



# Bid Document

## NATIONAL COMPETITIVE BIDDING

FOR

**Supply, Installation and Commissioning of Audio Video Solutions for Indian Institute of Petroleum and Energy (IPE), Vishakhapatnam, Andhra Pradesh (AP)**

**NIT No.: EdCIL/EIS-EPS/IPE/2025/5**

**dated: 20.08.2025**

## **EdCIL (India) Limited**

**(A “MINI RATNA” Govt. of India Enterprise)**

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**This document is serially numbered from page number 01 to 144.**

## **DISCLAIMER**

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

This TENDER is not an Agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this TENDER is to provide interested parties with information that may be useful to them in making their financial offers (BIDs) pursuant to this TENDER. This TENDER includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This TENDER may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this TENDER. The assumptions, assessments, statements and information contained in the Bidding Documents, especially the Feasibility Report, 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 TENDER and obtain independent advice from appropriate sources.

Information provided in this TENDER 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 Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, 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 TENDER or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the TENDER and any assessment, assumption, statement or information contained therein or deemed to form part of this TENDER or arising in any way for participation in this BID Stage.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this TENDER. The Authority 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 TENDER.

The issue of this TENDER does not imply that the Authority is bound to select a Bidder or to appoint the Selected Bidder, as the case may be, for the Project and the Authority 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 the Authority, 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 the Authority 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.

## ABBREVIATIONS

AS	Advisory Services
BOQ	Bill of Quantity
CPSE	Central Public Sector Enterprise
CV	Curriculum Vitae
DD	Demand Draft
DPR	Detailed Project Report
DSC	Digital Signature Certificate
EdCIL	Educational Consultants India Limited
EIS	Educational Infrastructure Services
EMD	Earnest Money Deposit
EPS	Educational Procurement Services
FDR	Fixed Deposit Receipt
GOI	Government of India
ICT	Information and Communication Technology
IPE	Indian Institute of Petroleum & Energy
ISO	International Organization for Standardization
LLP	Limited Liability Partnership
LOA	Letter of Award
MOE	Ministry of Education
MSME	Micro, Small & Medium Enterprises
NIT	Notice Inviting Tender
PBG	Performance Bank Guarantee
PMC	Project Management Consultancy
PMSU	Project Management Support Unit

PQ	Pre-Qualification
PSU	Public Sector Undertaking
RFP	Request for Proposal
SOW	Scope of Work
TOE	Tender Opening Event
TSG	Technical Support Group

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## CHAPTER-1 INTRODUCTION

EdCIL (India) Limited, a **Mini Ratna CPSE** (Central Public Sector Enterprise), was incorporated in 1981, under the Ministry of Education (MOE). It is an ISO 9001:2015 & 14001:2015 Certified Company. It is a continuously dividend paying and profit-making company and the only CPSE (Central Public Sector Enterprise) under the Ministry of Education to serve the education sector.

1. The company over its Four decade of existence has executed many projects and consultancies and has a large number of satisfied clients spanning across Govt. of India, State Governments, Foreign Missions, Autonomous Bodies, Centres of Excellence (IITs, IIMs, IIITs, IISERs etc.) and large corporates.
2. EdCIL offers a wide range of Information and Communication Technology (ICT) consultancy, Turnkey and Technology solutions in different segments of Education and Human Resource Development within the country and overseas. EdCIL currently runs Project Management Support Units (PMSUs) known as Technical Support Groups (TSGs) for Pan India projects of Ministry of Education like “Samagra Shiksha Abhiyan (SSA)”, “PM Poshan (PMP)”, “National Mission on Education through Information & Communication Technology (NMEICT)”, “Higher Education Statistics and Public Information System (HESPIS)”, “Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) etc.
3. EdCIL’s expertise is founded in the following areas:

**3.1. Educational Infrastructure Services (EIS):** EdCIL provides Educational Infrastructure Services (**Turnkey execution and Project Management Consultancy (PMC) from concept to commissioning**) services to the Educational Institutions.

**3.2. Educational Procurement Services (EPS):** EdCIL provides support & assistance in the **Procurement of educational aids** ranging from school kits to hi-tech laboratory equipment focusing on maximizing Total Cost of Ownership in educational and human resource development space.

**3.3. Advisory Services (AS):** EdCIL offers advisory services ranging from preparation of **Detailed Project Report (DPR)**, formulation for setting up of any Educational Institution, organizational restructuring, impact assessment studies and curriculum deigning etc. Following key services are offered by the Advisory vertical in the Education (School Chains and Higher education) and HR advisory space:

- Preparation of Concept notes & Detailed Project Reports (DPRs) (Greenfield and Brown field), for all domestic institutions across states and central ministries and for expansion of global institutions in select countries in South East Asia and the Middle East
- Organization Restructuring (sectoral/institutional)
- Improving Operational Efficiency
- Digitization Planning

- Training Design include teaching-learning resource development
- Impact assessment of two to three key schemes across different states
- Designing of new educational schemes

**3.4. Online Testing & Assessment Services:** EdCIL offers **online recruitment** services to various Government Departments/ Public Sector Undertakings, Educational Institutions in order to select and appoint executives for various organizations, on Pan-India Basis. This is a large and high growth vertical of the company with opportunities for further increase in market share in view of the large size of market both in India and overseas.

**3.5. Digital Education System (DES):** EdCIL has focused on all emerging areas of **IT/ICT** applications in the both **Schools and Higher education**, such as Wi-Fi and Network Solutions, ERP implementation, E-content preparation, Virtual Classrooms and Smart Campuses etc.

**3.6. Overseas Education Services (OES):** The following are the services specifically offered to high potential target markets covering mostly SAARC, Middle East and African nations:

- Placement of Overseas Students in select Indian Institutes (sponsored schemes as well as SFS segments)
- Placement of Indian faculty in overseas institutes.
- Student/faculty exchanges.

**3.7. Technical Support Group (TSG):** EDCIL provides project management services & support to extend operational support to Ministry of Education (MOE) in implementing several mission mode projects/ schemes in achieving the national objectives in the education spectrum.

**3.8. Study in India Programme:** MOE appointed EdCIL as executing agency for implementation of “Study in India”; the initiative aims to make India a preferred education hub for students all across the globe, by elevating its position in the global educational landscape.

4. The company has expertise and large network of alliance partners and tie-up with quality monitoring bodies to undertake skill building including Information and Communication Technology (ICT) training and Teachers training projects. The successful clients include:

**National**

Various Ministries; State Government; Statutory/ Autonomous Bodies/ Public Sector Undertakings; Private Sector;

**Overseas**

Alemaya Agricultural University, Ethiopia; Association of Professional Engineers, Scientists and Managers (APESMA), Australia, DEAKIN University, Australia; Arba Minch

Water Technology Institute, Ethiopia; Atilim University, Turkey; British Universities India Consortium, United Kingdom; New Zealand Education International Ltd. New Zealand; University of Kocaeli, Turkey; University of Witwatersrand, South Africa; Wellington Polytechnic, New Zealand etc.

5. EdCIL has executed several projects in above mentioned areas with international finance assistance viz., the World Bank, Asian Development Bank, African Development Bank and other International funding institutions.

## CHAPTER-2 NOTICE INVITING TENDER

(e-Tendering mode)

**EdCIL (INDIA) LIMITED**

(A Govt. of India Mini Ratna Category-I CPSE)

SECTOR 16A, NOIDA

**NIT No.: EdCIL/EIS-EPS/IIPE/2025/5**

**Dated: 20.08.2025**

1. EdCIL (India) Limited on behalf of **Indian Institute of Petroleum & Energy (IIPE), Vishakhapatnam, Andhra Pradesh (AP)** invites two packet open e-tender offers (on QCBS mode) for the Supply & Installation of Audio Video Solutions as per details given below:

<b>Name of work</b>	Supply, Installation and Commissioning of Audio Video Solutions for Indian Institute of Petroleum and Energy (IIPE), Vishakhapatnam, Andhra Pradesh (AP)
<b>Name of Organization</b>	EdCIL (INDIA) LTD
<b>Tender Type (Open/ Limited/ EOI/ Auction/ Single)</b>	Open
<b>Tender Category (Services/ Goods/ works)</b>	Goods
<b>Type/ Form of Contract (Work/ Supply)</b>	Supply
<b>Product Category</b>	Audio Video Solutions/ IT Items
<b>No. of Covers (1/2/3/4)</b>	02 (Two Packet)
<b>Bid Validity days (180/120/90/60/30)</b>	90 days (from the last date of bid submission)
<b>Purchaser and Place of delivery</b>	Billing to be submitted to EdCIL (India) Ltd. Successful bidder shall be responsible for Supply, Installation, Indian Institute of Petroleum & Energy (IIPE), Vishakhapatnam at ANTHAKAPALLI, Vangali Village, Sabavarram, Anakapalle, Andhra Pradesh (AP)- 531035
<b>Duration of supply and installation</b>	Six (6) Weeks + Two (2) Weeks
<b>On-site Warranty (including annual maintenance)</b>	Three-year Comprehensive warranty from the date of successful Commissioning & Handing over of all the Items.
<b>The Currency in which payment shall be made</b>	Indian Rupees (INR)
<b>Date of Issue/ Publishing</b>	20/08/2025
<b>Document Available Up to</b>	03/09/2025 at 12:00 Hrs

<b>Last Date and Time for receipts of Bids</b>	03/09/2025 up to 12:00 Hrs.
<b>Date and Time of Opening of Technical Bids</b>	03/09/2025 at 12:30 Hrs.
<b>Date and time for presentation by the bidders</b>	To be informed later
<b>Date and Time of Opening of Financial Bids</b>	To be informed later
<b>Bid document Fee</b>	NIL
<b>Earnest Money Deposit</b>	<b>Rs. 4,00,000/- (Rs. Four Lakhs only)</b> In form of Demand Draft/ Bank Transfer favoring 'EdCIL India Limited' payable at Noida or as mentioned elsewhere in the tender conditions. EdCIL's bank account details for online transfer are enclosed at Annexure-XXIII. Scanned copy of DD/ Bank Transfer to be uploaded with technical bid documents and original DD/ Bank transfer receipt shall be submitted as per the instructions to bidders. MSME bidders are exempted from EMD submission.
<b>Performance Security/ Bank Guarantee</b>	10% of the total work value from the successful bidder. Performance Security/ Bank Guarantee is required to be submitted within 7 days from the date of issue of LOA/ WO in the form of Bank Guarantee (issued from Nationalized/ Scheduled bank as per list enclosed at Annexure-V)/ Demand Draft (DD) in the favour of Indian Institute of Petroleum and Energy (IPE), Vishakhapatnam, Andhra Pradesh (AP). Format for PBG is enclosed at Annexure-XIII.
<b>Address for Communication</b>	Chief General Manager (EIS & EPS) EdCIL (India) Limited, 18 A, Sector-16A, Film City, Noida-U.P.-201 301
<b>Contact No.</b>	0120-4156001, 4156002, 4154003, 2970206, 2970207 Fax: 0120-2970209
<b>Email Address</b>	<a href="mailto:cgm.infracivil@edcil.co.in">cgm.infracivil@edcil.co.in</a> ; <a href="mailto:eprocure@edcil.co.in">eprocure@edcil.co.in</a>

2. Tender document shall be downloaded from e-tendering portal link available at EdCIL Tender web page. Aspiring bidders who have not get registered in e-tendering portal should get register/ enroll before participating. Interested bidders are advised to go through instructions provided at "Chapter-5 Instructions for e-tendering."

3. No manual bids shall be accepted. All bids (both Technical and Financial) should be submitted in the e-tendering portal at relevant stages. However, all the credentials mentioned in clause 3.1 of Chapter-3 should be submitted offline, well before bid submission date & time.

4. Bidders are advised to visit the EdCIL Website/ e-tendering portal for getting themselves

updated for information on this tender. Corrigendum and addendum may be issued on the changes required. Reply on pre-bid queries received by EdCIL shall be displayed on EdCIL website/ e-tendering portal. Bidders are advised to regularly visit web page and update themselves. The Pre-Bid queries, Corrigendum/ Addendum are the part of tender documents and Bidders are supposed to upload the same, duly signed as per the guidelines given in the tender document.

Chief General Manager (EIS & EPS)  
EdCIL (India) Limited,  
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Tel: +91120-4156001,002,4154003.

## CHAPTER-3 OFFLINE AND ONLINE BID SUBMISSION DOCUMENTS

### 3.1 Offline Submissions:

The bidder is requested to submit the hardcopy of the below mentioned documents offline to the under mentioned address before the start of Public Online Tender Opening Event in a Sealed Envelope at the address.

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

#### Address:

CGM (EIS & EPS)  
EdCIL (India) Limited  
18 A EdCIL House, Film City,  
Sector 16A, Noida, Uttar Pradesh 201301

- 1) **Original copy of EMD amount in the form of Demand Draft/ as applicable.**
- 2) **Original copy of the power-of-attorney.**

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

### 3.2 Online Submissions:

The Online bids (complete in all respect) must be uploaded online in **Two** Envelopes as explained below:

<b>Envelope – 1</b>			
(Following documents to be provided as single PDF file)			
*file size shall be less than 5 MB each.			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Technical Compliance Declaration as per Annexure-I	.PDF
2.		Organisation Declaration Sheet as per Annexure-II	.PDF
3.		Letter of Undertaking as per Annexure-III	.PDF
4.		Self-Declaration of Non-Blacklisting as per Annexure-IV	.PDF
5.		Performa for declaration on proceedings under insolvency and bankruptcy code, 2016 as per ANNEXURE- V	.PDF
6.		Power of Attorney as per Annexure-VI	.PDF
7.		Letter of Bid Submission as per Annexure-VII	.PDF

8.		Annual Average Turnover as per Annexure-VIII	.PDF
9.		Details of Similar Projects completed during last 5 years as per Annexure-IX	.PDF
10.		List of Application Specialist/ Service Engineer for warranty support as per Annexure-X	.PDF
11.		Solvency Certificate as per Annexure-XI	.PDF
12.		Compliance Certificate for Make In India as per Annexure-XII	.PDF
13.		Pre Contract Integrity Pact as per Annexure-XV	.PDF
14.		Original Equipment Manufacturer (OEM) Authorization Form as per Annexure-XVI	.PDF
15.		Tender Compliance Sheet as per Annexure-XVII	.PDF
16.		Technical Specification Compliance as per Annexure-XXIV on backend OEM letterhead	.PDF
17.		Complete tender document, Corrigendum/ Addendum/ Pre-Bid Minutes is also to be signed and uploaded.	.PDF
<b>Envelope-2</b>			
<b>Sl. No.</b>	<b>Documents</b>	<b>Content</b>	<b>File Types</b>
1.	Financial Bid	Financial bid submission form and Price bid as per Bid Forms (Form-I)	.XLS

## CHAPTER-4 TERM OF REFERENCE & DEFINITIONS

Supplier/ Successful bidder/ Selected bidder	“Supplier” shall mean the person, firm or corporation whom the LOA/ Work Order/ Purchase Order is issued for Supply, Installation and Commissioning of Audio Video Solutions for Indian Institute of Petroleum and Energy (IPE) at ANTHAKAPALLI, Vangali Village, Sabavarram, Anakapalle, Andhra Pradesh (AP)- 531035.
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/ Tender/ RFP	"Bid/ Tender/ RFP" 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 firm 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.
IPE	Indian Institute of Petroleum & Energy, Vishakhapatnam, Andhra Pradesh
EMD	Earnest Money Deposit
D.D	Demand Draft
EdCIL	EdCIL (India) Limited, Noida (A Govt. of India Enterprise)
TC	Tender Committee
PBG	Performance Bank Guarantee
Services	“Services” means the services to be delivered by the successful bidder and as required to run the project successfully as per the Contract.
Goods and Materials	“Goods and Materials” shall mean the articles, materials, equipment, Audio Video Solutions/ IT/ ICT Items, related accessories, 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/ Supply Order / Work Order/ LOA and its attachments and exhibits.
Consignee	“Consignee” shall mean Indian Institute of Petroleum & Energy (IPE) located at ANTHAKAPALLI, Vangali Village, Sabavarram, Anakapalle,

	Andhra Pradesh (AP)- 531035, where the items are to be supplied, installed and commissioned.
EdCIL/ Purchaser	“Purchaser” shall mean EdCIL (India) Limited.
Client	Indian Institute of Petroleum & Energy (IIPe), Vishakhapatnam

## CHAPTER-5 INSTRUCTIONS FOR E-TENDERING

### 5.1 Instructions for Online Bid Submission:

- 5.1.1** 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.
- 5.1.2** 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 <http://www.tenderwizard.com/EDCIL>.
- 5.1.3** The bidders are required to submit soft copies of their bids electronically on <http://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, preparing their bids in accordance with the requirements and submitting their bids online on the Tender Wizard E-Tendering Portal.
- 5.1.4** 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 <http://www.tenderwizard.com/EDCIL>. Both Technical Bid and Financial Bid will be submitted concurrently duly digitally signed in the website <http://www.tenderwizard.com/EDCIL>. No claim shall be entertained on account of disruptions in internet service being used by the bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.
- 5.1.5** All Corrigendum/ Amendment/ Corrections, if any, will be published on the website <http://www.tenderwizard.com/EDCIL> as well as on EdCIL's website.
- 5.1.6** 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 agencies (Bidders can see the list of licensed Certifying Agencies from the link [www.cca.gov.in](http://www.cca.gov.in)) to participate in e-Procurement of EdCIL.
- 5.1.7** It is mandatory for the bidders to get their firm registered with e-procurement portal of EdCIL i.e. [www.tenderwizard.com/EDCIL](http://www.tenderwizard.com/EDCIL) to have user ID & password by submitting non-refundable annual registration charges as follows:

1	Registration charges for 1 year	Rs. 2,000/-
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(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 anyone and safeguard their secrecy.

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

**5.1.9** Bids should be submitted only through Tender Wizard E-Tendering Portal and obtain the Tender Acknowledgement copy as proof of successful submission.

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

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

## **5.2 Preparation of Bids**

**5.2.1 Bidders should take into account any corrigendum/addendum published on the portal before submitting their bids.**

**5.2.2 Please go through the tender advertisement and 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 documents) that need to be submitted. Any deviations from these may lead to rejection of the bid.

**5.2.3 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.

### 5.3 Submission of Bids

- 5.3.1** Bidders 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 they upload the bid in time i.e. on or before the bid submission deadline. Bidders will be solely responsible for any delay in uploading of bid within the stipulated time.
- 5.3.2** The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 5.3.3** Bidder has to pay EMD as applicable through demand draft/ BG/ Direct Bank Transfer as per tender condition in favour of **“EdCIL (India) Ltd” payable at Noida** and enter details of the instruments. Original demand draft/BG for EMD are required to be submitted.
- 5.3.4** A standard Financial Bid form has been provided with the tender document to be filled in by all the bidders. Bidders are requested to note that they should 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.
- 5.3.5** 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.
- 5.3.6** 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., date & time of submission of the bid and all other relevant details.

### 5.4 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 below given numbers/ email.

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

### **5.5 Offline Submissions: (As per Tender Requirement)**

The bidder is requested to submit documents as mentioned in **Clause 3.1**

### **5.6 Minimum Requirements at Bidder's End**

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

## CHAPTER-6 INSTRUCTIONS TO BIDDERS

### 6.1 Due date

The tender has to be submitted before the due date & time as given in the NIT. The offers received after the due date and time shall not be considered.

### 6.2 Preparation of Bids

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 item wise rate for the items mentioned in the technical bid in the given format.

### 6.3 Language of Proposal

The proposal prepared by the firm 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.

### 6.4 Cost of Bidding

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 the client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

The firm 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 own risk and may result in rejection of the bid.

### 6.5 EMD

The bidder should enclose EMD of the amount mentioned above in Earnest Money Deposit column in the form of Demand Draft/ Direct Bank Transfer.

**6.5.1** In case of Direct Bank Transfer, NEFT/RTGS to the bank details for the transfer of funds is as per Annexure-XXIII.

**6.5.2** In case of Demand Draft, The Bidder should submit EMD through Demand Draft drawn in favour of "EdCIL (India) Limited" payable at Noida.

#### Note:

- **The Bid submitted without EMD would be considered as UNRESPONSIVE and will not be considered.**

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

## **6.6 Refund of EMD**

**6.6.1** The EMD will be returned to unsuccessful Tenderer only after the Tenders are finalized.

**6.6.2** 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.

**6.6.3** In Case of Successful Bidder, the EMD shall be refunded after submission of Performance Bank Guarantee from a Scheduled/ Nationalized bank operating in India as per list enclosed at Annexure-XIV.

## **6.7 Acceptance/ Rejection of bids**

EdCIL reserves the right to reject any or all offers without assigning any reason.

EdCIL, based on the requirement without assigning any reason to the Bidder/s may split work/Scope/Bid offer in stages or in parts according to the need of work or for ease of execution of work. EdCIL reserves right to take decision according to requirement and no claim on whatsoever ground shall be entertained from the bidder. Final decision of EdCIL shall be binding on the bidder.

## **6.8 Performance Security**

**6.8.1** The successful bidder shall deposit Performance Bank Guarantee equivalent to 10% of contract value to EdCIL within 7 days from the date of receipt of Letter of Acceptance/ LOA/ Work Order/ Purchase Order in the form of Bank Guarantee/ Cash. The Performance Bank Guarantee (PBG) should be issued from a Scheduled/ Nationalized Bank (as mentioned in Annexure-XIV) in favour of "Indian Institute of Petroleum & Energy, Vishakhapatnam" and to be valid for at least 90 days beyond the completion of Contract (i.e. warranty period) and further as specified in the LOA.

**6.8.2** This Performance Bank Guarantee will be retained throughout the currency of the contract and should be extended by the bidder from time to time, as required by EdCIL/ IPE.

