



NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM, CHALTLANG,
AIZAWL, MIZORAM-796012

INVITATION LETTER

Package Code: TEQIP-III/2019/nitz/66

Current Date: 30-Sep-2019

Package Name: NITMZ/SMART CLASS

Method: Shopping Goods

To,

(Name and address of Vendor)

Sub: INVITATION LETTER FOR NITMZ/SMART CLASS 2

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1.	Smart Class Room	1	National Institute of Technology Mizoram, Chaltlang, Aizawl, Mizoram - 796012	

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. **Quotation**

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and

re writing.

- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than 45 days after the last date of quotation submission.
6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
 - 6.1 are properly signed; and
 - 6.2 Confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
 - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
 - 8.2 *The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.*
9. Payment shall be made in Indian Rupees as follows:

Payment Description	Expected Delivery Period (in Days)	Payment Percentage
On Satisfactory delivery, Installation & Acceptance	90	100

10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min %:N/A
Liquidated Damages Max %:N/A
11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others is **3 YEARS**.
12. You are requested to provide your offer latest by **04:00** hours on **28-Oct-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) **YES**
15. Testing/Installation Clause (if any) **Testing/installation required**
16. Performance Security shall be applicable: **0%**
17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
18. Sealed quotation to be submitted/ delivered at the address mentioned below,
**National Institute of Technology, Mizoram, CHALTLANG, AIZAWL,
MIZORAM-796012**
19. We look forward to receiving your quotation and thank you for your interest in this project.


(Mrs. LALTHIANGHLIM ZOTE)

ज.प्र.स. Dy. Registrar (F&A)

NIT Mizoram

Annexure I

Detailed Specifications of Components		
Digital Podium		Quantity 1
Sl. No.	Parameter	Specifications
1	System Body	Top and Body should be Metal and MDF.
2		The system should have a Top Sliding Mechanism with locking facility.
3		The angle of the tablet Monitor should be electrically adjustable with the help of Switch
4		Logo of NIT Mizoram should be embossed in front of the Podium
5	Touch Screen Monitor	The system should consist of 48.1cm or 19 Inches Touch Screen Monitor.
6		The monitor should be LED backlit.
7		The monitor should have a native resolution of 1440 x 900 or better
8		The monitor should come with a USB port for PC Connection.
9		The monitor should have a Luminosity of 250 cd/m ² or more.
10		The monitor should have a 15 Pin HD ports or DVI Input port.
11		The monitor should have a DC input voltage of 12VDC, 4A.
12		The monitor should support Win 7 or higher.
13		The monitor should have an Electromagnetic Sensor Method.
14		Annotations should be possible during presentation
15		The monitor should support Power Supply of 100 ~ 250VAC.
16		Stylus for drawing/writing in 19 inch display
17	System Controller	The controller should consist of 2 VGA Inputs for PC and laptop
18		The system should consists of 1 no. VGA Output for Projector and 1 number VGA Output for Monitor.
19		The system should consist of Audio Input for 1 no Gooseneck MIC, 1 No Wireless MIC, 2 Audio inputs for PC and Lappie.
20		The system should have Sound Output with 1 No RCA Audio.
21		The system should support 1 Ports of Composite video In.
22		The System should support IR Learning.
23		The system should come with Three LAN Ports.

24		The System should have 2 numbers Projector Controls, 1 No Screen Control Ports, IR receiver, 1 number Program input Control, 1 no Firmware input Control
25	Gooseneck Microphone	The Microphone should have a frequency response of 40 Hz to 17,000 Hz or better.
26		The Microphone should have a Cardioids Polar Pattern.
27		The Microphone should come up with standard 3 PIN XLR Connector.
28		The Cartridge should be a 20mm Condenser
29	Wireless Lapel x 1 no and Handheld Microphone x 3 nos	The Microphone should have Frequency band of UHF 900 MHz~ or better.
30		The microphone should have at least 32 number of Channels.
31		The microphone should have at least Step 8 Digital Variable Squelch Control Method
32		The microphone should have a ± 10 ppm Frequency Stability.
33		The microphone should have a Auto Scan Receive Mode.
34		The Microphone should have a frequency response of 40Hz to 17000 Hz or better.
35	Amplifier	The Amplifier should consist of a 300 Watts (150 WattsX2) at 4 Ohms.
36		The Amplifier should have S/N Ratio of >80dB.
37	DSP	The DSP should have a 100% Full Duplex Echo Cancelling – no attenuation during full-duplex.
38		The DSP system should have inbuilt Microphone Mixer.
39		The DSP should be standard 19 inches Rack Mountable (1U) form factor.
40		The DSP Should have sufficient Ports to perform the Acoustic Echo Cancellation and Noise cancellation for all the microphones.
41		The DSP should have USB port for integrating with Unified Software solutions like Skype, Webex, etc.
42	Notebook or Laptop Interface	The system should consist of the atleast following ports on the interface
43		VGA port, HDMI Port, Audio port, 2 USB Ports, Power Outlet.
44	7 inches Touch Panel	It should have a resolution of 800X480.
45		It should have a viewing area of 154(H)mm X 92(V)mm.
46		It should have RS232 Interface.

