

## ANNEXURE - II : FINANCIAL BID FORMAT

**NOTE :** This is a turnkey project and bidder must quote for all the components in this BID. Bidders missing out on any components listed in this Bill of quantity will be disqualified.

### A IP TELEPHONY NETWORK FOR NIT MANIPUR CAMPUS

Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (Rs.)	Amount (Rs.)
I		<b>IP PBX SERVER with following minimum feature support from day 1</b>				
1		<b>IP PBX Server</b> : The system should be based on server-gateway architecture running on Linux OS supporting IP, Analog and Digital Extensions.	1			
		The servers should be of industry standard makes like DELL/HP/IBM only. The proposed server should be capable of supporting at least 700 extensions in future. The expansion should not require any additional hardware				
		The system should be capable of deployment on virtualized platforms like VMWare/Xen etc				
		System should provide call control, mobility, IM and presence, and Messaging, centralized licensing in a single server.				
		The system should support BRI/ PRI/ T1/ E1/Analog Trunks				
		The server should have in-built atleast 2 nos auto-sensing 10/100/1000 Mbps LAN				
		System should support secondary/redundant server for additional capacity and resiliency				
2		<b>Power User License for Mobility - for connecting Smartphones to the IP PBX Network</b> : 20 users license	1			
3		IP ISDN RJ45/RJ45 3M RED Card	4			
4		<b>License for 3rd Party IP Video Phones</b>	4			
5		<b>License for Video conferencing End Point Camera Equipment Integration to IP PBX ( 3 nos) . The VC Unit should be from same OEM as of IP PBX Server for smooth integration and operational flexibility</b>	3			
6		<b>License for 100 IP Phones support</b>	1			
7		<b>Analog Phone Extension Card</b> : each card should support 8 Analog Extension ( To support 24 analog extensions)	3			
8		<b>IP PBX Media gateway for analogue extensions</b> and control unit	1			
9		IP PBX Analog Trunk Card - 4-Port	1			
II		<b>IP PHONES</b>				
1		<b>IP Desk Phone</b> : IP Phone for Operator's Console with 32 additional buttons for convinience - <b>Console for the Operator / Receptionist</b>	1			
2		<b>IP Deskphone : Type - I</b>	10			
3		<b>IP Desk Phone : Type-II SIP DESKPHONE</b>	10			
4		<b>IP Video Phones</b>	4			
III		<b>Video-Conferencing End Points &amp; Display Unit - to be integrated with the IP PBX - should be from same OEM as of IP PBX</b>				
1		<b>VC End Point with 1 year NBD support Pack</b> ( one for Director's Room and another one for the Seminar Room)	2	nos		
2		<b>55" LFD LED Display with USB Port, LAN port, HDMI Port &amp; wifi</b>	1	nos		
		<b>TOTAL OF IP PBX SERVER , COMPONENTS &amp; IP PHONES</b>				
		<b>Taxes as applicable</b>				
		<b>TOTAL OF IP PBX SERVER , COMPONENTS &amp; IP PHONES with TAX</b>				

B Seminar Room Automation Equipments for Recording, Capturing & Streaming of Lectures, Workshops & Video Conferencing						
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (Rs.)	Amount (Rs.)
1		<b>Control System</b> : 3-Series Control System	1	No		
2		<b>Digital Media Switcher</b> : 16 x 16 DigitalMedia Switcher	1	No		
3		4K HDMI® Input Card for DM Switchers ( Plug-in card)	5	Nos		
4		<b>Input Card for Digital Mixer Switchers ( Plug-in card )</b> : HDBaseT Certified 4K DigitalMedia 8G+ Input Card for DM Switchers	3	Nos		
5		2-Channel HDBaseT Certified 4K DigitalMedia 8G+ Output Card for DM Switchers ( Plug-in card)	5	Nos		
6		2-Channel 4K Scaling HDMI Output Card for DM Switchers ( plug-in card)	2	Nos		
7		<b>Wireless Presentation Solution</b> : Presentation Gateway Device	1	No		
8		DigitalMedia 8G+ Transmitter 201	2	Nos		
9		FlipTop Basic, Black Anodized	2	Nos		
10		FlipTop AC Power Outlet Module, Single, Universal	2	Nos		
11		Cable Retractor for FlipTops, HDMI	2	Nos		
12		Cable Retractor for FlipTops, VGA	2	Nos		
13		Cable Retractor for FlipTops, Audio	2	Nos		
14		Wall Plate DigitalMedia 8G+ Transmitter 200, Black Textured	1	No		
15		2 Gang Decorator Style Faceplates, Black Textured	1	No		
16		4K HDMI over HDBaseT Extender w/IR & RS-232, Black; includes HD-RX3-C-Band HD-TX3-C-B	1	No		
17		DigitalMedia 8G+ 4K Receiver & Room Controller w/Scaler	9	Nos		
18		High-Definition Capture Recorder	1	No		
19		High-Definition Video Scaler, HDMI In, HDMI Out	2	Nos		
20		10.1" Surface Mount Touch Screen	1	No		
21		TableTop Kit for 10.1" Surface Mount Touch Screen	1	No		
22		PoE Injector, universal 100-250 Volts AC	2	Nos		
23		Keypad - International Version, Black Textured	2	Nos		
24		<b>Distribution Hub</b> : DIN Rail Distribution Hub	1	No		
25		DIN Rail High-Voltage Switch, 8 feeds, 8 channels	1	No		
26		DIN Rail 0-10V Fluorescent Dimmer, 4 feeds, 4 channels	2	Nos		
27		IR Emitter Probe w/Terminal Block Connector	3	Nos		
28		OEM Certified HDMI Interface Cable, 6 ft	11	Nos		
29		OEM Certified Computer VGA Interface Cable w/Audio, 6 ft	1	No		
30		Locking High-Speed HDMI Cable, 2 ft	6	Nos		
31		Controlling Mobile based App for Apple® iOS® & Android™	1	No		
32		Streaming Output Card for Digital Media Switchers	1	No		
33		Remote Asset Management Software - 5 Rooms	1	no		
34		<b>Full HD Camera</b> : Full HD PTZ Camera (one no for capturing the presenter and his lectures - voice & video & two nos for the capturing the audience's participation)	3	Nos		
35		<b>Desktop Document Camera</b> : Desktop Visualizer, 2 Mega Pixel, 1080p Full HD, 1/3" CMOS	1	No		
36		<b>6 feet x 4 ft Infrared Interactive White Board</b> with Ceramic Surface	1	No		
37		<b>3LCD + Pure Laser WUXGA</b> Projector with 4100 Lumens, Contrast Ratio - 10000:1, Light Source Life : 20,000 Hours and Edge Blending features in-built.	2	Nos		
38		Motorized Hydraulic Projector Lift	2	Nos		
39		<b>Motorized Projector Screen - 6 feet x 4 feet</b> - Wall Mount with IR Remote	1	No		

40		<b>85" LED LFD Professional Display</b> with VGA, HDMI, DVI-D, USB & LAN ports with Wall Mounting Bracket. ( <b>The display size should be minimum 85" or above</b> )	1	No			
41		<b>55" LFD LED Display</b> with USB Port, LAN port, HDMI Port & wiFi	3	nos			
42		Wall /Ceiling Mounting Bracket for the 55" LFD LED Display	3	nos			
43		Content Producing, AV Mixing, Final Cut Live Streaming and Recording Device as a single Equipment	1	no			
44		<b>Head Phone:</b> Noise cancellation headphone	2	nos			
45		<b>Streaming Server &amp; Video on demand Hardware</b> with minimum 1 TB Storage and built-in Wowza Streaming software	1	no			
46		<b>Podium to accomodate</b> Laptop, Desktop Visualizer, 10.1" Display ( for controlling the conference room equipments), Goose neck Microphone, Table top Light,etc. - custom made. Podium should have Desktop Box with RJ 45 x 2, Audio Jack x 1, HDMI x 2, VGA x 1 and Universal Power Socket x 2	2	nos			
		<b>Sub Total of the above items</b>					
		Add Tax (as applicable)					
		<b>Total of the items listed above with tax</b>					

C Audio System Components ( Preferred Make should be BOSE/TELIVIC/SHURE/BIAMP / SENNHEISER /APART)							
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)	
1		<b>Gooseneck Microphone</b> with a lightring indicates the spokesperson that is allowed to take the floor, 40cm length , XLR 5M connector, Pre - polarized condenser microphone for transducer principle, Accoustic : Cardioid, Frequency rersponse : 50 Hz - 20 KHz, Nominal Impedance : <100 ohm, MSPL : 130 db SPL, Connectivity : XLR 5M.	2	nos			
2		<b>The table stand for connecting and operating XLR gooseneck microphones</b> shall be rugged and unobtrusive. It shall have a programmable microphone button (Toggle on/off, PTM, PTT and permanent on) and a bi-color LED ring for status indication shall be provided. The table stand shall feature an XLR-5F microphone input, an XLR-5M microphone output and a TTL logic connector with logic inputs and outputs. The logic output voltage shall be high level > 2.4 and low level < 0.4 V, the logic input voltage shall be high level > 2.0 V and low level < 0.8 V. The table stand shall operate on 48 V phantom power. Current consumption shall be 3.7 mA.	2	nos			
3		<b>Wireless Hanheld Microphone</b> with frequency Transmission / receiving frequesncies : 20 channels bank, 1 fixed bank, 12 factory preset channels each, AF frequency response : 25 - 18.000Hz, S/N ratio ( at 1mV and peak deviation ) : >110dBA.	5	nos			
4		<b>Wireless clip-on microphone (Collar Microphones)</b> , frequency response : 80 - 18000Hz, Presets : 12, Sound pressure level : 120 dB ( SPL ) max., THD < 0.9%, RF output power : 30 mW.	2	no			
5		8" wooden design cabinet loudspeaker, 8ohm/300watt full range, wall bracket and pole mount tube included, black - priced per piece and sold per piece	4	no			
6		2-channel power amplifier 2 x 600Watts @ 4Ohms, convection cooled, 1U 19" rackmount	1	nos			
7		Digital signal Processor with 8 microphone input and 2 speaker with inbuilt programming. <b>DSP must be of the same make as microphones</b>	1	no			
8		Cables from the below mentioned brands which includes <b>Speaker cable, HDMI cable, Audio Cable and power cable</b> . Approved makes: Extron, kramer, Beldon, Percon	1	lot			
		<b>Sub Total of the above items</b>					
		Add Tax (as applicable)					
		<b>Total of the items listed above with tax (INR)</b>					

<b>D NETWORKING EQUIPMENTS REQUIRED FOR SETTING UP WIRELESS LAN IN THE SEMINAR ROOM</b>						
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)
1		24-Port PoE Switch with 10/100/1000 Base-T PoE Ports + 2 XFP Ports	1	no		
2		Wireless Access Point - 802.11ac- Indoor	4	Nos		
3		24-Port Loaded Patch Panel UTP Cat6	1	no		
4		Cat 6 UTP Cables	3	boxes		
5		Informationa Outlet - UTP Cat6 - RJ-45 Inserts for I/O	16	Nos		
6		I/O Face Plate	16	Nos		
7		Cat 6 UTP Patch Cord - 1 mtr	30	Nos		
8		Cat 6 UTP Pacth Cord - 2 mtr	30	Nos		
<b>Sub Total of the above items</b>						
Add Tax (as applicable)						
<b>Total of the items listed above with tax (INR)</b>						

**E Furnishing of Room - Furnitures, Lighting, Acoustic Wall & Ceiling Panelling,etc.**

<b>(a) Furnishing of Seminar Hall</b>						
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)
1		Thick curtain for windows with light absorbing lining ( 4 x 4 feet)	6	nos		
<b>Sub Total of the above items</b>						
Add Tax (as applicable)						
<b>Total of the items above with tax</b>						

<b>(b) Lighting Requirement of the Conference Room</b>						
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)
1		<b>16W LED</b> downlighter with High power, high efficiency Chip-On-Board (COB) LED module lumens >=1200 Lumens,High transmittivity, non-yellowing PMMA diffuser,Pressure die cast aluminum housing with special wave shaped radial fins, black powder coated for superior thermal performance,Aesthetic white rim molded in engineering plastic.	28	nos		
2		<b>2' x 2' LED</b> Fixutre with high efficient LEDs - <b>31.6 Watts</b> ,seamlessly designed to integrated with grid ceiling with HET duffuser (high efficient translucense) diffuser for better light output.	24	nos		
3		Required Electrical Wiring for connecting all the above LED lights in the conference room and terminating them in termination block including all necessary accessories	1	lot		
<b>Sub Total of the above items</b>						
Add Tax (as applicable)						
<b>Total of the items above with tax (INR)</b>						

(c) Acoustic panelling of Walls & Ceiling of the Seminar Hall							
Dimension of the Seminar hall : Length (52 feet) x Width ( 32 feet) x height ( 12 feet)							
Sl. No.	Make & Model	Item Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)	
		<b>For Acoustics Wall Panel</b>					
1		Supply and installation of Reputed Brand Superfine wood wool panel of size 1200 x 600 x 15mm mounted on proprietary supplied G I Frame work consisting of basic profile, main profile,edge profile and spacer.	190	sqmtrs			
		<b>Tile Specification :</b>					
		Tile description : Magnesite bonded wood wool acoustic panel with fibre width of 1mm					
		1200 * 600 * 15mm thickness					
		Edge Detail : Square Edge (GK)					
		Reaction to fire acc to EN 13501-1 B-s1,d0					
		Sound Absorption Value $a_w$ up to 1.00					
		Thickness/Weight : 15 mm 7.8 Kg/m <sup>2</sup>					
		<b>For False Ceiling</b>					
2		Supply and installation of Reputed Make Ceiling Tiles made of mineral wool of size <b>600x600x 15 mm</b> suspended by using OEM supplied ceiling suspension system to consist of 2mm or 3mm GI suspension rod/wire with adjustable Butterfly Clips of 4mm dia securely affixed to structural ceiling using 10mm dia hook type anchor fastener . Ceiling Suspnsion System to be fixed at interval ( grid ) of 1200mm in both directions. Supplied ceiling suspension system to consist of Main Runners @ 600mm and joined by Cross Tees @ 600mm to form overall grid opening of 600mm * 600mm centre to centre. Additional cross tees are to be placed where appropriate for light fixtures, AC diffusers etc. The grid width can be 15mm or 24mm. The main runners and cross tees to have click installation system. The Grid system shall be hot dipped galvanized steel sections, with exposed surfaces chemically cleaned and capped prefinished in high - gloss polyster enamel with two coat system on cold rolled steel.	160	sqmtrs			
		<b>Tile Specification :</b>					
		Tile Type : Lay - in ceiling type.					
		600 * 600 * 15mm thickness					
		Edge Detail : Recessed Bevelled Edge (VT)					
		Light Reflectance : upto 90%.					
		Humidity Resistance : up to 95% RH					
		Colour : White Similar to RAL 9010.					
		Thermal Conductivity : 0.040 W/mK as per EN 12667					
		<b>NRC = 0.60 as per ASTM C 423</b>					
		Sound Attenuation : 34 dB as per EN 20140-9					
		Thickness/Weight : 15 mm 4.5 Kg/m <sup>2</sup>					
		<b>Sub Total of the above items</b>					
		Add Tax (as applicable)					
		<b>Total of the items above with tax (INR)</b>					

F INSTALLATION, CONFIGURATION OF EQUIPMENTS, TESTING &PROJECT IMPLEMENTATION CHARGES						
Sl. No.		Job Description	Qty	Unit	Unit Price (RS.)	Amount (Rs.)
1		Installation & configuration charges for IP Telephony Server, IP Phones, Analog Trunks, Analog Extensions and Integration with Video Conferencing End Points	1	lot		
2		Installation and configuration of all equipments and components of Seminar Room Automation Equipments listed in Part-B				
3		Installation & configuration charges for Audio Equipments	1	lot		
4		LAN Cabling and installation of Networking Switch, Wireless Access Points and integrating the Seminar Room LAN to the existing Campus LAN	1	lot		
4		Project Supervision by posting one resource person at site during the project implementation until handing over the site to NIT Manipur	1	lot		
		Total of the Installation Charges				
		Add Service Tax @ 14.5%				
		<b>Total of Project Implementation charges with Service tax</b>				

**SUMMARY OF TOTAL COST OF THE PROJECT ( SUM TOTAL OF ALL THE ITEMS / COMPONENTS) IN THIS TURNKEY PROJECT (in Indian Rupees)**

A	TOTAL OF IP TELEPHONY NETWORK	
B	Total of Seminar Room Automation for recording, Capturing & Streaming of Lectures, Workshops & Video Conferencing	
C	Total of Audio System Components	
D	Total of Networking Equipments	
E	Total of Furnishing of Seminar Room	
(a)	Sub Total of Lighting Requirement of Seminar Hall	
(b)	Sub Total of Acoustic panelling of Walls & Ceiling of Seminar Hall	
F	Installation & Project Implementation Cost	

**Total Cost of the Project in Words (INR):**