

**KENDRIYA VIDYALAYA I N S ZAMORIN EZHIMALA**  
**NAVAL ACADEMY P.O,**  
**EZHIMALA, KANNUR**  
**KERALA -670310**



**BID NO: KV/EZH/LAN/R&M /2022-23/01**

Dated 01.08.2022

Bid Document for

**SETTING UP OF LAN CONNECTIVITY & ECONOMICAL WIFI  
SOLUTION FOR E-CLASSROOMS OF KENDRIYA VIDYALAYA  
INS ZAMORIN EZHIMALA**



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**NAVAL ACADEMY P.O,**

**EZHIMALA, KANNUR**

**KERALA -670310**

**PHONE-04985-224000**

**Email :kvezhimala@gmail.com**

Kendriya Vidyalaya INS Zamorin Ezhimala invites under sealed Linlimited Tender Enquiry for setting up of lan connectivity & economical wifi solution for e-classroom s of our Vidyalaya from registered firms.

**Time Schedule**

Bid Submission Start Date	01.08.2022
Prebid Meeting Date	06.08.2022, 11.00 a.m.
Bid Submission Date	16.08.2022, 10.00 a.m.
Bid Opening Date	16.08.2022,11.30 a.m.

## 1.0 INTRODUCTION

1.1 The Kendriya Vidyalaya , INS Zamorin Ezhimala under KVS, an Autonomous Body under Ministry of Education, Govt. of India

1.2 The Kendriya Vidyalaya INS Zamorin Ezhimala is located inside Indian Naval Academy Ezhimala, Kannur, Kerala-670310

1.3 Kendriya Vidyalaya INS Zamorin Ezhimala invites sealed under Limited Tender Enquiry for setting up of lan connectivity & economical wifi solution for e-classroom s of our Vidyalaya from registered firms.

1.4 The details of items required for the installation is given in ANNEXURE-I. The tender document may be downloaded from <https://ezhimala.kvs.ac.in>.

1.5 The tenders shall be sealed by the bidder duly superscripted as “**Tender for setting up of LAN connectivity & economical wifi solution for e-classroom s of Kendriya Vidyalaya INS Zamorin Ezhimala.**” bids should reach on or before 16.08.2022 10.00 a.m. by registered or speed post.

1.6 To avoid any complications with regard to Late Receipt/Non-Receipt of Tenders, it may please be noted that responsibility rests with the bidder to ensure that the tenders reach the above-mentioned address on or before the due date.

1.7 Tenders received after due date/time will not be considered under any circumstances and will be rejected at the outset. Canvassing in any form will result in the disqualification of the bidder.

### **1.8 Eligibility Criteria:**

1. Valid registration certificate of the firm of the Govt./ State Govt (Attach a selfattested photocopy).
2. The bidder- a firm should have provided service that involved works of similar nature, has experience and successfully completed works of similar nature in any Govt. departments preferably KV (Enclose supporting documents)
3. The firm should have been registered with GST. (Attach Registration Certificate)
4. The concerned firm/company whose product has been declared as of spurious or adulterer quality and any criminal cases is filled and is pending in any court shall not be eligible to participate in the bidding process. Convicted firms/company shall also not eligible to participate in the bid. Similarly, blacklisted / banned / debarred firms / company by any central / state govt. or its organization or autonomous bodies or central drug procurement agency is not eligible to participate in the bid

## **Instructions to Bidders including Terms and Conditions**

### **i SPECIAL INSTRUCTIONS:**

1. The Bidder shall carefully examine and understand the specifications / conditions of the tender document and if required seek clarifications during the pre-bid meeting to ensure that they have understood all specifications/conditions of the tender document. If no such clarifications are sought it will be taken that the Bidder has read, understood and accepted all the terms, conditions and specifications in the tender documents.

2. The Bidder should visit the site with prior appointment and carry out necessity inspection and test measurement as are necessary before attending the pre-bid meeting and before submitting the bid. All the cost associated with such site visit and preparation and submission of the Bid will have to be bear by the bidder. Vidyalyaya will in no case be responsible for such cost, regardless of the conduct or outcome of the bidding process.

### **3. PERFORMANCE GUARANTEE:**

3.1 Within 15 days after the receipt of notification of award of the Contract from the Client, the contractor shall furnish Performance Guarantee to the Client, which shall be equal to 3% of the value of the Contract and shall be in the form of a Guarantee Bond from a Nationalized / Scheduled Bank. The validity of the Performance guarantee submitted should be for a period of 60 days beyond the expiry of warranty period.

