REQUEST FOR PROPOSAL (RFP) DOCUMENT FOR
Recording, Storing and Live Viewing
TENDER CONDITIONS FOR SUBMISSION OF
TECHNICAL BID & PRICE BID

# **National Institute of Technology - Manipur**

Imphal Manipur-795004

No. NITM.1/(133-Estt)/VideoCon/2015-9565

Date.18/02/2016

# TENDER NOTIFICATION

NIT- Manipur Intents to procure Equipments as per the specification given below for the University . Hence invites techno commercial Proposal from reputed firms having expertise and experience in the relevant field.

The tender shall be a two bid system. The Financial bid shall be opened only for approved technical bids.

Further details can be obtained from web site –  $\underline{www.nitmanipur.ac.in}$  or in person from the undersigned.

Last Date for submission of Tender : 11/03/2016 3:00 PM Date of opening Technical Bid : 11/03/2016 3:30 PM

Date of Opening of Commercial Bid : Will be intimated to the eligible bidders

## Place of Opening the Tender

Conference Hall, NIT Manipur, Langol Campus

Sd/-Director, NIT Manipur

#### 1. SUBMISSION, RECEIPT, AND OPENING OF PROPOSALS

The original Proposal (i.e. Technical Proposal and Financial Proposal) shall be prepared and submitted .

The bidder shall sign and submit the proposal.

The completed Technical and Financial Proposal must be submitted on or before the due date for bid submission specified in the

- **2. Bid Processing Fee:** Each bidder shall pay bid processing fee for Rs.5000.00
- **3. Earnest Money Deposit (EMD):** Each bidder shall pay EMD as the Earnest Money @ 1% of the quoting value in form of Demand Draft in favour of Director, NIT Manipur, payable at Imphal, Manipur.
- **4. Technical Bid format:** The bidder shall confirm that the product quoted by the bidder shall be in conformance with the conditions specified
  - **5.** Commercial Bid Format: Bidders shall quote all inclusive prices (i.e. price inclusive of taxes and all other expenses) for delivery and installation per item. Anexure-1

# **Technical Eligibility Criteria**

- 1. The Manufacturer / Bidder should not be associated or have been associated in the past, Directly or indirectly, with a firm or any of its affiliates which have been engaged by the purchaser to provide consulting services for the preparation of the design, specification, and other documents to be used for the procurement of the goods to be purchased under this invitation of tenders.
- 2. Manufacturer / Bidders shall not be under any declaration of ineligibility for corrupt and fraudulent practices issued by any state Government / GOI / Union tertiary. The Manufacturer/Bidder should not be a defaulter of any Financial institute or Bank and their asset should have never been put on auction for recovery of debts .
- 3. The Manufacturer / Bidder should be in the business in India for more than 4 years as on 31-12 2015. This should be supported by the certificate of registration issued under the companies act by a competent authority.
- 4. The Manufacturer / Bidder should have the turnover of 1.0 crore in any financial year for the last 3 years. This should be supported by audited balance sheet of the company and duly audited by the Chartered accountant or Turn Over Certificate from Chartered accountant.
- 5. The Manufacturer / Bidder should have executed / Implemented work order at any Govt. Institution/Central and State Universities /IIT/NIT/PSU/Research Organisation. It should be having at least two orders minimum of 25 lakhs or a single order of 50 Lakhs . The bidder

- should furnish the information supported by Purchase order or Work done certificates from the concerned department.
- 6. The Manufacturer / Bidder should submit catalogue with complete technical details with Make and Model for technical evaluation purpose. Bids without Catalogue or with incomplete information will be rejected.
- 7. There should be no complaint against the Manufacturer/Bidder for poor performance of the equipment supplied.
- 8. The Manufacturer / Bidder should submit last year ITR.
- 9. The Manufacturer should have certification as per the International Standards.
- 10. The Bidder should have Authorization certificate from Manufacturer for this Tender with tender No. Mentioned in it for Software License, Visualizer and Interactive panel.
- 11. The Manufacturer / Bidder shall be ready for the demonstration of the product quoted on short notice as per the tendered specification.
- 12. The manufacturer / Bidder has to quote all the products as per the Tender.
- 13. University is the final authority to judge the tender called items and has every power to accept or reject the same.
- 14. Technically qualified bidder should demonstrate the product functionality during the installation and training.