**6.8.3** PBG shall be returned to the successful bidder only after 90 days of the successful completion of the Contract (including warranty period of 3 years). 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 payment and or by the encashment of PBG.

## **6.9 Amendment in Tender Document**

At any time up to the last date for receipt of RFP, EdCIL may, for any reason, whether at its

own initiative or in response to a clarification requested by a prospective firm, modify the Bid Document by amendment. **The amendment will be notified on EdCIL's website & e-tenderwizard portal.**

#### **6.10 Site Survey**

Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (as far as practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. Bidders shall be deemed to have full knowledge of the site whether they inspect it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

Bidders should make a comprehensive site survey in order to learn existing backbone infrastructure of the client in a large perspective so that the procured components are fully compatible with existing infrastructure.

The successful bidder has to carry out site survey at all locations and submit project schedule within 7 days from the date of award of the contract/ issue of Work Order.

## **CHAPTER-7 SCOPE OF WORK**

### **7.1 Introduction**

EdCIL (India) Limited has been entrusted by Indian Institute of Petroleum & Energy for Design, Supply, Installation, Testing, Commissioning of Audio Video Solutions at IIPE, Vishakhapatnam, AP.

The selected Bidder shall perform the activities for Design, Supply, Installation, Testing, Commissioning of Audio Video Solutions at IIPE, Vishakhapatnam, AP, as per the scope of work and maintain the same until completion of Contract.

The scope includes:

### **7.2 Scope of Supply**

- Supply of all items as per BOQ at IIPE's Vishakhapatnam campus, with 3 years of OEM warranty.
- The successful bidder must not bid/supply any items that is likely to be declared end of sale/ support within five years from the date of supply. The bidder would have to replace any such item with latest or at least the equivalent configuration.

### **7.3 Inspection and tests**

Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

- After the goods are manufactured and assembled, Pre-dispatch Inspection (PDI) and testing of the goods should be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet should be issued to this effect and submitted along with the delivery documents. A team including the representative of the end client would inspect the material and testing if required at vendor's premise. The location where the inspection is required to be conducted should be clearly indicated by the bidder after confirmation of the order.
- The PDI will be a key requirement prior to shipment of the equipment to site. The PDI will be carried out as per the list of parameters provided in Annexure-XXIV.
- The PDI will be conducted by the client/ EdCIL or other such person nominated by the client at its option after the item is installed at client's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There should not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the item is expected to occur. The Supplier should maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the client, the successful completion of the test specified.

- In the event of the ordered item failing to pass the acceptance test, a period not exceeding 3 days will be given to rectify the defects and clear the inspection tests, failing which the EdCIL reserve the right to cancel the ordered items and levy appropriate penalties in addition to the Liquidated Damages. EdCIL will not be responsible for any costs associated with such rejection.
- Successful conduct and conclusion of the acceptance test for the installed goods and item 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 items. Only the item certified by the Client/ EdCIL should be dispatched to the client.
- The Supplier/OEM should display at least one sample Item (all the items under procurement) for verification by Client/ EdCIL, before their Technical Committee before production of the same in bulk.
- The sample to be displayed shall be either at supplier/ OEM's place or at IIPE as per the discretion of EdCIL/ Client.

#### **7.4 BOQ**

The equipment specification sheet is mentioned in Annexure-XXIV:

- a. During finalization of order for procurement of the total ordered quantities or any subsequent order, at client's request/ requirement, EdCIL reserves the right of varying the quantities upto  $\pm 100\%$ , without any increase in the prices and/or other terms and conditions.
- b. The procurement shall be valid for entire duration of contract. A formal communication for the remaining quantities shall be issued on case to case basis on confirmation from the client, without any deviation in the ordered prices.

**The detailed specifications are given in the Annexure XXIV of the RFP. Following are the important conditions for all the items proposed:**

- i. All the items supplied under the contract must be brand new and in good condition & should comply with the minimum specifications given in this Tender Document and complying to all quality tests.
- ii. The selected Bidder needs to supply all the required items in single lot/ maximum quantities per lot with prior intimation to EdCIL within the stipulated timeline.
- iii. The successful Bidder shall submit Satisfactory Quality Check Pass Reports from the OEM(s) for 100% of the equipment being supplied prior to offering them for pre-dispatch inspection.

- iv. In addition, prior to pre-dispatch inspection, the successful bidder should satisfy that all items supplied conforms to applicable quality control parameters.

## **7.5 Delivery and Documents**

Delivery of all the goods at IPE, Vishakhapatnam campus should be made within a **stipulated time of 6 (six) weeks** from the date of issuance of Purchase Order/ LOA. The successful bidder to provide absolute supply schedule within 7 days from the receipt of Purchase Order. Within 24 hours of dispatch, the supplier should notify EdCIL and the insurance company by e-mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of EdCIL, invoice etc. Till IPE/ EdCIL takes over/ receives the items/ goods, the supplier should be responsible to keep the same in safe custody and the charges (if any) to be borne by the supplier. The successful bidder will be responsible for all equipment supplied till these are successfully installed and commissioned at the designated place. The supplier should mail the following documents to EdCIL with a copy to the insurance company:

- a) 4 Copies of the Supplier invoice showing Purchase Order/ Contract number, description of goods, quantity, unit price, total amount.
- b) Insurance Certificate.
- c) Manufacturer's/Supplier's warranty certificate.
- d) Inspection Certificate issued by EdCIL/ nominated inspection agency and subsequently accepted by IPE, if any.
- e) Supplier's factory inspection report; if any.
- f) Certificate of Origin (if possible by the beneficiary);
- g) Two copies of the packing list identifying the contents of each package.

The above documents should be received by EdCIL before arrival of the Goods (except where the Goods have been delivered directly to EdCIL with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

## **7.6 Liquidated Damages**

The timely delivery is the essence of this tender. Liquidated damages will be applicable at the rate of two percent (@2%) per week or part thereof for undelivered portion of BOQ items subject to a maximum of 10% of the cost of Purchase order for any reason whatsoever attributed to failure of tenderer. EdCIL will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.

## **7.7 Insurance and Transportation**

- a) The selected Bidder shall be responsible for acquiring comprehensive insurance

- including transit insurance, liability insurance and any other insurance for all the items/ equipment till the delivery and commissioning at IIPE/ Respective delivery warehouses along with Insurance against fire, theft, damages and loss of all property owned by the Executing Agency at the site, if any extending to third party liability.
- b) 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.
  - c) 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.
  - d) 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 at End Client's location.
  - e) It is the total responsibility of supplier to complete all formalities to transit of goods from the place of dispatch to End Clients Location.
  - f) The successful bidder should ensure that no person can engage in the business of a common carrier unless he has been granted a certificate of registration to do so for supply of items at End Client's Location.
  - g) The transportation of goods through unregistered common carrier is illegal. The successful bidder should ensure to comply with the latest carriage by Road Act and any other relevant laws.
  - h) Further, Group Personnel Accident Insurance covering the Executing Agency's employees, operating from the site as per the Executing Agency's established practices. Workman's Compensation Insurance, covering employee's / contract workers of the Executing Agency covered under Workman's Compensation Act and any other mandatory insurance governed by the prevailing laws of Central or State government shall be taken care of by the selected bidder.
  - i) All costs related to insurance shall be borne by the selected 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 along with the delivery challan before shipping of the equipment.
  - j) The supplier will keep EdCIL informed about various stages of deliveries & installation.

## **7.8 Progress of Supply**

Wherever applicable, supplier should regularly intimate progress of supply, in writing, to EdCIL as under:

- a) Quantity offered for inspection and date;
- b) Quantity accepted/rejected by inspecting authority/ies and date;
- c) Quantity dispatched/delivered to consignees and date;
- d) Quantity where incidental services have been satisfactorily completed with date;
- e) Quantity where rectification / repair / replacement effected / completed on receipt of any communication from Purchaser/ Consignee with date;
- f) Date of completion of entire Contract including incidental services, if any; and
- g) Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required should also be specified).

## **7.9 Packing Instructions**

Each package will be marked on three sides with proper paint/ indelible ink, the following:

- a) Item Nomenclature
- b) Order/Contract No.
- c) Country of Origin of Goods
- d) Supplier's Name and Address
- e) Consignee details
- f) Packing list reference number
- g) All packing should be strong enough to withstand rough handling during loading unloading and transporting. Fragile articles should be packed with special precaution and should bear the marking like Fragile, handle with care, This side up etc. All delicate surfaces of items/ goods should be carefully protected and painted with protective paint/ compound and wrapped to prevent rusting and damage.
- h) Attachments and spare parts and all small pieces should be packed with adequate protections and wherever possible should be sent along with the major items. Each item should be tagged so as to identify it with the main item and part number and reference number should be indicated.
- i) All protection and threaded fittings should be suitably protected and covers should block the openings.

## 7.10 Unloading and Unpacking

Unless specified otherwise in the purchase order, Unloading and storage of the same at the designated place should be undertaken by the supplier. The Unpacking of the materials should also be arranged by Supplier.

## 7.11 Site Preparation

- a) The supplier should inform to EdCIL about the site preparation, if any, needed for the installation of items, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the items, which the Institute should arrange before the arrival of the items to ensure its timely installation and smooth operation thereafter.
- b) The supplier should visit the Institute and see the site where the items is to be installed and should offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.

## 7.12 Scope of Installation & commissioning

- a) The supplier is required to undertake the installation and demonstration of all the items as per approved layout within 2 (two) weeks of the arrival of materials at Indian Institute of Petroleum & Energy (IIPPE), Vishakhapatnam (A.P.). The L.D. clause shall be the same as per the supply of materials.
- b) The successful agency has to arrange for technician, other manpower, tools etc for installation and commissioning of the goods supplied by the agency.
- c) **Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled/remade or restored to its previous condition by the successful bidder at its own cost.**
- d) In case of any mis-happening/ damage to items and supplies during the carriage of supplies from the origin of items to the installation site, the supplier has to replace it with new items /supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. Client/ EdCIL will not be liable to any type of losses in any form.
- e) As part of commissioning of the delivered equipment, the selected Bidder shall depute its technically qualified representative(s) to facilitate in the conduct of inspection of 100% of the delivered quantity in presence of EdCIL/ Client's representative. For commissioning, the inspection shall be done against the compliance checklist of the product features given in the Tender document along with complete documentation.
- f) Against the commissioning of all the items, the selected Bidder shall get an Installation and Commissioning Sign-off receipt from authorized representative of the EdCIL/ Client. The bidder shall submit invoices along with the list of serial numbers of all the

equipment supplied and corresponding Commissioning Sign-off receipt from the EdCIL/ Client. The damaged/defective equipment, if any, shall be taken back by the selected Bidder's representative and the corresponding serial numbers shall neither be included in the serial number list enclosed with invoice nor will the cost of returned equipment be reflected in the submitted invoice.

### **7.13 Indemnity**

- a) The selected Bidder shall execute and furnish to EdCIL a Deed of Indemnity in favour 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 contract period out of:
  - Any negligence or wrongful act or omission by the selected Bidder or the selected Bidder's Team in connection with or incidental to this contract or
  - A breach of any of the terms of Bid as agreed in the tender document by the Bidder or the selected Bidder's Team.
- b) The indemnity shall be to the extent of 100% in favour of EdCIL.

### **7.14 Warranty and Maintenance Support Services**

- a) Comprehensive Warranty should be for a minimum period of three (03) year from date of successful installation & handing over of Goods at the IIPE, at ANTHAKAPALLI, Vangali Village, Sabavarram, Anakapalle, Andhra Pradesh (AP)- 531035. The Supplier should, in addition, comply with the performance guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier should at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as shall be necessary in order to attain the contractual guarantees specified in the tender at its own cost and expense and to carry out further performance tests.
- b) The warranty should be comprehensive on site with responsibility of the agency to ensure minimum number of Engineers/technical qualified persons responsible for attending the warranty queries/issues received from IIPE. Supplier should give written information (about the Engineers/ technical representative name and cell numbers) before handing over of the Goods to EdCIL and to the end client's nominated representative/s to attend the issues related to the warranty of the goods supplied under the contract.
- c) EdCIL/ IIPE should promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier should immediately within 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier should take over the replaced parts/goods at the time of their replacement. No claim whatsoever should lie on EdCIL for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days,

EdCIL should proceed to take such remedial action as should be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which EdCIL should have against the supplier under the contract.

- d) The Selected Bidder is required to provide a next business day warranty service from OEM for the requisite items supplied under the contract for a period of 3 years (at sole discretion of client). Records of all calls/ emails/ visits made to the service centre shall be kept in a computerized system for easy tracking of complaints.
- e) The period of warranty for all items shall commence after successful installation and commissioning sign-off with IPE.
- f) Timely servicing/ rectification of defects during warranty period: after having been notified of the defects/ service requirement during warranty period. The Supplier has to complete the required service/ rectification within 2 days, time limit. If the Supplier fails to complete service/ rectification with defined time limit, a penalty of 0.5% of unit price of the product shall be charged as penalty for each week of delay from the Supplier, the Supplier can deposit the penalty with the buyer directly else the buyer shall have a right to recover all such penalty amount from the performance security (PBG). Cumulative penalty cannot exceed more than 10% of the total contract value after which the buyer shall have the right to get the service/ rectification done from alternate sources at the risk and cost of the Supplier besides forfeiture of PBG. the Supplier shall be liable to reimburse the cost of such service / rectification to the buyer.
- g) The bidder has to submit escalation matrix for the complaint's resolution and support.

#### **7.15 Incidental Services**

The incidental services also include:

- a) Furnishing of 01 set of detailed operations & maintenance manual.
- b) Arranging the shifting/moving of the item to their location of final installation within IPE campus at the cost of Supplier through their Indian representatives.

#### **7.16 User list**

Brochure detailing technical specifications and performance must be provided.

#### **7.17 Manuals and Drawings**

- a) Before the goods and items are taken over by the Client, the Supplier should supply operation and maintenance manuals. These should be in such details as will enable client to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- b) The Manuals should be in the English language in such form and numbers as stated in the contract.

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

## CHAPTER-8 ELIGIBILITY CRITERIA AND BID EVALUATION

### 8.1 Bid Evaluation

#### 8.1.1 Bid Evaluation Process

The bid evaluation shall consist of the following phases:

- 1) Phase I– Evaluation of Technical bid in accordance to the Pre-Qualification criteria and other tender compliances. QCBS evaluation of the Technical Bid of Pre-Qualified Bidder as per the Marking Scheme mentioned in the bid document.
- 2) Phase II - Evaluation of Financial bid

Note: - It is mandatory for the bidder to qualify all the Pre – qualification stages to be eligible for QCBS evaluation including presentation as per Marking Matrix. Only technically qualified bidders shall be considered for opening of their Financial Bids and evaluation thereof.

### 8.2 Evaluation of Technical Bids

Bidder has to upload all documentary evidence in support of the following mentioned Eligibility Criteria. In the absence of such supporting documents, as mentioned against each criterion, the bid will be rejected summarily. The QCBS rating/ marking and financial bid opening will be carried out for only those bidders who qualify in the Technical bid.

#### 8.2.1 PRE-QUALIFICATION CRITERIA:

- a) The minimum pre-qualification criteria for the bidders to be eligible for this RFP process are specified below. Technical Bid response/s not meeting the minimum pre-qualification criteria will be rejected as soon as such proposals are received and will not be considered for Technical evaluation and QCBS marking.

(Documents must be provided in support of the following PQ Criteria otherwise bids will be summarily rejected)

S. no.	Pre-Qualification/Eligibility Criteria	Supporting Documents required
1	The Bidder should be either a firm or a company registered under Companies Act, 1956 or 2013 in India existing for the last 15 years as on the date of submission of the bid. Consortium of companies/ firms is not allowed. Copies of VAT/ CST/ GST registration certificates of the Firm should be submitted to establish the date of start of business. The Bidder should have been actively involved in pure commercial <b>Audio-Video</b>	Copy of certificate of incorporation issued by Registrar of Companies/ Ministry of Corporate Affairs/ any other supporting document issued by government authority.

	<b>Solutions-related</b> project and their executions <b>exclusively.</b>	
<b>2</b>	The Bidder should have an average annual turnover of not less than INR 40 Crores Average during last three completed financial years (FY 2022-2023, 2023-2024 & 2024-25) from AV Solutions/ IT/ ICT items.	Bidder shall have to submit Audited Balance Sheets/ Accounts along with CA Certification in support of their claim. UDIN should be mentioned on the CA certificate.
<b>3</b>	The Bidder should have positive net worth during last 3 completed Financial Years (FY 2022-2023, 2023-2024 & 2024-25).	Bidder shall have to submit Audited Balance Sheets/ Accounts along with CA Certification in support of their claim. UDIN should be mentioned on the CA certificate.
<b>4</b>	Only authorized dealer/ agency of Original Equipment Manufacturer (OEM) having minimum 15 years of experience in execution of such supplies should apply against this invitation for bid. In the case of the bidder, offering to supply goods under the bid, which the bidder does not manufacture or otherwise produce, the bidder has to provide Manufacturer's Authorization Certificate preferably as per format at <b>Annexure-XVI. Bids submitted without authorization certificate will be summarily rejected.</b>	Latest Authorization letter from OEM to the Bidder authorizing him to do business on OEM's Behalf, as associate or authorized business partner, for OEM's Manufactured Items for <b>all major items, such as LED, display units, microphones, and cameras etc.,</b> This certificate must be specific to the current tender, verifying that the bidder is officially approved by the OEM to supply, install, and support the quoted products for this project.
<b>5</b>	An undertaking from the OEM of is required stating that they would facilitate the bidder by supplying products as per technical specifications & extend support for spares and maintenance facilities during warranty period. <b>The bid shall not be considered responsive in absence of the certificate from the OEM.</b>	Undertaking by the authorized signatory of OEM in favour of the Bidder agency.
<b>6</b>	The bidder should have successfully executed (during the last three completed financial year 2022-2023, 2023-2024 & 2024-2025 & up to the date of NIT) at least one or more supply, installation & commissioning of AV Solutions from start to finish of the following:  One single order of Supply and installation of AV Solutions having value of <b>Rs 4.00 Crores</b> (Rs. Four Crores Only) and above.  <b>(OR)</b>	Copies of Reference Work order along with completion certificate for the project to be submitted.  If the project is going on, then progress report from concerned client along with last submitted GST bill to client must be submitted.  Reference work orders shall be from CFTI/ INI/ Government/ Semi Government/ Public Sector Undertaking Companies/ Public

	<p>Two orders of Supply and installation of AV Solutions related works each having value of <b>Rs 3.00 Crores</b> (Rs. Three Crores Only) and above.</p> <p style="text-align: center;"><b>(OR)</b></p> <p>Three orders of Supply and installation of Audio - Video Solutions related works each having value of <b>Rs 2.00 Crores</b> (Rs. Two Crores Only) and above.</p>	Listed Companies/ reputed Pvt. Limited Companies.
<b>7</b>	The Bidder should not have been blacklisted/ debarred by any State/ Central Government/ PSU/ Autonomous bodies/ Government Organization/ Department/ Institutions for breach of ethical conduct or fraudulent practices as on the date of submission of the Bid.	Affidavit on a non-judicial stamp paper to be submitted by the authorized representative of the bidder firm.
<b>8</b>	<p><b>Warranty Requirement:</b></p> <ul style="list-style-type: none"> <li>• All items must include a minimum 3-year OEM standard warranty, starting from the date of installation and commissioning.</li> <li>• The warranty should cover all necessary repairs, part replacements, and software updates as per OEM standards, with no additional costs. The quoted price for each item must include this 3-year warranty.</li> <li>• The client should also have the option to purchase additional support or an extended warranty beyond the initial service period to ensure continued coverage.</li> <li>• Comprehensive three years onsite warranty with OEM backend support for both the supplied hardware and software has to be offered.</li> <li>• During the warranty period the bidder shall ensure the availability of relevant certified engineer at the installation site to provide warranty support. The support shall include onsite activities like implementation support and configuration change support failed component replacement activity system troubleshooting and raising support call with OEM for 3 years.</li> </ul>	Bidders must submit documentation from each OEM confirming warranty support for the quoted products. This documentation assures that warranty services will be honoured and that necessary support is available as specified.
<b>9</b>	Bidder must submit latest Bank Solvency Certificate of a minimum value of Rs. 2.50 Crore (not exceeding 6 months before the date of publication of advertisement)	Copy of Bank Solvency Certificate
<b>9</b>	The bidder must present an excellent portfolio showcasing relevant services and successful project completions of a similar value or higher.	Proof of this experience, such as completion certificates or client testimonials, must be submitted.

10	The Bidder should have valid GST Registration Certificate, PAN, CIN, EPFO Registration, ESIC Registration	Bidder shall have to submit copy of all the documents.
11	The bidder should have at least 40 numbers of technical manpower/ professionals for the proper execution of the contract as on the date of bid submission	Organizational headcount of technical staff with technical expertise has to be submitted along with proof of PF/ ESI certificates for the period of employment
12	The Bidder/ Original equipment manufacturer of AV solutions should have following certifications: <ul style="list-style-type: none"> <li>• ISO 9001-2015</li> <li>• ISO 14001-2015</li> <li>• ISO 27000</li> <li>• ISO 20000</li> </ul>	Copies of the valid certificates should be attached along with technical bid. All the above certifications shall be from valid source & validity should be mentioned. Any certificates found without the validity period shall not be accepted.
14	The bidder shall have a dedicated/ toll free number to address after sales services	Provide details of the same
15	The bidder shall have sales & service setup at <b>Andhra Pradesh/ Telangana</b> at least for last 10 year.	Please provide the valid document (GST registration/ transaction proof of providing sales/ service)
16	<b>Technical Training</b> Bidders must provide thorough training sessions to designated technical staff on operating, troubleshooting, and maintaining the installed equipment.	Please provide an undertaking in this regard
17	<b>After-Sales Service Support:</b> Bidders must provide ongoing after-sales service support at IIFE Visakhapatnam for at least three years following installation. This service includes addressing technical issues, performing regular maintenance, and coordinating with OEMs for any needed repairs or replacements.	Please provide an undertaking in this regard
18	The Bidder shall clearly provide escalation matrix for resolving problems.	Please provide the supporting document.
19	The Bidder shall have experience of executing a single order for supply of Educational Audio -Video Solutions range worth 1.00 Cr or above from Centrally Funded Technical Institutes/ Institute National Importance in the last 3 financial years 2022-2023, 2023-2024 & 2024-2025 and up to the date of the NIT	Please provide the document (Purchase order/ supply order copies mentioning about Audio-Video Solutions supplied by the bidder)

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.