3.2 The performance guarantee shall be deemed to govern the following guarantees from the successful tenderer, in addition to other provisions of the guarantee: — The networking equipment supplied under the contract shall be free from all defects/bugs and upon written notice from the client, the successful Tenderer shall fully remedy, free of expense to the client, all such defects/bugs as developed under the normal use of the said equipment. — To fulfil the conditions of work contract/purchase order. — The performance guarantee is intended to secure the performance of the entire system. However, it is not to be construed as limiting the damages stipulated in any other clauses.

### **4. INSPECTIONS AND TESTS:**

4.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.

4.2 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

4.3 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods

having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

4.4 It will be the responsibility of the Contractor to submit the system test procedure for conducting the post installation site acceptance testing. The procedure submitted by the Tenderer should be drafted in line with the standard practices followed in the industry and should be in accordance with the test procedure and practices specified by the OEM. The draft of Acceptance Testing Procedure should be submitted to the Purchaser for approval at least 15 days before the schedule site acceptance date. The acceptance test procedure on approval by the purchaser shall become the document for acceptance of the requirement after installation at the site.

#### **5. PROJECT SCHEDULE & MONITORING:**

5.1 The work has to be successfully completed within 30 days from the date of award of work.

5.2 This will form the basis for Monitoring of execution of the project and any delay/slippage from the schedule will be reviewed by both parties in review meetings from time to time and remedial measures decided to complete the project as per the schedule.

#### **6. WARRANTY:**

6.1 The Contractor warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. This warranty shall remain valid for a period of a minimum 12 months after the Goods or any portion thereof as the case may be, have been delivered, commissioned and accepted at the final destination indicated in the Contract.

Warranty of Switch/Rack/Wireless Access point/PoE Switch depends on actual warranty(1-3 years) from the respective company

#### **7. ONSITE SUPPORT DURING THE WARRANTY PERIOD:**

7.1 The Contractor shall provide onsite support and maintenance of the LAN & High speed Wi-Fi solution. (Including all items and Equipment) at Kendriya Vidyalaya Ezhimala during the warranty period of one year after the successful installation of system.

7.2 The Purchaser shall promptly notify the Contractor in writing of any claims arising under this warranty.

7.3 Upon receipt of such notice, the Contractor shall, within 24 hours and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the Purchaser.

7.4 If the Contractor, having been notified, fails to remedy the defect(s) within the period specified in 7.3 above, the Purchaser may proceed to take such remedial action as may be necessary, at the Contractor's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

## **8. DOCUMENTATION:**

The Contractor shall supply the following documents at the time of Acceptance Test:

- a. Complete set of Technical/Operation and Maintenance Manual
- b. An inventory of items delivered.
- c. Node & connectivity details

## **ii SCOPE OF WORK AND TECHNICAL SPECIFICATIONS**

### **1. SCOPE OF WORK**

1.1. The scope of work in this tender cover setting of LAN connectivity in the Vidyalaya which includes providing network connectivity to 92 Nos of nodes (estimated) for making Gigabit Ethernet Networking to connect different departments and also setting of high-speed Wi-Fi connectivity in the campus especially for the 15 Nos of E-classrooms in the Vidyalaya (Apple Tablet, Apple TV and projector). Kendriya Vidyalaya INS Zamorin, Ezhimala reserve the right to decrease or increase the number of nodes in the LAN connectivity or the number of Wireless Access Points for making high speed Wi-Fi connection.

1.2. A detailed description of work and location of work space where LAN connectivity has to be provided is enclosed as part of this Tender Document in Appendix-1 and high-speed Wi-Fi connectivity details are enclosed in Appendix-2

**1.3. Detailed Bill of material included in this tender is mentioned in this Tender. However, Kendriya Vidyalaya INS Zamorin ,Ezhimala reserves the right for quantity variation due to increase/decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification for setting high speed LAN and high-speed Wi-Fi connectivity.**