#### Annexure-2

#### SECTION II: PROFORMA FOR PERFORMANCE STATEMENT

Tender No.......Date of Opening...... Time.....hours

Orders	Order	Description	Value	Date of	Remarks
placed by	No.	and	of	completion of	indicating
(Full	and	Quantity of	Order	delivery as per	reasons
address of	Date	ordered		contract/actual	for late
Purchaser)					delivery if
					any.
1	2	3	4	5	6

•					
Name	of the Firm:			 	••
Signa	ture and Sea	d of the	renderer:	 	

#### Annexure 3

## Format for uploading Turnover information

Total turnover of the bidder during the preceding 3 years:

Financial year	Turnover (Rs. in Lakhs)
2011-12	
2012-13	
2013-14	

#### Annexure-4

The bidder should fill in the below format to be submitted in Technical Bid

The blader bliddig in in the below format to be bublinteed in Teelinear Bia				
Sl. No	Brief Description of	Quantity to be	Delivery	
	Equipments	Supplied	schedule	

#### Annexure-5

#### **Evaluation of the Tenders**

- a) Central Agriculture shall first evaluate the technical bids. The commercial bids of only those bidders who qualified in the technical bids will be opened.
- b) Decision of the University in the evaluation of the Technical bids shall be final.

**Commercial bid evaluation:** The commercial quotes submitted by technically qualified bidders will be opened. Then Contract will be awarded

to the successful Bidder whose Bid has been determined to be substantially responsive and has been determined as the Best Value Bid.

**Bid submission timelines:** The timelines for bid-submission and bid evaluation will be as it is given in the Tender Schedule published.

University reserves the right to cancel the tender, without assigning any reasons.

#### Annexure-6

#### **Terms & Conditions**

#### PAYMENT SCHEDULE

Payment: 90% will be released on delivery and 10% after submission of satisfactory certificates from the end user.

#### **DELIVERY SCHEDULE:**

The equipments have to be supplied within 12 to 16 weeks of receipt of the Purchase Order. In case of successful tenderer fails to complete the order in part or whole - till 7Days no penalty will be imposed. If the delay is more then 7 days, a penalty will be imposed @2%, on the cost of equipments.

## **VALIDITY OF QUOTATION:**

The quotation should be valid for 12 months (365 days) after the date of the opening of the bids.

#### **GUARANTEE/ WARRANTY**

All the equipments should have an onsite warranty for one year. The warranty shall take effect from the date of successful completion of the work and handing over of the system to the user Dept. to its satisfaction.

The maintenance services, including spares shall be free of cost during the warranty/ guarantee period.

#### **SPECIFICATION**

# **Detailed specifications of the Equipment Required**

# **Recording**, Storing and Live Streaming

It should consist of

- 01) Software Based Solution
- 05) Laptop/PC (Will be Provided by the institute)
- 03) Server (Will be Provided by the institute)

Brief description of the requirement ( Detailed required specification in the table below )

#### (a) Recording

(i) Web based solution which will provide Flexibility for the Teacher/Faculty of the institute to

take /deliver lecture from any location.

- (ii) Flexibility of recording offline and online from any where .This allows the faculty member to record the lecture from anywhere in the campus, out side campus, from home, while travelling from anywhere.
  - (iii) Flexibility to record the lecture from just a Laptop only, tablet, even Smart phone (Ios/Android)
- (iv) Recorder can now be used through Hard Drives / Removable Disks which will allow easy to use of the solution on any device without downloading/installing on same at the laptop/PC. the lectures get recorded by default on the Hard Drive . Easy just Plug and Play .
- (v) Guest Teacher/Faculty can take or deliver Lecture from any location, and the same should be live webcast at the institute or can be viewed any where on any gadget.
- (vi) It should have the options to record the lecture just by using a Laptop also and by using HD camera and high end audio as per the rrequirement.

#### (b) Live Streaming

- (i) The Lecture can be viewed live by just logging-in from anywhere.
- (ii) *Access control* enables user to choose who within and outside your institute/university can view the webcast.
  - (iii) Live Q&A enables webcast viewers to submit questions to the teacher during the live broadcast. through chat.
- (iv) It should have *Multi-stream broadcast* enabling user to webcast multiple video streams in HD from a single PC. (Like Multiple HD cameras, Audio, Computer Screen Contents, PPT etc.)
- (v) It should have the flexibility to make the video public on *Facebook and Twitter support* enabling user to share their broadcast to social networks.
- (vi) Adaptive streaming enables the highest quality viewing experience based on each viewer's bandwidth.
- (vii) Live streamed lecture would also be available as a recorded session for the viewers who were not able to attend the live session.
  - (viii) the facilitator would be able to know how many viewers are present in the session, providing attendance tracking.

#### (c) Viewing

- (i) Single screen viewing with all the inputs/ sources used by the faculty appearing in one screen
  \*\*Multi-stream viewing (tabbed interface)\*\* should enables end users to watch the presenter, multiple screen captures, and additional video inputs (Interactive Board, Interactive blackboards, Visualizers USB based, additional camcorder inputs) in a single user interface/

  \*\*screen\*\*
  - (ii) It should be same both in Webcast (Live) and Recorded Lectures.
- (iii) It should be viewed in a Single Screen and the viewer should have the freedom to enlarge any of the screen size as per his choice used while recording the lecture ( camera 1, camera 2, PC/Laptop )
  - (iv) It should have the flexibility to be viewed on any gadget PC/laptop/tablet/Smart Phones
- (v) There should be a section where the viewer has the facility to highlight any important reference point using bookmark which will help him to revise or to revisit.
- (vi) The viewer has the facility to type in the Notes, create a book mark and give commentswhile viewing the lectures for future reference also.
- (vii)Recorded lectures can be viewed/run without downloading any software on demand on any device ( PC/Laptop/Tablet/Smart phone )
- (viii) Variable speed playback as per the requirement which should allow the user to adjust the speed of the playback recorded video as per requirement.

#### (d) Editing

- (i) It should be *Browser-based editor and it should* enables video editing from anywhere and machine. It should also enables outsourced editing (which is unique).
- (ii) It should have *Trim tool* allows user to cut segments from the start, end or middle of a video stream.
- (iii)It should have *Remixing* allowing the user to combine multiple videos into a single video, and rerecord segments of videos.
- (iv) It should have Web page embedding enables user to integrate live interactive web pages into a video.
- (v)It should have *Non-destructive editing* allows edits to be made without losing the original recording.
- (vi) It should have *Versioning* allowing user to separate a single video into individual segments. This be used in situations where a eight hours of event sessions are recorded as a single video, and then separated out into eight individual sessions.
  - (vii) It should allow to insert videos while editing in the lecture.

#### (e) Search

(i)Search - Not just by File name, it should have *Video search which should* allow viewers to find specific video segments based on slide text, notes, or video transcript within the library folder and video. The Video can be searched just by typing the Word, spoken in that Video or even if it was written in a text format in that Video. the Video file will be searched. If a Word Document, Excel Sheet, PDF, JPEG is used during the recording the lecture, the search should be able to find out the word from these documents too within the lecture making it easy to find out what is being looked for.

#### (f) Windows Recorder on USB Drives

Without installing the software in the PC/Laptop it should be able to record the Lectures directly on the USB based hard disk.

# The above items should be as per the specification give below

<b>Lecture Recording Featu</b>	res - Software Application
Recording	It should have following features
	Solution allows you to record presentations, lectures, events, communications and
	meetings on any PC or Mac without the need for expensive appliances
	Scheduled/Remote recording enables fully automated capture of sessions at a future
	date and time
	HD Screencast support enables you to record your computer screen at 720p/25fps or
	1080p/12fps.
	Distributed recording enables different parts of a presentation or event to be captured
	from different machines, and then automatically combined into a single viewing
	experience.
	Multi-monitor support enables you to screen cast multiple monitors attached to a single
	PC.
	Multi-stream video enables presenters to capture multiple video devices (web cams, DV
	cameras, desktop capture, Interactive Board , Interactive Monitor, document cameras
	and more) simultaneously from a single PC.
	Easy anywhere recording facility which allows anyone to use the software with or
	without internet.
	Student recording enables students to record videos and store them in a secure drop box
	on servers.
	Slidecasting support enables you to capture the text within a slide deck while recording
	a presentation. This enables viewers to search for specific text within a presentation and
	jump to that point in the video.
	Remote recording enables presenters to get a hands-free lecture- and presentation
	capture experience.
	Smooth Stream capture enables you to live webcast at multiple bitrates (multiple video
	quality levels) to give viewers the best viewing experience based on their bandwidth.
	Webcam support enables you to record HD digital video using low-cost devices.
	HDMI capture card support enables you to record HD digital video using popular,
	affordable devices including .
	Analog device support enables you to record sessions using devices that support S-
	Video and composite audio and video, including the ViewCast Osprey series, analog
	camcorders, security cameras, and more.
	VGA device support enables you to capture video using Datapath, Epiphan, etc.and
	other VGA recording devices.
	DV camcorder support enables you to record standard definition (SD) video
	Interactive tablet and Interactive board support enables you to record HD video from
	non-camera digital interfaces  Zero-config allows you to plug in a recording device and automatically capture it at the
	highest quality without the need for manual configuration.
	Hot swapping enables you to add and remove recording devices during a recording.
	Offline recording enables you to record sessions without network connectivity, and
	upload your recording once you're back online.
	Video preview allows you to view your video streams before the recording begins.
	Instant publishing ensures that your video is ready to view and edit seconds after
	recording ends.
	Hotkeys enable you to record, pause recordings, and stop recordings using the F8, F9,
	and F10 keys.
Webcast/ Streaming	It should have following features
Webcasa Streaming	One-click broadcast enables you to broadcast a presentation, event, or meeting simply
	by checking a checkbox.
	Live Q&A enables broadcast viewers to submit questions to the teacher during the live
	Live Qua chables bloadcast viewers to submit questions to the teacher during the live

#### webcast.

*Access control* enables you to choose who within and outside your organization can view the broadcast.

Facebook and Twitter support enable you to share your broadcast known people or students on social networks.

Adaptive streaming enables the highest quality viewing experience based on each viewer's bandwidth.

*Multi-stream broadcast* enables you to webcast multiple video streams in HD from a single PC.

*Distributed broadcast* enables different parts of a presentation or event to be broadcast from different machines, and then automatically combined into a single live viewing experience

URLs provide a single link for viewing a video – live and on-demand

Audio monitor allows you to check microphone levels before and during recordings. Device property pages allow you to access and edit recording device properties directly from within Focus

#### **Viewing**

#### It should have following features

*Automatic Table of Contents* is generated from PowerPoint slide text, giving viewers the ability to easily navigate and search within the video .

Search - Not just by File name, it should have *Video search which should* allow viewers to find specific video segments based on slide text, notes, or video transcript within the library folder and video. The Video can be searched just by typing the Word, spoken in that Video or even if it was written in a text format in that Video. the Video file will be searched. If a Word Document, Excel Sheet, PDF, JPEG is used during the recording the lecture, the search should be able to find out the word from these documents too within the lecture making it easy to find out what is being looked for.

Multi-stream viewing (tabbed interface) enables end users to watch the presenter, multiple screen captures, and additional video inputs (Interactive Board, Interactive tablets, blackboards, Visualizers USB based, additional camcorder inputs) in a single user interface (Unique to have more than one secondary stream)

*Live Notes* enable viewers to annotate a live broadcast or on-demand recording. Notes can be private (viewer-only) or shared among viewers, and are fully searchable. (Collaborative note taking should be allowed.)

HTML5 video support enables high-quality viewing experiences on tablets and mobile or any other devices.

*Embedded viewing* enables videos to be embedded in blogs and web pages as HTML5 video or Flash.

*Smooth Stream* provides the highest quality viewing experience based on the end user's network speed.

*Liquid Layout* enables end users to zoom in on any video stream or view it full screen. *Live DVR* enables viewers to pause and rewind live broadcasts, and then jump back into live viewing.

*Info Tab* captures and displays metadata about a video, including its title, abstract, and speaker bio.

*Universal delivery* automatically generates picture-in-picture video podcasts and audio-only podcasts, ensuring you get the best viewing experience on any device.

Offline viewing enables videos to be downloaded and viewed when an Internet connection isn't available. Offline viewing also enables videos to be hosted on non-solution providors servers, or burned to DVDs.

Cobranding allows you to customize the viewer with your organization's logo. Playback speed control enables you to speed up videos to 2x their original speed, or slow them down to 0.5x.

	<i>iTunes subscriptions and RSS feeds</i> enable you to stay up to date as new videos are made available.
Library and	It should have following feature
management Tools	are sine with a reason many reasons.
management 10018	Transcription services should be provided the solution providers and can be requested
	at the click of a button. Existing transcription files (Distribution Format Exchange Profile, or DFXP files) can also be uploaded.  Library smart Search allows you to search within your entire collection of videos for specific content like manual metadata, slide ingestion, human transcript and text recognition using automatic speech recognition (ASR) and Optical Character recognition (OCP).
	Co-branding enables you to include your own logo and institute color on the library homepage and session list.  Subfolders enable administrators to organize videos in a folder hierarchy.  Drop Boxes provide a secure location for instructors to view and provide feedback on videos.
	Access control provides fine-grained permissions to folders and sessions. Sessions can inherit folder permissions, be combined with folder permissions, override folder permissions, or have no access control (for public viewing).  PDF attachments allow you to provide additional downloadable documents with your videos.
	Session Share tab enables you to give additional people access to a session, make a session publicly available, and share the session on Facebook and Twitter.  Session Output tab provides links to the video and podcasts, includes HTML code to embed the video in a web page, and provides information on subscribing to videos within iTunes or using RSS.  Processing manager enables you to reprocess, repackage, and re-encode sessions in a
	single click.  Folder settings dialog provides a dashboard for managing folder information. You can edit folder name and description, create a drop box subfolder, share a folder with other users, set the iTunesU category, and more.
	<ul> <li>SCORM compliance enables tracking of student performance and achievements as they watch videos.</li> <li>Activity logging provides administrators with a granular view of changes in the system, including new session uploads, changes to sessions and folders, etc.</li> <li>Archiving allows administrators to remove videos from the library without deleting</li> </ul>
	them from their server (not available in Hosted).  Session merge enables you to combine two recordings into a single video (Example 1: Combining two back-to-back recordings into a single video. Example 2: Combining one recording with audio and video, and another recording with screen and slide capture into a single video).  User presents help ensure that people recording a video do so wing the recommended.
	<ul><li>User presets help ensure that people recording a video do so using the recommended configuration settings.</li><li>System Users tab enables viewing and editing of user information (name, password, email, access, user presets).</li></ul>
	System Providers tab enables administrators to manage LMS integrations.  System Settings tab enables administrators to make changes to global system settings (enabling smooth stream, SCORM, drop boxes, variable speed playback, transcript upload, etc).  System Remote Recorders tab enables administrators to control and change settings for
	remote recorders.  System Licenses tab provides a global list of client, server, and unison installations.
Editing	It should have following features
	Browser-based editor enables video editing from anywhere and machine. Also enables

	outsourced editing (which is unique).
	Trim tool allows you to cut segments from the start, end or middle of a video stream.
	Remixing allows you to combine multiple videos into a single video, and rerecord
	segments of videos.
	TOC editor allows for manual edits to the automatically-generated PowerPoint table of
	contents.
	Web page embedding enables you to integrate live interactive web pages into a video.
	<i>Non-destructive editing</i> allows edits to be made without losing the original recording.
	Versioning allows you to separate a single video into individual segments. This can be
	used in situations where a eight hours of event sessions are recorded as a single video,
	and then separated out into eight individual sessions.
	Audio histogram provides a fine-grained visual of the audio stream to help you
	accurately trim and remix videos.
	Captions tool allows you to edit a recording's transcript and create searchable
	bookmarks within a video.
	Stream editor allows you to synchronize individual streams by changing their start
	time.
Integration	It should have following features
	SCORM compliance allows users to access and view Videos directly from within their
	LMS.
	Active Directory Groups support enables you to share content with groups of people in
	your organization.
	Active Directory Authentication enables users to login to using their existing
	organizational login information (works in both on premises and cloud hosted
	deployments).
	ANGEL integration allows ANGEL courses to show up as folders within solution
	provider software (provisioning), and allows students to access videos directly from
	within ANGEL (publishing).
	Blackboard integration allows Blackboard courses to show up as folders within
	solution provider software (provisioning), and allows students to access videos directly
	from within Blackboard (publishing).
	Moodle integration allows Moodle courses to show up as folders within solution
	(provisioning), and allows students to access videos directly from within Moodle
	(publishing).
	WebCT integration allows WebCT courses to show up as folders within solution
	(provisioning), and allows students to access videos directly from within WebCT
	(publishing).
	Basic Learning Tools Interoperability (BLTI) support enables single-sign on from
	Instructure, Sakai, and Desire2Learn.
Analytics	It should have following features
	System-wide analytics provides administrators with a views across their installation of:
	number of users, folders, sessions, views, recorders and data servers; amount of disk
	space used; system health; the current video processing queue; minutes viewed, and
	most-viewed folders.
	Folder analytics provides administrators with a by-folder view of number of sessions,
	hours recorded, number of views, and hours viewed.
	Session analytics provides an engagement heat map that shows number of views at
	different points in any session, as well as views broken down by individual user.
	CSV Download enables analytics to be viewed and analyzed further in Microsoft Excel
	and other spreadsheets.
	API access enables analytics to be programmatically accessed and integrated with other
	systems
Mobile App	It should have following features
• •	Mobile recorder enables you to record a video from your iPhone or iPad.
	Mobile viewer enables you to watch videos from iPhones and iPads.
	•

	Mobile search enables you to easily find videos from your organization's library.
	Mobile notes enable you to take notes and automatically synchronize them with an on-
	demand or webast video.
	Mobile import enables you to upload an existing video from your iPhone or iPad into
	the video CMS.
Developers API	It should have following features
	Skinning API allows you to customize the look and feel of the viewer and library using
	CSS.
	Authentication web service enables programmatic login using solution or 3rd-party credentials.
	Access management web service enables programmatic changes to user and group
	authorization.
	Remote recorder web service enables programmatic control and scheduling of remote
	recordings.
	Session web service enables programmatic creation, deletion, change, and listing of
	sessions and folders.
	Reporting web service enables programmatic retrieval of your organization's usage
	information.
	User management web service enables programmatic creation, editing, deletion, and
	listing of users in the system.
Windows Recorder on	It should have following features
USB Drives	
	It should run Windows recorder from the USB Hard Drive
	For this recording there should be no need to install the software in the
	Laptop/PC.
	The Lecture should get recorded in the Hard Drive directly.
PTZ Camera for Teacher	and Students with 10 X Zoom

# PC / Laptop Required to be provided by the Institute with Minimum Configuration

PC- for Recording and	It should have following requirements
Webcasting	
Operating System	Windows XP SP2 and above (32 and 64)
	MAC OSX 10.5 and above
Processor ( Adaptive	Minimum Intel Core 2 Duo 1.8GHz
Streaming Capture	
Disabled)	
Processor ( Adaptive	Minimum Standard or High Quality: Intel i3 2.5GHz or AMD Phenom II X4 910
Streaming Capture	Ultra Quality: Intel i7 2600 3.4GHz or AMD Phenom II X6 1090T 3.2 GHz
Enabled)	
Memory	Minimum 2GB RAM

# Server Required to be provided by the Institute with Minimum Configuration

Operating Systems	Windows Server 2008 ( 32-and 64-Bit)and 2008 R2
Processor	Quad core 1.8GHz
Memory	4GB RAM
Storage	Adaptive Streaming Disabled
	Standard Quality: 390MB/ Per Hour(Web Server) + 265MB Per Hour ( Data Server )
	High Quality: 390MB/Per Hour(Web Server) + 660MB Per Hour ( Data Server )

	Adaptive Streaming Enabled
	Standard Quality: 600MB/Per Hour(Web Server) + 500MB Per Hour (Data Server)
	High Quality: 1 GB/Per Hour(Web Server) + 900MB Per Hour ( Data Server )
	Ultra Quality: 1.5 GB/Per Hour(Web Server) + 1.4GB Per Hour ( Data Server )
Application	Microsoft Internet Information Service ( IIS )
	Microsoft Internet Information Service ( IIS )
	Microsoft SQL Server 2008 (Express and enterprise editions)
	Windows Media Services (WMS)
	IIS Media Services 4.0
	Expression Encoder 4.0 SP1
	Microsoft PowerPoint 2007 and above
Virtualization	All virtualization platforms supported

Digital Station - Metal F	<u>rame</u>			
Material	Mild Steel			
Dimensions	100 cm * 74 cm * 105.5 cm			
	Opened 210 cm * 94 cm * 105.5 cm			
	Should have Foldable Tray for Keyboard . (Keyboard Dimension Standard			
	Lenovo Keyboard) Keyboard should open up in front of the Interactive			
	Monitor.			
	Should have built-in Visualizer and 19" Interactive Panel .It should also have			
	the flexible options in sizes for the 17", 19" or 22" Interactive Panel to fit			
	in.			
	Interactive Panel positioning motorized up and down as per the user			
	convenience.			
	Should have single Sliding tray to Protect the Interactive panel and for			
	foldable Key board tray .			
	The metal edges at the top should be covered by flat wood panels with			
	smooth round edges.			
	Should have a Independent space for the Desktop along with the 19" rack			
	having for the equipments to fit in as per the International standards.			
Sliding Shelf/Tray with	1) For placement of extra lap top or Document.			
Locks	2) For Presenter with Internal Lock.			
Door Lock	Yes.			
Programmable Central Co	ontrol System			
	Should be able to control from the Controller with easy identified keys -			
	Projector On Off, Motorised Screen Up & Down, Switching between PC,			
	Visual Presenter and laptop.			
	Front Panel should have a VGA Port , 3.5mm Audio Input Port and a Power			
	Plug			
	Should have 1 RS 232 Computer Interface			
	Should have 1 RS 232 Projector Control			
	Should have 3 x 2 VGA matrix			
	Should have 2x 1 audio Matrix			
	Should have 1 Projector Power, Electric Screen Power			

	Power Input: AC 100-240V auto-switching power			
	Remote Control of the Central Control System should have a LCD Screen			
	and which should also act as a Mike, should have a laser Pointer, PPT			
	slides/pages up and down, Projection Screen Up and Down, Mic Volume			
	High and Low, Central Control System Power on/off. Projector			
TO 17 1 4 71	Signal/Source Changing.			
Built-in Audio				
Microphone	1 x Gooseneck Mike, : 1 x Handheld Cordless mike, 1 x Cordless Collar Mike,			
Amplifier	120 watt or higher			
Wall Mount Per Speaker	20 watt or Higher			
Power (02 No.s)				
Integrated Extension Boa	rd at the Top			
Inputs	Should have Built-in RGB, USB, LAN Port. Audio in, Audio Out, Power			
Γ	Plug etc.			
RGB Input for Extra PC	1 External RGB Input apart from the input of the PC in the lectern to			
KGB Iliput for Extra FC				
7707	facilitate another PC / Laptop / Visualizer . Document camera			
USB	2 USB Ports on the control panel to facilitate inputs directly from Pen Drives			
	/ USB based hard disk Drive.			
LAN Port	LAN Port to be available at the panel to connect the extra PC directly to the			
	internet			
Power Plug	Yes to give Power to any external equipment.			
Video Input	Video Input to facilitate any Video Source for Presentation			
Mic. Input	Wired Mic. Input Din Jack ( Stereo )			
Audio In	To Facilitate any external Audio			
Interactive Panel	To Facilitate any external Audio			
Panel Type	Active Matrix Color TFT			
Display Size	19"			
Resolution	1280 x 1024 pixels			
Colors	16.7 M			
Brightness	250cd/m2 or higher			
Contrast	800:1			
Connectivity	RGB/VGA			
Technology	Electromagnetic with Pen			
Interface	USB			
Pressure Sensitivity	1024 Levels			
Data Report	125 reports / per second			
Accuracy May Pageb Height	±0.5mm 8mm			
Max Reach Height OS	8mm Windows / Vista / Mac / Linux			
Software Feature	Should be able to Annotate on Blank and Power Point application with other application of Windows too. Should have the recording feature of text, audio and the Teacher Photo simultaneously and playing back.			
Visual Presenter	1 note simulations y and playing odek.			
	2 Maga Divol 1/2" CMOS			
Pick-up Device	3 Mega Pixel 1/3" CMOS			
Effective Pixels	1280(H) X 1024(V)			
Frame Rate	15 frames/sec.			
Image Mode	Normal/Photo/Text/Slide/Film/Gray			

Zooming	9 X Optical Zoom				
Lamp	Top Light: LED on the Arm				
Image Capture	400 Built In Storage .				
External Storage	USB based Pen Drive and PC				
TV Lines	750 TV Lines				
Image Rotation:	0, 90, 180, 270 degree				
Image Split	Yes				
Built-in LCD	7" or bigger Touch LCD to Annotate on the live images.				
Menu	On Screen Menu at the Touch LCD and should be controlled by Finger Touch.				
Focusing and White Balance	Auto / Manual				
Video Recording with	Yes.				
Sound					
Inputs	VGA Input HD-SUB 15 Pins Female x 1				
	Audio In x 1				
Outputs	VGA Output HD-SUB 15 Pins Female x 2				
	DVIx 1				
	Audio out x 1				
	USB x 1				
	Computer Controllable - Yes.				
Weight	Portable. Not more than 3.0 Kg.				
Software	Should be provided free of cost for still image, video, capture to PC.				
<u>Projector</u>					
Brightness	3500 ANSI Lumens and Above				
Resolution	XGA ( 1204 x 768 )				
Contrast Ratio	15000: 1 and above				
Inputs /Output	1 VGA				
Lamp Life	Minimum 6000 Hrs and above				
Motorised Screen					
Size	10 Ft x 8 Ft				
Material	High gain				
Remote Control	With Remote Control and Switch.				

## Annexure 8:

# Financial Bid for Module-1 (Whole Solution)

SI.No.	DESCRIPTION	QTY	Rate
1			

## **Grand Total**

#### Total in words:

Terms and conditions if any:

Sd.....

# Financial Bid for Module-2 (Only hardware to run the Solution)

SI.No.	DESCRIPTION	QTY	Rate
1			

#### **Grand Total**

#### Total in words:

Terms and condition

Sd.....