47	Wall Mount Speakers	The System should come up with 6 Wall Mount speakers. The Speakers should come with 5.25 Inches Driver and .75 inchmore High Frequency Driver. The speakers should have a frequency range of 60Hz to 20KHz or better. The Speaker should have a 180 Watts or more continuos peak power. The speaker should have a maximum SPL of 110dB. Below that would not be accepted. The speaker should comeup with 100V/70V taps as well as 8 ohms. The speaker should be IP44 rated. The speakers should be ROHS and UL certified.
48	Warranty	3 Years Comprehensive

2.Vision Visualizer

Qty 1

Sl No	Features	Specifications
1	Image Sensor	1/3" Image Sensor
2	Output Resolution	SXGA (1280x 1024), WXGA (1280 x 800), 1920×1080 or more.
3	Frame Rate	30 frames/sec.
4	Min Capture Area	Min 380×285 mm
5	Zooming	Min 32X Optical Zoom and 16 X Digital Zoom
6	Lamp	Top Light: LED x 2 and Base LED X 1.
7	External Storage	Supports SD card
8	Image Capture	Single or continuous capturing images (time lapse photography)
9	Recording	One touch Video / Audio recording in standalone mode with built-in microphone.
10	Image Rotation	0, 180, mirror, flip.
11	Multimedia Function	It should have the following Functions: Color/Black-White, Mirror, Rotate, brightness control, freeze.
12	Slide Show	For continuous image playback (auto or manually)
13	Focusing, White Balance & Exposure	Auto / Manual
14	Total Pixel	It should have a minimum of 5,000,000 Pixels .
15	Resolution	It should have ≥1000 TV Lines or more
16	Inputs	VGA Input HD-SUB 15 Pins Female x 1
17	Outputs	HDMI x 1
		Audio In x 1
		Built in MIC x 1
		VGA Output HD-SUB 15 Pins Female x 2
		USB 2.0 High Speed x 1
		RS232 x 1
		Audio out x 1

18	Warranty	3 Years Comprehensive

3. Desktop with required preloaded application Specifications

Qty 1

Sl No	Features	Specifications
1	Desktop Configuration	i7 Processor, 8 GB RAM, 1 TB HDD, Wireless Keyboard & Mouse. Win 10 OS (SFF form factor)
Application Specifications		
2	Video Codec	The codec should support Point to Point Full HD 1080p@30/60fps with the following video standards H.263, H.264, H.264 HP/AVC/SVC/VBR or H.265 . Each Codec should be expandable to (1+4) in 1080P in future with license Upgrade.
3	Data Collaboration	Codec should support Data Sharing for Presentations
4	Resolution	Full High Definition- 1920 x 1080p
		High Definition – 1280 x 720p
		4CIF -704 x 576 pixels
		4SIF-704 x 480 pixels
		VGA -640 x 480 pixels
		Progressive or Interlaced CIF -352 x 576 pixels
		CIF -352 x 288 pixels
5	Multiple Camera Input Support	SIF -320 x 240 pixels
		QCIF-176 x 144 pixels
6	Audio Codec	The codec should support 3 cameras and Document Camera. All these cameras should be active at the same time. The Solution to be provided along with it. Either the codec should have native capacity to have 4 Active Camera support or else External Multifomart third party Video Mixer should be provided of known reputed brands.
7	Audio Output	The codec should support G.711, G.722, G.722.1, G.728, G.729 /GIPS / SPEEX codec or MPEG4 - AAC (LC).
8	Enhanced Audio Features	Codec must support either common 3.5mm line out or headphone output & must support integration with external audio mixer. Codec should provide an option to connect Audio Mixer in a bigger class room or board room
9	Network port	Automatic Echo Cancellation, Automatic Gain Control and Noise Reduction
10	Bandwidth Support	Codec should have minimum 1 RJ-45 port for IP network.
		The system should support upto 4 Mbps in a Point to Point call and multipoint call.

11	Video Output for display	Codec must have atleast HDMI /DVI ports or equivalent and support Dual Display
12	Packet Loss Correction	Video packet loss should be buffered or corrected with some sort of intelligent protocol or algorithm.
13	Quality of Service	Audio packet loss should be buffered or concealed with some sort of intelligent protocol or algorithm.
14	Recording feature	Codec should have inbuilt video recording capability or offer external Video Recording Solution at end point with minimum 500 Hours of local Recording Storage @ Full HD.
15	Data Collaboration	Solution should have capability to share whiteboard , Documents sharing, Desktop Sharing/Application Sharing/ Region Sharing with Annotations so that the presenter can highlight important points during the session using multiple annotations. The Presenter should be able to play Media File within the conference.
16	Lock Conference Room	Host should be able to lock the conference Room if necessary to avoid unwanted users from Entering the conference.
17	Voice Activated Switching	Solution should support Voice activated Switching layout which can be enabled or disabled with Speaker in bigger video.
18	Dual Display	The Solution should be capable to show presentation and multiple Videos in Dual Screens as well as in a Combined Screen.
19	FECC	The Solution Sould Support Far End Camera Control
20	Chat Feature	The Solution should have chat feature for the users to type their queries either through Public Chat or Private chat.
21	Desktop & Mobile connectivity	Solution should support Windows, Desktop/Laptop, Android, IOS devices right from Day 1.
22	Anivirus	Standard Anivirus like kaspersky/Norton
23	Security	System should be 128-bit Fully Encrypted Video Conference Meetings to ensure encrypted data flows between endpoint & MCU.
24	Solution Capability	Solution should offer video Conferencing through Web Browser or Clients based. For client based, there should be unlimited client downloads facility.
25	MCU License	The License should be installed in the same codec to support P2P Full HD Conference from day 1. The same license should be upgradable in additions of one user license at a time.
26	Multiple Conference Support	Solution should support multiple conferences to run simultaneously from Day 1.

27	H.323 & H.239 Support	The Solution should have capability to connect at least 1 Full High Definition IP Based H.323 Hardware Video Conference device in each room at HD Resolution. The Solution should also able to share data presentations using H.239 with H.323 user.
28	Warranty	3 Years Comprehensive

4. Specifications for "20 KVA UPS with 3 hours back up"			Qty 1
Sl No	Parameter	Specifications	
1	Technology	True On-Line Double Conversion UPS with PWM-IGBT technology.	
2	Capacity	20KVA/18 KW @ 0.9 p.f. On-Line UPS with Inbuilt Isolation Transformer using PWM IGBT technology	
3	AC Input Voltage Range	300-470 V AC, 3 Phase	
4	Integrated Surge Protection Device	UPS should have inbuilt 3 Phase, Type 2 surge arrester (40kA) according to EN 61643-11. It should provide Lightning Protection (according to IEC 1312-1 and EN 62305) through equi-potential bonding and eliminate transient overvoltage, originating during atmospheric discharges or switching processes. Datasheet of SPD should be provided	
5	Input Frequency	50Hz \pm 10% (Suitable for Generators)	
6	AC Out-Put voltage	230 V AC, 1-phase \pm 1% (Sine Wave Output)	
7	Out Put Frequency	50 Hz \pm 0.05 Hz	
8	Over Load Capacity	125% for 10 minutes, 150% for 60 seconds	
9	Crest Factor	4:1 or higher	
10	Harmonic Distortion	< 2% (for linear loads) & <5% (for non linear loads)	
11	Isolation Transformer	UPS output should be fully isolated by double conversion and inbuilt isolation transformer within the UPS cabinet itself. External transformer shall not be considered.	
12	Indication & Audible Alarms	Mains On, Inverter On, Overload, Load On Mains, Load On Battery, Battery Low.	
13	Digital Metering	LCD display for measurement of AC Voltage, Battery voltage, Battery Current, Load Current, Output frequency.	
14	Battery Backup & Other Details	The system must be capable of providing battery back-up time of 3 hours using 12V, VRLA Sealed Maintenance Free Batteries. Required VAH : 67200 VAH for 60 minutes back-up with each UPS	

		Battery make: EXIDE/QUANTA/ROCKET
15	Certifications	CE Certification(confirming to IEC 62040-1 & IEC 62040-2 Standards) ISO 9001, ISO 14001, ISO 27001, OHSAS 18001 certified. RoHS Compliance Copies of the above certifications should be submitted with the technical Bid (compulsory).
16	After Sales Support & Manufacturer's Credibility	(i) OEM should have a dedicated Toll Free No. for service call logging & resolution (ii) The bidder and OEM should not have been blacklisted or debarred from business at any point of time during last 10 years by any Govt./PSU undertaking. Undertaking to this effect must be submitted. (iii) OEM should have their own service centre at Silchar and OEM's service engineer on company's own payroll stationed at SILCHAR (documentary evidence to be provided)
17	Support	03 Years comprehensive warranty

5. Professional Touch LED Display- 80 Inches		
Feature	Specification	Qty
Technology	LED (Light Emitting Diode) Backlit Display	1
Display size (Diagonal)	Diagonal 80 inch or Higher, 16:9/16:10, 1920 X 1080 or higher, 15000:1 or higher, 500 cd/m2 or higher, IR Sensor based Touch technology with minimum 10 touch capability.	
Input Ports	HDMI x 4, USB B-Type x 4 for touch, VGA x 1(shared with HDMI 4), Audio In for VGA Port, HDMI Out x 1, Micro SD Card Slot, USB 3.0 x 2(one for PC and One for android), USB 2.0 x 2 (One for PC and One for Android), DP Port x 1, AV x 1, Ear phone x 1, SPDIF x 1, LN Port IN x 1,for Android, LAN Port Out x 1, Wireless LAN Support with dongal, RS 232C or LAN	
Audio	Min. 2X25W RMS front throw integrated speakers or better	
Accessories to be supplied	AC Power cord, User Manual, Remote control, Wall mount bracket necessary cables and connectors shall be provided to make it a complete operable unit.	
24X7 operation	The display shall be suitable for 24X7 operation	
Special Features	Features of LFD: -	
	1. Energy Saving Setup	
	2. Scheduled Power On/Off	
	3. USB Port Lock for Android	
	4. Smart Eye Protection: - Eye protection in writing mode, eye protection brightness, control mode change screen brightness based on ambience of light	

	6. Auto select new source when detected	
	7. Background setting for Android	
	8. Single Click Screen capture	
	9. Audio only feature	
Software Features	Annotation software shall include minimum features like choose, pens, annotate, erase, color, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc.. The software should have network classroom feature to conduct remote teaching by having interaction through all the three types of media Audio, Video and Text.	
Warranty	03 Years Warranty	

6. Professional LED Display- 55 Inches		
Feature	Specification	Qty 2
Technology	LED (Light Emitting Diode) Backlit Display	
Display size (Diagonal)	Diagonal 55 inch or Higher , 16:9/16:10, 1920 X 1080 or higher, 15000:1 or higher, 500 cd/m2 or higher.	
Input Ports	USB Media Play Port x 1, Touch Frame USB Port x 3, HDMI x 3, S-Video x 1, YPbPr/YCbCr/Audio x 1, VGA x 3, PC Audio x 3, AV x 2, RS232 x 1, RS 232C or LAN	
Audio	Min. 2X25W RMS front throw integrated speakers or better	
Accessories to be supplied	AC Power cord, User Manual, Remote control, Wall mount bracket necessary cables and connectors shall be provided to make it a complete operable unit.	
24X7 operation	The display shall be suitable for 24X7 operation	
Special Features	Intelligent Temperature control	
	Word/PPT/PDF/Excel Viewer	
	Input Resource Preview	
	On Screen Annotation	
	Support Wi-Fi / LAN Printer	
	Auto Light adjustment	
	Audio Only System	
	Free Wi-Fi Hotspot Functionality	
Feature	Duo System (Inbuilt Android, support OPS for Windows)	
Feature	Easily accessible ports in front panel.	
Software Features	Annotation software shall include minimum features like choose, pens, annotate, erase, color, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc.. The software should have network classroom feature to conduct remote teaching by having interaction through all the three types of media Audio, Video and	

	Text.	
Warranty	3 years comprehensive warranty	

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|-----------------------------------|---------|
| 7. HDMI Splitter 1/4 | Qty. 1 |
| 8. HDMI Extender over LAN (Tx-Rx) | Qty. 3 |
| 9. 2/4 HDMI Switcher | Qty. 1 |
| 10. HDMI Cable (15 Mtrs.) | Qty. 10 |

11. OEM Eligibility Criteria.

1. Podium OEM should have at least implemented 1 order of minimum 10 podiums in government sector including Public service.
2. OEM should be ISO certified Company. Required Certificate copy.
3. Bidders must provide Manufacturer Authorization forms for all the major Components
4. Implementation must be done either in presence of OEM Engineers or to be done by OEM Engineers only.
5. Installation Required

FORMAT FOR QUOTATION SUBMISSION
(In letterhead of the supplier with seal)

Date: _____

To: _____

Sl. No.	Description of goods \ (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____

(Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No. _____