**1.4 Kendriya Vidyalaya INS zamorin ,Ezhimala reserves the right to modify the specification during the pre-bid meeting after considering Technical, operational and Economical feasibility of technology. The quantity of items given in the Quotation is tentative, which may be increased or decreased as per the Vidyalaya's requirement. The specification may be changed as per the actual requirement of the Vidyalaya. Kendriya Vidyalaya INS zamorin Ezhimala reserves the right to increase or decrease quantity and / or amount of work. Decision of Quantity of material in the, Kendriya Vidyalaya INS Zamorin, Ezhimala will be final in this regard.**

#### **1.5. Scope of Work shall also include**

- a. Powering on equipment after ensuring correctness of terminations, interfaces and power supply and making the system ready for testing and commissioning.

b. Testing of LAN Cables after laying, terminations and ferruling at both the ends. All testing tools and instruments shall be brought by the bidder and taken back after the testing.

**c. Configuration of the equipment as per the requirements of Kendriya Vidyalaya INS Zamorin, Ezhimala including Network segmentation and Network Monitoring for internet connectivity and network configuration of individual device as per the requirement.**

e. Onsite warranty for all Networking Equipment's delivered for one year (The warranty of switch, Rack, POE Switch, Wireless Access point depends on actual warranty period of the product)

## **2. General Technical Requirements:**

**2.1 All LAN & Wi-Fi components such as switches, patch cords, Patch panel, cable managers, I/O box, Rack, PoE switch, Wireless Access point etc. offered shall be of the standard make and must be ISI/ISO standard or equivalent and as per the requirements of Kendriya Vidyalaya INS Zamorin.** Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment and/or needed for erection, completion and safe operation of the equipment's as required by applicable codes though they may not have been specifically detailed in the technical specification, unless included in the list of exclusions.

2.2 The bidder shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under his scope of work as per this specification. All required tools and tackles for completing the scope of work as per the specification is also the responsibility of the bidder.

2.3 The exact seating of equipment's and cable routing shall be determined by the contractor in consultation with Kendriya Vidyalaya INS Zamorin Ezhimala. The contractor shall prepare his proposed cable routing diagram and estimate the quantities for cable and also estimate the speed and distance of Wire less Access point to the 15 Nos. of Apple E-Class rooms.

2.4 The equipment's to be supplied shall operate without any deviation in quality or degradation of system performance and all the parameters detailed in these specifications shall be guaranteed over the following environmental conditions.

- Operating Temperature:
- 10 ° C to 50° C
- Humidity: 95% RH (non-condensing)

2.5) Kendriya Vidyalaya reserves the right to reject any quotation or part or the whole of inviting quotation process without assigning any reason. Decision of the Kendriya Vidyalaya Ezhimala will be final in this regard.

## **3 Specification**

### **3.1) Specification for the Installation of Local Area Network (LAN)**

s.no	Description	Quantity (Tentative)
1	CAT 6 I/O Box	92
2	9U RACK (Wall mounted with front glass door and rear door with power distribution box with 4 or more 5A,3 pin AC sockets with cooling fan)	1
3	6U RACK (Wall mounted with front glass door and rear door with power distribution box with 4 or more 5A,3 pin AC sockets with cooling fan)	3
4	Patch panel with removable CAT 6 Keystroke Jack	As per the requirement (Bidder should specify the exact quantity)
5	Horizontal cable manager	As per the requirement (Bidder should specify the exact quantity)
6	CAT-6, 1 Meter UTP Patch Cord	As per the requirement (Bidder should specify the exact quantity)
7	CAT-6, 2 Meter UTP Patch Cord	92
8	Auto sensing Rack mountable 48 port Gigabit Ethernet switch (100/1000) with 2 SFP port Suggested model- D-Link(3 year warranty)	1
9	Rack mountable 24 port Gigabit Ethernet switch (100/1000) Suggested model- D-Link(3 year warranty)	1
10	Rack mountable 16/8 port Gigabit Ethernet switch (100/1000) Suggested model- D-Link(3 year warranty)	3 (16 Port -2 & 8 Port-1)
11	RJ 45 connectors and necessary accessories	As per the requirement (Bidder should specify the exact quantity)
12	CAT-6 (4 pair) UTP cable	As per the requirement (Bidder should specify the exact quantity)
13	PVC pipe	As per the requirement (Bidder should specify the exact quantity)



14	<b>Any other materials required for LAN connectivity</b>	Specify the items with required quantity
15	Labour Charge for the Installation and fixing of Rack, Patch Panel, Horizontal cable manager, Ethernet switch, CAT 6 I/O Box, Patch cord, laying of pipe & CAT-6 UTP Cable and Network configuration for individual device	Specify the charge separately