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/ Client.

b) **The bidder who fulfilled the eligibility criteria shall be further evaluated as per the following marking matrix:**

**Marking Matrix:** In the below table, marking parameters for technical evaluation are mentioned:

S.no	Minimum Eligibility Parameters	Marking Scheme	Maximum Marks	Document required
1	Bidder shall have an average minimum annual turnover of Rs. 40 Crore in the last three (3) completed financial years (FY 2021-2022, 2022-2023, & 2023-2024) from AV Solutions/ IT/ ICT items.	>=Rs. 40 Cr and <Rs. 60 Cr = 10 Marks >=Rs. 60 Cr and <Rs. 80 Cr = 15 Marks >=Rs. 80 Cr = 20 Marks	20	Bidder shall have to submit Audited Balance Sheets and Accounts along with a CA Certification in support of their claim. UDIN should be mentioned on the CA certificate.
2	The bidder should have successfully executed (during the last three completed financial year 2022-2023, 2023-2024 & 2024-2025 & up to the date of NIT) at least one or more supply, installation & commissioning of AV Solutions from start to finish of the following: One single order of Supply and installation of AV Solutions having value of <b>Rs 4.00 Crores</b> (Rs. Four Crores Only) and above. <b>(OR)</b> Two orders of Supply and installation of AV Solutions related works each having value of <b>Rs 3.00 Crores</b> (Rs. Three Crores Only) and above.	Qualifying the minimum eligibility criteria = 10 marks For each additional similar projects = 2.5 marks each (maximum up to 10 marks)	20	Copies of Reference Work order along with completion certificate for the project to be submitted. If the project is going on, then progress report from concerned client along with last submitted GST bill to client must be submitted. Reference work orders shall be from CFTI/ INI/ Government/ Semi Government/ Public Sector Undertaking Companies/ Public Listed Companies/ reputed Pvt. Limited Companies.

	<b>(OR)</b> Three orders of Supply and installation of Audio-Video Solutions related works each having value of <b>Rs 2.00 Crores</b> (Rs. Two Crores Only) and above.			
3	The Bidders shall have minimum technical manpower/ professionals' strength of 40 persons on its rolls as on the date of bid submission	>=40 and <50 professionals = 5 Marks  >=50 professionals = 10 Marks	10	Proof of statutory documents PF/ESI Documents along with declaration and an Undertaking to be submitted by the authorized signatory of the organization. (Brief resume of each Technical manpower/ professional to be deployed for service support during warranty period should be attached).
4	<p><b>Technical Presentation</b> – Tender Evaluation Committee for the Technical Presentation will evaluate the qualifying bidders for following:</p> <ul style="list-style-type: none"> <li>• Understanding of the project, AV requirements and Value addition to client requirements</li> <li>• Resource Planning: the Bidder's capability and product quality (Project Team deployment plan, System Configurability and Up gradation, Quality)</li> <li>• Recently completed government/ Private project implementation with timelines (From Project kick-off time to Handover date and Time)</li> <li>• Technical Expertise: technology and other suitability related aspects</li> <li>• Schematics &amp; drawings for proposed solution</li> <li>• Material, packaging profiles</li> </ul> <p><b>Note</b>-The Technical Presentation will be held at EdCIL House, Noida and Bidder will have to make all the arrangements to attend the same according to the notified date and time at their own.</p>		50	Formal Presentation to be given by representatives of bidders as per time & date conveyed.
	<b>Total marks</b>		100	

c) **The bidder who scores minimum 70 marks as per marking scheme shall be declared qualified in technical evaluation stage and notified for opening of their financial bids. Qualified bidders would also be advised to attend opening of the financial bid.**

d) The Evaluation Committee shall evaluate and rank each Technical Proposal on the basis of the Proposal's responsiveness to the scope using the evaluation criteria and score system specified above.

e) Each Technical Proposal shall receive a technical score as:

$$\text{Technical Proposal Marks (TPM)} = 100 \times \frac{\text{Technical Proposal under consideration}}{\text{Highest Technical Bid}}$$

f) The Proposal shall be rejected if it does not achieve the minimum technical marks of 70 (seventy) out of maximum of 100 (one hundred) marks.

### 8.3 Evaluation of Financial bids

a) 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. EdCIL shall inform the date, place and time for opening of financial bids.

b) Financial bids will be inspected to ensure their conformity to the format provided in the tender document.

c) If there is any discrepancy between words and figures in any part of the financial bid, the amount indicated in words will prevail.

d) Each Financial Proposal shall receive a financial score as:

$$\text{Financial Proposal Marks (FPM)} = 100 \times \frac{\text{Lowest Financial Bid}}{\text{Financial Bid under consideration}}$$

e) The lowest evaluated Financial Proposal will receive a maximum of 100 marks.

### 8.4 Combined Quality and Cost Based Selection (QCBS) Evaluation

a) The score of technical proposal including presentation would be given 30% weightage, and the financial proposal would be given 70% weightage. The normalised score of the technical bid including presentation (TPM), and financial proposals (FPM) shall be used to rank the Bidders on the basis of formula given as below:

b) The final evaluation will be made on the basis of the following:

- Weightage for the Technical Proposal: 0.3
- Weightage for the Financial Proposal: 0.7

$$\text{Combined Technical and Financial score, (CPM)} = \text{TPM} \times 0.3 + \text{FPM} \times 0.7$$

- c) Bidder with highest Combined Score shall be declared selected Bidder.
- d) In the event of two or more Bidders/ organizations with the same final score, the Bidder with more marks in technical evaluation shall be ranked higher i.e. will be given preference.
- e) The Quality and Cost-Based Selection (QCBS) method evaluates bids based on both technical quality and cost, assigning a weightage to each. In a typical QCBS scenario, a technical evaluation is first conducted, and proposals meeting the minimum technical criteria are then considered for their financial bids. The combined score of technical and financial scores determines the final ranking, with the highest combined score being awarded the contract.

#### **8.5 Contract Finalization and Award**

- a) EdCIL shall reserve the right to call for a discussion for price justification and work methodology with the bidder(s) whose proposal has been ranked as 'highest ranked bidder' on the basis of Technical and Financial Evaluation to the proposed Project.
- b) After the EdCIL notifies the successful bidder that its proposal has been accepted, EdCIL shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder(s) between EdCIL and the successful bidder(s).

#### **8.6 Compliance to Make in India**

Compliance to Make In India (Make in India Circular No. P-45021/2/2017-PP(BE-II) of DPIIT dated 16.09.2020) and subsequent addendums/ amendments:

- a) The MII Declaration / Certificate (as per Annexure-XII) to be provided by Statutory Auditor or Cost Auditor of the Company (in case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies).
- b) Only "Class-I local supplier" having minimum 50% local content and "Class-II local supplier" having minimum 20% local content for the overall solution, shall be eligible to bid in this procurement.
- c) The System Integrator (SI) / Bidder has to submit the consolidated MII (local content) % for the complete solution being offered as per Annexure-XII.
- d) MII Purchase Preference shall be provided as per the provision of the said MII order.
- e) Consortium/ JV of companies/ firms is not allowed.

#### **8.7 Certifications**

Copies of certifications as mentioned above at the S. No. 8.2.1 Pre-Qualification/ minimum eligibility criteria should be submitted with the technical bid.

## CHAPTER-9 KEY CONTRACT TERMS

### 9.1 Payment Terms

- a) Only those bidders who are confident and willing to carry out the work within the prescribed time period, are requested to participate in this tender.
- b) The payment of procurement of Goods, Services and works etc. shall be made in Indian Rupees.
- c) The Payment Items shall be regulated as follows:
  - i) 70% payment of the contract value/ value of supplied items, shall be made against delivery of the supplied Items in good conditions at Institute and to the entire satisfaction of IIPE/ EdCIL on receipt of the following documents:
    - Invoice (in original)
    - Warranty Certificate
    - Delivery Challan (duly signed & stamped by authorized officials of consignee), if any
    - PDI report, if any
    - E-way bills for delivery of the material and equipment at site(if applicable)
  - ii) 25% payment shall be released on successful installation, commissioning & handing over of all the supplied items at site and after getting satisfactory certificate from IIPE on receipt of the following documents:
    - Clearance from EdCIL and IIPE Representative regarding successful completion of work
    - Inspection report (Installation and commissioning report duly signed and stamped by authorized officials of consignee), if applicable
  - iii) 5% payment shall be released on completion of Warranty Period of supplied items/ material etc. as per contract on receipt of the following documents:
    - Clearance from IIPE regarding Supplier/ OEM had rectified/ replaced the faulty component/ item as per SLA on intimation from IIPE, if any
    - Certificate of satisfactory performance from IIPE in charge and preventive maintenance reports

**Note: The ownership of supply shall be with IPE and as such EdCIL will process the Invoice of the Supplier and forward the bill to IPE with EdCIL's recommendation.**

- d) IPE shall release the payment to EdCIL and EdCIL shall further release the payment to the Supplier based on receipt of funds from IPE. However, with respect to GST, EdCIL's GST shall be shown in the Invoice of the Supplier and shall also mention that the supply is done on behalf of IPE.

**Note:**

- *Payments will be made only on a 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.*
- *In case of any shortcoming and/ or recovery imposed by the Client to EdCIL, the same shall be made from successful bidder on back-to-back basis.*
- *Warranty start will be reckoned from the date of installation and commissioning as approved by the end client.*

## **9.2 Force Majeure**

The Supplier should not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay 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 Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events shall include, but are not limited to, acts of 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 Supplier should promptly notify EdCIL in writing of such conditions and the cause thereof. Unless otherwise directed by 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.

## **9.3 Risk Purchase Clause**

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

## **9.4 Delayed Delivery**

If the delivery is not made within the due date for any reason, the Committee will have the right to impose Liquidated damages (LD) @2% per week and the maximum deduction of

10% of the contract value/ rate. Once the maximum is reached, EdCIL has the right to terminate the contract and encash the submitted performance guarantees.

#### **9.5 Rates**

- I. The rate should be quoted in per unit (with breakup) and must include all packing, delivery, installation, commissioning charges etc. The offer/bid should be exclusive 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 rate of the product including taxes, transportation, Warranty & AMC with all other incidental expenses indicated.
- II. The rates 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 rate must be mentioned in Financial Bid only. Discount or any other offers affecting the Package rate mentioned at any other place of the bid other than Financial Bid will not be considered.
- III. Price information shall not be part of Technical Bid.

#### **9.6 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 bidder shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the bidder or it does not correspond with the rates written either in figures or in words then the rates quoted by the bidder 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 of any item/ items appears unrealistic, such tender/ item(s) will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation such a tender/ item(s) is liable to be disqualified and rejected.

#### **9.7 Notices**

- 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 to the other party's address.
- A notice should be effective when delivered or on the notice's effective date, whichever is later.

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

**The Chief General Manager (EIS & EPS)**

EdCIL (India) Limited,

18 A, Sector-16A,

Noida, Uttar Pradesh -201 301

Tel: 91-120-4156001/ 02, 4154003, 2970206/ 07

**9.8 Arbitration/ Resolution of Disputes**

The dispute resolution mechanism to be applied pursuant should be as follows:

- 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.
- h. Each of the parties agree that notwithstanding that the matter may be referred to Arbitrator as provided herein, the parties shall nevertheless pending the resolution of the controversy or disagreement continue to fulfil their obligation under this Agreement so far they are reasonably able to do so.

**9.9 Right to Use Defective Goods**

**9.9.1** If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Client/ 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 Client’s operation.

**9.9.2 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, Client/ EdCIL will recover amount equivalent to the cost of such damaged/ broken/ short-supplied materials and will repay when actual replacement is given.

**9.9.3 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.

#### **9.10 Supplier Integrity**

The Supplier 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.

#### **9.11 Training**

The Supplier is required to provide training to the designated Client's technical and end user personnel to enable them to effectively operate the total item.

#### **9.12 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.

#### **9.13 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.

#### **9.14 Taxes**

Suppliers should be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods/ Services. EdCIL shall only make payment towards GST charged in the invoices and shall not make any payment towards any taxes (other than GST) or any other incidental charges payable by the supplier for supply of material up to the place of delivery.

#### **9.15 Application Specialist**

The Tenderer should mention in the Techno-Commercial bid the availability and names of Application Specialist and Service Engineers in the nearest regional office.

### **9.16 Spare Parts**

The Supplier should be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- a) Such spare parts as EdCIL should elect to purchase from the Supplier, providing that this selection should not relieve the Supplier of any warranty obligations under the Contract; and
- b) In the event of termination of production of the spare parts:
  - Advance notification to EdCIL of the pending termination, in sufficient time to permit EdCIL to procure needed requirements; and following such termination, furnishing at no cost to EdCIL, the blueprints, drawings and specifications of the spare parts, if requested.

### **9.17 Product Life**

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 5 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.

### **9.18 Defective supply of items**

- a) If any of the items supplied by the Tenderer 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 items or its part. The rates of such items should be refunded by the Tenderer with 18% interest if such payments for such items have already been made.
- b) All damaged or unapproved goods should be returned at successful bidder's cost and risk and the incidental expenses incurred thereon should be recovered from the successful bidder.

### **9.19 Termination for Default**

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:

- a. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the

order, or within any extension thereof granted by EdCIL; or

- b. If the Supplier fails to perform any other obligation(s) under the Contract.
- c. If the Supplier, in the judgment of EdCIL has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- d. For the purpose of this Clause:
  - **“Corrupt practice”** means the offering, giving, receiving or soliciting of anything of value to influence the action of 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 Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid rates at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;”
  - In the event EdCIL terminates the Contract in whole or in part, 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 EdCIL for any excess costs for such similar Goods or Services. However, the Supplier should continue the performance of the Contract to the extent not terminated.
- e. In case supplier fails to submit the PBG within stipulated time, EdCIL reserves the right to terminate the contract without any further notice.

#### **9.20 Termination for convenience**

The EdCIL reserves the right to terminate the contract at any time without assigning any reason thereof.

#### **9.21 Training of Personnel**

The supplier should be required to undertake to provide the technical training to the personnel involved in the use of the items at the Institute premises, immediately after completing the installation of the items for a minimum period of one week at the supplier's cost.

#### **9.22 Disputes and Jurisdiction**

Any legal disputes arising out of any breach of contract pertaining to this tender should be settled in the court of competent jurisdiction located within New Delhi.

#### **9.23 Compliancy certificate**

This certificate must be provided indicating conformity to the technical specifications.

(Annexure-XXIV)

#### **9.24 Award of Contract**

- a) 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.
- b) EdCIL has the right to review at any time prior to award of contract that the qualification criteria, as specified elsewhere in this tender document are still being met by the Bidder whose offer has been determined as first rank. A proposal shall be rejected if the qualification criteria is no longer met by the Bidder whose offer has been determined as first rank.

#### **9.25 Negotiations**

Negotiations are not allowed. However, if required, for price justification and work methodology discussions may be held at the address indicated in the Data Sheet. Representatives available for discussions on behalf of the Bidder must have written authority to present technical, financial and other terms and conclude a legally binding agreement.

#### **9.26 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.

#### **9.27 Implementation of Insolvency and Bankruptcy Code, 2016 (IBC)**

- a) It shall be the responsibility of all bidders 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 a 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 finalize 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 bidders in the Format (as per ANNEXURE V) along with their techno commercial bids.

#### **Guidelines for Evaluation & Short closure:**

- 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) are initiated against the successful bidder, EdCIL shall have the right to short close the contract.

**9.28 Acknowledgement**

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

**ANNEXURE-I**

**TECHNICAL COMPLIANCE DECLARATION SHEET**

We hereby confirm that we are complying with the technical specifications as specified in the tender document and the offer is submitted in accordance with the technical requirements. All relevant documents in support of our claims are enclosed at the following pages:

Signature of Bidder: \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization Name: \_\_\_\_\_

Contact No.: \_\_\_\_\_

Email: \_\_\_\_\_

Mobile: \_\_\_\_\_

## ORGANISATION DECLARATION SHEET

## &lt;&lt; Bidder's Organization Letter Head &gt;&gt;

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.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, We/ OEM has agreed to support the project on regular basis with technology/ product updates and extend support for the warranty.

The rates quoted in the financial bids are subsidized due to academic discount given to EdCIL INDIA LTD.

We, further specifically certify that our organization has not been Blacklisted/ De Listed/ Debarred or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	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 bidder	
---	--

**(Signature of the Tenderer)**

**Name:** \_\_\_\_\_

**Seal of the Company**

**LETTER OF UNDERTAKING**

**(ON THE LETTER HEAD OF THE BIDDER)**

To

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

Sir,

**SUBJECT- Supply, Installation and Commissioning of Audio Video Solutions for Indian Institute of Petroleum and Energy (IIPE), Vishakhapatnam, Andhra Pradesh (AP)**

This bears reference to EdCIL Bid No. **EdCIL/EIS-EPS/IIPE/2025/5** 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 (date) \_\_\_\_\_ 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:

**SELF-DECLARATION – NON-BLACKLISTING**

<<<on a non-judicial stamp paper of Rs. 100/->>>

This is to confirm that we M/s \_\_\_\_\_ (give full address) 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 Central/ State Government/ PSUs/ Autonomous Bodies or by any other 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).***

**ANNEXURE-V**

**DECLARATION ON PROCEEDINGS UNDER INSOLVENCY AND BANKRUPTCY**

<<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 rights or remedies (including holiday listing) available to EdCIL (India) Ltd.

Place:

Date:

Signature of Bidder

Name of Authorized Signatory

**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> (EdCIL) ..... project, proposed to be developed by the ..... (the “client” (EdCIL)) 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 (EdCIL), signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the client (EdCIL) 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 (EdCIL).

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 .....2025.

For ..... (Name and registered address of client (EdCIL))

(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, lay 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 be submitted 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 (EIS & EPS),  
EdCIL (India) Limited,  
EdCIL House, 18A, Sector- 16A,  
NOIDA- 201 301 (U.P)**

**SUBJECT-** Supply, Installation, Commissioning and Maintenance of Audio Video Solutions for Indian Institute of Petroleum and Energy, Vishakhapatnam, A.P.

***-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 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 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 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. \_\_\_\_\_ towards Bid document cost (if applicable).
8. We confirm that each page of our submission including all supporting documents bears signature with date, name of the signatory, designation of the signatory and firm seal.

Enclosures:

Date of Submission:

Signature of Bidder

Name of the Bidder: \_\_\_\_\_

Designation: \_\_\_\_\_

Seal of the Organization: \_\_\_\_\_

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

Place: \_\_\_\_\_

**ANNEXURE-VIII****ANNUAL AVERAGE TURNOVER**

<b>Sl. No.</b>	<b>Financial Year</b>	<b>Annual Turnover, Rs.</b>	<b>Net Worth, Rs.</b>	<b>Net Profit, Rs.</b>
1.	2022-23			
2.	2023-24			
3.	2024-25			
<b>Total</b>				
<b>Average</b>				

Note: Certificate from Statutory Auditors / Chartered Accountant certifying above information for all three years to be enclosed.

**Signature with Seal of the Chartered Accountant**

**Signature with Seal of the Bidder**

**ANNEXURE-IX**

**DETAILS OF SIMILAR PROJECTS COMPLETED DURING LAST 5 YEARS**

List of similar projects for whom the Bidder has undertaken such work during last seven years (must be supported with work orders)

<b>S. No</b>	<b>Name of the Client with address</b>	<b>Name of the Project and brief description</b>	<b>Description &amp; Quantity of ordered items</b>	<b>Value (Incl. Tax)</b>	<b>Date of award</b>	<b>Date of Completion</b>	<b>Name of Contact Person and other details</b>
1.							
2.							
3.							
4.							
5.							
6.							
7							
8							

Signature of Bidder

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization Name: \_\_\_\_\_

Contact No. : \_\_\_\_\_

**ANNEXURE-X**

**LIST OF APPLICATION SPECIALIST/ SERVICE ENGINEER FOR WARRANTY SUPPORT**

Name of application specialist / Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.			
Name of the organization	Name of Contact Person	Designation	Contact No.

Signature of Bidder

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization Name: \_\_\_\_\_

Contact No. : \_\_\_\_\_

**SOLVENCY CERTIFICATE**

**Dated:** \_\_\_\_\_

**To,**

**EdCIL India Limited  
EdCIL House  
18A, Sector-16A  
Noida-201301  
U.P (India).**

This is to certify that M/S..... having their office at..... is a regular customer of our bank. They are solvent to an extent of Rs.....

Seal & Signature for  
the Bank

NOTE: Banker's certificate should be on letter head of the Bank.

### COMPLIANCE CERTIFICATE FOR MAKE IN INDIA

**Declaration / Certificate to be provided by Statutory Auditor or Cost Auditor of the Company (in case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies)**

Please submit the certificate as per format given below:

**To**

**CGM (EIS & EPS)  
EdCIL (India) Limited,  
EdCIL House, 18A, Sector- 16A,  
Noida- 201 301 (U.P)**

**Sub: Tender for .....**

**Ref: Tender No.**

We hereby certify that the goods / items/ equipment being offered by us vide our proposal, comply with the provisions of Make In India Order No P-45021/2/2017-PP (BE-II), dated 16th Sept 2020 issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, GoI, read with order number W-43/4/2019-IPHW- MeitY, dated 7th September, 2020 issued by IPWH division of MeitY, GoI for respective items.

We also certify that, we are not from a country sharing land border with India as defined in order No. F/No/6/18/2019-PPD dated 23 July 2020 issued by public procurement Division, Dept. of Expenditure, Ministry of Finance, GoI and the goods offered by us comply with the provisions of said order (details provided below).

**We hereby certify the details pertaining to goods / items/ equipment offered by us, against the tender requirement is given below:**

Sr No.	Item Description, Make, Model	Country of origin of OEM	Country of Manufacture of item	Percentage of local contents as defined by order number W43/4/2019-IPHW- MeitY, dated 7th September 2020 issued by IPWH division of MeitY, GoI *	Details of the location(s) at which the local value addition is made
1	Category I & II Items with description			Consolidated MII / Local Content for the complete solution	

				declared by System Integrator (SI)/ Bidder	
--	--	--	--	--	--

Note 1: The Country of origin/ manufacturing should be declared for individual items being offered for both Category I & II items.

Note 2: EdCIL (India) Limited reserves the right to Accept / Reject / Cancel the bid / Bidder, at its sole discretion, based on the responses received against the MII declarations submitted by the Bidders / vendors.

Note 3: The System Integrator/ Bidder needs to provide the MII / Local content declaration as a consolidated figure for the complete solution. However, location of value addition should be declared for each item.

For (Name of Bidder):

Authorized Signatory Name & Designation:

Mobile No:

**PERFORMANCE BANK GUARANTEE FORMAT**

Name of the Bank: \_\_\_\_\_

To

**IIPE, Vishakhapatnam, AP**

In consideration of the IIPE acting through \_\_\_\_\_ (Designation & address of Contract Signing Authority), (hereinafter called “Indian Institute of Petroleum & Energy”) 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 Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ 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 Indian Institute of Petroleum & Energy an amount not exceeding Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only) on demand by the Indian Institute of Petroleum & Energy.
  
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 Indian Institute of Petroleum & Energy through the **Registrar**, Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy 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 Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ Only).
  
3. (A) We \_\_\_\_\_ ( indicate the name of Bank ) further undertake to pay to the Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy, 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) Notwithstanding 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 Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy. If the guarantee is not renewed or the period extended on demand, we \_\_\_\_\_ (indicate the name of the Bank) shall pay the Indian Institute of Petroleum & Energy the full amount of guarantee on demand and without demur.
6. We \_\_\_\_\_ ( indicate the name of Bank ) further agree with the Indian Institute of Petroleum & Energy that the Indian Institute of Petroleum & Energy 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 Indian Institute of Petroleum & Energy 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 or any forbearance act or omission on the part of the Indian Institute of Petroleum & Energy or any indulgence by the Indian Institute of Petroleum & Energy to the said Agency or any other matter or thing whatsoever which under the law relating to sureties would but for the said provision 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 Indian Institute of Petroleum & Energy in writing.
9. This guarantee shall be valid up to (Date of Completion plus 90 Days). Unless extended on demand by Indian Institute of Petroleum & Energy. 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.

**LIST OF AUTHORISED BANKS FOR BG**

Following banks are permissible for accepting Bank Guarantees:

**SCHEDULED PUBLIC SECTOR BANKS**

<b>Sr. No</b>	<b>Name of the Bank</b>
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

**SCHEDULED PRIVATE SECTOR BANKS**

<b>Sr. No</b>	<b>Name of the Bank</b>
1	HDFC Bank Ltd
2	ICICI Bank Ltd
3	Axis Bank Ltd
4	Kotak Mahindra Bank Ltd
5	IndusInd Bank Ltd

**PROFORMA PRE CONTRACT INTEGRITY PACT**

**GENERAL**

This pre-contract Agreement (hereinafter called the Integrity Pact) is made on \_\_\_ day of the month of .... 2025, 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 “\_\_\_\_(TITLE OF THE TENDER)-----” for its clients and BIDDER/ Seller is willing to offer the said services and related items as referred to in the Bid document no. .... Dated ..... 2025.

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 Education 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. .... dated .....2025 at a competitive rate 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. Commitments of EdCIL**

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, favour 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.

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.
  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. Commitments of Bidders**

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:

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

4. BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
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.
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.
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.
8. The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
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.
10. The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
11. The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
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.
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. PREVIOUS TRANSGRESSION**

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.
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**

1. While submitting Technical bid, the BIDDER shall deposit an amount of Rs. .... as Earnest Money with the EdCIL through Account Payee Bank Draft or a Pay Order in favour of EdCIL (India) Limited.
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 warranty period, whichever is later.
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.
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**

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.
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.
  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. An Independent monitor (s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.
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.
3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
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.
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.
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 by 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.
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.
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.

**8. FACILITATION OF INVESTIGATION**

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.

**9. LAW AND PLACE OF JURISDICTION**

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

**10. OTHER LEGAL ACTIONS**

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.

**11. VALIDITY**

1. The validity of this Integrity Pact shall be governed by the terms of the NIT No. \_\_\_\_\_ towards complete execution of the contract to the satisfaction of both the EdCIL and the BIDDER/Seller, including warranty 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.
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.

12. The parties hereby sign this Integrity Pact at \_\_\_\_\_ on \_\_\_\_\_.

EdCIL (India) Limited

BIDDER

Name of the Officer :

CHIEF EXECUTIVE OFFICER

Designation:

Witness:

Witness

a) \_\_\_\_\_

1. \_\_\_\_\_

b) \_\_\_\_\_

2. \_\_\_\_\_

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

**ORIGINAL EQUIPMENT MANUFACTURER (OEM) AUTHORIZATION FORM**

(General Proforma)

No. \_\_\_\_\_ dated \_\_\_\_\_

To,

\_\_\_\_\_

Dear Sir/Madam:

Bid No. \_\_\_\_\_

We \_\_\_\_\_ who are established and reputed manufacturer of \_\_\_\_\_ (name and description of goods offered) having factories at \_\_\_\_\_ (address of factory) with factory registration no. \_\_\_\_\_ do hereby authorize M/s \_\_\_\_\_ (Name and address of Agent) to submit a bid, and sign the contract with you for the goods manufactured by us against the above bid.

We hereby extend our full warranty as per the required conditions of Contracts, for the goods and services offered for supply by the above firm against this Invitation for Bid. We further certify that we shall support vendor with all related spares and maintenance during the entire contract period including the period of warranty and AMC (if applicable); as per tender and we also declare that the product proposed in this contract will not be end of support till the contract period.

We also certify that the proposed products meet the technical & functional requirements & also products quoted are of latest version (the release date should not be more than one year).

Yours faithfully,

(Name): \_\_\_\_\_

(Name of manufacturers): \_\_\_\_\_

**Note: This letter of authority should be on the letterhead of the manufacturer or OEM and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.**

## ANNEXURE-XVII

## TENDER COMPLIANCE SHEET

S. No.	Description	Yes/No	Page No.
1.	Whether the bidder has attached the EMD as per format or not?		
2.	Amount of EMD as per bid requirement or not?		
3.	Form in which EMD enclosed (Online transfer/Demand Draft). If the EMD is submitted in the form of online transfer, the bidder should have to submit UTR details.		
4.	Bid validity 90 days or not?		
5.	If bidder is an agent, whether the authorization certificate as per Performa attached or not?		
6.	Legal Status / Constitution of firm (any document & partnership deed etc.)		
7.	Details of Service Supports/ Closest Service Station from where service would be provided during warranty period		
8.	Whether the bidder has quoted for all the items in the Schedule?		
9.	Whether warranty of items as per bid quoted or not?		
10.	Whether rate as per Financial Bid quoted or not?		
11.	Whether delivery period and installation period as per bid agreed or not?		
12.	Payment terms as per bid agreed or not?		
13.	Undertakings/ Self-declarations as per <b>Annexures</b> submitted or not?		
14.	Company profile, Technical brochures of items quoted attached or not?		
15.	Copy of certificate of incorporation is enclosed or not?		
16.	OEM Authorization Certificate <b>enclosed or not?</b> Authorization certificate is required for all the items.		
17.	Audited Balance sheets/ CA Certificate including profit and loss statements for the last three financial years (as per tender document) to fulfill the requirements of turnover as per bid qualification criteria attached or not?		

S. No.	Description	Yes/No	Page No.
18.	Bank Solvency (not exceeding 6 months before the date of publication of this advertisement) as per bid requirement submitted or not?		
19.	Documents in support of similar works executed for Govt. Institutions such as IIT's/ NIT's/ IIIT's/ Central / State Universities/ CPSEs etc. during last five years enclosed or not?		
20.	Copies of past order details to fulfill the requirement of past order as per qualification criteria attached or not?		

**CONTRACT FORM**

**THIS AGREEMENT** made the ..... day of ..... 2025 between .....EdCIL (hereinafter called "the Purchaser") on behalf of Indian Institute of Petroleum & Energy, Vishakhapatnam, AP 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 Rate")

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] EdCIL's Notification of Award/ Purchase Order
3. In consideration of the payments to be made by EdCIL to the Supplier as hereinafter mentioned, the Supplier hereby covenants with EdCIL to provide the goods and services and to remedy defects herein in conformity in all respects with the provisions of the Contract.
4. 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 rates 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:

<b>S. No.</b>	<b>Brief Description of Goods &amp; Services</b>	<b>Quantity to be supplied</b>	<b>Unit Rate</b>	<b>Total Rate</b>	<b>Delivery Terms</b>

**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 EdCIL)

in the presence of .....

Signed, Sealed and Delivered by the

said ..... (For the Supplier)

in the presence of .....

**EQUIPMENT PRE-DISPATCH INSPECTION**

All Test criteria need to be assessed with respect to compliance and the specification submitted by the successful Bidder in the proposal. Pre-Dispatch Inspection will not pass any item which even if meets the compliance but deviates from the specification submitted by the Bidder during proposal submission.

With aforesaid clause, test criteria will imply –

During pre-dispatch inspection, the equipment under test must satisfy both the following conditions.

1. Actual result should comply with test criteria.
2. Actual result should match with the specification submitted by the Bidder as part of the proposal submission.

<b>Technical Specification Required</b>	<b>Test Criteria (Bidder's Proposed Specs)</b>	<b>Actual Result</b>	<b>Test Outcome (Pass/Fail)</b>
<b>Compliance for the equipment as per annexure XXIV</b>			

**DELIVERY CERTIFICATE**

(to be completed by EdCIL/ IPE)

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

Sl. No.	Sl. No. (As per Work Order)	Description of items	Origin	Model & Make	Quantity

Please make appropriate column, as per requirement.

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

**Details of the Goods/ items received in objectionable condition**

Sl. No.	Sl. No. (As per Work Order)	Description of items	Origin	Model & Make	Quantity

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

(Signature of the issuing official)

(Authorized Official, IPE)

Name \_\_\_\_\_

Designation \_\_\_\_\_

Rubber Seal of the Institution

Received the Acknowledgement Certificate

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

Signature of Supplier or his Authorized Representative

Name: \_\_\_\_\_

### INSTALLATION CERTIFICATE

*(to be completed and issued by EdCIL/ IPE)*

1. The following goods/ items, supplied by the Supplier at this Institute have been successfully installed by the Supplier.

Sl. No.	Sl. No. (As per Work Order)	Description of Items with specifications	Origin	Model & Make	Quantity

2. The Supplier has fulfilled his contractual obligations related to supply & installation of the items.

or

3. The Supplier has not fulfilled his contractual obligation with regard to following. (Mention here **deviation**, if any, related to successful installation.)

(a)

(b)

(c)

Date:

(Signature of the issuing official)  
(Authorized Official, IPE)

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Rubber Seal of the Institution

Received the Acceptance Certificate

Date:

Signature of Supplier or his Authorized Representative

Name: \_\_\_\_\_

**HANDING OVER CERTIFICATE**

The following goods/equipment, supplied by the Supplier at IPE, Vishakhapatnam have been successfully installed, commissioned and handed over by the supplier.

Sl. No.	Description of Equipment	Serial No of Device (Wherever possible)	Make	Model	Quantity
1					

**Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Signature of Supplier or its representative**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

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

Rubber Seal: \_\_\_\_\_

**Signature of IPE official**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

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

Rubber Seal of the institution

**Verified by EdCIL representative.**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

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

**ANNEXURE-XXIII****MANDATE FOR ELECTRONIC FUND TRANSFER THROUGH RTGS**

1	Name of the Grantee Organization	EdCIL (India) Limited
2	Address of the Grantee organization	EdCIL House, Plot No. 18A, Sector-16A, Noida- 201301
3	Telephone No	0120-2512001-006, FAX- 0120-2515372
4	Particular of Bank Account	
A	Bank Name	State Bank of India
B	Branch Name & Address	(00691) New Delhi Main Branch-11, Parliament Street, New Delhi, NCT of Delhi - 110001
C	City of the Bank Branch	Delhi
D	9 Digit MICR Code Number of Branch	110002087
E	Type of Account	Current Account
F	BSR code of Bank (4 Digit code)	0000691
G	Account Number (15-digit code (in digit))	36830596465
H	Account Number (15-digit code (in words))	Three Six Eight Three Zero Five Nine Six Four Six Five
I	IFSC Code	SBIN0000691
J	Customer ID	829441
K	Whether this branch is RTGS enabled	Yes

## TECHNICAL SPECIFICATION COMPLIANCE SHEET

### A. SEMINAR HALL

Sr. No	Product Description along with technical specifications	Offered specification by the bidder along with Make/ Model	Whether comply Fully/ Partially/ Not Comply to the tender specification	Highlight deviations of offered specification w.r.t. tender specification
<b>1</b>	<b>DISPLAY SYSTEM</b>			
1.1	<p><b>DLED:</b></p> <p>Active Screen Size (inch) 110" or Higher, Display Backlight DLED            Display Ratio 16 : 9, Resolution 3840*2160 or better            Display Colors 10 bit or better, LCD Brightness &gt;550cd/m2 or better            Contrast Ratio (Typical) 15000:1 or better, Response Time (Typical) 4ms or better            Viewing Angle 178°, Life time (working hours) &gt;50,000 hours or better            Display Orientation Landscape, Reference Frequency 120Hz            Speakers Should be SEAMLESSLY build-in the display, Max. Power Output 2x20 Watts or above, Speaker Position bottom front side of the display, Rated Impedance 6Ω            Freq. Response 250Hz-20KHz SPL -10dB, Output S.P.L. 90±3dB            Touch Technology Deployment Touch feature should be seamlessly build-in the display and NO overlay is allowed, Touch Sensor Advanced IR Surface material of touch surface Anti-Glare + Anti-Fingerprint + Antimicrobial Tempered Glass Protection 3M antiglare, Haze 2%~5%            Touch Screen Writing Tools Nano Pen (&gt;2mm width) included or Finger, TOUCH Response time 4ms or better, Positioning Accuracy ±1mm or better            Transmission Range 5M, Transparency &gt;88% or better, Surface Hardness ≥8H or More than 8H, Glass thickness 4 mm, HID Support Must have a provision to connect with any external sources            Requirement of Front access ports For the purpose of ease access the display must have the following ports in the front side            Minimum Requirement of AV Inputs at front side            USB 3.0 x 2, HDMI x 1 In, Touch USB x 1, USB Type C x 1,            Minimum Requirement of AV Inputs at rear side            ""HDMI IN 2.0 x2, USB Type-B 3.0 (Touch) x2, USB 3.0 Type-C (no PD) x1""            Minimum requirement of AV Outputs at rear side</p>			

	<p>""SPDIF out x1, Audio Line out x1, HDMI OUT 2.0 x1""  Minimum Requirements for other ports at rear side  ""WIFI module slot (wifi module is standard) ,  RS232 x1, RJ45 (Gigabit) *2, OPS Slot x1</p> <p><b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b></p>			
1.2	<p><b>OPS:</b></p> <p>OPS with 4K Resolution   Intel I5 - 12th Gen with Intel® Iris® Xe Graphics for 12th Gen Intel® Processors   8GB RAM x 1 - DDR4   512 GB SSD Memory  Pre-install Win 10 Pro English (Trial)</p> <p><b>Preferred Makes: Newline / Spectra/ Benq</b></p>			
1.3	<p><b>Digital Podium:</b></p> <p>Material : Complete podium Brushed Aluminium  Design: Aluminium + solid wood decoration for the main body, front surface, column sandblasting treatment,  Top Sliding door: Aluminium with lock and key  Design: Slim, Sleek and light weight  Display Size: 21.5inch  Screen Resolution: Full HD  Castrol Wheels: 4 Nos For portable movement  Gooseneck Microphone: With shock mount and phantom power  External Keyboard and Mouse Tray With lock and keys  Motorized monitor angle adjustment: Angle of the Touch Display screen should be adjustable according to user comfort  AV connectivity: HDMI input, USB interface to connect the computer  Cable box Descriptions: Aluminium Pulling &amp; drawing wire box on the podium, should be easy to use for external equipment.  Cable Management: To be available top of the podium to connect external devices  Dimensions in mm: 735x670x1060mm or better  Industrial PDU: 6 ports with fuse  Storage Provision: Podium Should be Accessible from front &amp; Back side with Provision to Access Devices</p> <p><b>Preferred Makes: EIS/ Maxhub/ UNI</b></p>			
<b>2</b>	<b>VIDEO SYSTEM</b>			
2.1	<p><b>Professional Grade Conferencing Camera:</b></p> <p>SITC of professional grade camera with 1080P resolution for conferencing and video capture application, with 12X Optical Zoom, FOV: 72.5 Degree.  Interface: USB 3.0 backward compatible with USB 2.0 with RS232 VISCA port for control through</p>			

	<p>external control system, Backlight compensation support, 255 Preset capability , 72.5 degree Horizontal Angle View and 44.8 to 3.0 Degree Vertical angle view, UVC 1.0 protocol support.</p> <p><b>Preferred Makes: Sony/ Panasonic/ ClearOne</b></p>			
2.2	<p><b>AV over IP Camera:</b></p> <p>SITC of 20X camera, SNR CMOS sensor combined with 2D and 3D noise reduction, Streams AV over IP using H.264 and H.265, Control the camera's functions via USB, Ethernet, RS-485, and RS-232, Supports USB 3.0 and 2.0 interfaces, power: PoE, camera: 1080P resolution, Signal to Noise Ratio <math>\geq 55</math>dB, Number of Presets: 250 or more, preset Accuracy: 0.1° or better, 3.5mm Audio Interface, Line In, 3.5mm Audio Interface, Mic In, USB PTZ Control: yes, Video Stream: First Stream, Second Stream, Supporting Protocols: TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc complete required as per specifications.</p> <p><b>Preferred Makes: ClearOne/ Sony/ Panasonic</b></p>			
2.3	<p><b>Video Mixer:</b></p> <p>Supply, Installation, testing &amp; Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Individual Input, Picture-in-Picture &amp; Picture-by-Picture Layouts selection options.</p> <p>Should have minimum of 2 USB Video (Camera) Inputs (minimum of USB 2.0) Should have minimum of 1 HDMI Video Camera / Content Input All USB &amp; HDMI Inputs Should support 1080p on each camera / Content input.</p> <p>Should have parallel HDMI &amp; USB3.0 Output x 1 no each.</p> <p>Both Outputs should resolution of 1080p.</p> <p>Should have a mixer output directly into a single USB 3.0 interface.</p> <p>Should support PTZ control of Camera connected in Input over output USB 3.0 directly.</p> <p>Should be able to select all 3 inputs in individual layout mode.</p> <p>Should be able to Select Picture-In-Picture, Picture by Picture &amp; 1 Big Picture (covering more than 70%) along with another video input.</p> <p>Should also be able to toggle Inputs while in Layouts both from Front panel &amp; also Control Interface.</p> <p>Should have Audio Input usable for Microphone / Content &amp; mixed with Video &amp; provided mixing on to Video Output on USB / HDMI.</p> <p>Should also have Audio Output for HDMI audio de-embedding.</p> <p>Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems.</p> <p>Should have front keypad for selection of layout.</p>			

	<p>Should have HDMI output for preview along with Parallel selection of Layout.</p> <p>Should have a Line level stereo audio support.</p> <p>Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP &amp; should be able to provide mixing of Video &amp; Audio on Single USB3.0 Output that can be given to UC Codec application Device.</p> <p>Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers &amp; no need of major Setup.</p> <p><b>Preferred makes: Inogeni/ Tvone/ Extron</b></p>			
2.4	<p><b>Video Recorder:</b></p> <p>Supply of video recorder with 2 x HDMI / DVI digital video (HDCP compliant), 1 x HDMI, 1 x Component/ Composite video, 1 x HDMI loop out or better</p> <p>Resolution: 640x480 upto at least 1920x1200 including 1080p/60</p> <p>Should have EDID management</p> <p>1 HDMI for local output, 1 RJ45 streaming &amp; network recording output &amp; Simultaneous unicast and multicast streaming per encode</p> <p>1 or more stereo</p> <p>Should have in-built DSP for audio management.</p> <p>80 GB or more SSD / through Memory card, USB for external drive and defined network storage directory &amp; Record audio as separate m4a file.</p> <p>Should support dual channel recording.</p> <p>Should have two HD input PIP and picture by picture capability and have high quality inbuilt scaling</p> <p>Should have flexibility to change background images and text for recording</p> <p>Record and stream simultaneously, Metadata can be assigned to make indexing and searching of recordings.</p> <p>Should support adjustable recording and streaming bit rates.</p> <p>Should support unloadable background image files.</p> <p>Should support clean transition between sources.</p> <p>Should have flexibility to integrate with 3rd party video platform with help of additional license.</p> <p>With resolution support upto 1080p, H.264 or better compression supporting protocol RTP/RTSP/RTMP</p> <p>Horizontal Video Mirroring Upgrade with additional license</p> <p>Integration with Panapto or Kaltura with additional license</p> <p>Should have I/O ports for AV system management</p> <p>Should include HDMI cable lacing brackets, RS232/ Ethernet, Front button panel.</p> <p><b>Preferred Makes: Extron/ Lumens/ Datavideo</b></p>			
<b>3</b>	<b>AUDIO SYSTEM</b>			
3.1	<b>Ceiling Microphone:</b>			

	<p>SITC of Ceiling microphone with automatic dynamic Beamforming technology, The beam should automatically detect the position of the person speaking and should follow the person around the room at all times. Minimum 26 number of microphone capsules, It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports.</p> <p>The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It should be controlled through software that can control and monitor the microphone in any network.</p> <p>It should have min 100 dB SPL, 4ms latency, and min 90dBA or higher dynamic range. frequency response: 150 Hz - 17 kHz or better, High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room. It should be certified from Microsoft Teams and Zoom Video conferencing applications. Fitting into 600 mm (2ft) ceiling panel / surface / flush with ceiling, It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications. The OEM should have a minimum of 2 company-owned service centres in India.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.2	<p><b>Digital Wireless Lapel Microphone:</b></p> <p>SITC of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omnidirectional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.3	<p><b>Rechargeable battery pack:</b></p> <p>Supply of rechargeable battery pack for handheld and bodypack transmitter.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.4	<p><b>Network enabled 2 bay charger:</b></p>			

	<p>Supply of Network enabled 2 bay charger for handheld and Bodypack transmitter, it can be cascaded upto 5 chargers with the help of external power supply unit, 3 hrs charging team, RJ-45, IEEE 802.3 network socket, It should support the Media Control Protocol to provide for remote control and status monitoring via the centralized management software.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.5	<p><b>Digital Signal Processor:</b></p> <p>SITC of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor should have minimum 16 assignable &amp; routable AEC channels. The processor should have minimum 8x8 Dante channels and should also support up to 128x128 Network audio channels via Dante or AES67. It should also support POTS and SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications. The processor should also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21dBu. The processor should support third party device control via Ethernet &amp; RS232. It should have Inbuilt Multitrack Audio Player capacity</p> <p><b>Preferred makes: QSC, Biamp, Bose</b></p>			
3.6	<p><b>Class-D Amplifier:</b></p> <p>SITC of 4 channel class-D amplifier with 100 watts/channel into Low-Z loads. 4 channels can also be bridged in pairs, each pair providing up to 200 watts RMS into 4 or 8 ohms and up to 175 watts into 70V/100V. Signal to Noise ( 20 Hz-20 kHz)-&gt;100 dB, Frequency Response-20 Hz - 20 kHz, Input Sensitivity-1.23 Vrms (+4 dBu), Input Impedance-&gt;10 k<math>\Omega</math> (balanced), &gt;10 k<math>\Omega</math> (unbalanced), Front Panel Indicators-Power, per channel Signal, per channel Protect/Limit, Controls- 4<math>\Omega</math>/8<math>\Omega</math>/70V Bridge Highpass On/100V Bridged Highpass on per channel pair. Should include all mounting accessories.</p> <p><b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b></p>			
3.7	<p><b>Ceiling Speaker:</b></p> <p>SITC of 6.5-inch, 2 way, Ceiling-mount loudspeaker. 70V/100V transformers with 8-ohm bypass, Frequency Range-65 Hz – 20 kHz, Rated noise power / voltage-30 watts / 15.5 volts (rms), Sensitivity-89 dB SPL, Coverage- 110° conical (500 Hz to 5 kHz), Maximum continuous SPL-96 dB,</p>			

	<p>Maximum peak SPL- 110 dB, LF Transducer - 6.5-inch Polypropylene cone with butyl rubber surround, HF Transducer - .86-inch silk dome tweeter, coaxially mounted.</p> <p>Rated impedance- 8Ω, Transformer Taps- 70 V: 30, 15, 7.5, 3.7, 1.9 watts, 100V: 30, 15, 7.5, 3.8, watts</p> <p><b>Preferred Makes: QSC, JBL, Bose</b></p>			
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>			
4.1	<p><b>Cable cubby:</b></p> <p>Cable cubby with 2 universal Power , USB Ports for Mobile charging and pass through holes for HDMI, Network &amp; USB Cables.</p> <p><b>Preferred Makes: Logic/ Extron/ Kramer</b></p>			
4.2	<p><b>Switcher (Type-1):</b></p> <p>The switcher should support HDMI 2.0 signal formats.</p> <p>It should have two HDMI 2.0 along with one USB 3.1 USB type B &amp; one USB-C 3.1 Gen1 port &amp; Three full-featured USB-C 3.1 Gen1 input ports and two HDMI 2.0 output ports.</p> <p>It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection.</p> <p>It should support charging via USB-C up to 100W.</p> <p>The switcher should provide independent switching of the four input signals.</p> <p>The switcher should have a balanced analogue audio output port for stereo audio de-embedding.</p> <p>The switcher should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats.</p> <p>The switcher should be USB 3.1 Gen 1, USB 2.0, USB 1.1 compliant.</p> <p>The switcher should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption.</p> <p>The switcher should support video content, and all standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz RGB 4:4:4.</p> <p>The switcher should provide adjustable volume on an analogue output port.</p> <p>The switcher should support EDID management for customizable EDID tables.</p> <p>The switcher should be able to store a minimum of 100 EDID resolutions.</p> <p>The switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The switcher should provide a bi-directional RS-232, Ethernet and GPIO port for control.</p> <p>The switcher should have multiple Ethernet network configurations fitting various corporate network topologies and IT security standards.</p>			

	<p>It should support SSH, SSL, and HTTPS for IT security.</p> <p>It should have an Occupancy sensor connection (with a 24V power supply)</p> <p>The switcher should support multiple USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The switcher should have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.3	<p>Mounting Kit for installing switcher under the table</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.4	<p>Mounting kit for installing power supply for switcher under the table</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>			
5.1	<p>Control Processor to control equipments in the room with minimum 3 RS-232 ports, 4 IR Ports, 4 Relay ports &amp; LAN control ports</p> <p><b>Preferred Makes: Crestron/ Extron/Kramer</b></p>			
5.2	<p>Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch</p> <p><b>Preferred Makes: Netgear/ Cisco/ Luxul</b></p>			
5.3	<p>10.9" IPAD as controller</p> <p><b>Preferred Makes: Apple</b></p>			
5.4	<p>Wall Mount Docking Station for I-PAD with charging , lock .</p> <p><b>Preferred Makes: Iport/ Idisplay</b></p>			
5.5	<p>Wireless Access Point</p> <p><b>Preferred Makes: Dlink/ Cisco/ Netgear</b></p>			
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>			
6.1	<p>Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc</p> <p><b>Preferred Makes: Lightware/ Kramer/ Dlink/Extron</b></p>			
<b>7</b>	<b>SERVICES</b>			
7.1	<p>Installation , Commissioning , programming , training , handover &amp; documentation.</p>			

## B. COMPUTER LAB

Sr. No.	Product Description along with technical specifications	Offered specification by the bidder along with Make/ Model	Whether comply Fully/ Partially/ Not Comply to the tender specification	Highlight deviations of offered specification w.r.t. tender specification
1	<b>DISPLAY SYSTEM</b>			
1.1	<p><b>DLED:</b></p> <p>Active Screen Size (inch) 110" or Higher, Display Backlight DLED</p> <p>Display Ratio 16 : 9, Resolution 3840*2160 or better</p> <p>Display Colors 10 bit or better, LCD Brightness &gt;550cd/m2 or better</p> <p>Contrast Ratio (Typical) 15000:1 or better, Response Time (Typical) 4ms or better</p> <p>Viewing Angle 178°, Life time (working hours) &gt;50,000 hours or better</p> <p>Display Orientation Landscape, Reference Frequency 120Hz</p> <p>Speakers Should be SEAMLESSLY build-in the display, Max. Power Output 2x20 Watts or above, Speaker Position bottom front side of the display, Rated Impedance 6Ω</p> <p>Freq. Response 250Hz-20KHz SPL -10dB, Output S.P.L. 90±3dB</p> <p>Touch Technology Deployment Touch feature should be seamlessly build-in the display and NO overlay is allowed, Touch Sensor Advanced IR</p> <p>Surface material of touch surface Anti-Glare + Anti-Fingerprint + Antimicrobial Tempered Glass Protection 3M antiglare , Haze 2%~5%</p> <p>Touch Screen Writing Tools Nano Pen (&gt;2mm width) included or Finger, TOUCH Response time 4ms or better, Positioning Accuracy ±1mm or better</p> <p>Transmission Range 5M, Transparency &gt;88% or better, Surface Hardness ≥8H or More than 8H, Glass thickness 4 mm, HID Support Must have a provision to connect with any external sources</p> <p>Requirement of Front access ports For the purpose of ease access the display must have the following ports in the front side</p> <p>Minimum Requirement of AV Inputs at front side            USB 3.0 x 2, HDMI x 1 In , Touch USB x 1 , USB Type C x 1 ,</p> <p>Minimum Requirement of AV Inputs at rear side            ""HDMI IN 2.0 x2, USB Type-B 3.0 (Touch) x2, USB 3.0 Type-C (no PD) x1""</p> <p>Minimum requirement of AV Outputs at rear side            ""SPDIF out x1, Audio Line out x1, HDMI OUT 2.0 x1""</p> <p>Minimum Requirements for other ports at rear side            ""WIFI module slot (WIFI module is standard) ,</p>			

	RS232 x1, RJ45 (Gigabit) *2, OPS Slot x1  <b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b>			
1.1	<b>OPS:</b>  OPS with 4K Resolution   Intel I5 - 12th Gen with Intel® Iris® Xe Graphics for 12th Gen Intel® Processors   8GB RAM x 1 - DDR4   512 GB SSD Memory  Pre-install Win 10 Pro English (Trial)  <b>Preferred Makes: Newline / Spectra/ Benq</b>			
<b>2</b>	<b>VIDEO SYSTEM</b>			
2.1	<b>Video Camera:</b>  SITC of professional grade camera with 1080P resolution for conferencing and video capture application, with 12X Optical Zoom, FOV: 72.5 Degree. Interface: USB 3.0 backward compatible with USB 2.0 with RS232 VISCA port for control through external control system, Backlight compensation support, 255 Preset capability , 72.5 degree Horizontal Angle View and 44.8 to 3.0 Degree Vertical angle view, UVC 1.0 protocol support.  <b>Preferred Makes: Sony/ Panasonic/ ClearOne</b>			
2.2	<b>AV over IP Camera:</b>  SITC of 20X camera, SNR CMOS sensor combined with 2D and 3D noise reduction, Streams AV over IP using H.264 and H.265, Control the camera's functions via USB, Ethernet, RS-485, and RS-232, Supports USB 3.0 and 2.0 interfaces, power: PoE, camera: 1080P resolution, Signal to Noise Ratio ≥55dB, Number of Presets: 250 or more, preset Accuracy: 0.1° or better, 3.5mm Audio Interface, Line In, 3.5mm Audio Interface, Mic In, USB PTZ Control: yes, Video Stream: First Stream, Second Stream, Supporting Protocols: TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc complete required as per specifications.  <b>Preferred Makes: ClearOne/ Sony/ Panasonic</b>			
2.3	<b>Video Mixer:</b>  Supply, Installation, testing & Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Individual Input, Picture-in-Picture & Picture-by-Picture Layouts selection options. Should have minimum of 2 USB Video (Camera) Inputs (minimum of USB 2.0)Should have minimum of 1 HDMI Video Camera / Content InputAll USB & HDMI Inputs Should support 1080p on each camera / Content input.			

	<p>Should have parallel HDMI &amp; USB3.0 Output x 1no each.  Both Outputs should resolution of 1080p.  Should have a mixer output directly into a single USB 3.0 interface.  Should support PTZ control of Camera connected in Input over output USB 3.0 directly.  Should be able to select all 3 inputs in individual layout mode.  Should be able to Select Picture-In-Picture, Picture by Picture &amp; 1 Big Picture (covering more than 70%) along with another video input.  Should also be able to toggle Inputs while in Layouts both from Front panel &amp; also Control Interface.  Should have Audio Input usable for Microphone / Content &amp; mixed with Video &amp; provided mixing on to Video Output on USB / HDMI.  Should also have Audio Output for HDMI audio de-embedding.  Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems.  Should have front keypad for selection of layout.  Should have HDMI output for preview along with Parallel selection of Layout.  Should have a Line level stereo audio support.  Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP &amp; should be able to provide mixing of Video &amp; Audio on Single USB3.0 Output that can be given to UC Codec application Device.  Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers &amp; no need of major Setup.</p> <p><b>Preferred makes: Inogeni/ Tvone/ Extron</b></p>			
<b>3</b>	<b>AUDIO SYSTEM</b>			
3.1	<p><b>Ceiling Microphone:</b></p> <p>SITC of Ceiling microphone with automatic dynamic Beamforming technology, The beam should automatically detect the position of the person speaking and should follow the person around the room at all times. Minimum 26 number of microphone capsules, It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports.</p> <p>The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It should be controlled through software that can control and monitor the microphone in any network.</p> <p>It should have min 100 dB SPL, 4ms latency, and min 90dBA or higher dynamic range. frequency</p>			

	<p>response: 150 Hz - 17 kHz or better, High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room.</p> <p>It should be certified from Microsoft Teams and Zoom Video conferencing applications. Fitting into 600 mm (2ft) ceiling panel / surface / flush with ceiling, It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications. The OEM should have a minimum of 2 company-owned service centres in India.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.2	<p><b>Digital Wireless Lapel Microphone:</b></p> <p>SITC of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.3	<p><b>Rechargeable battery pack:</b></p> <p>Supply of rechargeable battery pack for handheld and bodypack transmitter.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.4	<p><b>Network enabled 2 bay charger:</b></p> <p>Supply of Network enabled 2 bay charger for handheld and Bodypack transmitter, it can be cascaded upto 5 chargers with the help of external power supply unit, 3 hrs charging time, RJ-45, IEEE 802.3 network socket, It should support the Media Control Protocol to provide for remote control and status monitoring via the centralized management software.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.5	<p><b>Digital Signal Processor:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor should have minimum 16 assignable &amp; routable AEC channels. The</p>			

	<p>processor should have minimum 8x8 Dante channels and should also support up to 128x128 Network audio channels via Dante or AES67. It should also support POTS and SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications. The processor should also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21dBu. The processor should support third party device control via Ethernet &amp; RS232. It should have Inbuilt Multitrack Audio Player capacity</p> <p><b>Preferred makes: QSC, Biamp, Bose</b></p>			
3.6	<p><b>Class-D Amplifier:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 4 channel class-D amplifier with 100 watts/channel into Low-Z loads.</p> <p>4 channels can also be bridged in pairs, each pair providing up to 200 watts RMS into 4 or 8 ohms and up to 175 watts into 70V/100V.</p> <p>Signal to Noise ( 20 Hz-20 kHz)-&gt;100 dB, Frequency Response-20 Hz - 20 kHz, Input Sensitivity-1.23 Vrms (+4 dBu), Input Impedance-&gt;10 kΩ (balanced), &gt;10 kΩ (unbalanced), Front Panel Indicators-Power, per channel Signal, per channel Protect/Limit, Controls- 4Ω/8Ω/70V Bridge Highpass On/100V Bridged Highpass on per channel pair. Should include all mounting accessories.</p> <p><b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b></p>			
3.7	<p><b>Ceiling Speaker:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 6.5-inch, 2 way, Ceiling-mount loudspeaker. 70V/100V transformers with 8-ohm bypass, Frequency Range-65 Hz – 20 kHz, Rated noise power / voltage-30 watts / 15.5 volts (rms), Sensitivity-89 dB SPL, Coverage- 110° conical (500 Hz to 5 kHz), Maximum continuous SPL-96 dB, Maximum peak SPL- 110 dB, LF Transducer - 6.5-inch Polypropylene cone with butyl rubber surround, HF Transducer - .86-inch silk dome tweeter, coaxially mounted.</p> <p>Rated impedance- 8Ω, Transformer Taps- 70 V: 30, 15, 7.5, 3.7, 1.9 watts, 100V: 30, 15, 7.5, 3.8, watts</p> <p><b>Preferred Makes: QSC, JBL, Bose</b></p>			
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>			
4.1	<b>Cable cubby:</b>			

	<p>Cable cubby with 2 universal Power , USB Ports for Mobile charging and pass through holes for HDMI, Network &amp; USB Cables.</p> <p><b>Preferred Makes: Logic/ Extron/ Kramer</b></p>			
4.2	<p><b>Switcher (Type-2):</b></p> <p>The switcher should support HDMI 2.0 signal formats.</p> <p>It should have two HDMI 2.0 along with one USB 3.1 USB type B &amp; one USB-C 3.1 Gen1 port &amp; Two full-featured USB-C 3.1 Gen1 input ports and two HDMI 2.0 output ports.</p> <p>It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection.</p> <p>It should support charging via USB-C up to 100W.</p> <p>The switcher should provide independent switching of the four input signals.</p> <p>The switcher should have a balanced analogue audio output port for stereo audio de-embedding.</p> <p>The switcher should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats.</p> <p>The switcher should be USB 3.1 Gen 1, USB 2.0, USB 1.1 compliant.</p> <p>The switcher should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption.</p> <p>The switcher should support video content, and all standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz RGB 4:4:4.</p> <p>The switcher should provide adjustable volume on an analogue output port.</p> <p>The switcher should support EDID management for customizable EDID tables.</p> <p>The switcher should be able to store a minimum of 100 EDID resolutions.</p> <p>The switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The switcher should provide a bi-directional RS-232, Ethernet and GPIO port for control.</p> <p>The switcher should have multiple Ethernet network configurations fitting various corporate network topologies and IT security standards.</p> <p>It should support SSH, SSL, and HTTPS for IT security.</p> <p>It should have an Occupancy sensor connection (with a 24V power supply)</p> <p>The switcher should support multiple USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The switcher should have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			

4.3	Mounting Kit for installing switcher under the table  <b>Preferred makes: Lightware/ Extron / Kramer</b>			
4.4	Mounting kit for installing power supply for switcher under the table  <b>Preferred makes: Lightware/ Extron / Kramer</b>			
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>			
5.1	Control Processor to control equipments in the room with minimum 3 RS-232 ports, 4 IR Ports, 4 Relay ports & LAN control ports  <b>Preferred Makes: Crestron/ Extron/Kramer</b>			
5.2	Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch  <b>Preferred Makes: Netgear/ Cisco/ Luxul</b>			
5.3	10.9" IPAD as controller <b>Preferred Makes: Apple</b>			
5.4	Wall Mount Docking Station for I-PAD with charging , lock . <b>Preferred Makes: Iport/ Idisplay</b>			
5.5	Wireless Access Point <b>Preferred Makes: Dlink/ Cisco/ Netgear</b>			
<b>6</b>	<b>CABLES &amp; CONNNECTORS</b>			
6.1	Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc  <b>Preferred Makes: Lightware/ Kramer/ Dlink/Extron</b>			
<b>7</b>	<b>SERVICES</b>			
7.1	Installation , Commissioning , programming , training , handover & documentation.			

**C. 60-SEATER CLASSROOM**

Sr. No.	Product Description along with technical specifications	Offered specification by the bidder along with Make/ Model	Whether comply Fully/ Partially/ Not Comply to the tender specification	Highlight deviations of offered specification w.r.t. tender specification
1	<b>DISPLAY SYSTEM</b>			
1.1	<p><b>DLED:</b></p> <p>Active Screen Size (inch) 98" or higher, Display Backlight DLED            Display Area 2158 x 1214 mm, Display Ratio 16 : 9            Resolution 3840*2160 or better, Display Colors 10 bit or better            LCD Brightness &gt;550cd/m2 or better, Contrast Ratio (Typical) 15000:1 or better            Response Time (Typical) 4ms or better, Viewing Angle 178°            Life time (working hours) &gt;50,000 hours or better, Display Orientation Landscape            Reference Frequency 120Hz, Speakers Should be SEAMLESSLY build-in the display            Touch Technology Deployment Touch feature should be seamlessly build-in the display and NO overlay is allowed            Touch Sensor Advanced IR, Surface material of touch surface should be Anti-Glare + Anti-Fingerprint + Antimicrobial Tempered Glass, Protection 3M antiglare , Haze 2%~5%, Touch Screen Writing Tools Nano Pen (&gt;2mm width) included or Finger TOUCH Response time 4ms or better, Positioning Accuracy ±1mm or better            Transmission Range 5M, Transparency &gt;88% or better            Surface Hardness ≥8H or More than 8H, Glass thickness 4 mm            HID Support Must have a provision to connect with any external sources            Touch Points Must have a touch capability of MINIMUM 50 points            Writing Tool Should use with Nano Pen (&gt;2mm width) included or Finger            Scan Speed 133Hz or better, Communication Interface inbuilt USB-B type            Requirement of Front access ports For the purpose of ease access the display must have the following ports in the front side            Minimum Requirement of AV Inputs at front side            ""USB Type-C (PD 65W) x1            HDMI IN 2.0 (4K@60Hz) x1, USB Type-B (Touch) x1, USB 3.0 Type-A x2, Microphone In x1""            Minimum Requirement of AV Inputs at rear side            ""HDMI IN 2.0 x2 , DisplayPort 1.2 x1 , USB Type-B 3.0 (Touch) x3, USB 3.0 Type-C (no PD) x1""            Minimum requirement of AV Outputs at rear side            ""SPDIF out x1, Audio Line out x1, HDMI OUT 2.0 x1""            Minimum Requirements for other ports at rear side</p>			

	<p>""WIFI module slot (wifi module is standard) , RS232 x1, RJ45 (Gigabit) *2, OPS Slot x1 , USB 3.0 Type-A x2, USB 3.0 Type-A to Android x1</p> <p><b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b></p>			
1.2	<p><b>OPS:</b></p> <p>OPS with 4K Resolution   Intel I5 - 12th Gen with Intel® Iris® Xe Graphics for 12th Gen Intel® Processors   8GB RAM x 1 - DDR4   512 GB SSD Memory  Pre-install Win 10 Pro English (Trial)</p> <p><b>Preferred Makes: Newline / Spectra/ Benq</b></p>			
<b>2</b>	<b>VIDEO SYSTEM</b>			
2.1	<p><b>Video Camera:</b></p> <p>SITC of professional grade camera with 1080P resolution for conferencing and video capture application, with 12X Optical Zoom, FOV: 72.5 Degree.</p> <p>Interface: USB 3.0 backward compatible with USB 2.0 with RS232 VISCA port for control through external control system, Backlight compensation support, 255 Preset capability , 72.5 degree Horizontal Angle View and 44.8 to 3.0 Degree Vertical angle view, UVC 1.0 protocol support.</p> <p><b>Preferred Makes: Sony/ Panasonic/ ClearOne</b></p>			
2.2	<p><b>AV over IP Camera:</b></p> <p>SITC of 20X camera, SNR CMOS sensor combined with 2D and 3D noise reduction, Streams AV over IP using H.264 and H.265, Control the camera's functions via USB, Ethernet, RS-485, and RS-232, Supports USB 3.0 and 2.0 interfaces, power: PoE, camera: 1080P resolution, Signal to Noise Ratio ≥55dB, Number of Presets: 250 or more, preset Accuracy: 0.1° or better, 3.5mm Audio Interface, Line In, 3.5mm Audio Interface, Mic In, USB PTZ Control: yes, Video Stream: First Stream, Second Stream, Supporting Protocols: TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc complete required as per specifications.</p> <p><b>Preferred Makes: ClearOne/ Sony/ Panasonic</b></p>			
2.3	<p><b>Video Mixer:</b></p> <p>Supply, Installation, testing &amp; Commissioning of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Individual Input, Picture-in-Picture &amp; Picture-by-Picture Layouts selection options.</p> <p>Should have minimum of 2 USB Video (Camera) Inputs (minimum of USB 2.0)Should have minimum of 1 HDMI Video Camera / Content InputAll USB &amp;</p>			

	<p>HDMI Inputs Should support 1080p on each camera / Content input.  Should have parallel HDMI &amp; USB3.0 Output x 1no each.  Both Outputs should resolution of 1080p.  Should have a mixer output directly into a single USB 3.0 interface.  Should support PTZ control of Camera connected in Input over output USB 3.0 directly.  Should be able to select all 3 inputs in individual layout mode.  Should be able to Select Picture-In-Picture, Picture by Picture &amp; 1 Big Picture (covering more than 70%) along with another video input.  Should also be able to toggle Inputs while in Layouts both from Front panel &amp; also Control Interface.  Should have Audio Input usable for Microphone / Content &amp; mixed with Video &amp; provided mixing on to Video Output on USB / HDMI.  Should also have Audio Output for HDMI audio de-embedding.  Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems.  Should have front keypad for selection of layout.  Should have HDMI output for preview along with Parallel selection of Layout.  Should have a Line level stereo audio support.  Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP &amp; should be able to provide mixing of Video &amp; Audio on Single USB3.0 Output that can be given to UC Codec application Device.  Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers &amp; no need of major Setup.</p> <p><b>Preferred makes: Inogeni/ Tvone/ Extron</b></p>			
<b>3</b>	<b>AUDIO SYSTEM</b>			
3.1	<p><b>Ceiling Microphone:</b></p> <p>SITC of Ceiling microphone with automatic dynamic Beamforming technology, The beam should automatically detect the position of the person speaking and should follow the person around the room at all times. Minimum 26 number of microphone capsules, It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports.</p> <p>The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It should be controlled through software that can control and monitor the microphone in any network.</p> <p>It should have min 100 dB SPL, 4ms latency, and min 90dBA or higher dynamic range. frequency response:</p>			

	<p>150 Hz - 17 kHz or better, High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room.</p> <p>It should be certified from Microsoft Teams and Zoom Video conferencing applications. Fitting into 600 mm (2ft) ceiling panel / surface / flush with ceiling, It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications. The OEM should have a minimum of 2 company-owned service centres in India.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.2	<p><b>Digital Wireless Lapel Microphone:</b></p> <p>SITC of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
	<p><b>Rechargeable battery pack:</b></p> <p>Supply of rechargeable battery pack for handheld and bodypack transmitter.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.4	<p><b>Digital Signal Processor:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor should have minimum 16 assignable &amp; routable AEC channels. The processor should have minimum 8x8 Dante channels and should also support up to 128x128 Network audio channels via Dante or AES67. It should also support POTS and SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications. The processor should also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21 dBu. The processor should support third party device control via Ethernet &amp; RS232. It should have Inbuilt Multitrack Audio Player capacity</p>			

	<b>Preferred makes: QSC, Biamp, Bose</b>			
3.5	<p><b>Class-D Amplifier:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 2-channel class-D amplifier with 200 watts/channel into Low-Z loads.</p> <p>2 channels can also be bridged in pairs, providing up to 400 watts RMS into 4/ 8 ohms or 350 watts RMS into 70V/100V.</p> <p>Signal to Noise (A-weighted, 20 Hz-20 kHz)-&gt;100 dB, Frequency Response-20 Hz - 20 kHz, Input Sensitivity-1.23 Vrms (+4 dBu), Input Impedance-&gt;10 kΩ (balanced), &gt;10 kΩ (unbalanced), Front Panel Indicators-Power, per channel Signal, per channel Protect/Limit, Controls- 4Ω/8Ω/70V Bridge Highpass On/100V Bridged Highpass on per channel pair. Auto Standby mode for energy saving. Mounting hardware should be included.</p> <p><b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b></p>			
3.6	<p><b>Ceiling Speaker:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 6.5-inch, 2 way, Ceiling-mount loudspeaker.</p> <p>70V/100V transformers with 8-ohm bypass, Frequency Range-65 Hz – 20 kHz, Rated noise power / voltage-30 watts / 15.5 volts (rms), Sensitivity-89 dB SPL, Coverage- 110° conical (500 Hz to 5 kHz), Maximum continuous SPL-96 dB, Maximum peak SPL- 110 dB, LF Transducer - 6.5-inch Polypropylene cone with butyl rubber surround, HF Transducer - .86-inch silk dome tweeter, coaxially mounted.</p> <p>Rated impedance- 8Ω,</p> <p>Transformer Taps- 70 V: 30, 15, 7.5, 3.7, 1.9 watts, 100V: 30, 15, 7.5, 3.8, watts</p> <p><b>Preferred Makes: QSC, JBL, Bose</b></p>			
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>			
4.1	<p><b>Cable cubby:</b></p> <p>Cable cubby with 2 universal Power , USB Ports for Mobile charging and pass through holes for HDMI, Network &amp; USB Cables.</p> <p><b>Preferred Makes: Logic/ Extron/ Kramer</b></p>			
4.2	<p><b>Switcher (Type-3):</b></p> <p>The switcher should support HDMI 2.0 signal formats. It should have one HDMI 2.0 along with one USB 3.1 USB type B port &amp; One full-featured USB-C 3.1 Gen1 input port and one HDMI 2.0 output ports.</p> <p>It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection.</p>			

	<p>The switcher should provide independent switching of the two input signals.</p> <p>The switcher should have a balanced analog audio output port for stereo audio de-embedding.</p> <p>The switcher should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats.</p> <p>The switcher should be USB 3.1 Gen 1, USB 2.0, USB 1.1 compliant.</p> <p>The switcher should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption.</p> <p>The switcher should support video content, and all standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz RGB 4:4:4.</p> <p>The switcher should provide adjustable volume on an analog output port.</p> <p>The switcher should support EDID management for customizable EDID tables.</p> <p>The switcher should be able to store a minimum of 100 EDID resolutions.</p> <p>The switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The switcher should provide a bi-directional RS-232, Ethernet and GPIO port for control.</p> <p>The switcher should have multiple Ethernet network configurations fitting various corporate network topologies and IT security standards.</p> <p>It should support SSH, SSL, and HTTPS for IT security.</p> <p>It should have an Occupancy sensor connection (with a 24V power supply)</p> <p>The switcher should have four or more USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The switcher should have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.</p> <p>It should have a Smart &amp; noiseless cooling system (less than 30dBA noise level.).</p> <p><b><i>Preferred makes: Lightware/ Extron / Kramer</i></b></p>			
4.3	<p>Under desk mounting for Taurus UCX devices.</p> <p><b><i>Preferred makes: Lightware/ Extron / Kramer</i></b></p>			
4.4	<p>Under desk mounting for Taurus UCX power supply</p> <p><b><i>Preferred makes: Lightware/ Extron / Kramer</i></b></p>			
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>			
5.1	<p>Control Processor to control equipments in the room with minimum 3 RS-232 ports, 4 IR Ports, 4 Relay ports &amp; LAN control ports</p> <p><b><i>Preferred Makes: Crestron/ Extron/Kramer</i></b></p>			

5.2	Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch  <b>Preferred Makes: Netgear/ Cisco/ Luxul</b>			
5.3	10.9" IPAD as controller <b>Preferred Makes: Apple</b>			
5.4	Wall Mount Docking Station for I-PAD with charging , lock . <b>Preferred Makes: Iport/ Idisplay</b>			
5.5	Wireless Access Point <b>Preferred Makes: Dlink/ Cisco/ Netgear</b>			
<b>6</b>	<b>CABLES &amp; CONNNECTORS</b>			
6.1	Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc <b>Preferred Makes: Lightware/ Kramer/ Dlink/ Extron</b>			
<b>7</b>	<b>SERVICES</b>			
7.1	Installation , Commissioning , programming , training , handover & documentation.			

## D. BOARD ROOM

Sr. No.	Product Description along with technical specifications	Offered specification by the bidder along with Make/ Model	Whether comply Fully/ Partially/ Not Comply to the tender specification	Highlight deviations of offered specification w.r.t. tender specification
1	<b>DISPLAY SYSTEM</b>			
1.1	<p><b>DLED:</b></p> <p>Active Screen Size (inch) 98" or higher, Display Backlight DLED            Display Area 2158 x 1214 mm, Display Ratio 16 : 9            Resolution 3840*2160 or better, Display Colors 10 bit or better            LCD Brightness &gt;550cd/m2 or better, Contrast Ratio (Typical) 15000:1 or better            Response Time (Typical) 4ms or better, Viewing Angle 178°            Life time (working hours) &gt;50,000 hours or better, Display Orientation Landscape            Reference Frequency 120Hz, Speakers Should be SEAMLESSLY build-in the display            Touch Technology Deployment Touch feature should be seamlessly build-in the display and NO overlay is allowed            Touch Sensor Advanced IR, Surface material of touch surface should be Anti-Glare + Anti-Fingerprint + Antimicrobial Tempered Glass, Protection 3M antiglare , Haze 2%~5%, Touch Screen Writing Tools Nano Pen (&gt;2mm width) included or Finger TOUCH Response time 4ms or better, Positioning Accuracy ±1mm or better            Transmission Range 5M, Transparency &gt;88% or better            Surface Hardness ≥8H or More than 8H, Glass thickness 4 mm            HID Support Must have a provision to connect with any external sources            Touch Points Must have a touch capability of MINIMUM 50 points            Writing Tool Should use with Nano Pen (&gt;2mm width) included or Finger            Scan Speed 133Hz or better, Communication Interface inbuilt USB-B type            Requirement of Front access ports For the purpose of ease of access. The display must have the following ports in the front side            Minimum Requirement of AV Inputs at front side ""USB Type-C (PD 65W) x1, HDMI IN 2.0 (4K@60Hz) x1, USB Type-B (Touch) x1, USB 3.0 Type-A x2, Microphone In x1""            Minimum Requirement of AV Inputs at rear side ""HDMI IN 2.0 x2 , DisplayPort 1.2 x1 , USB Type-B 3.0 (Touch) x3, USB 3.0 Type-C (no PD) x1""            Minimum requirement of AV Outputs at rear side ""SPDIF out x1, Audio Line out x1, HDMI OUT 2.0 x1""            Minimum Requirements for other ports at rear side ""WIFI module slot (WIFI module is standard) , RS232 x1, RJ45</p>			

	(Gigabit) *2, OPS Slot x1 , USB 3.0 Type-A x2, USB 3.0 Type-A to Android x1  <b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b>			
1.2	<b>OPS:</b>  OPS with 4K Resolution   Intel I5 - 12th Gen with Intel® Iris® Xe Graphics for 12th Gen Intel® Processors   8GB RAM x 1 - DDR4   512 GB SSD Memory  Pre-install Win 10 Pro English (Trial)  <b>Preferred Makes: Newline / Spectra/ Benq</b>			
<b>2</b>	<b>VIDEO SYSTEM</b>			
2.1	<b>AV over IP Camera:</b>  SITC of 20X camera, SNR CMOS sensor combined with 2D and 3D noise reduction, Streams AV over IP using H.264 and H.265, Control the camera's functions via USB, Ethernet, RS-485, and RS-232, Supports USB 3.0 and 2.0 interfaces, power: PoE, camera: 1080P resolution, Signal to Noise Ratio ≥55dB, Number of Presets: 250 or more, preset Accuracy: 0.1° or better, 3.5mm Audio Interface, Line In, 3.5mm Audio Interface, Mic In, USB PTZ Control: yes, Video Stream: First Stream, Second Stream, Supporting Protocols: TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc complete required as per specifications.  <b>Preferred Makes: ClearOne/ Sony/ Panasonic</b>			
2.2	<b>Video Recorder:</b>  SITC of video recorder with 2 x HDMI / DVI digital video (HDCP compliant), 1 x HDMI, 1 x Component/ Composite video, 1 x HDMI loop out or better Resolution: 640x480 upto at least 1920x1200 including 1080p/60 Should have EDID management 1 HDMI for local output, 1 RJ45 streaming & network recording output & Simultaneous unicast and multicast streaming per encode 1 or more stereo Should have in-built DSP for audio management. 80 GB or more SSD / through Memory card, USB for external drive and defined network storage directory & Record audio as separate m4a file. Should support dual channel recording. Should have two HD input PIP and picture by picture capability and have high quality inbuilt scaling Should have flexibility to change background images and text for recording Record and stream simultaneously, Metadata can be assigned to make indexing and searching of recordings. Should support adjustable recording and streaming bit rates. Should support unloadable background image files.			

	<p>Should support clean transition between sources. Should have flexibility to integrate with 3rd party video platform with help of additional license. With resolution support upto 1080p, H.264 or better compression supporting protocol RTP/RTSP/RTMP Horizontal Video Mirroring Upgrade with additional license Integration with Panapto or Kaltura with additional license Should have I/O ports for AV system management Should include HDMI cable lacing brackets, RS232/ Ethernet, Front button panel.</p> <p><b>Preferred Makes: Extron/ Lumens/ Datavideo</b></p>			
<b>3</b>	<b>AUDIO SYSTEM</b>			
3.1	<p><b>Ceiling Microphone:</b></p> <p>SITC of Ceiling microphone with automatic dynamic Beamforming technology, The beam should automatically detect the position of the person speaking and should follow the person around the room at all times. Minimum 26 number of microphone capsules, It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports.</p> <p>The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It should be controlled through software that can control and monitor the microphone in any network.</p> <p>It should have min 100 dB SPL, 4ms latency, and min 90dBA or higher dynamic range. frequency response: 150 Hz - 17 kHz or better, High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room.</p> <p>It should be certified from Microsoft Teams and Zoom Video conferencing applications. Fitting into 600 mm (2ft) ceiling panel / surface / flush with ceiling, It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications. The OEM should have a minimum of 2 company-owned service centres in India.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.2	<p><b>Digital Signal Processor:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor should have minimum 16 assignable &amp; routable AEC channels. The processor should have minimum 8x8 Dante channels and should also support up to 128x128 Network audio channels via Dante or AES67. It should</p>			

	<p>also support POTS and SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications. The processor should also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21dBu. The processor should support third party device control via Ethernet &amp; RS232. It should have Inbuilt Multitrack Audio Player capacity</p> <p><b>Preferred makes: QSC, Biamp, Bose</b></p>			
3.3	<p><b>Class-D Amplifier:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 2-channel class-D amplifier with 200 watts/channel into Low-Z loads.</p> <p>2 channels can also be bridged in pairs, providing up to 400 watts RMS into 4/ 8 ohms or 350 watts RMS into 70V/100V.</p> <p>Signal to Noise (A-weighted, 20 Hz-20 kHz)-&gt;100 dB, Frequency Response-20 Hz - 20 kHz, Input Sensitivity-1.23 Vrms (+4 dBu), Input Impedance-&gt;10 kΩ (balanced), &gt;10 kΩ (unbalanced), Front Panel Indicators-Power, per channel Signal, per channel Protect/Limit, Controls-4Ω/8Ω/70V Bridge Highpass On/100V Bridged Highpass on per channel pair.</p> <p>Auto Standby mode for energy saving. Mounting hardware should be included.</p> <p><b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b></p>			
3.4	<p><b>Ceiling Speaker:</b></p> <p>Supply, Installation, Testing &amp; Commissioning of 6.5-inch, 2 way, Ceiling-mount loudspeaker.</p> <p>70V/100V transformers with 8-ohm bypass, Frequency Range-65 Hz – 20 kHz, Rated noise power / voltage-30 watts / 15.5 volts (rms), Sensitivity-89 dB SPL, Coverage-110° conical (500 Hz to 5 kHz), Maximum continuous SPL-96 dB, Maximum peak SPL- 110 dB, LF Transducer - 6.5-inch Polypropylene cone with butyl rubber surround, HF Transducer - .86-inch silk dome tweeter, coaxially mounted.</p> <p>Rated impedance- 8Ω,</p> <p>Transformer Taps- 70 V: 30, 15, 7.5, 3.7, 1.9 watts, 100V: 30, 15, 7.5, 3.8, watts</p> <p><b>Preferred Makes: QSC, JBL, Bose</b></p>			
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>			
4.1	<p><b>Cable cubby:</b></p> <p>Cable cubby with 2 universal Power , USB Ports for Mobile charging and pass through holes for HDMI, Network &amp; USB Cables.</p>			

	<b>Preferred Makes: Logic/ Extron/ Kramer</b>			
4.2	<p><b>Switcher (Type-1):</b></p> <p>The switcher should support HDMI 2.0 signal formats. It should have two HDMI 2.0 along with one USB 3.1 USB type B &amp; one USB-C 3.1 Gen1 port &amp; Three full-featured USB-C 3.1 Gen1 input ports and two HDMI 2.0 output ports.</p> <p>It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection. It should support charging via USB-C up to 100W.</p> <p>The switcher should provide independent switching of the four input signals.</p> <p>The switcher should have a balanced analogue audio output port for stereo audio de-embedding.</p> <p>The switcher should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats.</p> <p>The switcher should be USB 3.1 Gen 1, USB 2.0, USB 1.1 compliant.</p> <p>The switcher should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption.</p> <p>The switcher should support video content, and all standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz RGB 4:4:4.</p> <p>The switcher should provide adjustable volume on an analogue output port.</p> <p>The switcher should support EDID management for customizable EDID tables.</p> <p>The switcher should be able to store a minimum of 100 EDID resolutions.</p> <p>The switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The switcher should provide a bi-directional RS-232, Ethernet and GPIO port for control.</p> <p>The switcher should have multiple Ethernet network configurations fitting various corporate network topologies and IT security standards.</p> <p>It should support SSH, SSL, and HTTPS for IT security.</p> <p>It should have an Occupancy sensor connection (with a 24V power supply)</p> <p>The switcher should support multiple USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The switcher should have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.3	<p>Under desk mounting for Taurus UCX devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.4	<p>Under desk mounting for Taurus UCX power supply</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			

<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>			
5.1	Control Processor to control equipments in the room with minimum 3 RS-232 ports, 4 IR Ports, 4 Relay ports & LAN control ports  <b>Preferred Makes: Crestron/ Extron/Kramer</b>			
5.2	Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch  <b>Preferred Makes: Netgear/ Cisco/ Luxul</b>			
5.3	10.9" IPAD as controller <b>Preferred Makes: Apple</b>			
5.4	Wall Mount Docking Station for I-PAD with charging , lock . <b>Preferred Makes: Iport/ Idisplay</b>			
5.5	Wireless Access Point <b>Preferred Makes: Dlink/ Cisco/ Netgear</b>			
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>			
6.1	Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc <b>Preferred Makes: Lightware/ Kramer/ Dlink/ Extron</b>			
<b>7</b>	<b>SERVICES</b>			
7.1	Installation , Commissioning , programming , training , handover & documentation.			

## E. AUDITORIUM

Sr. No.	Product Description along with technical specifications	Offered specification by the bidder along with Make/ Model	Whether comply Fully/ Partially/ Not Comply to the tender specification	Highlight deviations of offered specification w.r.t. tender specification
1	<b>DISPLAY SYSTEM</b>			
1.1	<p><b>DLED (110"):</b></p> <p>Active Screen Size (inch) 110" or Higher, Display Backlight DLED            Display Ratio 16 : 9, Resolution 3840*2160 or better            Display Colors 10 bit or better, LCD Brightness &gt;550cd/m2 or better            Contrast Ratio (Typical) 15000:1 or better, Response Time (Typical) 4ms or better            Viewing Angle 178°, Life time (working hours) &gt;50,000 hours or better            Display Orientation Landscape, Reference Frequency 120Hz            Speakers Should be SEAMLESSLY build-in the display, Max. Power Output 2x20 Watts or above, Speaker Position bottom front side of the display, Rated Impedance 6Ω            Freq. Response 250Hz-20KHz SPL -10dB, Output S.P.L. 90±3dB            Touch Technology Deployment Touch feature should be seamlessly build-in the display and NO overlay is allowed, Touch Sensor Advanced IR            Surface material of touch surface Anti-Glare + Anti-Fingerprint + Antimicrobial Tempered Glass Protection 3M antiglare , Haze 2%~5%            Touch Screen Writing Tools Nano Pen (&gt;2mm width) included or Finger, TOUCH Response time 4ms or better, Positioning Accuracy ±1mm or better            Transmission Range 5M, Transparency &gt;88% or better, Surface Hardness ≥8H or More than 8H, Glass thickness 4 mm, HID Support Must have a provision to connect with any external sources            Requirement of Front access ports For the purpose of ease access the display must have the following ports in the front side            Minimum Requirement of AV Inputs at front side USB 3.0 x 2, HDMI x 1 In, Touch USB x 1 , USB Type C x 1 ,            Minimum Requirement of AV Inputs at rear side ""HDMI IN 2.0 x2, USB Type-B 3.0 (Touch) x2, USB 3.0 Type-C (no PD) x1""            Minimum requirement of AV Outputs at rear side ""SPDIF out x1, Audio Line out x1, HDMI OUT 2.0 x1""            Minimum Requirements for other ports at rear side ""WIFI module slot (wifi module is standard) , RS232 x1, RJ45 (Gigabit) *2, OPS Slot x1</p> <p><b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b></p>			
1.2	<b>OPS:</b>			

	<p>OPS with 4K Resolution   Intel I5 - 12th Gen with Intel® Iris® Xe Graphics for 12th Gen Intel® Processors   8GB RAM x 1 - DDR4   512 GB SSD Memory  Pre-install Win 10 Pro English (Trial)</p> <p><b>Preferred Makes: Newline / Spectra/ Benq</b></p>			
1.2	<p><b>DLED (55”):</b></p> <p>Active Screen Size (inch) 55", Panel Grade: Professional A Grade Panel, Display Backlight DLED, Display Area 1210 x 680 mm, Display Ratio 16 : 9, Resolution 3840*2160 or better, Display Colors 10 bit or better, LCD Brightness ≥ 500 cd/m<sup>2</sup> or better, Contrast Ratio (Typical) 15000:1 or better, Response Time (Typical) 4ms or better, Viewing Angle 178°, Bezel 1mm ultra-thin bezel, Life time (working hours) &gt;50,000 hours or better, Display Orientation Landscape, Reference Frequency 120Hz, Operation Time 24 hours x 7 days</p> <p>Speakers Should be SEAMLESSLY build-in the display, Max. Power Output 2x10 Watts or above, Speaker Position Seamlessly mounted in lower side of the display</p> <p>Minimum Requirement of AV Inputs at rear side        ""HDMI In 2.0 x 1 ( ARC ), HDMI In 2.0 x 2, USB-A 2.0 x 1, USB-A 3.0 x 1, LAN In (RJ45) x 1, AV In x 1 RS232 x 1""</p> <p>Minimum requirement of AV Outputs at rear side        ""S/PDIF Out x 1, Audio Output (Jack 3.5 mm) x 1 ""</p> <p><b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b></p>			
1.3	<p><b>DLED (75”):</b></p> <p>Active Screen Size (inch) 75", Panel Grade: Professional A Grade Panel , Display Backlight DLED, Display Area 1650 x 928 mm, Display Ratio 16 : 9, Resolution 3840*2160 or better, Display Colors 10 bit or better, LCD Brightness ≥ 550 cd/m<sup>2</sup> or better, Contrast Ratio (Typical) 15000:1 or better, Response Time (Typical) 4ms or better, Viewing Angle 178°, Bezel 1mm ultra-thin bezel, Life time (working hours) &gt;50,000 hours or better, Display Orientation Landscape, Reference Frequency 120Hz, Operation Time 24 hours x 7 days,</p> <p>Speakers Should be SEAMLESSLY build-in the display, Max. Power Output 2x10 Watts or above, Speaker Position Seamlessly mounted in lower side of the display,</p> <p>Minimum Requirement of AV Inputs at rear side        ""HDMI In 2.0 x 1 ( ARC ), HDMI In 2.0 x 2, USB-A 2.0 x 1, USB-A 3.0 x 1, LAN In (RJ45) x 1, AV In x 1, RS232 x 1""</p> <p>Minimum requirement of AV Outputs at rear side        ""S/PDIF Out x 1, Audio Output (Jack 3.5 mm) x 1 ""</p> <p><b>Preferred Makes: Newline/ LG/ Samsung/ Benq</b></p>			
1.4	<p><b>Digital Podium:</b></p>			

	<p>Material: Complete podium Brushed Aluminium  Design: Aluminium + solid wood decoration for the main body, front surface, column sandblasting treatment,  Top Sliding door Aluminium with lock and key Should be Slim Design Sleek and light weight  Display Size: 21.5 inch or better  Screen Resolution: Full HD  Castrol Wheels: 4 Nos For portable movement  Gooseneck Microphone With shock mount and phantom power  External Keyboard and Mouse Tray With lock and keys  Motorized monitor angle adjustment Angle of the Touch Display screen should be adjusted according to user comfort  AV connectivity HDMI input, USB interface to connect the computer  Cable box Descriptions: Aluminium Pulling &amp; drawing wire box on the podium, easy to use external equipment.  Cable Management To be available top of the podium to connect external devices  Dimensions in mm 735x670x1060mm or more  Industrial PDU 6 ports with fuse  Storage Provision Podium Should be Accessible from front &amp; Back side with Provision to Access Devices</p> <p><b>Preferred makes: EIS/ Maxhub/UNI</b></p>			
1.5	Ceiling Mount Kit for display			
1.6	Swivel Mount Kit			
<b>2</b>	<b>VIDEO SYSTEM</b>			
2.1	<p><b>Professional Grade Conferencing Camera:</b></p> <p>SITC of professional grade camera with 1080P resolution for conferencing and video capture application ,with 12X Optical Zoom, FOV: 72.5 Degree.  Interface: USB 3.0 backward compatible with USB 2.0 with RS232 VISCA port for control through external control system, Backlight compensation support, 255 Preset capability 72.5 degree Horizontal Angle View and 44.8 - 3.0 Degree Vertical angle view, UVC 1.0 protocol support.</p> <p><b>Preferred makes: Sony/ Panasonic/ ClearOne</b></p>			
2.2	<p><b>AV over IP Camera:</b></p> <p>SITC of 20X camera, SNR CMOS sensor combined with 2D and 3D noise reduction, Streams AV over IP using H.264 and H.265, Control the camera's functions via USB, Ethernet, RS-485, and RS-232, Supports USB 3.0 and 2.0 interfaces, power: PoE, camera: 1080P resolution, Signal to Noise Ratio ≥55dB, Number of Presets: 250 or more, preset Accuracy: 0.1° or better, 3.5mm Audio Interface, Line In, 3.5mm Audio Interface, Mic In, USB PTZ Control: yes, Video Stream: First Stream, Second Stream, Supporting Protocols: TCP/IP, HTTP, RTSP, RTMP,</p>			

	<p>Onvif, DHCP, Multicast, etc complete required as per specifications.</p> <p><b>Preferred Makes: ClearOne/ Sony/ Panasonic</b></p>			
2.3	<p><b>Video Mixer:</b></p> <p>SITC of Dual USB + HDMI Input Video Mixer with USB3.0 + HDMI Capture Output with Individual Input, Picture-in-Picture &amp; Picture-by-Picture Layouts selection options.</p> <p>Should have minimum of 2 USB Video (Camera) Inputs (minimum of USB 2.0)</p> <p>Should have minimum of 1 HDMI Video Camera / Content Input</p> <p>All USB &amp; HDMI Inputs Should support 1080p on each camera/ Content input.</p> <p>Should have parallel HDMI &amp; USB3.0 Output x 1no each.</p> <p>Both Outputs should resolution of 1080p.</p> <p>Should have a mixer output directly into a single USB 3.0 interface.</p> <p>Should support PTZ control of Camera connected in Input over output USB 3.0 directly.</p> <p>Should be able to select all 3 inputs in individual layout mode.</p> <p>Should be able to Select Picture-In-Picture, Picture by Picture &amp; 1 Big Picture (covering more than 70%) along with another video input.</p> <p>Should also be able to toggle Inputs while in Layouts both from Front panel &amp; also Control Interface.</p> <p>Should have Audio Input usable for Microphone / Content &amp; mixed with Video &amp; provided mixing on to Video Output on USB/ HDMI.</p> <p>Should also have Audio Output for HDMI audio de-embedding.</p> <p>Should have Control interface: LAN, RS-232, USB which gives flexibility to control from 3rd party control systems.</p> <p>Should have front keypad for selection of layout.</p> <p>Should have HDMI output for preview along with Parallel selection of Layout.</p> <p>Should have a Line level stereo audio support.</p> <p>Should also have minimum of 2 x USB 3.0 expansion ports that can be accepting any USB accessories like Microphone or Speaker or Audio DSP &amp; should be able to provide mixing of Video &amp; Audio on Single USB3.0 Output that can be given to UC Codec application Device.</p> <p>Should be compatible with Windows, Mac OS X and Linux with no need of any Drivers &amp; no need of major Setup.</p> <p><b>Preferred Makes: Inogeni/ Tvone/ Extron</b></p>			
2.4	<p><b>Video Recorder:</b></p> <p>Supply of video recorder with 2 x HDMI / DVI digital video (HDCP compliant), 1 x HDMI, 1 x Component/ Composite video</p> <p>1 x HDMI loop out or better</p> <p>640x480 upto at least 1920x1200 including 1080p/60</p>			

	<p>Should have EDID management  1 HDMI for local output, 1 RJ45 streaming &amp; network recording output &amp; Simultaneous unicast and multicast streaming per encode  1 or more stereo  Should have in-built DSP for audio management.  80 GB or more SSD / through Memory card, USB for external drive and defined network storage directory &amp; Record audio as separate m4a file.  Should support dual channel recording.  Should have two HD input PIP and picture by picture capability and have high quality inbuilt scaling  Should have flexibility to change background images and text for recording  Record and stream simultaneously, Metadata can be assigned to make indexing and searching of recordings.  Should support adjustable recording and streaming bit rates.  Should support unloadable background image files.  Should support clean transition between sources.  Should have flexibility to integrate with 3rd party video platform with help of additional license.  Should be with resolution support upto 1080p, H.264 or better compression supporting protocol RTP/RTSP/RTMP  Horizontal Video Mirroring Upgrade with additional license  Integration with Panapto or Kaltura with additional license  Should have I/O ports for AV system management  Should include HDMI cable lacing brackets  RS232/ Ethernet, Front button panel</p> <p><b>Preferred Makes: Extron/ Lumens/ Datavideo</b></p>			
<b>3</b>	<b>AUDIO SYSTEM</b>			
3.1	<p><b>Digital Wireless Handheld Microphone:</b></p> <p>Supply of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100 meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.2	<p><b>Digital Wireless Lapel Microphone:</b></p> <p>Supply of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of</p>			

	<p>switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.3	<p><b>Digital Wireless Headset Microphone:</b></p> <p>Supply of Digital Wireless UHF Headset microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100 meter transmission range. It should have cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.4	<p><b>Gooseneck Microphone:</b></p> <p>Supply of 450mm length electret condenser gooseneck microphone with a cardioid polar pattern for focused audio pickup and noise rejection, Slim and elegant black matte finish suitable for professional environments such as conference rooms, auditoriums, and lecterns, Frequency Response: 50 Hz to 20 kHz, Nominal impedance: &lt; 100 Ω, Maximum sound pressure level: 130 dB SPL, Equivalent noise level: 26 dB (A), Phantom powering: P12 - P48 V, Connectivity: XLR 3M, Mounting: Compatible with standard table stands and shock-mount systems</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.5	<p><b>Passive Directional Antenna:</b></p> <p>Supply of Passive directional antenna, Built-in 5/8" and 3/8" threads allow for easy mic stand mounting, Frequency range 470 – 1075 MHz, Apex angle (-3 dB) approx. 100°, Front-to-back ratio &gt; 14 dB, Gain typ. 5 dBi and Impedance 50 Ω.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.6	<p><b>Active Antenna Splitter:</b></p>			

	<p>Supply of Active Antenna Splitter with 2 x 1:4 or 1 x 1:8 active connections, which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.7	<p><b>Antenna Booster:</b></p> <p>Supply of Antenna booster which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.8	<p><b>Rechargeable battery packs:</b></p> <p>Supply of rechargeable battery pack for handheld and bodypack transmitter.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.9	<p><b>Network enabled 2-bay charger:</b></p> <p>Supply of Network enabled 2 bay charger for handheld and Bodypack transmitter, it can be cascaded upto 5 chargers with the help of external power supply unit, 3 hrs charging time, RJ-45, IEEE 802.3 network socket, It should support the Media Control Protocol to provide for remote control and status monitoring via the centralized management software.</p> <p><b>Preferred Makes: Sennheiser/ Shure/ Clearone</b></p>			
3.10	<p><b>Digital Signal Processor (DSP):</b></p> <p>SITC of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor should have minimum 16 assignable &amp; routable AEC channels. The processor should have minimum 8x8 Dante channels and should also support up to 128x128 Network audio channels via Dante or AES67. It should also support POTS and SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B ports supporting AV USB Bridging for software or web-based conferencing applications.</p> <p>The processor should also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21dBu. The processor should support third party device control via Ethernet &amp; RS232. It should have Inbuilt Multitrack Audio Player capacity</p>			

	<b>Preferred Makes: QSC, Biamp, Bose</b>			
3.1 1'	<b>Surface Mount Loudspeakers:</b>  SITC of 10-inch two-way Surface-mount loudspeaker. Transducers: LF - 10-inch weather resistant paper cone woofer, 2.5-inch / 64 mm voice coil, HF - 1-inch exit / 1.4-inch voice coil compression driver, Rated Power-250 Watts, Sensitivity - 92dB SPL, Coverage angle(-6 dB) - 90° conical DMT, Max SPL: Continuous-116dB, Peak-122dB, Rated Impedance-8 Ohms, Enclosure - Painted ABS polymer, Grille - Powder coated aluminium, Ingress protection-IP-54, Accessories should include-mounting system, Euroblock connector, input panel cover etc.  <b>Preferred Makes: QSC, L-Acoustics, Martin Audio</b>			
3.1 2'	<b>4-Channel Class-D Amplifier:</b>  SITC of 4-Channel Class-D Network Amplifier. Total Power - 4000W which can be asymmetrically distributed across amplifier channels. Amplifier should support Bridge and Parallel modes for combining multiple channels. Typical Distortion- 8 Ω-0.02 - 0.05%, 4 Ω-0.04 - 0.1%, Frequency Response (8 Ω)-20 Hz - 20 kHz +0.2 dB / -0.7 dB, Noise Weighted output muted->104 dB, Gain (1.2 V setting) -38 dB, Input impedance->8k balanced and >4k unbalanced, Controls and indicators (front)-Power, Channel MUTE buttons, Channel SELECT buttons, Channel Input signal and CLIP LED Indicators, Channel Output and LIMIT LED meters, NEXT, PREV, ID buttons, Control knob. Ethernet Ports - 2 Gigabit ethernet ports for network redundancy. Amplifier should be compatible with the mentioned DSP processor.  <b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b>			
3.1 3'	<b>Two-way Active Loudspeaker:</b>  SITC of 12-inch Two-way active loudspeaker. 1000 Watt peak power Class-D amplifier module. LF Transducer-12-inch, cone, HF Transducer-1.4-inch compression driver, Frequency Range (-10 dB)-47 - 20 kHz, Nominal Coverage Angle- 75° Axisymmetric, Maximum rated SPL - 126 dB, Inputs - 2 × locking XLR/F ¼” combo (Line Input and Mic/Line input), 1 × 3.5 mm TRS (Stereo Input). Outputs - 1 × XLR/ M (Mix Output), Attachment Points:M8 threaded insert, Indicators - Power LED, 2 × Input Signal LED, Input B MIC selected LED, Limiter active LED, Enclosure Material-Polypropylene, Controls- Power, 2×Gain, Mic Boost Push Switch, 6-way Contour Selection Switch.  <b>Preferred Makes: QSC, L-Acoustics, Martin-Audio</b>			
3.1 4'	<b>Subwoofer:</b>			

	<p>SITC of 18-inch externally powered subwoofer. Frequency Range (-10 dB) - 32 Hz to 230 Hz, Frequency Response (-6 dB) - 37 Hz to 230 Hz. Nominal Impedance-4Ω, Power capacity - 800W, Sensitivity - 98 dB, 1 W@1m, Maximum Peak SPL-133 dB. Enclosure-Rectangular, plywood, black texture paint finish.</p> <p><b>Preferred Makes: QSC, L-Acoustics, Martin-Audio</b></p>			
3.1 5'	<p><b>2-Channel Class-D Amplifier:</b></p> <p>SITC of 2 Channel, Class-D amplifier with inbuilt DSP. Per channel dynamic Power-1500W@8Ω, 2250W@4Ω. Per channel Continuous Power - 800W @ 8 Ohm, 1200W @ 4 Ohm. Distortion &lt; 1% THD, Input Sensitivity-1.2 Vrms, 3.9 Vrms, Maximum Voltage Gain- 36.5 dB, Frequency Response-20 Hz–20 kHz, Input Impedance-20 kΩ (balanced), 10 kΩ (unbalanced), Amplifier and Load Protection-Short circuit, open circuit, thermal, RF protection Load protected against DC faults, Front Panel Controls and Indicators-Rotary Encoders, Home, Enter, Exit buttons, Signal presence &amp; Clip indicators.</p> <p><b>Preferred Makes: QSC, Lab Gruppen, Martin-Audio</b></p>			
3.1 6'	<p><b>Mixing Console:</b></p> <p>24-Channel Premium Mixing Console</p> <p>16 Mic Inputs with 48V Phantom Power and HPF per Channel</p> <p>24 Line Inputs (16 mono and 4 stereo)</p> <p>6 AUX Sends + 2 FX Sends</p> <p>4 GROUP Buses + ST Bus</p> <p>2 Matrix out</p> <p>1 Mono out</p> <p><b>Preferred Makes: Yamana/ Mackie/ Soundcraft</b></p>			
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>			
4.1	<p><b>Cable cubby:</b></p> <p>Cable cubby with 2 universal Power , USB Ports for Mobile charging and pass through holes for HDMI, Network &amp; USB Cables.</p> <p><b>Preferred Makes: Logic/ Extron/ Kramer</b></p>			
4.2	<p><b>Switcher (Type-2):</b></p> <p>The switcher should support HDMI 2.0 signal formats. It should have two HDMI 2.0 along with one USB 3.1 USB type B &amp; one USB-C 3.1 Gen1 port &amp; Two full-featured USB-C 3.1 Gen1 input ports and two HDMI 2.0 output ports.</p> <p>It should support USB-C input connectivity for 4K Video, Audio, Data, and Power over a single USB-C connection.</p> <p>It should support charging via USB-C up to 100W.</p>			

	<p>The switcher should provide independent switching of the four input signals.</p> <p>The switcher should have a balanced analogue audio output port for stereo audio de-embedding.</p> <p>The switcher should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD, and DTS-HD Master Audio 7.1 formats.</p> <p>The switcher should be USB 3.1 Gen 1, USB 2.0, USB 1.1 compliant.</p> <p>The switcher should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption.</p> <p>The switcher should support video content, and all standard resolutions and frequencies as specified under HDMI up to 4K UHD @60Hz RGB 4:4:4.</p> <p>The switcher should provide adjustable volume on an analogue output port.</p> <p>The switcher should support EDID management for customizable EDID tables.</p> <p>The switcher should be able to store a minimum of 100 EDID resolutions.</p> <p>The switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The switcher should provide a bi-directional RS-232, Ethernet and GPIO port for control.</p> <p>The switcher should have multiple Ethernet network configurations fitting various corporate network topologies and IT security standards.</p> <p>It should support SSH, SSL, and HTTPS for IT security.</p> <p>It should have an Occupancy sensor connection (with a 24V power supply)</p> <p>The switcher should support multiple USB 3.1 Gen 1 (Type A) connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The switcher should have a Separate USB 3.1 Host switching layer for multiple USB hosts and USB devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.3	<p>Under desk mounting for Taurus UCX devices.</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.4	<p>Under desk mounting for Taurus UCX power supply</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.5	<p><b>Transmitter:</b></p> <p>The transmitter should transmit digital video and audio signals as well as control signal.</p> <p>The transmitter should support the following signal formats: Single-Link DVI and HDMI 1.4</p> <p>The transmitter should support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD and DTS-HD Master Audio 7.1 formats.</p> <p>The transmitter should be HDCP 2.2 compliant. Supports the HDMI content with HDCP encryption. Minimum requirement: HDMI 1.4, HDCP 1.1, DVI 1.0.</p> <p>The transmitter supports video content, and all standard resolutions and frequencies as specified</p>			

	<p>under: HDMI up to 1920x1200 50/60Hz or 4096x2160 30Hz (UHD, 4K).</p> <p>The transmitter should be compatible with 120Hz 3D video signals.</p> <p>The transmitter should have automatic twisted pair cable equalization.</p> <p>The transmitter should have the ability to pass through bi-directional RS-232 serial connection.</p> <p>The transmitter should have the ability to pass through bi-directional Infrared (IR) connection.</p> <p>The transmitter should be controlled via the RS-232 serial connection.</p> <p>The transmitter must have an option on selecting local or remote power function. Also has the function of remote powering the connected receiver when so set.</p> <p>Extension must be provided by a single CAT cable.</p> <p>The transmitter must have a maximum cable extension up to 170 meters with CAT6 or CAT7 cable at 1080p 60Hz. Extension distance with 4K UHD signals must be provided up to 100m with CAT6 or CAT7 cable.</p> <p>The transmitter should have two operation modes to maximize the potential cable length."</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.6	<p><b>Digital Video &amp; Audio Signal Receiver:</b></p> <p>The receiver should accept digital video and audio signals as well as control signal.</p> <p>The receiver should support the following signal formats: Single-Link DVI and HDMI 1.4.</p> <p>The receiver can support the following signal formats: 7.1 HDMI embedded audio, Dolby TrueHD and DTS-HD Master Audio 7.1 formats.</p> <p>The receiver should be HDCP 2.2 compliant.</p> <p>Should support the HDMI content with HDCP encryption. Minimum requirement: HDMI 1.4, HDCP 1.1, DVI 1.0.</p> <p>The receiver supports video content, and all standard resolutions and frequencies as specified under HDMI up to 1920x1200 50/60Hz or 4096x2160 30Hz (UHD, 4K).</p> <p>The receiver should be compatible with 120Hz 3D video signals.</p> <p>The receiver should have automatic twisted pair cable equalization.</p> <p>The receiver should have the ability to pass through bi-directional RS-232 serial connection.</p> <p>The receiver should have the ability to pass through bi-directional Infrared (IR) connection.</p> <p>The receiver should be controlled via the RS-232 serial connection.</p> <p>The receiver must have an option on selecting local or remote power function. Also has the function of remote powering the connected transmitter when so set.</p> <p>Extension must be provided by a single CAT cable.</p> <p>The receiver must have a maximum cable extension up to 170 meters with CAT6 or CAT7 cable at 1080p</p>			

	<p>60Hz. Extension distance with 4K UHD signals must be provided up to 100m with CAT6 or CAT7 cable. The receiver should have two operation modes to maximize the potential cable length. <b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.7	<p><b>Distribution Amplifier:</b></p> <p>The distribution amplifier should support signal Automatic down-conversion on the output from 4k to 1080p if required by the connected HDMI display. It should support DVI, HDMI 1.4, and HDMI 2.0 signals DA4-HDMI20-C is a distribution amplifier with built-in EDID Management and Pixel Accurate Relocking, It should have one dvi, HDMI 2.0 input ports and four HDMI 2.0 output port. The 4k signal on the output is automatically down-converted to HD when HD displays are connected. The output signal is re-clocked and stabilized to remove jitter caused by long cables or poor quality sources. It should have Input cable equalization +12dB fixed (with 24 AWG high quality DVI/HDMI cable) Supports HDMI signal up to 4096x2048@60Hz (4:4:4) / up to 4096x2048@60Hz (4:2:2) at 12 bits/color Supports deep color signals (24/30/36-bit RGB/YCbCr 4:4:4) The distribution amplifier should support Supports All HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio Supports Pixel Accurate relocking The Distribution Amplifier control via Micro USB-B type CEC support (pass-through). The Amplifier should provide same switching of the four input signals. The Distribution Amplifier should be HDCP 2.3 compliant. It should support the HDMI content with or without input HDCP encryption. The Distribution Amplifier must support video content and all standard resolutions and frequencies as specified under Supports up to 4096x2048@60Hz (4:4:4) / up to 4096x2048@60Hz (4:2:2) at 12 bits/color. The Distribution Amplifier should support EDID management. Front side having EDID selector switch. The Distribution Amplifier must support No signal latency, zero frame delay. The switcher should be able to store minimum 100 EDID resolutions. 55 factories preset, 6 universal, 2 transparent, 37 user programmable Frame Detector (analyse detailed video timings) Firmware upgrade through Micro USB-B type <b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
4.8	<p><b>Matrix Switcher:</b></p> <p>The matrix switcher should support HDMI 1.4 signal formats.</p>			

<p>The matrix should have eight HDMI 1.4 input ports, and eight HDMI 1.4 output ports.</p> <p>The matrix switcher should provide non-blocking switching of the eight input signals.</p> <p>The matrix switcher should have a Full USB 2.0 data speed at 480Mbps.</p> <p>The matrix switcher should provide Multiple USB 2.0 connectivity for any type of USB devices (Camera, speakerphone, touch monitor, USB-HID devices etc.)</p> <p>The matrix switcher should provide Separate USB 2.0 Host switching layer for multiple USBhosts and USB devices.</p> <p>The matrix switcher should have six balanced analog audio ports for stereo audio embedding orde-embedding, dedicated to four HDMI input ports and two HDMI output ports.</p> <p>The matrix switcher’s analog audio ports should be configurable as audio input or audio outputports.</p> <p>The matrix switcher can support the following signal formats: 7.1 HDMI embedded audio,Dolby TrueHD and DTS-HD Master Audio 7.1 formats.</p> <p>The matrix switcher should be HDCP compliant.</p> <p>Supports the HDMI content with HDCP encryption.</p> <p>The latest specification by the end of 2013 is to be used. Minimum requirement: HDMI 1.4, HDCP 1.1, DVI 1.0.</p> <p>The matrix switcher supports video content and all standard resolutions and frequencies asspecified under HDMI 1.4 up to 1920x1200 50/60Hz or 4096x2160 30Hz (UHD, 4K).</p> <p>The matrix switcher should be compatible with 120Hz 3D video signal.</p> <p>The matrix switcher should support EDID management for customizable EDID tables.</p> <p>The matrix switcher should be able to store minimum 100 EDID resolutions.</p> <p>The matrix switcher should provide the ability to import and export EDID and preset files from/to a PC. PC software should provide custom EDID creation.</p> <p>The matrix switcher should provide two di-directional RS-232 control ports and two InfraRedconnections as well.</p> <p>The matrix switcher should provide two configurable IR or Serial ports as well as Ethernet andUSB port for device control.</p> <p>The matrix switcher should be able to recognize predefined incoming IR and RS232 commands asa condition and execute switching, send RS232/IR/TCP command sequences on reception.</p> <p>The matrix switcher should be able to recognize input video signal changes as a condition andexecute switching, send RS232/IR/TCP command sequences on change.</p> <p>The matrix switcher should be able to store predefined conditions and action sequences.</p> <p>The matrix switcher should be able to delay any action sequence.</p> <p>A graphical user interface (GUI) must be provided for management of conditions and actions,without having to do any programming.</p>			
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	<p>The matrix switcher should have an open control protocol and be able to control with any 3<sup>rd</sup> party control system.</p> <p>The matrix should have front side LCD display menu option for basic control functions.</p> <p>The matrix should have front panel buttons for crosspoint switching and basic settings."</p> <p><b>Preferred makes: Lightware/ Extron / Kramer</b></p>			
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>			
5.1	<p>Control Processor to control equipments in the room with minimum 3 RS-232 ports, 4 IR Ports, 4 Relay ports &amp; LAN control ports</p> <p><b>Preferred Makes: Crestron/ Extron/Kramer</b></p>			
5.2	<p>Network switch with 24 ports having 1G PoE+ 300W Power , 2x1G and 4xSFP Managed Switch</p> <p><b>Preferred Makes: Netgear/ Cisco/ Luxul</b></p>			
5.3	<p>10.9" IPAD as controller</p> <p><b>Preferred Makes: Apple</b></p>			
5.4	<p>Wall Mount Dokcing Station for I-PAD with charging , lock .</p> <p><b>Preferred Makes: Iport/ Idisplay</b></p>			
5.5	<p>Wireless Access Point</p> <p><b>Preferred Makes: Dlink/Cisco/ Netgear</b></p>			
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>			
6.1	<p>Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc</p> <p><b>Preferred Makes: Lightware/ Kramer/ Dlink/Extron</b></p>			
<b>7</b>	<b>SERVICES</b>			
7.1	<p>Installation , Commissioning , programming , training , handover &amp; documentation.</p>			

**FINANCIAL BID**

**(To be uploaded separately)**

**FINANCIAL BID SUBMISSION LETTER**

<<On Bidder's Letter head>>

**To,**

**Chief General Manager (EIS & EPS),  
EdCIL (India) Limited,  
EdCIL House, 18A, Sector- 16A,  
NOIDA- 201 301 (U.P)**

**SUBJECT-** Supply, Installation, Commissioning and Maintenance of Audio Video Solutions for Indian Institute of Petroleum and Energy, Vishakhapatnam, A.P.

Sir/Madam,

We, the undersigned, offer to provide "Supply, Installation, Commissioning and Maintenance of Audio Video Solutions for Indian Institute of Petroleum and Energy, Vishakhapatnam, A.P." services in accordance with your RFP dated \_\_\_\_\_ subsequent corrigendum (if any). Our attached financial proposal is attached in a sealed cover. This amount is including of all the taxes. Details of taxes are provided in the financial bid format.

**1. PRICE AND VALIDITY**

- All the rates mentioned in our bid are in accordance with the terms as specified in the detailed terms of reference documents. All the rates and other terms and conditions of this Bid are valid for the entire duration of the contract.
- We hereby confirm that we understand that all the applicable taxes shall be including in the prices mentioned in the Financial Bid.

**2. QUALIFYING DATA**

We confirm having submitted the information as required by the detailed terms of reference document. We are not submitting any assumptions or conditions with our financial proposal as it is all inclusive proposal. EdCIL reserves the right to reject our proposal in case of any discrepancy or conditions found with our proposal.

**3. BID PRICE**

We declare that our Bid Price is for the entire scope of the work as specified in the detailed terms of reference document. Our bid prices are mentioned in the submitted Financial Bid.

Our Financial Bid shall be binding upon us subject to expiration of the validity period of the Proposal.

We understand you are not bound to accept any proposal you receive. We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

Thanking you,

(Authorized Signatory of Bidder)

Signature:

Name:

Designation:

Address:

Seal:

Date:

## FORM-1

### Summary of Financial Bid

(to be uploaded online in excel sheet provided with the tender document):

S. no	Description	Amount (Exclusive of taxes) (Rs.)	GST (in Rs.)	Amount (Inclusive of taxes) (Rs.)
A	Seminar Hall (2 nos.)			
B	Computer Lab (2 nos.)			
C	60-Seater Classroom (3 nos.)			
D	Board Room			
E	Auditorium			
	<b>Total Amount (Rs.)</b>			
	Total Amount (Exclusive of taxes) (in Words): .....			
	GST (in Words): .....			
	Total Amount (Inclusive of taxes) (in Words): .....			

Note:

1. The supplier should satisfy him/ herself about the detailed scope of work and quote based on the actual requirement befitting an occasion of the kind being planned. He would be responsible for end-to-end success of the project.
2. Unit price should include the cost of warranty for three (03) years and freight and other charges such as loading/unloading, storage etc.
3. Discount or any other offers affecting the package price must be mentioned here only and shall not be considered if mentioned at any other place of the bid
4. In case of discrepancy between unit price and total amount, the unit price shall prevail.
5. Bids shall be evaluated based on total amount with taxes.
6. The final selection of the products/ makes/ brand lies with the client irrespective of the rates quoted in the BOQ.

(Authorized Signatory of the bidder)

Signature:  
Name:  
Designation:  
Address:

Seal:

Date:

**FORM-2**  
**(FINANCIAL BID)**  
**BILL OF QUANTITIES**

**A. SEMINAR HALL:**

Sr. No	Product Description	Quantity per room (Nos.)	Total Quantity (Nos.)	Unit Rate (Rs.)	Amount (Excl. tax) (Rs.)	GST (in %)	GST (in Rs.)	Amount (Incl. tax) (Rs.)
<b>1</b>	<b>DISPLAY SYSTEM</b>							
1.1	DLED (110")	2	4					
1.2	OPS	2	4					
1.3	Digital Podium	1	2					
<b>2</b>	<b>VIDEO SYSTEM</b>							
2.1	Professional Grade Conferencing Camera	1	2					
2.2	AV over IP Camera	2	4					
2.3	Video Mixer	1	2					
2.4	Video Recorder	1	2					
<b>3</b>	<b>AUDIO SYSTEM</b>							
3.1	Ceiling Microphone	4	8					
3.2	Digital Wireless Lapel Microphone	1	2					
3.3	Rechargeable battery pack	1	2					
3.4	Network enabled 2 bay charger	1	2					
3.5	Digital Signal Processor	1	2					
3.6	4-Channel Class-D Amplifier with 100 watts/channel	1	2					
3.7	Ceiling Speaker	8	16					
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>							
4.1	Cable cubby	1	2					
4.2	Switcher (type-1)	1	2					
4.3	Mounting Kit for installing switcher under the table	1	2					
4.4	Mounting kit for installing power supply for switcher under the table	1	2					

<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>							
5.1	Control Processor	1	2					
5.2	Network switch with 8 ports having 1G PoE+ 125W Power, 2x1G and 2xSFP Managed Switch	1	2					
5.3	10.9" IPAD as controller	1	2					
5.4	Wall Mount Docking Station for I-PAD with charging, lock	1	2					
5.5	Wireless Access Point	1	2					
<b>6</b>	<b>CABLES &amp; CONNNECTORS</b>							
6.1	Various types cables like HDMI, USBA, USB C, USB B, Cat6, Audio, speaker, control, connectors, tags etc	1	2					
<b>7</b>	<b>SERVICES</b>							
7.1	Installation, Commissioning, programming, training, handover & documentation.	1	2					
<b>Sub Total-A (Rs.)</b>								

## B. COMPUTER LAB:

Sr. No.	Product Description	Quantity per room (Nos.)	Total Quantity (Nos.)	Unit Rate (Rs.)	Amount (Excl. tax) (Rs.)	GST (in %)	GST (in Rs.)	Amount (Incl. tax) (Rs.)
<b>1</b>	<b>DISPLAY SYSTEM</b>							
1.1	DLED (110")	2	4					
1.1	OPS	2	4					
<b>2</b>	<b>VIDEO SYSTEM</b>							
2.1	Video Camera	1	2					
2.2	AV over IP Camera	2	4					
2.3	Video Mixer	1	2					
<b>3</b>	<b>AUDIO SYSTEM</b>							
3.1	Ceiling Microphone	4	8					
3.2	Digital Wireless Lapel Microphone	1	2					

3.3	Rechargeable battery pack	1	2					
3.4	Network enabled 2 bay charger	1	2					
3.5	Digital Signal Processor	1	2					
3.6	4-Channel Class-D Amplifier with 100 watts/channel	1	2					
3.7	Ceiling Speaker	8	16					
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>							
4.1	Cable cubby	1	2					
4.2	Switcher (type-2)	1	2					
4.3	Mounting Kit for installing switcher under the table	1	2					
4.4	Mounting kit for installing power supply for switcher under the table	1	2					
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>							
5.1	Control Processor	1	2					
5.2	Network switch with 8 ports having 1G PoE+ 125W Power, 2x1G and 2xSFP Managed Switch	1	2					
5.3	10.9" IPAD as controller	1	2					
5.4	Wall Mount Docking Station for I-PAD with charging, lock .	1	2					
5.5	Wireless Access Point	1	2					
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>							
6.1	Various types cables like HDMI, USBA, USB C, USB B, Cat6, Audio, speaker, control, connectors, tags etc	1	2					
<b>7</b>	<b>SERVICES</b>							
7.1	Installation, Commissioning, programming, training, handover & documentation.	1	2					
<b>Sub Total-B (Rs.)</b>								

**C. 60-SEATER CLASSROOM:**

Sr. No.	Product Description	Quantity per room (Nos.)	Total Quantity (Nos.)	Unit Rate (Rs.)	Amount (Excl. tax) (Rs.)	GST (in %)	GST (in Rs.)	Amount (Incl. tax) (Rs.)
<b>1</b>	<b>DISPLAY SYSTEM</b>							
1.1	DLED (98")	1	3					
1.2	OPS	1	3					
<b>2</b>	<b>VIDEO SYSTEM</b>							
2.1	Video Camera	1	3					
2.2	AV over IP Camera	1	3					
2.3	Video Mixer	1	3					
<b>3</b>	<b>AUDIO SYSTEM</b>							
3.1	Ceiling Microphone	2	6					
3.2	Digital Wireless Lapel Microphone	1	3					
3.3	Rechargeable battery pack	1	3					
3.4	Digital Signal Processor	1	3					
3.5	2-Channel Class-D Amplifier with 200 watts/channel	1	3					
3.6	Ceiling Speaker	4	12					
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>							
4.1	Cable cubby	1	3					
4.2	Switcher (type-3)	1	3					
4.3	Under desk mounting for Taurus UCX devices.	1	3					
4.4	Under desk mounting for Taurus UCX power supply	1	3					
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>							
5.1	Control Processor	1	3					
5.2	Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch	1	3					

5.3	10.9" IPAD as controller	1	3					
5.4	Wall Mount Docking Station for I-PAD with charging , lock .	1	3					
5.5	Wireless Access Point	1	3					
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>							
6.1	Various types cables like HDMI, USBA, USB C, USB B, Cat6, Audio, speaker, control, connectors, tags etc	1	3					
<b>7</b>	<b>SERVICES</b>							
7.1	Installation, Commissioning, programming, training, handover & documentation.	1	3					
<b>Sub Total-C (Rs.)</b>								

#### D. BOARD ROOM:

Sr. No.	Product Description	Total Quantity (Nos.)	Unit Rate (Rs.)	Amount (Excl. tax) (Rs.)	GST (in %)	GST (in Rs.)	Amount (Incl. tax) (Rs.)
<b>1</b>	<b>DISPLAY SYSTEM</b>						
1.1	DLED (98")	1					
1.2	OPS	1					
<b>2</b>	<b>VIDEO SYSTEM</b>						
2.1	AV over IP Camera	1					
2.2	Video Recorder	1					
<b>3</b>	<b>AUDIO SYSTEM</b>						
3.1	Ceiling Microphone	2					
3.2	Digital Signal Processor	1					
3.3	2-Channel Class-D Amplifier with 200 watts/channel	1					
3.4	Ceiling Speaker	4					
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>						
4.1	Cable cubby	2					

4.2	Switcher (type-1)	1					
4.3	Under desk mounting for Taurus UCX devices.	1					
4.4	Under desk mounting for Taurus UCX power supply	1					
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>						
5.1	Control Processor	1					
5.2	Network switch with 8 ports having 1G PoE+ 125W Power , 2x1G and 2xSFP Managed Switch	1					
5.3	10.9" IPAD as controller	1					
5.4	Wall Mount Docking Station for I-PAD with charging , lock .	1					
5.5	Wireless Access Point	1					
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>						
6.1	Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc	1					
<b>7</b>	<b>SERVICES</b>						
7.1	Installation , Commissioning , programming, training , handover & documentation.	1					
<b>Sub Total-D (Rs.)</b>							

#### E. AUDITORIUM:

Sr. No.	Product Description	Total Quantity (Nos.)	Unit Rate (Rs.)	Amount (Excl. tax) (Rs.)	GST (in %)	GST (in Rs.)	Amount (Incl. tax) (Rs.)
<b>1</b>	<b>DISPLAY SYSTEM</b>						
1.1	DLED (110")	1					
1.2	OPS	1					
1.2	DLED (55")	1					
1.3	DLED (75")	6					
1.4	Digital Podium	1					
1.5	Ceiling Mount Kit for display	1					
1.6	Swivel Mount Kit	6					
<b>2</b>	<b>VIDEO SYSTEM</b>						

2.1	Professional Grade Conferencing Camera	1					
2.2	AV over IP Camera	2					
2.3	Video Mixer	1					
2.4	Video Recorder	1					
<b>3</b>	<b>AUDIO SYSTEM</b>						
3.1	Digital Wireless Handheld Microphone	4					
3.2	Digital Wireless Lapel Microphone	1					
3.3	Digital Wireless Headset Microphone	1					
3.4	Gooseneck Microphone	1					
3.5	Passive Directional Antenna	2					
3.6	Active Antenna Splitter	2					
3.7	Antenna Booster	2					
3.8	Rechargeable battery packs	3					
3.9	Network enabled 2-bay charger	3					
3.10	Digital Signal Processor (DSP)	1					
3.11	Surface Mount Loudspeakers	8					
3.12	4-Channel Class-D Network Amplifier (Total Power - 4000W)	1					
3.13	12-Inch Two-way Active Loudspeaker	2					
3.14	Subwoofer (18-Inch)	2					
3.15	2-Channel Class-D Amplifier with inbuilt DSP	1					
3.16	24-Channel Premium Mixing Console	1					
<b>4</b>	<b>SWITCHING &amp; CONNECTIVITY SYSTEMS</b>						
4.1	Cable cubby	1					
4.2	<b>Switcher (type-2)</b> With 2x HDMI 2.0, 1x USB 3.1 USB type B, 1x USB-C 3.1 Gen1 port, 2x full-featured USB-C 3.1 Gen1 input ports and 2x HDMI 2.0 output ports.	1					
4.3	Under desk mounting for Taurus UCX devices.	1					
4.4	Under desk mounting for Taurus UCX power supply	1					
4.5	Transmitter	7					

4.6	Digital Video & Audio Signal Receiver	7					
4.7	Distribution Amplifier	1					
4.8	Matrix Switcher	1					
<b>5</b>	<b>CONTROL &amp; AUTOMATION SYSTEM</b>						
5.1	Control Processor	1					
5.2	Network switch with 24 ports having 1G PoE+ 300W Power , 2x1G and 4xSFP Managed Switch	1					
5.3	10.9" IPAD as controller	1					
5.4	Wall Mount Docking Station for I-PAD with charging , lock .	1					
5.5	Wireless Access Point	1					
<b>6</b>	<b>CABLES &amp; CONNECTORS</b>						
6.1	Various types cables like HDMI, USBA, USB C , USB B, Cat6, Audio, speaker , control, connectors, tags etc.	1					
<b>7</b>	<b>SERVICES</b>						
7.1	Installation , Commissioning , programming , training , handover & documentation.	1					
<b>Sub Total-E (Rs.)</b>							