificate should be issued from Bank. **For MSME/NSIC registered bidder:** The bidder should have the solvency of Rs. 1.2 Crore. The solvency certificate should be issued from Bank.	Solvency certificate issued from bank.

TYPE-II

S.No.	PQ Criteria	Description of the Criteria	Documents to be Submitted
1	Legal Entity	The firm should be a company registered in India under Companies Act 1956, Act 2013 or Proprietorship or a partnership registered under the India Partnership Act 1932 or Partnership firm registered under Limited Liability Partnership Act 2008 with their registered office in India in operation for the last seven years. Consortium of companies/ firms is not allowed. **For MSME/NSIC registered bidder:** The firm should be a company registered in India under Companies Act 1956, Act 2013 or Proprietorship or a partnership registered under the India Partnership Act 1932 or Partnership firm registered under Limited Liability Partnership Act 2008 with their registered office in India in operation for the last five years. Consortium of companies/ firms is not allowed.	• Valid copy of certificate of incorporation and registrationcertificates. • Copy of GST registration. Copies of relevant certificates of registration income tax • PAN
2	Turnover	Bidder must have minimum average annual turnover of Rs. 15 crores during the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must be profit making in each of the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must have positive net-worth as on 31st March, 2024. **For MSME/NSIC registered bidder:** Bidder must have minimum average annual turnover of Rs. 12 crores during the last three financial year i.e., 2021-22, 2022-23 and 2023-24.	• Audited Profit and Loss Statement and Balance sheets for FY 2021-22, 2022-23 and 2023-24. • Auditor Certificate clearly specifying the turnover along with Profit and Net-worth during the FY 2021-22, 2022-23 and 2023-24. • MSME Bidder should produce valid registration certificate from NSIC/MSME.

		Bidder must be profit making in each of the last three financial year i.e., 2021-22, 2022-23 and 2023-24. Bidder must have positive net-worth as on 31st March, 2024.	
3	Blacklisting certificate	The BIDDER should not have been blacklisted by the Central Government, State Governments, PSU or any Government Corporations in India, preceding bid due date.	Copy of undertaking signed by authorized signatory of bidder should be submitted with the technical bid. Format enclosed as Annexure IV
4	Technical Capability	The bidder should have the implementation of 750 smart classrooms/ Virtual Classroom across govt. schools in last three years preceding from bid due date. and The bidder should have the implementation of 500 smart classrooms/ Virtual Classroom across govt. schools in a single work order in last three years preceding from bid due date. **For MSME/NSIC registered bidder:** The bidder should have the implementation of 600 smart classrooms/ Virtual Classroom across govt. schools in last three years preceding from bid due date. and The bidder should have the implementation of 400 Smart classrooms/ Virtual Classroom across govt. schools in a single work order in last three years preceding from bid due date.	Copy of work order/MoU and completion certificate from client /email from client on project completion/Installation Certificate duly certified from client. The work order should be issued from Center/State Govt/Autonomous bodies only. The quantity of the smart classroom should be clearly mentioned in the work order and completion certificate from client /email from client on project completion/Installation Certificate duly certified from client
		The Bidder should submit the undertaking from OEM of the LMS for the following: The OEM of LMS should have readymade Learning Management software having all the features	The OEM should provide compliance for each feature and in case the feature is unavailable, the bid shall be technically rejected. The OEM should provide

		mentioned in the scope of work for the Solution 7, 8, 11 and 13.	Android/ IOS app link along with demo user name and password, valid for one month, which should have all features as mentioned in the scope of work. If the Bidder fails to comply with the specifications before, during or after the bid evaluation, it will lead to appropriate legal action leading to potential blacklisting of the Bidder.
5	Bidder Quality Certification	The Bidder should have the following certificates: o ISO 9001:2015 or latest o ISO 14001:2015 or latest o ISO 27001:2013 or latest.	Copies of the valid certificates.
6	Power of Attorney	A Power of Attorney / Board Resolution in the name of the person signing of the tender.	Original Power of Attorney / Board Resolution Copy on a non-judicial stamp paper as per Annexure VIII
7	Insolvency/ Bankruptcy	The BIDDER must not have been declared insolvent/ bankrupt or should not have filed for insolvency/ bankruptcy or in the process of being declared bankrupt before any designated authority preceding bid due Date	A Self Declaration on the Letter head of the BIDDER regarding BIDDER Company not being bankrupt or in process of being declared insolvent / bankrupt as on date as per Annexure XVIII.
8	Undertaking	The bidder has to give undertaking for acceptance of terms of "Restrictions on procurement from a bidder of a country which shares a land border with India"	Undertaking as per Annexure- XIX.
9	MAF	The bidder has to provide the MAF for the products mentioned at Annexure XXI.	MAF as per Annexure VII.
10	Solvency	The bidder should have the solvency of Rs. 10 Crore. The solvency certificate should be issued from Bank.	Solvency certificate issued from bank.

		For MSME/NSIC registered bidder: The bidder should have the solvency of Rs. 8 Crore. The solvency certificate should be issued from Bank.	

- Documents must be provided in support of the following otherwise bids will be summarily rejected.
- EdCIL reserves the right to verify the work order submitted by prospective bidder from issuing department.
- Technical bids will also be reviewed for compliance with the necessary Instructions, terms and conditions, scope of work, formats etc. as outlined in this tender.
- The Technical bid will be evaluated by evaluation committee set-up by EDCIL.
- The Technical Evaluation will be conducted based on the relevant support documents submitted by the Bidders.
- The bidder who qualifies the eligibility criteria shall be declared as technically qualified bidder and those shall be notified for opening of their financial bid.
- Notwithstanding anything stated above, the EdCIL reserves the right to assess bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the EdCIL.

Evaluation of financial bids:

The Financial bid of only those bidders who are found technically eligible shall be opened. The financial bids shall be opened in the presence of representative of technically eligible bidders, who may like to be present. Financial bids will be inspected to ensure their conformity to the format provided in the tender document. If there is any discrepancy between words and figures in any part of the financial bid, the amount indicated in words will prevail. Evaluation of bid will be done separately for each of the type. Evaluation will be done on the basis of total price (inclusive of taxes) each of the type. The L1 bidder shall be declared separate for each type.

- The bidder who has quoted Lowest in Type-I shall be declared as L1 bidder for Type-I. The Bidder who is quoting for Type-I has to mandatorily quote for each of the solution of Type-I. Otherwise, the bid shall be summarily rejected.
- The bidder who has quoted Lowest in Type-II shall be declared as L1 bidder for Type-I. The Bidder who is quoting for Type-II has to mandatorily quote for each of the solution of Type-II. Otherwise, the bid shall be summarily rejected.

EdCIL shall issue the purchase order (PO) to the Successful Bidder solution wise based on the receipt of PO to EdCIL from their respective end client. In case of non-receipt of PO to EdCIL from their end client, the respective PO to the Successful Bidder shall not be issued. The quantity and items of each of the solution placed to the Successful Bidder may also be varied as per the receipt of PO to EdCIL from their end client. The winning of bid or being L1 in the Type will not ensure the release of PO for any solution to the successful bidder. The PO for each solution shall be released only when EdCIL receive the PO from their respective end client.

Chapter-VI

DELIVERY TIMELINE

Bidder shall make all the arrangements for the timely delivery and installation of equipment for successful completion of project. No other incidental/TA/DA/any other such expenditure shall be paid by EdCIL.

S.No.	Milestone	Timeline (In Calendar Days)
1.	Acceptance of LOA	T+3
2.	Submission of Performance Security	T+14
3.	Pre-Delivery Inspection	T+30
4.	Delivery of equipment at school level	T+45
5.	Installation and commissioning of equipment at school level	T+60

Note:- * Here 'T' Indicates the date of LOA.

EdCIL reserves the right to change the timelines as per the requirement of the client. The milestones and timelines can be minimized as per the requirements of the individual projects/end client at the time of award of work order.

Delivery of the services with the performance in line with the requirements shall be made by the bidder in accordance with the time schedule specified by the Purchaser. If at any time during performance of the contract, the bidder should encounter conditions impending timely delivery of the Goods and performance of Services, the bidder shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practical after receipt of the bidder's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the bidder's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

Note:

I. The Supplier should Provide the project plan after getting the work order from EdCIL. Also, the supplier should inform the deviation from the project plan with proper reason to EdCIL.

II. Bidder shall make all the arrangements for the timely delivery and installation of equipment for successful completion of project. No other incidental/TA/DA/any other such expenditure shallbe paid by EdCIL.

III. In case of any miss happening/ damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it withnew equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. EdCIL or End Client will not be liable to any typeof losses in any form.

Chapter-VII

PAYMENT TERMS

S.No	Milestone	Payment %
1.	Payment shall be released after the successful delivery of all hardware and software at schools/ colleges level. Payment will be made if items are found in good condition as per term and conditions mentioned in the RFP. The bidder should submit the following documents to the EdCIL for the payment: • Original Tax invoice showing contract number, goods description, quantity unit price, total amount. • Delivery report duly signed and stamped from the Headmaster/teacher of schools/ colleges. • E-way bills	70% of the Project Value
2.	Payment shall be released after successful installation and commissioning of all hardware items at school level. Payment will be made if items are found in good condition as per term and conditions mentioned in the RFP. The bidder should submit the following documents to the EdCIL for the payment: • Installation report duly signed and stamped from the Headmaster/teacher of schools/ colleges. • Manufacturer's/ Supplier's warranty certificate.	20% of the Project Value
3.	The warranty/AMC will be for a total period of 3 years. Payment shall be released after successful completion of 2nd year AMC/warranty period i.e. after two year from the date of commissioning.	5% of the Project Value
4.	The warranty/AMC will be for a total period of 3 years. Payment shall be released after successful completion of 3rd year AMC/warranty period i.e. after three year from the date of commissioning.	5% of the Project Value

Note:

• Payments will be done only on the back to back basis on receipt of the related payment/funds from the end client, subject to satisfactory acceptance of the deliverables from the end client as per the submission of the required document.
• Payment will be processed after proper quality checks and signing of handing over certificates by concerned authorities.

- No advance payment shall be released to the Supplier.
- Payment to the Supplier shall be made in Indian Rupees through account payee cheque / NEFT / RTGS.
- Warranty start will be reckoned from the date of commissioning as approved by the end client. Part payment can be made against commissioning in accordance to the progress of the project based on the availability of funds in the project.
- The invoices must be based on work orders (or any amendments thereof) issued by the EdCIL.
- SLA Breaches (if any) provided by the client may also result in deduction of the payment against the work order.
- Geo-tagged school wise colored photographs of every delivery location when the product is delivered and when the product is installed provide location wise colored photographs and videos of 1 – minute duration (in soft copy) separately. The video must capture the functionality of the device(s) in presence of any school/concerned official/teacher.
- Payments shall be subject to deductions / damages / penalties of any amount for which the Supplier is liable under the contract. Further, all payments shall be made subject to deduction of TDS (Tax Deduction at Source) at the rate applicable from time to time as per the Income-Tax Act, 1961 and any other applicable deductions/ taxes.

Performance Security

The successful bidder shall be required to deposit Performance security equivalent to 3% of work order value to EdCIL within 14 days from the date of issue of Work Order. The Performance Security should be issued in favour of **"EdCIL (India) Limited"** to be valid for a period of 90 days beyond the date of completion of O&M period & contractual obligations. This Performance Bank Guarantee should be retained throughout the currency of the contract and shall be extended by the bidder from time to time, as required by EdCIL. The list of bank from where the Performance security is acceptable is at Annexure-XV. PBG shall be returned to the successful bidder only after 90 days of the successful completion of the Contract. In case of any shortfall of any activity/ specification/ other terms and conditions of the contract, EdCIL reserves the right to recover damages or loss from the due the payment or by the encashment of PBG.

KEY CONTRACT TERMS

1. ### Arbitration

   a. Any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration administered by the India International Arbitration Centre ("IIAC") in accordance with the India International Arbitration Centre (Conduct of Arbitration) Regulations ("IIAC Regulations") for the time being in force, which regulations are deemed to be incorporated by reference in this clause.

   b. The place/seat of the arbitration shall be New Delhi, India.

   c. The Tribunal shall consist of one arbitrator.

   d. The law governing the arbitration agreement shall be Indian Law.

   e. The language of the arbitration shall be English.

   f. The governing law of the Contract shall be Indian Law.

   g. Arbitration cost to be borne by the Supplier.

2. ### Non-Disclosure

   The company and their personnel shall not, either during the term or after expiration of this contract, disclose any proprietary or confidential information relating to the services, contract, terms, prices or the client's business or operations details without the prior written consent of the client.

3. ### Risk Purchase Clause

   In event of failure of supply of the item/equipment within the stipulated delivery schedule, the EdCIL has all the right to purchase the item/equipment from the other source on the total risk and cost of the supplier under risk purchase clause.

4. ### Compensation

   In consideration of the Services hereunder, EdCIL India Limited shall pay BIDDER the fees and expenses ("Charges") as specified in Commercial. All amounts payable to BIDDER are exclusive of any Taxes. EdCIL India Limited shall be entitled to deduct from applicable payments to BIDDER, any tax on BIDDER' income deductible at source at the rates applicable as per the provisions of Income Tax Act 1961 and provide BIDDER with evidence or certificate of payment of such tax to the taxing authorities. BIDDER shall submit invoices to EdCIL India Limited in accordance with the payment schedule in Commercial of this document. Payment stages are available at Chapter-VIII

5. **Representations and Warranties**

Bidder warrants that the Services will be provided in a skillful and workman like manner and in conformity with the scope described in Scope of Work Proposed Functional Scope of this document. Notwithstanding the aforesaid, any Services which are provided by bidder free of charge or are otherwise not chargeable shall be provided on an 'AS IS' basis without any warranties whatsoever. Each Party represents, warrants and covenants to the other that: (i) it is duly organized and validly existing and in good standing under the laws of the state of its incorporation or formation; (ii) it has the full right and authority to enter into and that this Agreement constitutes a legal, valid and binding obligation; and(iii) its execution, delivery and performance of this Agreement does not and will not conflict with, or constitute a breach or default under, its charter of organization, or any contract or other instrument to which it is a party.

6. **Limitation of Liability**

Neither EdCIL India Limited nor the bidder shall be liable to the other for any special, indirect, incidental, consequential (including loss of revenue, data and/or profit), exemplary or punitive damages, whether in contract, tort or other theories of law, even if the Party has been advised of the possibility of such damages. The total cumulative liability of either party under this Agreement shall not exceed the value of the contract. The limitation on any Party's liability herein shall not apply to liability for damages, resulting from (i) the willful misconduct; (ii) breach of the use terms in respect of use of bidder Application System; and (iii) breach of confidentiality obligations. Bidder shall not be held liable for any delay or failure in its obligations, if and to the extent such delay or failure has resulted from a delay or failure by or on behalf of EdCIL India Limited to perform any of EdCIL India Limited's obligations.

7. **Confidential Information**

Each Party (the "Receiving Party") acknowledges and agrees to maintain the confidentiality of Confidential Information (as hereafter defined) provided by the other Party (the "Disclosing Party") hereunder. The Receiving Party shall not disclose or disseminate the Disclosing Party's Confidential Information to any person other than those employees, agents, contractors, subcontractors and licensees of the Receiving Party, or its affiliates, who have a need to know it in order to assist the Receiving Party in performing its obligations, or to permit the Receiving Party to exercise its rights under this Agreement. In addition, the Receiving Party (i) shall take all such steps to prevent unauthorized access to the Disclosing Party's Confidential Information, as it takes to protect its own confidential or proprietary information of a similar nature, which steps shall in no event be less than a reasonable standard of care, (ii) shall not use the Disclosing Party's Confidential Information, or authorize other persons or entities to use the Disclosing Party's Confidential Information, for any purposes other than in

connection with performing its obligations or exercising its rights hereunder, and (iii) shall require all persons and entities who are provided access to the Disclosing Party's Confidential Information, to execute confidentiality or non-disclosure agreements containing provisions substantially similar to those set forth in this Clause. The provisions of this Clause respecting Confidential Information shall not apply to the extent, but only to the extent, that such Confidential Information is: (a) already known to the Receiving Party free of any restriction at the time it is obtained from the Disclosing Party, (b) subsequently learned from an independent third party free of any restriction and without breach of this provision; (c) is or becomes publicly available through no wrongful act of the Receiving Party or any third party; (d) is independently developed by the Receiving Party without reference to or use of any Confidential Information of the Disclosing Party; or (e) is required to be disclosed pursuant to an applicable law, rule, regulation, government requirement or court order, or the rules of any stock exchange. Upon the Disclosing Party's written request at any time, or following the completion or termination of this Agreement, the Receiving Party shall promptly return to the Disclosing Party, or destroy, all Confidential Information of the Disclosing Party provided under or in connection with this Agreement, including all copies, portions and summaries thereof.

8. **Force Majeure**

The selected Bidder should not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delays in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

I. For purposes of this Clause, "Force Majeure" means an event beyond the control of the bidder and not involving the bidder's fault or negligence and not foreseeable. Such events shall include, but are not limited to, acts of the EdCIL either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

II. If a Force Majeure situation arises, the bidder should promptly notify the EdCIL in writing of such conditions and the cause thereof. Unless otherwise directed by the EdCIL in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and should seek all reasonable alternative means for performance not prevented by the Force Majeure event.

9. **Prices**

I. The price should be quoted in per unit (with breakup) and must include all packing and delivery charges. The offer/bid should be inclusive of taxes and duties, which will be paid as applicable. However, the percentage of taxes and duties should be clearly indicated. The inter se merit position of the bids however shall be decided based on the composite price of the product including taxes, transportation, Warranty with all other incidental expenses indicated.

II. The prices must be quoted in the Performa given in **Financial Bid** failing which the Bid would be treated as unresponsive. Any discount or any other offers affecting the package price must be mentioned in **Financial Bid** only. Discount or any other offers affecting the Package price **mentioned at any other place of the bid other that Financial Bid will not be considered.**

III. The price quoted should be inclusive of 3 years on site comprehensive warranty including basic training and demonstration to the end client.

10. **Notices**

For the purpose of all notices, the following should be the address :

Chief General Manager (DES)
EdCIL (India) Limited,
18 A, Sector-16A,
Noida-201301, Uttar Pradesh
Tel: 91-120-2512001 to 2512006

Supplier: (To be filled in by the supplier)

- Any notice given by one party to the other pursuant to this contract/order should be sent to the other party in writing or e-mail and confirmed in writing from the other party's address.
- A notice should be effective when delivered or on the notice's effective date, whichever is later.

11. **Supplier Integrity**

The selected bidder is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

12. **Governing Language**

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

13. **Applicable Law**

The Contract should be interpreted in accordance with the laws of the Union of India and all disputes should be subject to place of jurisdiction. The place of jurisdiction would be New Delhi (Delhi) INDIA.

14. **Right to Use Defective Goods**

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

II. Replacement of Goods broken, damaged or short: In the event of any material or part thereof found broken or damaged or received short during transit or during installation or Commissioning or testing at site, before commissioning in service the suppliers should replace the same free of cost. However, EdCIL may recover amount equivalent to the cost of such damaged / broken / short supplied materials and will repay when actual replacement is given.

III. Substitution and Wrong Supplies: Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods should be returned to the supplier at their own cost and risk.

15. Taxes

Selected Bidder should be entirely responsible for all taxes, duties, road permits, etc., incurred until delivery of the contracted Goods/Services. EdCIL shall only make payment towards the GST Charged in the invoice other than that no other taxes/ duties/ Charges will be paid.

16. Defective Equipment

I. If any of the equipment supplied by the Bidder is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment should be refunded by the Bidder with 18% interest if payments for such equipment have already been made.

II. All damaged or unapproved goods should be returned at suppliers' cost and risk and the incidental expenses incurred thereon should be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, should be replaced on receipt of the intimation from EdCIL/end client at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, EdCIL (INDIA) LTD may consider "Banning" the supplier.

17. Termination for Default

The EdCIL should, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

I. If the Supplier fails to complete the work within the period(s) specified in the order, or within any extension thereof granted by the EdCIL; or

II. If the Supplier fails to perform any other obligation(s) under the Contract.

III. If the Supplier, in the judgment of the EdCIL has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

IV. For the purpose of this Clause:

- "**Corrupt practice**" means the offering, giving, receiving or soliciting of anything of value to influence the action a public official in the procurement process or in contract execution.

- "**Fraudulent practice**" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the client, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the client of the benefits of free and open competition;'"

- In the event the EdCIL terminates the Contract in whole or in part, the EdCIL should procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier should be liable to the EdCIL for any total risk & costs for such similar Goods or Services. However, the Supplier should continue the performance of the Contract to the extent not terminated.

18. <u>Tender Conditions with Implementation of Insolvency and Bankruptcy Code, 2016 (IBC)</u>

a) It will be the responsibility of the bidder to inform EdCIL within 15 days from the date of order of insolvency resolution process or liquidation or bankruptcy proceeding passed by the Adjudicating Authority namely, National Company Law Tribunal (NCLT) or Debt Recovery Tribunal (DRT) under the Code.

b) If bidder refuses or fails to share the information regarding their status of insolvency resolution process or liquidation or bankruptcy proceeding in their bid or at any later stage, their offer is liable to be rejected by EdCIL.

c) EdCIL reserves the right to cancel/terminate the contract without any liability on the part of EdCIL immediately on the commencement of insolvency resolution process or liquidation or bankruptcy proceeding of any party under the contract.

d) EdCIL reserves its right to evaluate and finalise the bid without considering the bid of any party undergoing insolvency resolution process or liquidation

or bankruptcy proceeding under the Code regardless of the stage of tendering.

e) A declaration / undertaking shall be submitted by the bidder in the Format (as per ANNEXURE-XVIII) along with techno commercial bid.

19. <u>Guide lines for Evaluation & Short closure</u>:
   a) After opening of price bid but before award, if a bidder(s) is(are) rejected due to initiation of insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code), tender will be finalized ignoring such bid(s).
   b) During execution of contract, if insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code) is initiated against a contractor and EdCIL shall have the right to short close the contract.

20. <u>Compliance certificate</u>
   This certificate must be provided on their letter head indicating conformity to the technical specifications.

21. <u>Award of Contract</u>
   I. EdCIL reserves the right to accept or reject any proposal and to annul the bidding process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the Bidders. In case of annulment, all proposals submitted and specifically, proposal securities shall be promptly returned to the Bidder.
   II. EdCIL has the right to review at any time prior to award of contract that the pre-qualification criteria, are still being met by the Bidder whose offer has been determined as first rank. A proposal shall be rejected if the eligibility criteria, are no longer met by the Bidder whose offer has been determined as first rank.

22. <u>User List</u>
   Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items have been supplied must be provided.

23. <u>Product Life</u>
   The Models offered should strictly conform to the specifications given in the product literature and these models should be supported for a minimum period of 3 years including warranty period. The Models proposed/ marked for withdrawal from the market and the models under quality testing should not be offered.

In addition to the above, if any additional/ enhanced configuration is suggested in view of technological changes, it may be furnished as optional feature with/without cost duly explaining the additional utility of the offered model in both the technical offer document as well as Commercial Offer document. However, the basic quote should be confined only to the configuration/ model offered for.

24. Acknowledgement

It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.

25. Price Information

Price information shall not be there in Technical Bid.

26. Rates in Figures and Words

Rates Quoted by the Bidder in tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the rates quoted by the Bidder will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s) and amount blank, it will be presumed that the Bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

In the case of any tender where unit rate appear unrealistic, such tender will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.

27. Fall Clause

The Bidder undertakes that the rates quoted by him in the financial bid for each item is not higher than the rate offered by him for similar work to any other PSU/ AB/ Govt. Department. In case, if the price charged by bidder is more, EdCIL will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier, provided all condition of the work including time, scope, logistics, specifications and country are same.

Technical Compliance Sheet

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder Name: _____

Designation: _____

Organization Name: _____

Contact No.: _____

Seal of the Company:_____

<< Organization Letter Head >>

DECLARATION SHEET

We,_____hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, we will support on regular basis with technology / product updates and extend support for the warranty.

We, further specifically certify that our organization has not been Black Listed/ De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking	NAME & ADDRESS of the VENDOR/ MANUFACTURER/ AGENT
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of EMD) 8. UTR No. (For EMD)	
9. Kindly provide bank details of the bidder in the following format: a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful	

(Signature of the Tenderer)

Name: _____

Seal of the Company

Letter of undertaking
(ON THE LETTER HEAD OF THE BIDDER)

To
Chief General Manager (DES)
EdCIL (India) Limited (EdCIL)
EdCIL House, 18 A, Sector-16 A,
NOIDA – 201301 (U.P.)

Sir,

SUBJECT- Selection of service provider for "Selection of System Integrator For "Design, Supply & Installation of Audio & Video Solution".

This bears reference to EdCIL Bid No. **EdCIL/DES/A&V/2024** dated …….. We, hereby, accept all the terms and conditions for submitting bid as mentioned in this Bid Document.

We hereby certify that no terms and conditions have been stipulated by us in the Financial Bid.

We warrant that the services do not violate or infringe upon any patent, copyright, trade secret or other property right of any other person or other entity. We agree that we shall not prevent EdCIL from any claim or demand, action or proceeding, directly or indirectly resulting from or arising out of any breach or alleged breach of any of the terms & conditions of bid document and contract.

The above document is executed on …….. at (place) _____ and we accept that if anything out of the information provided by us is found wrong, our bid/ work order shall be liable for rejection.

Thanking you,

Yours faithfully,

Name of the Bidder_____
Authorized Signatory_____
Seal of the Organization_____

Date:
Place:

UNDERTAKING OF NON BLACKLISTING

This is to confirm that we M/s _____ (give full address) or any of our affiliated companies or subsidiaries have not been declared neither **failed to perform on any Agreement, nor have been expelled from any project or Agreement nor any Agreement terminated** for breach by the us (Agency) in any of the government department and public sector undertaking /enterprise or by any other Government Client in India, in last five year before release of advertisement.

If the above information found false at any stage after the placement of Work Order / Agreement, EdCIL (India) Limited (EdCIL), 18-A, Sector 16-A, Noida will have full right to cancel the Contact and forfeit the Performance Guarantee. All the direct and indirect cost related to the cancellation of the order will be borne by us besides any legal action by EdCIL which shall be deemed fit at that point of time.

Authorized Signatory

Note: *The undertaking regarding the non-blacklisting of firm is to be submitted on a non-judicial stamp paper of Rs. 100/- (Rupees Hundred only).*

Financial Statement

Sl. No.	Financial Year	Annual Turnover	Net Worth	Profitability
2.	2021-22			
3.	2022-23			
4.	2023-24			
Total				
Average of FY 2021-22, 2022-23 and 2023-24				

Note: Certificate from Statutory Auditor/ Charted Accountant certifying balance sheet only for all three FY years to be attached.

Signature with Seal of the Chartered Accountant

Signature with Seal of the Bidder

List of Orders Completed for Govt. Organizations / Autonomous Institutes in India

Bid No.:
Date:
Name of the Firm:

S.No	Name of Client	Name of the Project and brief description	Project Value	Date of award	Date of Completion	Current Status and duration of maintenance period for ongoing project	Name of Contact Person and other details
1.							
2.							
3.							
4.							

Signature of Bidder
(Signature with seal)

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

Manufacturer's Authorization Form (MAF)
{to be filled by OEM}

To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)

Subject: OEM Authorization Letter for Request for Proposal (RFP) for Selection of service provider for "Selection Of System Integrator For "Design, Supply & Installation Of Audio & Video Solution".

Dear Sir,

We, who are established and reputable having factories / development facilities at (address of factory / facility) do hereby authorize _____ to submit a Bid, and accept the Purchase Order against the above Bid Invitation.

We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation. We further undertake that we will support the supplier will all related spares and maintenance during the entire contract period.

We duly authorize the said firm to act on our behalf in fulfilling all installations, technical support and maintenance obligations required by the Project.

Yours faithfully,

Name:

Seal:

Note: This letter of authority should be on the letterhead of the OEM

Power of Attorney

Know all men by these presents, we…………………………………… (name of firm and address of the registered office) do hereby constitute, nominate

appoint and authorize Mr./Ms………………………. son/daughter/wife of …………. and presently residing at…………………………., who is presently employed with /retained by us and holding position of……………as our true and lawful attorney

(hereinafter referred to as the "Authorized Representative") to do in our name and on our behalf, all such acts, deeds and things are as necessary or required in connection with or incidental to submission of our proposal for and selection as the <project title> for the <name of the client>………………………………project, proposed to be developed by the

………………………….. (the "client") including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre bid and other conferences and providing information /responses to the client, representing us in all matters before the Client, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the client in all matter in connection with or relating to or arising out of our Proposal for the said project /or upon award thereof to us till the entering into of the Agreement with the client.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawful done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this power and Attorney and that all acts, and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

[IN WITNESS WHEREOF WE…………………………………THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON

THIS ……………… DAY OF …………. 2024.

For …………………………………… (Name and registered address of client)

(Signature, name, designation, and address)

Witness:

1. (Signature, name and address)

2. (Signature, name and address)

Notarized

Accepted

……………………………………………………………

(Signature, name, designation, and address of the attorney)

Notes:

1. The mode of the execution of the power of Attorney shall be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under seal affixed in accordance with the required procedure.

2. Wherever required, the applicant should submit for verification the extract of the charter documents and other documents such as a resolution/Power of Attorney in favor of the person executing this Power of Attorney for delegation of power hereunder on behalf of the applicant.

3. For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power and Attorney is being issued. However, the Power of Attorney provided by the applicants from countries that have signed The Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy it is carries a conforming Apostle certificate.

LETTER OF BID SUBMISSION

To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)

SUBJECT: Selection of System Integrator for "Design, Supply & Installation of Audio & Video Solution".

-Submission of Bid -

Sir,

Having examined the details given in Press Notice, Notice Inviting Bid & Bid Document for the above work, I/we hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed form _____ and accompanying statements are true and correct.

2. I / we certify that we have not changed/altered any word/sentence or any figure in number/s or words appearing the original tender document uploaded by EdCIL on the designated web page for e-tendering. In case, if a fraudulent activity is found at any stage between tender submission to final closure of the tender/contract, our candidature/bid/contract shall be immediately cancelled and EMD/Performance security/ security deposit along with the due amount towards the work executed or advance shall be forfeited. EdCIL will not entertain any claim or entertain any reason for this intentional act. EdCIL may go for the legal action against the bidder for recovering any one or all damages caused to EdCIL or its client on this account.

3. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.

4. I/We submit the requisite **certified solvency certificate** and authorize the EdCIL to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize EdCIL to approach individuals, employers, firms and corporation to verify our competency and general reputation.

5. I/We submit the following **certificates** in support of our suitability, technical knowledge and capability for having successfully completed the following works:

S.No.	Name of Work	Certificate From

6.   Earnest Money Deposit amounting to Rs. _____ in the form of DD/Pay Order No. ---------- dated ----------- issued by -------------- Bank is submitted.

7.   Demand Draft of Rs. (NIL)/- towards Bid document cost.: If applicable

Enclosures:

Date of Submission:

Bank Guarantee towards Bid Security (EMD)

Bank Guarantee No._____

To,
Chief General Manager (DES)
EdCIL (India) Limited
EdCIL House, 18 A,
Sector-16 A NOIDA – 201301 (U.P.), India

Whereas .... (here in after called "the Bidder") has submitted its Bid dated ......(Date) in response to the RFP No:............ for Selection Of System Integrator For "Design, Supply & Installation of Audio & Video Solution". (here in after called "the Bid")

KNOW ALL MEN by these presents that We .... having our registered office at........................ (hereinafter called the "Bank") are bound onto EdCIL India Limited, Noida (hereinafter called "EdCIL") in the sum of .... for which payment well and truly to be made to the said EdCIL itself, its successors and assignees by these presents.

The conditions of these obligations are:

1. If the Bidder withdraws its Bid during the period of Bid validity or
2. If the Bidder, having been notified of the acceptance of its Bid by EdCIL

during the period of Bid validity:

1. fails or refuses to execute the Agreement form if required; or
2. fails or refuses to furnish the performance security, in accordance with the Bid requirement

We undertake to pay EdCIL up to the above amount upon receipt of its first written demand, without EdCIL having to substantiate its demand, provided that in its demand EdCIL will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to (Date) and any demand in respect thereof should reach the Bank not later than the above date.

Dated: the   Day   of   for

(indicate the name of bank)

Signature of Banks Authorized official

Witness (Name)_____

Designation with Code No. ---------

1. Full Address----------

2.

Name of the Bank: _____

To

Chief General Manager (DES)
EdCIL (India) Limited
EdCIL House, 18 A, Sector-16 A
NOIDA – 201301 (U.P.)

PERFORMANCE BANK GUARANTE FORMAT

In consideration of the Chief General Manager EdCIL acting through _____ (Designation & address of Contract Signing Authority), (hereinafter called "The EdCIL (India) Ltd") having agreed under the terms and conditions of agreement/ Contract Acceptance letter No. _____
Dt :_____ Made between _____ (Designation & address of contract signing Authority) and _____ (here in after called "the said Agency" for the work _____ (here in after called "the said agreement") having agreed for submission of a irrevocable Bank Guarantee Bond for ₹ _____ (₹ _____ only) as a performance security Guarantee from the Agency for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We _____ (Indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the EdCIL (India) Ltd an amount not exceeding ₹ _____ (₹ _____ only) on demand by the EdCIL (India) Ltd.

2. We _____ (Indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the EdCIL (India) Ltd through the CGM(DES), EdCIL (India) Ltd, Noida or _____ (Designation & Address of contract signing authority), stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the EdCIL (India) Ltd by reason of any breach by the said Agency of any of the terms of conditions contained in the said agreement or by reason of the Agency failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this

guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹ _____ (₹ _____ Only).

3. (A)   We _____ (indicate the name of Bank) further undertake to pay to the EdCIL (India) Ltd any money so demanded notwithstanding any dispute or dispute raised by the Agency in any suite or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.

(B) The payment so made by us under this Performance Guarantee shall be a valid discharge of our liability for payment there under and the Agency shall have no claim against us for making such payment.

4. We _____ (Indicate the name of bank) to further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the EdCIL (India) Ltd under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by _____

(Designation & Address of contract signing authority) on behalf of the EdCIL (India) Ltd, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said Agency and accordingly discharges this guarantee.

5 (a) Not withstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the EdCIL (India) Ltd or until (date of validity/ extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the EdCIL (India) Ltd within validity/ extended period of validity of guarantee from the date aforesaid.

(b) Provided always that we _____ (indicate the name of the Bank) unconditionally undertakes to renew this guarantee or to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case shall be on being called upon to do so by the EdCIL (India) Ltd. If the guarantee is not renewed or the period extended on demand, we _____ (indicate the name of the Bank) shall pay the EdCIL (India) Ltd the full amount of guarantee on demand and without demur.

6. We _____ (indicate the name of Bank) further agree with the EdCIL (India) Ltd that the EdCIL (India) Ltd shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the EdCIL (India) Ltd against the said Agency and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Agency for any bearance act or omission on the part of the EdCIL (India) Ltd or any indulgence by the EdCIL (India) Ltd to the said Agency for by any such matter or thing whatsoever under the law relating to sureties for the said reservation would relive us from the liability.

7. This guarantee will not be discharged by any change in the constitution of the Bank or the Agency.

8. We, _____ (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the EdCIL (India) Ltd in writing.

9. This guarantee shall be valid up to (Date of Completion plus 90 Days). Unless extended on demand by EdCIL (India) Ltd. Notwithstanding anything to the contrary contained hereinbefore, our liability under this guarantee is restricted to Rs……………. (Rs…………………………..only) unless a demand under this guarantee is made on us in writing on or before……………. we shall be discharged from our liabilities under this guarantee thereafter.

Dated:	The	Day of	For
		(indicate the name of bank) Signature of Banks Authorized official	
Witness		(Name)_____	
		Designation with Code No. ---------	
1		Full Address-----------	
2.			

PROFORMA PRE CONTRACT INTEGRITY PACT

GENERAL

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on ___ day of the month of …. 2024, between, on one hand, acting through Shri/Smt. _____, Designation, EdCIL (India) Limited (hereinafter called the "BUYER"/ "EdCIL" interchangeably, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part

AND

M/s _____ represented by Shri _____, Chief Executive Officer (hereinafter called the "BIDDER/Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the EdCIL proposes to procure services towards Selection Of System Integrator For "Design, Supply & Installation Of Audio & Video Solution".

For its clients and BIDDER/Seller is willing to offer the said services and related items as referred to in the Bid document No. **EdCIL/DES/A&V/2024** Dated ………………………….. 2024.

WHEREAS the BIDDER is a private company /public company / Government undertaking / partnership / registered expert agency, constituted in accordance with the relevant law in the matter and the EdCIL is a Public Sector Undertaking under Ministry of Human Resource Development performing its functions.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

Enabling the EdCIL to obtain the desired services as referred to in the Bid document No. **EdCIL/DES/A&V/2024**dated ………2024 at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement and Enabling BIDDERs

to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the EdCIL will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

1. <u>Commitments of the EdCIL</u>

    1.1 The EdCIL undertakes that no official of the EdCIL, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

    1.2 The BUYER will, during the pre-contract stage, treat all BIDDERs alike, and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.

    1.3 All the officials of the EdCIL will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the EdCIL with full and verifiable facts and the same is prima facie found to be correct by the EdCIL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings shall be initiated by the EdCIL and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the EdCIL the proceedings under the contract would not be stalled.

3. <u>Commitments of Bidders</u>

    The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the

contract or in furtherance to secure it and in particular commit itself to the following:

3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with the Government.

3.3 Bidders shall disclose the name and address of agents and representatives and Indian BIDDERs shall disclose their foreign principals or associates.

3.4 BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

3.5 The BIDDER further confirms and declares to the EdCIL that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the EdCIL or any of its functionaries, whether officially or unofficially to the award to the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation, as the case shall be for satisfactory performance of the proposed terms of Bidder.

3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the EdCIL

or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the EdCIL as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the EdCIL, or alternatively, if any relative of an officer of the EdCIL has financial interest / stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of Bid.

3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the EdCIL.

4. <u>PREVIOUS TRANGRESSION</u>

4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this integrity pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or

any Government Department in India that could justify BIDDER's exclusion from the bid process.

4.2 The BIDDER agrees that if it makes incorrect statement on this subject. BIDDER can be disqualified from the Bid process or the contract, if already awarded, can be terminated for such reason.

5. **EARNEST MONEY DEPOSIT**

5.1 While submitting Technical bid, the BIDDER shall deposit an amount of _____ /- as Earnest Money with the EdCIL through Account Payee Bank Demand Draft/ BG in favor of EdCIL (India) Limited. The list of bank from where the EMD is acceptable is placed at annexure XV.

5.2 The instrument for Security Deposit made shall be valid up to the specified period and the bidder shall be liable to keep the said instrument valid for such extended period as the case shall be for satisfactory performance of the terms of Bidder above referred till the complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the EdCIL, including O&M period, whichever is later.

5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining of Performance Bond in the corresponding Contract governing such agreement that the provisions of Sanctions for Violation shall be applicable for encashment of Performance Bank Guarantee deposited towards forfeiture of said amount in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing such sanction.

5.4 No interest shall be payable by the EdCIL to the BIDDER on Earnest Money Deposit for the period of its currency.

6. **SANCTIONS FOR VIOLATIONS**

7.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the EdCIL to take all or any one of the following actions, wherever required:

i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

ii. The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (Bank Guarantee) (after the contract is signed) shall stand forfeited either fully or partially, as decided by the EdCIL and the BUYER (EdCIL) shall not be required to assign any reason therefore.

iii. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

iv. To recover all sums already paid by the EdCIL, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR as the case shall be. If any outstanding payment is due to the BIDDER from the EdCIL in connection with any other contract for any other stores or on any account whatsoever and by whatsoever name called, such outstanding payment could also be utilized to recover the aforesaid sum and interest thereto.

v. To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the EdCIL, along with interest.

vi. To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the EdCIL resulting from such cancellation/rescission and the EdCIL shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

vii. To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which shall be further extended at the discretion of the EdCIL.

viii. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

ix. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the EdCIL with the BIDDER, the same shall not be opened.

x. Forfeiture by way of encashment of Performance Bond in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2   The EdCIL will be entitled to take all or any of the actions mentioned at Para 6.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of any offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3   The decision of the EdCIL to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, an Independent Monitor(s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.

7.   INDEPENDENT MONITORS

1.1   An Independent monitor (s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.

1.2   The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

1.3   The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

1.4   Both the parties accept that the Monitors have the right to access all the documents relating to the project / procurement, including minutes of meetings.

1.5   As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the EdCIL.

1.6   The BIDDER(s) accept that the Monitor has the right to access without restriction to all Project documentation of the EdCIL including that provided b the BIDDER. The BIDDER 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 Sub-bidders. The Monitor shall be under contractual

obligation to treat the information and documents of the BIDDER/Sub-bidder(s) with confidentiality.

1.7   The EdCIL 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 the parties. The parties will offer to the Monitor the option to participate in such meetings.

1.8   The Monitor will submit a written report to the designated Authority of BUYER/Secretary in the Department/within 8 to 10 weeks from the date of reference or intimation to him by the EdCIL / BIDDER and, shall the occasion arise, submit proposals for correcting problematic situations.

2.   <u>FACILITATION OF INVESTIGATION</u>

In case of any allegation of violation of any provisions of this Pact or payment of commission, the EdCIL or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

3.   <u>LAW AND PLACE OF JURISDICTION</u>

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the EdCIL.

4.   <u>OTHER LEGAL ACTIONS</u>

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that shall follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

5.   <u>VALIDITY</u>

5.1 The validity of this Integrity Pact shall be governed by the terms of the Bid No. **EdCIL/DES/A&V/2024** towards complete execution of the contract to the satisfaction of both the EdCIL and the BIDDER/Seller, including O&M period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract awarding the Bidder with successful bidder.

5.2 Shall one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

6. The parties hereby sign this Integrity Pact at _____ on _____.

EdCIL (India) Limited   BIDDER
Name of the Officer   :   CHIEF   EXECUTIVE
OFFICER
Designation:

Witness: Witness:

_____   1. _____

_____   2. _____

(The Pre-Contract Integrity Pact shall be modified based in line with the conditions of the Bid Documents)

Contract Form

THIS AGREEMENT made the .... day of ...... 2024 between .... EdCIL(Hereinafter called "the Purchaser") of the one part and .... (Name & address of Supplier) .... (Hereinafter called "the Supplier") of the other part:

WHEREAS the Purchase is desirous that certain Goods and ancillary services viz. .... (Brief Description of Goods and Services) and has accepted a bid by the Supplier for the supply of those goods and services in the sum of .... (Contract Prize in words and Figures) (Hereinafter called "the Contract Price")

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.,
   [a]   The   Price   Schedule   submitted   by   the   Bidder;
   [b]   The   Schedule   of   Requirements;
   [c]   The   Terms   &   Conditions
   [d] The EdCIL's Notification of Award/ Purchase Order
3. In consideration of the payments to be made by the EdCIL to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the EdCIL to provide the goods and services and to remedy defects herein in conformity in all respects with the provisions of the Contract.
4. The EdCIL hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contact prices or such other sum as shall become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services, which shall be supplied/ provided by the Supplier, are as under:

S. No.	Brief Description of Goods & Services	Quantity to be supplied	Unit Price	Total Price	Delivery Terms

TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS where of the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

said .... (For the EdCIL)

in the presence of ....

Signed, Sealed and Delivered by the

said .... (For the Supplier) in the presence of ....

FORM – A
DELIVERY CERTIFICATE

The items mentioned as per details given below, have been physically verified by way of opening the cartons/packing and verifying the machine/ equipment supplied and model of the Equipment/Items. It is certified and acknowledged that the same have been received at this Institution in good condition.

Sl. No.	Address	School Name	Description of Equipment	Serial No of Device	Make	Model	Quantity
1							

Please make appropriate column, as per requirement.

The items as per details given below was/were received in damaged conditions and therefore are not acceptable. This damaged goods / equipment have been returned to the supplier and supplier is required to supply the new equipment in lieu of damaged one.

Details of the Goods/Equipment received in objectionable condition

Sl. No.	Address	School Name	Description of Equipment	Serial No of Device	Make	Model	Quantity
1							

Signature of School Representative

Name: _____

Designation: _____

Date: _____

Rubber Seal: _____

LIST OF AUTHORISED BANKS FOR BG

Any Guarantee issued by PSU Bank (or) Private Bank operating in India must be operational and invocable in Noida only. For Guarantee to be operational in Noida the issuing bank must designate a specified Bank Branch in Noida.

Following banks are permissible for accepting Bank Guarantees:

I- SCHEDULED PUBLIC SECTOR BANKS

S.No.	Name of the Bank
1	Bank of Baroda
2	Bank of India
3	Bank of Maharashtra
4	Canara Bank
5	Central Bank of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank of India
11	UCO Bank
12	Union Bank of India

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II- SCHEDULED PRIVATE SECTOR BANKS

S.No.	Name of the Bank
1	HDFC Bank Ltd
2	ICICI Bank Ltd
3	Axis Bank Ltd
4	Kotak Mahindra Bank Ltd
5	Indusland Bank Ltd

EQUIPMENT SPECIFICATION COMPLIANCE

COMPLIANCE STATEMENT FORM

a) Bidders shall respond to basic sections of this tender clause by clause/Clauses, using a compliance summary statement, the sample format of which is given below. This shall be in sequential order, the same as is given in this specification.

S.No.	Technical specification of each line items as per Scope of work	Compliance statement	Description
		Put Comply or not comply	Explain how the offered good is complaint or not compliant with the requirement of the technical specification attached (if the bidder does not mention justification for compliance, it might be considered as non-compliant)

b) If no compliance is stated for a clause, the good will be assumed not to comply with that particular specification item, contract and standard commercial terms and Conditions

c) For purpose of compliance verification, a document and page number cross-reference should be given (where applicable) in the reference column of the compliance summary statement.

d) The supplier may include other relevant documentation by indicating a page number of document. It is mandatory to include detailed technical documentation, covering specification and quality performance of goods to be offered.

e) Any clause marked with "comply" in the bidders' compliance summary statement is binding on the successful bidder to supply goods that meet the requirements of that clause. This shall apply for the lifetime of any awarded contract.

Pre-Bid Query Format

Pre-bid queries should be submitted in .XLS format.

RFP Description				
RFP No.				
Organization				
Address				
Contact Person				
Contact No.				
Mail Id				
S.No.	Section No.	Page No.	Clause as per RFP	Clarification Sought

PERFORMA FOR DECLARATION ON PROCEEDINGS UNDER INSOLVENCY AND BANKRUPTCY CODE, 2016

Tender No. : ....

Name of Work : ....

Bidder 's Name : ....

I/ We, M/s. _____ declare that:-
a) I /We am / are not undergoing insolvency resolution Process or liquidation or bankruptcy proceeding as on date.
b) I /We am / are undergoing insolvency resolution process or liquidation or bankruptcy proceeding as on date as per Details mentioned below. (Attached detail with technical bid)

Note: Strike out one of above which is not applicable.

It is understood that if this declaration is found to be false, EdCIL (India) Ltd. shall have the right to reject my / our bid, and forfeit the EMD, if the bid has resulted in a contract, the contract will be liable for termination without prejudice to any other right or remedy (including holiday listing) available to EdCIL (India) Ltd.

Place:_____

Date:_____

Signature of Bidder: _____

Name of Signatory:_____

(On Bidder's Letter Head)

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.)

Place:_____

Date:_____

Signature of Bidder: _____

Name of Signatory:_____

Instructions to Bidders

1. Financial Bid shall be submitted with full price details. Financial Bid shall contain only the prices duly filled in as per the format given in Schedule of Rates provided in the tender document. Price bid should not have any Commercial and/or Technical stipulation in addition to, what is already given in Part I – Technical bid.

2. Financial Bid Standard Form-1 shall be used for the preparation of the price quote according to the instructions provided.

3. The bid shall be evaluated as detailed in "Evaluation of financial bid" in chapter V.

4. The prices quoted by the bidder shall be fixed for the quantity mentioned for the duration of the contract.

5. The changes displayed in the corrigendum/addendum to the bid documents, particularly with the financial bid should be attached with the **Financial Bid Submission Form**, in the same packet, duly signed and stamped by the authorized signatory of the Bidder firm.

6. The financial bid submission form should be filled in all respect and uploaded in **.PDF** format (only) should be duly signed and sealed by the authorized representative. The form 1 should be filled in all respect and uploaded in **.XLS** format (only). In case, the financial bid documents are not complete in all respect the same should be treated as incomplete at financial bid stage and shall be considered non-responsive. The technical bid should not contain any financial terms and pricing.

7. In case, the Bidder/s does not quote for all the items, the Bid shall be treated as incomplete and shall be rejected summarily.

8. The prices must be quoted in the Performa given in financial Bid, failing which the Bid would be treated as unresponsive. Any discount or any other offers affecting the package price must be mentioned in Financial Bid only. Discount or any other offers affecting the Package price mentioned at any other place of the bid other that Financial Bid will not be considered.

9. Price quoted by the bidder is including all transportation and installation etc. cost (if any).

10. The bidder should quote for all components of the solution(s) in accordance to the pre-qualification and technical qualification criteria.

PART II - FINANCIAL BID

Financial bid submission form

To
Chief General Manager (DES)
EdCIL (India) Limited
EdCIL House, 18 A, Sector-16 A
NOIDA – 201301 (U.P.)

Dated: ___/___/2024

Dear Sir,

We, the undersigned, offer to provide "Selection of System Integrator for "Design, Supply & Installation of Audio & Video Solution". in accordance with your request for proposal dated ___/___/2024.

Our attached Financial Bid for Selection of System Integrator for "Design, Supply & Installation of Audio & Video Solution". is for the amount of _____ *[Indicate the corresponding to the amount(s), currency (ies) {Insert amount(s) in words and figures}].*

Please note that all amounts shall be the same as in Form-1. Our Financial Bid shall be binding upon by us subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the Proposal.

Yours sincerely,
Authorized Signature {In full and initials}:
Name and Title of Signatory:
In the capacity of:
Address:
E-mail

FORM: 1

Subject: Selection of System Integrator for "Design, Supply & Installation of Audio & Video Solution".

Name of the Owner Individual/ Firm: ....

TYPE-I

Solution 1:

TRAINING ROOM 2

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
25	Full HD WUXGA 7000 lumens Laser Projector	1					
26	Custom Heavy Mount for above projector with 4x4 descent	1					
27	Motorised screen 119" 16:10 aspect ratio	1					
28	2x1 4K HDMI Auto Switcher	1					
29	Wall plate with 1 HDMI and USB C	1					
30	HDMI Transmitter	1					
31	HDMI Receiver	2					
32	Headworn Microphone.	1					
33	Wireless Hand held mics	4					
34	Gooseneck Microphone	1					
35	Shock mount for above	1					
36	DSP	1					
37	Amplifier (250 W)	1					

S.No	Name of the Item	Qty					
38	Wall mount speakers (100 Speaker)	2					
39	HDMI Patch Cable 6 ft	5					
40	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1					
41	Speaker Cable 14 AWG	1 Meter					
42	Microphone Cable	1 Meter					
43	Audio Sterio / Control Cable	1 Meter					
44	STP Cable	1 Meter					
45	EquipmentRack600x 800	1					
46	Digital podium (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1					
47	Cabling and termination charges	1					
48	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1					
	Total Amount (incl. Taxes)						

VIRTUAL TRAINING ROOM 3

S.No.	Name of the Item	Qty (A)	Unit Cost(B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)

No.	Item	Qty					
37	98" UHD 500 Nits LED Display	2					
38	Swivel wall mount for above display/Ceiling mount for projector	2					
39	PTZ Camera	1					
40	Tracking Camera	1					
41	Ceiling Camera mount	2					
42	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC shoud have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	1					
43	Matrix Switcher	1					
44	4K Wireless Presentation Device	1					
45	Wall plate with 1 HDMI and USB C	1					
46	HDMI Transmitter	2					
47	HDMI Receiver	3					
48	USB Extender Kit	2					
49	Camera Mixer	1					
50	Headworn Microphone.	1					
51	Gooseneck Microphone	17					
52	Shock mount for above	17					
53	DSP	2					
54	Ceiling speakers (30W)	6					
55	Dual Channel Commercial Class D Amplifier (250W)	3					

56	Room Control with Ipad control	1					
57	Tabletop Touch Panel	1					
58	Base Station or table flush bracket with inbuilld charging	1					
59	Docking StationSleeve	1					
60	Software for Ipad	1					
61	Network Switch that Supports 48 port	1					
62	HDMI Patch Cable 6 ft	13					
63	USB A to B cable 6 ft	7					
64	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1					
65	Speaker Cable 14 AWG	1 Meter					
66	Microphone Cable	1 Meter					
67	Audio Sterio / Control Cable	1 Meter					
68	STP Cable	1 Meter					
69	Equipment Rack 600x800	1					
70	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor,faceplate,DA ,etc)	1					
71	Cabling and termination charges	1					
72	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts,	1					

	schematics etc.) and documentation charges						
	Total Amount (incl. Taxes)						

TRAINING ROOM 4

S.No.	Name of the Item	Qty (A)	Unit Cost(B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
25	Full HD WUXGA 7000 lumens Laser Projector	1					
26	Custom Heavy Mount for above projector with 4x4 descent	1					
27	Motorised screen 119" 16:10 aspect ratio	1					
28	2x1 4K HDMI Auto Switcher	1					
29	Wall plate with 1 HDMI and USB C	1					
30	HDMI Transmitter	1					
31	HDMI Receiver	2					
32	Headworn Microphone.	1					
33	Wireless Hand held mics	4					
34	Gooseneck Microphone	1					
35	Shock mount for above	1					
36	DSP	1					
37	Amplifier (250 W)	1					
38	Wall mount speakers (100 Speaker)	2					
39	HDMI Patch Cable 6 ft	5					
40	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1					

S.No	Name of the Item	Qty					
41	Speaker Cable 14 AWG	1 Meter					
42	Microphone Cable	1 Meter					
43	Audio Sterio / Control Cable	1 Meter					
44	STP Cable	1 Meter					
45	Equipment Rack 600x800	1					
46	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1					
47	Cabling and termination charges	1					
48	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1					
	Total Amount (incl. Taxes)						

VIRTUAL TRAINING ROOM 5

S.No.	Name of the Item	Qty (A)	Unit Cost(B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
37	98" UHD 500 Nits LED Display	2					
38	Swivel wall mount for above display/ Ceiling mount for projector	2					

39	PTZ Camera	1					
40	Tracking Camera	1					
41	Ceiling Camera mount	2					
42	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC shoud have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	1					
43	Matrix Switcher	1					
44	4K Wireless Presentation Device	1					
45	Wall plate with 1 HDMI and USB C	1					
46	HDMI Transmitter	2					
47	HDMI Receiver	3					
48	USB Extender Kit	2					
49	Camera Mixer	1					
50	Headworn Microphone	1					
51	Gooseneck Microphone	21					
52	Shock mount for above	21					
53	DSP	3					
54	Ceiling speakers (30W)	6					
55	Dual Channel Commercial Class D Amplifier (250W)	3					
56	Room Control with Ipad control	1					
57	Tabletop Touch Panel	1					
58	Base Station or table flush bracket with inbuilld charging	1					

59	Docking Station Sleeve	1					
60	Software for Ipad	1					
61	Network Switch that Supports 48 port	1					
62	HDMI Patch Cable 6 ft	13					
63	USB A to B cable 6 ft	7					
64	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1					
65	Speaker Cable 14 AWG	1					
66	Microphone Cable	1					
67	Audio Sterio / Control Cable	1					
68	STP Cable	1					
69	Equipment Rack 600x800	1					
70	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Softwheels , Power strip with tablet monitor, faceplate, DA etc)	1					
71	Cabling and termination charges	1					
72	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1					
Total Amount (incl. Taxes)							

TRAINING ROOM 6

S.No.	Name of the Item	Qty (A)	Unit Cost(B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
25	Full HD WUXGA 7000 lumens Laser Projector	1					
26	Custom Heavy Mount for above projector with 4x4 descent	1					
27	Motorised screen 119" 16:10 aspect ratio	1					
28	2x1 4K HDMI Auto Switcher	1					
29	Wall plate with 1 HDMI and USB C	1					
30	HDMI Transmitter	1					
31	HDMI Receiver	2					
32	Headworn Microphone.	1					
33	Wireless Hand held mics	6					
34	Gooseneck Microphone	1					
35	Shock mount for above	1					
36	DSP	1					
37	Amplifier (250 W)	2					
38	Wall mount speakers (100 Speaker)	4					
39	HDMI Patch Cable 6 ft	5					
40	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	1					
41	Speaker Cable 14 AWG	1					
42	Microphone Cable	1					
43	Audio Sterio / Control Cable	1					
44	STP Cable	1					

45	Equipment Rack 600x800	1					
46	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA etc)	1					
47	Cabling and termination charges	1					
48	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	1					
	Total Amount (incl. Taxes)			███			

Solution 2:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75-inch Ultra HD 4K Interactive Flat Panel Display with OPS	1					
2.	Public announcement System - 120 Watt Sound Bar with inbuilt Speakers and amplifier with external subwoofer and wireless Handheld and Headband microphone	1					

3.	All in One Computer i5, 8GB RAM, 512 GB SSD with Keyboard and Mouse with headphone for librarian	20					
4.	Language Lab Solution with English Hindi & Sanskrit Languages	20					
5.	Almirah steel bookcase 4 door - glass front	2					
6.	Revolving chair for Reading cum reference section	16					
7.	Reading cum reference section Table (Double-Sided)	2					
8.	Computer Table	20					
9.	Revolving chair for computer table	20					
10	Books & e-books	1					
11	Table for Librarian	1					
12	High Back Chair for Librarian	1					
13	WIFI 6 ACCESS POINT	1					
14	2 ton Split AC including cost of M.S stand, stabilizer and 9 ft. copper pipe	3					
15	6-KVA Online UPS with 1/2 Hours Backup	1					
16	Multifunctional Laser Printer	1					
17	CCTV System - 2 MP Full HD IP Dome Camera (6 Nos), 8 CH Network Video Recorder with 4 TB	1					

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
	HDD (1 Qty), 8 port PoE Switch with 2 RJ45 uplink (1 Qty), Cat-6 Ethernet Cable (350 Meter), Cable Conduit, etc as per site requirement.						
18	Fire Extinguisher - ABC Powder fire Extinguisher Cylinder of 6kg	4					
19	News Paper Stand, False ceiling & wall	1					
Total Amount of Solution 2 (incl. Taxes)				▇			

Solution 3:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	Doll's Corner	34					
2.	Cognitive Corner	34					
3.	Language Corner	34					
4.	Art and Craft Corner	34					
5.	For AWW/center (Packets for accessories)	34					
6.	Books	34					
7.	Refurbishment, Basic Whitewash and Ensuring WASH Infrastructure with 43" android tv for educational purposes	34					
8.	Chart Painting	34					
9.	Interior Work	34					
10.	Hygiene & Health, Natal Care	34					
11.	Garden and Playground Area	34					
12.	Toys & Stationery	34					
Total Amount of Solution 3				▇			

	(incl. Taxes)						

Solution 4:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1	Interactive Digital Board-98"	8					
2	OPS PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	6					
3	Audio System	6					
4	Smart Podium with 200 Watt audio output Speakers and 250 Watt Amplifier and PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	2					
5	Ceiling Document Scanner	8					
6	Delivery, Installation and Commissioning, One time teacher's training at College level and 3 Years Warranty for Sr. No. 1 to 5.	8					
Total Amount of Solution 4 (incl. Taxes)							

Solution 5:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1	75" Interactive panel with OPS	1					

2	86" Interactive panel with OPS	2					
3	Camera for IFP	3					
4	75" Interactive panel Stand	1					
5	Smart Podium	1					
Total Amount of Solution 5 (incl. Taxes)							

SUMMARY OF TYPE-I

S.No.	Particulars	Total Cost (In Rs.)
1	Solution 1	
2	Solution 2	
3	Solution 3	
4	Solution 4	
5	Solution 5	
TOTAL OF TYPE-I (Incl. GST)		

Note:
- The above prices shall be inclusive of all taxes, delivery charges and installation charges at the schools.
- The above prices shall be inclusive of three years onsite comprehensive warranty and AMC on solution 1,2,4 & 5 and one year onsite comprehensive warranty and AMC on solution 3.
- Detailed School List will be provided to the Successful Bidder.
- Applicable deduction on payment will be made for TDS/GST.
- Validity of Offer: The offer should remain valid at least for a period of 180 days to be reckoned from the date of bid opening.
- The above prices shall include three years on site comprehensive warranty and AMC.
- All other incidental charges relating to transportation of equipments at the site are included in the above prices.
- No amount towards TA / DA and lodging, boarding or incidental to execution of the project shall be paid.
- **EdCIL shall issue the purchase order (PO) to the Successful Bidder solution wise based on the receipt of PO to EdCIL from their respective end client. In case of non-receipt of PO to EdCIL from their end client, the respective PO to the Successful Bidder shall not be issued. The quantity and items of each of the solution placed to the Successful Bidder may also be varied as per the receipt of PO to EdCIL from their end client. The winning of bid will not ensure the release of PO to the successful bidder. The PO for each solution shall be released only when EdCIL receive the PO from respective end client.**

- The bidder who is Lowest in total cost for Type-I shall be declared as L1 bidder for Type-I.
- The Bidder who is quoting for Type-I has to mandatorily quote for each of the solution of Type-I. Otherwise, the bid shall be summarily rejected.

Place:

Date:

Signature and Stamp of the Bidder

Name:

Designation:

Type-II

Solution 6:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	65" Interactive panel with OPS	16					
2.	Protective casing for Panel	16					
3.	Power Backup	16					
4.	Teacher's training (5 Teachers per Classroom)	9					
	Total Amount of Solution 6 (incl. Taxes)						

Solution 7:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	65" Interactive panel with OPS	4					
2.	Content with LMS for 3 years	4					
3.	Power Backup	4					
4.	Project management and teacher training	4					
	Total Amount of Solution 7 (incl. Taxes)						

Solution 8:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75" Interactive Panel with OPS	8					
2.	Power Back Up (1 kVA Online UPS, 30-min backup)	8					

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
3.	Protective Casing for Interactive Flat Panel	8					
4.	LMS Application (3-Year License)	8					
5.	Teacher Training (2 Teachers per classroom)	8					
6.	Site Preparation	8					
Total Amount of Solution 8 (incl. Taxes)			██				

Solution 9:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75" Interactive Flat Panel	400					
2.	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	400					
3.	Protective Casing for Interactive Flat Panel	400					
4.	Audio System with Necessary wiring	400					
5.	External camera for IFP	400					
6.	Interactive Teacher led e- Learning digital Content	400					
7.	English Language Learning Software	400					
8.	3D Virtual Lab Simulations	400					
9.	Device Management Console	400					
10.	Baseline, Midline and Endline Assessment (Impact Assessment)	80					
11.	Project Management and Teacher Training	80					

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
12.	175 K-Watt Solar Solution with 2 Hours Back up	1					
13.	1 K-Watt Solar Solution with 2 Hours Back up	250					
	Total Amount of Solution 9 (incl. Taxes)			■			

Solution 10:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75" Interactive panel with OPS	16					
2.	Power Backup	16					
	Total Amount of Solution 10 (incl. Taxes)			■			

Solution 11:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	65" Interactive panel with OPS	2					
2.	Protective casing for Panel	2					
3.	Content with LMS	2					
4.	Power Backup	2					
5.	Teacher's training (5 Teachers per Classroom)	2					
	Total Amount of Solution 10 (incl. Taxes)			■			

Solution 12:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) ©	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75" Interactive panel with OPS pc	17					
2.	Protective Casing	17					
Total Amount of Solution 12 (incl. Taxes)							

Solution 13:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	65" Interactive panel with OPS	28					
2.	Protective casing for Panel	28					
3.	Content with LMS	28					
4.	Power Backup	28					
5.	Teacher's training (5 Teachers per Classroom)	28					
Total Amount of Solution 13 (incl. Taxes)							

Solution 14:

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	75" Interactive Flat Panel	350					
2.	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	350					
3.	Protective Casing for Interactive Flat Panel	350					
4.	Audio System with Necessary wiring	350					
5.	External camera for IFP	350					
6.	Interactive Teacher led e- Learning digital Content	350					

7.	English Language Learning Software	350					
8.	3D Virtual Lab Simulations	350					
9.	Device Management Console	350					
10.	Training for Capacity Building of Teachers	350					
11.	Power Backup	350					
Total Amount of Solution 14 (incl. Taxes)				■			

Solution 15

S.No.	Name of the Item	Qty (A)	Unit Cost (B)	GST (%)	GST (in Rs.) (C)	Total Unit Cost D=B+C	Total Cost =A*D (In Rs.)
1.	65" Interactive Flat Panel	300					
2.	UPS 1KVA	300					
Total Amount of Solution 15 (incl. Taxes)				■			

SUMMARY OF TYPE-II

S.No.	Particulars	Total Cost (In Rs.)
1	Solution 6	
2	Solution 7	
3	Solution 8	
4	Solution 9	
5	Solution 10	
6	Solution 11	
7	Solution 12	
8	Solution 13	
9	Solution 14	
10	Solution 15	
Total of Type-II (Incl. GST)		

Note:
- The above prices shall be inclusive of all taxes, delivery charges and installation charges including three years onsite comprehensive warranty at the schools.
- Detailed School List will be provided to the Successful Bidder.
- Applicable deduction on payment will be made for TDS/GST.

- Validity of Offer: The offer should remain valid at least for a period of 180 days to be reckoned from the date of bid opening.
- The above prices shall include three years on site comprehensive warranty and AMC.
- All other incidental charges relating to transportation of equipments at the site are included in the above prices.
- No amount towards TA / DA and lodging, boarding or incidental to execution of the project shall be paid.
- **EdCIL shall issue the purchase order (PO) to the Successful Bidder solution wise based on the receipt of PO to EdCIL from their respective end client. In case of non-receipt of PO to EdCIL from their end client, the respective PO to the Successful Bidder shall not be issued. The quantity and items of each of the solution placed to the Successful Bidder may also be varied as per the receipt of PO to EdCIL from their end client. The winning of bid will not ensure the release of PO to the successful bidder. The PO for each solution shall be released only when EdCIL receive the PO from respective end client.**
- The successful L1 bidder will have to match the lowest price for each of the line items (Subject to same make and model) as mentioned in the Financial Bid quoted by any of the bidder.
- The bidder who is Lowest in total cost for Type-II shall be declared as L1 bidder for Type-II.
- The Bidder who is quoting for Type-II has to mandatorily quote for each of the solution of Type-II. Otherwise, the bid shall be summarily rejected.

Place:

Date:

Signature and Stamp of the Bidder

Name:

Designation:

MaF to be submitted

TYPE I:

S.No.	Name of the Item	MaF (Yes/No)
Solution 1		
TR2		
1.	Full HD WUXGA 7000 lumens Laser Projector	YES
2.	Custom Heavy Mount for above projector with 4x4 descent	NO
3.	Motorised screen 119" 16:10 aspect ratio	NO
4.	2x1 4K HDMI Auto Switcher	NO
5.	Wall plate with 1 HDMI and USB C	NO
6.	HDMI Transmitter	NO
7.	HDMI Receiver	NO
8.	Head worn Microphone.	YES
9.	Wireless Hand held mics	YES
10.	Gooseneck Microphone	YES
11.	Shock mount for above	NO
12.	DSP	YES
13.	Amplifier (250 W)	YES
14.	Wall mount speakers (100 Speaker)	YES
15.	HDMI Patch Cable 6 ft	NO
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	NO
17.	Speaker Cable 14 AWG	NO
18.	Microphone Cable	NO
19.	Audio Sterio / Control Cable	NO
20.	STP Cable	NO
21.	EquipmentRack600x800	NO
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA etc)	YES
23.	Cabling and termination charges	NO
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	NO
TR3		
	98" UHD 500 Nits LED Display	YES
2.	Swivel wall mount for above display/Ceiling mount for projector	NO
3.	PTZ Camera	YES
4.	Tracking Camera	YES

No.	Item	
5.	Ceiling Camera mount	NO
6.	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC should have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	YES
7.	Matrix Switcher	YES
8.	4K Wireless Presentation Device	NO
9.	Wall plate with 1	NO
	HDMI and USB C	
10.	HDMI Transmitter	NO
11.	HDMI Receiver	NO
12.	USB Extender Kit	NO
13.	Camera Mixer	YES
14.	Head worn Microphone.	YES
15.	Gooseneck Microphone	YES
16.	Shock mount for above	NO
17.	DSP	YES
18.	Ceiling speakers (30W)	YES
19.	Dual Channel	YES
	Commercial Class D Amplifier (250W)	
20.	Room Control with	NO
	Ipad control	
21.	Tabletop Touch Panel	NO
22.	Base Station or table flush bracket with inbuild charging	NO
23.	Docking Station Sleeve	NO
24.	Software for Ipad	NO
25.	Network Switch that	NO
	Supports 48 port	
26.	HDMI Patch Cable 6 ft	NO
27.	USB A to B cable 6 ft	NO
28.	USB 2.0 USB–C(M) to USB–C(M)1.80m	NO
	(6ft)	
29.	Speaker Cable 14 AWG	NO
30.	Microphone Cable	NO
31.	Audio Sterio / Control Cable	NO
32.	STP Cable	NO
33.	Equipment Rack 600x800	NO
34.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA, etc.)	YES
35.	Cabling and termination charges	NO

36.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	NO
TR4		
1.	Full HD WUXGA 7000 lumens Laser Projector	YES
2.	Custom Heavy Mount for above projector with 4x4 descent	NO
3.	Motorised screen 119" 16:10 aspect ratio	NO
4.	2x1 4K HDMI Auto Switcher	NO
5.	Wall plate with 1 HDMI and USB C	NO
6.	HDMI Transmitter	NO
7.	HDMI Receiver	NO
8.	Headworn Microphone.	YES
9.	Wireless Hand held mics	YES
10.	Gooseneck Microphone	YES
11.	Shock mount for above	YES
12.	DSP	YES
13.	Amplifier (250 W)	YES
14.	Wall mount speakers (100 Speaker)	YES
15.	HDMI Patch Cable 6 ft	NO
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	NO
17.	Speaker Cable 14 AWG	NO
18.	Microphone Cable	NO
19.	Audio Sterio / Control Cable	NO
20.	STP Cable	NO
21.	Equipment Rack 600x800	NO
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA etc)	YES
23.	Cabling and termination charges	NO
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	NO
TR5		
1.	98" UHD 500 Nits LED Display	YES
2.	Swivel wall mount for above display/ Ceiling mount for projector	NO
3.	PTZ Camera	YES
4.	Tracking Camera	YES
5.	Ceiling Camera mount	NO

6.	Cost effective PC based soft VC with MS license to be bought by client from PC with MS Windows supplier. PC should have minimum 1 no of USB 2.0 , 2 no of HDMI and 1 no of USB 3.0 port along with keyboard/mouse	YES
7.	Matrix Switcher	NO
8.	4K Wireless Presentation Device	NO
9.	Wall plate with 1 HDMI and USB C	NO
10.	HDMI Transmitter	NO
11.	HDMI Receiver	NO
12.	USB Extender Kit	NO
13.	Camera Mixer	Yes
14.	Head worn Microphone	YES
15.	Gooseneck Microphone	YES
16.	Shock mount for above	NO
17.	DSP	YES
18.	Ceiling speakers (30W)	YES
19.	Dual Channel Commercial Class D Amplifier (250W)	YES
20.	Room Control with Ipad control	NO
21.	Tabletop Touch Panel	NO
22.	Base Station or table flush bracket with inbuild charging	NO
23.	Docking Station Sleeve	NO
24.	Software for Ipad	NO
25.	Network Switch that Supports 48 port	YES
26.	HDMI Patch Cable 6 ft	NO
27.	USB A to B cable 6 ft	NO
28.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	NO
29.	Speaker Cable 14 AWG	NO
30.	Microphone Cable	NO
31.	Audio Sterio / Control Cable	NO
32.	STP Cable	NO
33.	Equipment Rack 600x800	NO
34.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels, Power strip with tablet monitor, faceplate, DA etc)	YES
35.	Cabling and termination charges	NO
36.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.) and documentation charges	NO
TR6		
1.	Full HD WUXGA 7000 lumens Laser Projector	YES
2.	Custom Heavy Mount for above projector with 4x4 descent	NO
3.	Motorised screen 119" 16:10 aspect ratio	NO

4.	2x1 4K HDMI Auto Switcher	NO
5.	Wall plate with 1 HDMI and USB C	NO
6.	HDMI Transmitter	NO
7.	HDMI Receiver	NO
8.	Head worn Microphone.	YES
9.	Wireless Hand held mics	YES
10.	Gooseneck Microphone	YES
11.	Shock mount for above	NO
12.	DSP	YES
13.	Amplifier (250 W)	YES
14.	Wall mount speakers (100 Speaker)	YES
15.	HDMI Patch Cable 6 ft	NO
16.	USB 2.0 USB–C(M) to USB–C(M)1.80m (6ft)	NO
17.	Speaker Cable 14 AWG	NO
18.	Microphone Cable	NO
19.	Audio Sterio / Control Cable	NO
20.	STP Cable	NO
21.	Equipment Rack 600x800	NO
22.	**Digital podium** (Metallic body, Wooden top, single XLR connectivity , Soft wheels , Power strip with tablet monitor, faceplate, DA etc)	YES
23.	Cabling and termination charges	NO
24.	Installation, Commissioning, Design and Consultancy , User Training, Site Survey, Drawings – (conduiting layouts, schematics etc.)and documentation charges	NO
Solution 2		
1.	75-inch Ultra HD 4K Interactive Flat Panel Display with OPS	YES
2.	Public announcement System - 120 Watt Sound Bar with inbuilt Speakers and amplifier with external subwoofer and wireless Handheld and Headband microphone	YES
3.	All in One Computer i5, 8GB RAM, 512 GB SSD with Keyboard and Mouse with headphone for librarian	YES
4.	Language Lab Solution with English Hindi & Sanskrit Languages	YES
5.	Almirah steel bookcase 4 door - glass front	No
6.	Revolving chair for Reading cum reference section	YES
7.	Reading cum reference section Table (Double-Sided)	NO
8.	Computer Table	YES
9.	Revolving chair for computer table	YES
10.	Books & e-books	NO
11.	Table for Librarian	NO
12.	High Back Chair for Librarian	YES
13.	WIFI 6 ACCESS POINT	YES

14.	2 ton Split AC including cost of M.S stand, stabilizer and 9 ft. copper pipe	NO
15.	6-KVA Online UPS with 1/2 Hours Backup	YES
16.	Multifunctional Laser Printer	YES
17.	CCTV System - 2 MP Full HD IP Dome Camera (6 Nos), 8 CH Network Video Recorder with 4 TB HDD (1 Qty), 8 port PoE Switch with 2 RJ45 uplink (1 Qty), Cat-6 Ethernet Cable (350 Meter), Cable Conduit, etc as per site requirement.	YES
18.	Fire Extinguisher - ABC Powder fire Extinguisher Cylinder of 6kg	NO
19.	News Paper Stand, False ceiling & wall	NO
Solution 3		
1	Doll's Corner	NO
2	Cognitive Corner	NO
3	Language Corner	NO
4	Art and Craft Corner	NO
5	For AWW/center (Packets for accessories)	NO
6	Books	NO
7	Refurbishment of Anganwadi Spaces, Basic Whitewash and Ensuring WASH Infrastructure	NO
a	43" android TV for educational purposes	YES
8	Chart Painting in Anganwadi	NO
9	Interior Work	NO
10	Hygiene & Health, Natal Care	NO
11	Garden and Playground Area	NO
12	Toys & Stationery	NO
Solution 4		
1	Interactive Digital Board-98"	YES
2	OPS PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	YES
3	Audio System	YES
4	Smart Podium with 200 Watt audio output Speakers and 250 Watt Amplifier and PC (i5 12th Gen, 16 GB RAM and 1TB SSD with Windows 11 Home and MS Office Licence)	YES
5	Ceiling Document Scanner	YES
6	Delivery, Installation and Commissioning, One time teacher's training at College level and 3 Years Warranty for Sr. No. 1 to 5.	NO
Solution 5		
1	75" Interactive panel with OPS	YES
2	86" Interactive panel with OPS	YES
3	Camera for IFP	YES
4	75" Interactive panel Stand	NO

5	Smart Podium	YES

Type II		
Solution 6		
1	65" Interactive panel	YES
2	OPS PC	NO
3	Protective casing for Panel	NO
4	Power Backup	YES
5	Teacher's training (5 Teachers per Classroom)	NO
Solution 7		
1	65" Interactive panel	YES
2	OPS PC	NO
3	Content with LMS for 3 years	YES
4	Power Backup	YES
5	Project management and teacher training	NO
Solution 8		
1	75" Interactive Panel	YES
2	OPS PC	NO
3	Power Back Up (1 kVA Online UPS, 30-min backup)	YES
4	Protective Casing for Interactive Flat Panel	NO
5	LMS Application (3-Year License)	YES
6	Teacher Training(2 Teachers per classroom)	NO
7	Site Preparation	NO
Solution 9		
1	75" Interactive Flat Panel	YES
2	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	YES
3	Protective Casing for Interactive Flat Panel	NO
4	Audio System with Necessary wiring	YES
5	External camera for IFP	YES
6	Interactive Teacher led e- Learning digital Content	YES
7	English Language Learning Software	YES
8	3D Virtual Lab Simulations	YES
9	Device Management Console	YES
10	Digital Assessment Tool for Impact Assessment	YES
11	Project Management and Teacher Training	NO
12	175 K-Watt Solar Solution with 2 Hours Back up	NO
13	1 K-Watt Solar Solution with 2 Hours Back up	NO
Solution 10		
1	75" Interactive panel	YES
2	OPS PC	NO

3	Power Backup	YES
	Solution 11	
1.	65" Interactive panel with OPS	YES
2	OPS PC	NO
3	Protective casing for Panel	NO
4	Content with LMS	YES
5	Power Backup	YES
6	Teacher's training(5 Teachers per Classroom)	NO
	Solution 12	
1	75" Interactive panel	YES
2	OPS PC	NO
3	Protective casing for Panel	NO
	Solution 13	
1	65" Interactive panel	YES
2	OPS PC	NO
3	Protective casing for Panel	NO
4	Content with LMS	YES
5	Power Backup	YES
6	Teacher's training (5 Teachers per Classroom)	NO
	Solution 14	
1	75" Interactive Flat Panel	YES
2	High End OPS PC (i5, 12th Gen, 16GB RAM and 2TB SSD)	YES
3	Protective Casing for Interactive Flat Panel	NO
4	Audio System with Necessary wiring	YES
5	External camera for IFP	YES
6	Interactive Teacher led e- Learning digital Content	YES
7	English Language Learning Software	YES
8	3D Virtual Lab Simulations	YES
9	Device Management Console	YES
10	Training for Capacity Building of Teachers	NO
11	Power Backup	YES
	Solution 15	
1	65" Interactive Flat Panel	YES
2	UPS 1KVA	YES