Note:

**specification given may be modified during pre-bid meeting after considering Technical, Operational and Economical Feasibility of the technology .The quantity of items given in the Quotation is tentative, which may be increased or decreased as per the Vidyalaya's requirement.**

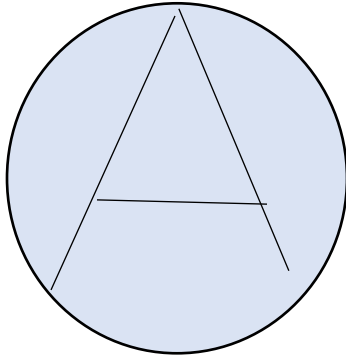
### 3.2) Specification for the Installation of High-speed Wi-Fi connectivity

S. No.	S. No. Particular Specification	Qty.
1	Wi-Fi Access Point – Data Rate up to 1 Gigabits per second High Power AP with 3/4 Omni Antenna, Wall/Ceiling (Kits Included), 24V/1A PoE Adapter Supports 802.11 AC Technology (cover 50 metres in indoor and 90 metres in outdoor) (3 years of warranty)	6 Specify Data rate in 2.4 GHz and 5 GHz Band separately)
2	5-Port POE Gigabit Switch (3 years of warranty)	4
3	LAN CAT-6 Cable	As per the requirements (Bidder should specify the exact quantity)
4	PVC pipe	As per the requirements (bidder should specify the exact quantity)
5	Any other material	Specify the item and exact quantity.
4	Installation includes casing & piping of cable and access point with Labour as per the Requirements.	Specify the charge separately

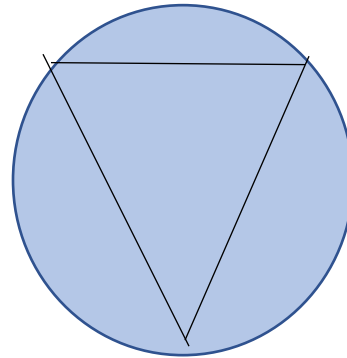
Note :

**specification given may be modified during pre-bid meeting after considering Technical, Operational and Economical Feasibility of the technology .The quantity of items given in the Quotation is tentative, which may be increased or decreased as per the Vidyalaya's requirement.**

Lay out of ground floor



Layout of first floor

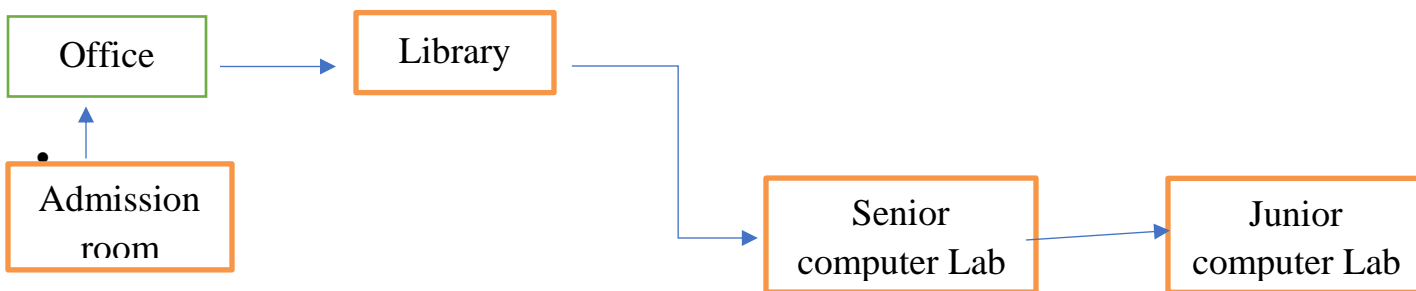


Wireless Access point will be installed at each corner of the triangle at Ground floor and First floor.(it should be compatible with Apple tablet and Desktop installed with Linux/Windows operating system)

**ANNEXURE -1**  
**KENDRIYA VIDYALAYA EZHIMALA**  
**LAN SPECIFICATIONS**

SN O	FLOOR	LOCATION	NO OF NODES	NETWORK RACK		GIGABIT NETWORK SWITCH 100/1000			INTERN ET CONNE CTIVIT Y
				9 U	6 U	8 PORT/16 PORT	24 PORT	48 PORT	
1	GROUND FLOOR	PRINCIPAL'S ROOM	1						1
2	GROUND FLOOR	OFFICE	4		1	1 (16 PORT)			1
3	GROUND FLOOR	PRIMARY RESOURCE ROOM	1						
4	GROUND FLOOR	PHYSICAL EDUCATION ROOM	1						
5	GROUND FLOOR	STAFF ROOM	1						
6	GROUND FLOOR	SENIOR COMPUTER LAB	4 5	1				1	1
7	GROUND FLOOR	WORK EXPERIENCE ROOM	1						
8	GROUND FLOOR	MUSIC ROOM	1						
9	GROUND FLOOR	CHEMISTRY LAB	1						
10	GROUND FLOOR	SST ROOM	1						
11	GROUND FLOOR	ADMISSION ROOM	1			1 (8 PORT)			1
12	GROUND FLOOR	MATHS LAB	1						
13	FIRST FLOOR	EXAMINATION DEPARTMENT	1						
14	FIRST FLOOR	SECONDARY RESOURCE ROOM	1						
15	FIRST FLOOR	PHYSICS LAB	1						
16	FIRST FLOOR	JUNIOR COMPUTER LAB	1 8	1			1		1
17	FIRST FLOOR	ART ROOM	1						
18	FIRST FLOOR	BIOLOGY LAB	1						
19	FIRST FLOOR	LIBRARY	8		1	1 (16 PORT)			1
20	FIRST FLOOR	MULTI PURPOSE ROOM1	1						
21	FIRST FLOOR	MULTI PURPOSE ROOM2	1						
			9 2	2	2	3		3	6

Network Topology to connect Different switch



## Specification of High speed Wi-Fi connectivity

### ANNEXURE -2

SNO	LOCATION	FLOOR	PoE Gigabit SWITCH	WIRELESS ACCESS POINT	INTERNET CONNECTIVITY
1	XI A	GROUND FLOOR	4 PoE switch	3 (As per the diagram)	Available internet connectivity (Admission room)
2	XII A	GROUND FLOOR			
3	I A	GROUND FLOOR			
4	II A	GROUND FLOOR			
5	SECONDARY COMPUTER LAB	GROUND FLOOR			
6	X A	GROUND FLOOR			
7	VIII A	GRUND FLOOR			
8	PRIMARY RESOURCE ROOM	GROUND FLOOR			
9	IX A	FIRST FLOOR	3 (As per the diagram)	Proposing internet connectivity near Senior Computer Lab/X B class	
10	V A	FIRST FLOOR			
11	IV A	FIRST FLOOR			
12	III A	FIRST FLOOR			
13	VI A	FIRST FLOOR			
14	VII A	FIRST FLOOR			
15	SECONDARY RESOURCE ROOM/JUNIOR COMPUTER LAB	FIRST FLOOR			

**ANNEXURE -3**  
**SELF DECLARATION**

Date:

Ref:

To,

The Principal,

Kendriya Vidyalaya INS Zamorin Ezhimala

In response to the Limited Tender Enquiry No. ....

I/We hereby declare that our company

..... is, having unblemished past record, and was not declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period of time.

Signature of the Bidder

Date:

Place:

**ANNEXURE -4**

**ACCEPTANCE OF TERMS & CONDITIONS  
CONTAINED IN THE TENDER DOCUMENTS**

To,

The Principal,

Kendriya Vidyalaya INS Zamorin Ezhimala

Sir,

I Have carefully gone through the Terms & Conditions contained in the

Limited Tender Enquiry No.....Regarding **setting up of lan connectivity & economical wifi solution for e-classrooms of Kendriya Vidyalaya INS Zamorin Ezhimala**

I declare that all the provisions, of this Tender Document are acceptable to my company, I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Signature of witness Signature of the Bidder Date:

Place:

**ANNEXURE -5**  
**AVAILABILITY OF SPARE PARTS**

Date:

Ref: .....

To,

The Principal,

Kendriya Vidyalaya INS Zamorin Ezhimala

In response to the Tender

No.....I/We hereby declare that our

Company ....., in accordance with

stipulations contained in the tender document, agree to that all materials essential to the

above mentioned work will be kept in ready availability for a period of 5 years from the

date of supply.

Signature of Bidder Date:

Place: