Principal,
ASPEE Agribusiness Management Institute
Navsari Agricultural University, Navsari-396450,
Gujarat

Tender Document for

Various IT Procurements at NAU

[NAU/IT/01-2019-20]

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Chapter-1 Tender Notice - NAU/IT/01-2019-20

Various IT procurements at NAU [NAU/IT/01-2019-20]

Department of IT is presently working under ASPEE Agribusiness Management Institute, Navsari Agricultural University, and Navsari. It is providing the entire IT Services across the University Jurisdiction across the south Gujarat.

This Tender is intended to procure and Deploy Networking Annual Maintenance Contract for NAU Network, Procuring Network Equipments, UPS Battery and CCTV Camera with onsite installation and Configuration, Establishing Towers for Wireless connectivity.

Tender available for downloading and uploading	20/11/2019 to 19/12/2019
Last date for submission of tender fee, EMD and other mandatory documents by RPAD / Courier / Speed post in hardcopy.	20/12/2019 up to 18:00 Hrs.
Security Deposit	5% of purchase order
Bid Validity	365 Days

The bidder who is participating in this tender can take part with any groups. Tender fee and EMD would be applicable to each and individual procured group. Participation in this tender for all groups is not compulsory but participation for all items under each group is compulsory. Following groups of procurements are invited in this tender.

Sr. No	Procurements (Groups)	Tender Fee	EMD (In Rs.)	Pre Bid Meeting (Date & Time)
1	Network Annual Maintenance Contact for NAU Network	1500/-	30,000/-	04/12/2019 09:00 AM to 10:00 AM
2	Establishing Towers for Wireless connectivity at NAU	1500/-	45,000/-	04/12/2019 10:00 AM to 11:00 AM
3	Supply of Networking Equipment with onsite installation, Fixing and Configuration at NAU	1500/-	30,000/-	04/12/2019 4:00 PM to 5:00 PM
4	Supply, Fixing, Install and Configuration of CCTV Camera at NAU	1500/-	30,000/-	04/12/2019 5:00 PM to 6:00 PM
5	Supply, Install, fixing and Buyback of old UPS Battery at NAU	1500/-	10,000/-	04/12/2019 4:00 PM to 5:00 PM

The detail requirements, specifications of procurements and tender document will be published on website www.nau.in under tender section. If any future updates /corrigendum regarding tender will be there, it will be only published in website www.nau.in / www.nprocure.com during tender period. Bidder may check www.nau.in / www.nprocure.com periodically during tender period. Bidder can participate in this tender through www.nprocure.com only.

Pre Bid Meetings are arranged for each procurement groups separately as per scheduled specified. The scope of the procurements will be elaborated and discussion would be took place in the form of question answer between bidders and tender invitee. Participation in Pre Bid Meetings is not

compulsory for participation in this tender, but bidder are requested to take part for understating requirement undoubtedly.

Venue of Pre Bid Meetings:

IT Server Room, ASPEE Agribusiness Management Institute, Navsari Agricultural University, Navsari – 396450

Principal

AABMI, NAU, Navsari

Chapter-2 General Guidelines and Terms and Conditions

1.	**Contents of the Tender document & Clarification of tender document**	
	1.1	The parties are expected to examine all instructions, forms, terms and requirements in the tender document. Failure to furnish all information required by the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the party's risk and may result in the rejection of
	1.2	A prospective party requiring any clarification on the tender document may clear their doubt in Pre Bid Meetings only. If any bidder is not attending this meeting is considered that he is well aware with requirements of this tender. In future bidder can't claim that they were not aware about pre-bid meeting discussions.
	1.3	If Bidder is giving wrong information on specification will be black listed for the period of 5 years.
2.	**Amendment of Tender document**	
	2.1	At any time prior to the last date for receipt of bids, the Purchaser, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective party, modify the tender document by an amendment.
	2.2	The amendment will be notified through website (www.nau.in / www.nprocure.com) to all prospective parties. So all the bidders are requested to frequently visit the Navsari Agricultural University website www.nau.in.
	2.3.	In order to afford prospective parties reasonable time in which to take the amendment into account in preparing their bids, the Purchaser may, at its discretion, extend the last date for the receipt of Bids.
	2.4	On Scrutiny of tender document if any queries raised by the committee have to be replied satisfactorily with all documentary proofs within specific time period.
3.	**Bid Prices**	
	3.1	The bidders should have to quote the prices in Indian Rupees for the each including installation, configuring, commissioning, and labor, transportation and all taxes charges. Prices quoted must be firm and final and shall remain constant throughout the bid validity period of the contract and shall not be subject to any upward
	3.2	Travel expenditures of man power for supply, installation and configuration will not be given by Navsari Agricultural University.
	3.3	The Conditional Rate will not be approved and Tenderer shall be disqualified.
4.	**Site Conditions**	
	4.1	It will be imperative on each party to fully acquaint him with the Navsari Agricultural University building conditions and factors which would have any effect on the performance of the work and / or the cost.
	4.2	The selected bidder must have to carry out and complete the work of Supply, Install and Configuration of at any places/building of NAU's Navsari main Campus & all the sub centers Navsari, Surat, Waghai, Vyara, Paria, Bharuch, Dediyapada, Achhaliya, Tanachha, Mangrol, Hansot, Danti-Ubharat, Vanarasi, Gandevi.
5.	**Selection of Bidders**	
	5.1	Selection of Lowest bidder for each procurement group will be done on the basis of the overall individual group grand total obtained for the respective procurement group.
	5.2	The selected L1 bidder has to sign agreement with acceptance of terms and conditions for respective procurement group on Rs 300 stamp paper with NAU.

6.	**Documentation**	
	6.1	The selected bidder for Networking AMC procurement group requires to prepare new Networking diagram of NAU Network.
7.	**Terms of Payment**	
	7.1	The Bidder should specifically note that no advance payment will be made Except Network Annual Maintenance Contact for NAU Network (Procurement Group 1) and Establishing Towers for Wireless connectivity for Procurement Group (50% of advance payment).
	7.2	The payment of all charges shall be made after satisfactory completion of the work as specified in scope of work and work orders for each procurement group respectively.
	7.3	As per the government norms Income Tax and GST will be deducted from paid bill amount as applicable.
8.	**Rights**	
	8.1	Right is reserved to accept or reject any or all tender without assigning any reasons thereof.
	8.2	The Authority of Navsari Agricultural University Reserve all rights to issue work order of selected items from individual procurement group subject to requirements, needs and grant availability.
	8.3	NAU reserves the right to postpone the date of opening of tender or to cancel the tender notice without assigning any reasons thereof. Any request from prospective bidder to postpone or to change date of opening of the tender due to any reason, whatsoever, will not be considered.
9	**Warranty**	
	9.1	The parties should warrants that the Goods supplied under this tender 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 tender. This warranty shall remain valid as per Technical specifications and scope of work after the Goods or any portion thereof as the case may be, have been delivered, commissioned and accepted at the final destination.
	9.2	The Purchaser shall promptly notify the party in writing of any claims arising under this warranty.
	9.3	Upon receipt of such notice, the party shall, within 48 hours and with all reasonable speed, repair or replace the defective Goods or parts thereof, without any cost to the Purchaser.
	9.4	If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in 9.3 above, the Purchaser may proceed to take such remedial action as may be necessary, at the party's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
	9.5	In case of defective items, the same shall have to be replaced by the party concerned at its own cost, and risk, and within stipulated time.
10		**Penalty Clause**
	10.1	In any case bidder will be failed to provide satisfaction in any of the above Terms & Conditions then bidder will lose security deposit and other necessary actions will be take place like **selected bidder will be blacklisted by NAU and bidder has to pay back total paid amount with 10% penalty charges.**

Signature of Bidder

(With Stamp, Name & Designation)

Chapter 3: Bidder Information

1. Name of supplier / firm :

2. Company Registration No. :

3. Complete postal address :

4. Telephone /Mobile Number :

5. FAX Number (if any) :

6. E-mail address :

7. Sales Tax / Service Tax No. :

8. GST No. :

9. PAN No. :

10. Any other details:

We agree to abide by the terms and conditions of supply mentioned in this tender document.

Signature of Bidder
(With Stamp, Name & Designation)

Chapter 4: Technical Bid Documents (Checklist Documents)

Name of the bidder:

Sr. No.	Check List Documents	Submitted Yes/No	Page No.
1	Tender Fee: Demand draft only. (Separate DD for each group as applicable) (Non-Refundable).		
2	EMD: Demand draft only. (Separate DD for each group as applicable) (Refundable).		
3	Valid Registration Certificate of bidders firm.		
4	GST Registration Certificate.		
5	Signed Copy of Chapter 2: Guidelines and Terms & conditions.		
6	Signed Copy of Chapter 3: Bidder Information.		
7	Signed Copy of Chapter 8 on Bidder's Company Letter Head.		
8	3 Year Income Tax Returns of Assessment Year 2017-18, 2018-19 and 2019-20.		
9	Original affidavit from the bidder that business entity is not blacked listed by any government organization. (notarized on Rs. 300 stamp paper)		

Note: All the above mentioned Checklist documents must be submitted online through nprocure.com in scan copy and offline by hardcopy to NAU.

DECLARATION

I/We solemnly declare that we have attached all the documents mentioned here above and mentioned in the tender. It is verified that all the certificates/ permissions/ documents are valid and current as on date and have not been withdrawn/ cancelled by the issuing authority. I/We further undertake to produce on demand the original certificate/ permission/ document for verification at any stage during the processing of the tender. I/We also understand that non-compliance of any documents will be treated as non-respective tender and we will lose our claim to participate in the Tender Enquiry automatically and our tender will be liable to reject.

Signature of Bidder

(With Stamp, Name & Designation)

Chapter 5: Tender Fee, EMD Submission Address

Tender Fee: Bidder has to submit nonrefundable Tender Fee in the form of Bank Draft in favor of **"Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c"**, payable at Navsari. Tender fee is compulsory for tender participation in each procurement group, without which tenders will not be considered.

Earnest Money Deposit: Tender shall be accompanied by an earnest money, without which tenders will not be considered. The EMD should be submitted in the form of Nationalized or Scheduled Bank Demand Draft in favor of **"Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c"**, payable at Navsari.

Bidder has to submit Tender fee and EMD Demand draft Separate for each group as applicable.

Sr. No	Procurements (Groups)	Tender Fee	EMD (In Rs.)
1	Network Annual Maintenance Contact for NAU Network	1500/-	30,000/-
2	Establishing Towers for Wireless connectivity at NAU	1500/-	45,000/-
3	Supply of Networking Equipment with onsite installation, Fixing and Configuration at NAU	1500/-	30,000/-
4	Supply, Fixing, Install and Configuration of CCTV Camera at NAU	1500/-	30,000/-
5	Supply, Install, fixing and Buyback of old UPS Battery at NAU	1500/-	10,000/-

Refund of earnest money: The earnest money of unsuccessful Bidder will be refunded.

Forfeiture of earnest money: The earnest money will be forfeited in the following cases:

- When Bidder withdraws or modifies the offer after opening of tender.
- When the Bidder does not deposit the security money after the work/purchase order is given.

Security Deposit: Successful bidder shall deposit security/performance guarantee money (5% of purchase/work order) in the form of Bank Draft in favor of "Drawing and Disbursing Officer (DDO) ASPEE Agri. Mgmt. Inst. A/c", payable at Navsari or Performance Bank Guarantee (25% of purchase/work order).

Refund of Security Deposit: The amount of security deposit will be refunded after completion of warranty period/service contract/AMC.

Forfeiture of Security Deposit: The security deposit will be forfeited in the following cases:

- When works/services are not successfully executed as per requirement mentioned in the tender document and work order.
- When successful bidder terminate the works/services in during execution period.
- When any issue raised in quality or services during warranty period/warranty period/service contract/ AMC.

Tender Fee, EMD and Tender Submission Address:

Principal
ASPEE Agribusiness Management Institute,
Navsari Agricultural University, Eru Char Rasta, Navsari– 396450 (Gujarat)
Email: itcell@nau.in, Phone: 02637-282960

Chapter 6: Instructions to bidders for Tender Participation

1.	All tender documents can be downloaded from the website www.nau.in under tender section and nprocure.com.	
2.	The bidders are instructed to apply this online tender through nprocure.com only.	
3.	Bidders can apply for either single procurement group or multiple groups. It is not mandatory for bidders to apply for all groups.	
4.	All The Mandatory documents must be submitted online and offline on or before Last date for online and offline submission of tender.	
5.	All the bidder specially note that price bid must be submitted online through nprocure.com only. If price bid document is submitted in hard copy then bidder will be declared disqualified.	
6.	Procedure for Submission of Technical Bids.	
	6.1	Technical bid cover must include all the check list documents (Chapter-4).
	6.2	If bidder is applying for multiple groups then required to submit Tender Fees and EMD Separately for each group in individual Technical bid covers.
	6.3	Technical bid of the Tender should be covered in a separate sealed cover super scribing the wordings "Technical Bid" with group name for each group separately.
	6.4	**Tender Fee & EMD must be submitted separately for each group as applicable.**
	6.5	Each Technical bid cover/s prepared as above, are to be kept in a single Big sealed cover super scribed with “Tender: Various IT Procurements at NAU”.
	6.6	The cover thus prepared should also indicate clearly the name and address of the parties, to enable the Bid to be returned unopened in case it is declared "Late".

Chapter-7 Instructions to bidders for Online Tender Participation

1. All tender documents can be downloaded free from the website http://au.nprocure.com or http://www.nprocure.com

2. All bids should be submitted online on the website http://au.nprocure.com or http://www.nprocure.com

3. All bids should be digitally signed. For the details regarding digital signature certificate and related training involved the below mentioned address should be contacted

(n)Code Solutions
A division of GNFC
301, GNFC Infotower, Bodakdev, Ahmedabad 380054 (India)
Tel. : +91 79 26857316 / 17 / 18
Fax : +91 79 26857321
Toll Free Number : 1-800-233-1010 www.ncodesolutions.com

4. The user can get a copy of instructions to online participation from the website http://au.nprocure.com or http://www.nprocure.com

5. The service provider should register on the website through the "New User" link provided at the home page, the registration on the site should not be taken as registration or empanelment or any other form of registration with the tendering authority.

6. The application for training and issue of digital signature certificates should be made at least 72 hours in advance to the due date and time of tender submission.

7. For all queries regarding use of digital signature certificate should be addressed to M/s. (n)Code Solutions.

8. For all queries regarding tender specifications and any other clauses included in tender should be addressed to personnel in tendering office address provided below

Principal
ASPEE Agribusiness Management Institute,
Navsari Agricultural University, Eru Char Rasta, Navsari– 396450 (Gujarat)
Email: itcell@nau.in, Phone: 02637-282960

Chapter-8 Specifications, Requirements and Scope of work and Conditions for all Procurement Groups

Procurement Group-1 Network Annual Maintenance Contact for NAU Network

Item Specifications, Requirements and Scope of work and Conditions	
SR NO.	**Item with Specifications**
1	**Network Annual Maintenance Contact for NAU Network**

The scope of works and requirement covers **"Network Annual Maintenance Contract"** within and between buildings at Campuses of Navsari Agricultural University located NAU's Navsari main Campus & all the sub centers Navsari, Surat, Waghai, Vyara, Paria, Bharuch, Dediyapada, Achhaliya, Tanachha, Mangrol, Hansot, Danti-Ubharat, Vanarasi, Gandevi remote stations with the objective to carried out maintenance activities (identification of fault and rectification) for below mention devices.

- Wireless devices used for link establishment including long range p2p connectivity On buildings and network towers.
- Wireless devices used for Wi-Fi Access (Wireless access point and wireless router)
- Fiber optic link and connectivity
- Connectivity through CAT6 (UTP and STP with cable laying and climping if required)
- 24 port managed/unmanaged switch ,8 port unmanaged (New Set up, reconfiguration, re setup)
- L2 and L3 switches with VLAN configuration
- Fiber optic switches
- IO Ports and End user LAN Connectivity
- Ethernet Card configuration (if needed then only)
- Fiber Media Convertor
- Fiber Optic SFP Module

Note: IT Department will provide all the required materials and Networking equipments during AMC period if required.

Maintenance & Working Conditions for Network Annual Maintenance Contact for NAU Network	
1	The Selected bidder has to carry out maintenance activity as per scope of work and Network diagram provided in Appendix-1 and network details in Appendix-2.
2	NAU reserves right to issue work order as per requirements subject to grant availability.
3	Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work in due time.
4	The responsibility and liability of the persons carrying out the maintenance activities will be on successful bidder only, and NAU will not responsible for the same.
5	Successful bidder has to appoint the qualified persons who must be well aware of different activities as specified in the scope of work for this contract.
6	If IT Department of NAU found that the maintenance activity is not performed by the person allotted by the successful bidder than immediate replacement of person need to be done.
7	If any damage of devices in NAU premises during maintenance activity would took place, the successful bidder has to replace the device at their own cost in such cases.
8	The selected firm will not involve third party in implementation of service.
9	The Selected firm has to carry out maintenance activity as per directions of IT Department only to Navsari main Campus & all the sub centers Surat, Waghai, Vyara, Paria, Bharuch, Dediyapada, Achhaliya, Tanachha, Mangrol, Hansot, Danti-Ubharat, Vanarasi, Gandevi remote stations whenever required and for that NAU will not pay any expenses for traveling, boarding, lodging and any other expenses of manpower during network AMC Period.
10	The selected bidder has to carry out reconfigure, re setup, firmware upgrade in existing devices whenever required during AMC period as per Directions of IT Department.

11	NAU will not pay any expenses for traveling, boarding, lodging and any other expenses of manpower during network AMC Period.
12	The selected bidder has to carry out fault detection and identification of network connectivity including fiber connectivity with appropriate device whenever required and cost/service of that device has to be given by selected bidder only.
13	The Selected bidder has to reconfigure each device with firmware upgrade if it is available.
14	The Selected bidder has to configure IP addresses of NMS Software during AMC Period if it is procured by IT Department.

Signature of Bidder

(With Stamp, Name & Designation)

Procurement Group-2 Establishing Towers for Wireless connectivity at NAU

Item Specifications, Requirements and Scope of work and Conditions		
SR NO.	**Item with Specifications**	**Approx. Requirements**
1.	10 feet Self-Supported Network Tower (measurement [L] as per Design Appendix-3) without Foundation work	**As Per Requirements**
2.	10 feet Self-Supported Network Tower (measurement [K] as per Design Appendix-3) without Foundation work	
3.	10 feet Self-Supported Network Tower (measurement [J] as per Design Appendix-3) without Foundation work	
4.	1 to 40 feet Self-Supported Network Tower (measurement [F to I] as per Design Appendix-3) with Foundation work	
5.	1 to 50 feet Self-Supported Network Tower (measurement [E to I] as per Design Appendix-3) with Foundation work	
6.	1 to 60 feet Self-Supported Network Tower (measurement [D to I] as per Design Appendix-3) with Foundation work	
7.	1 to 70 feet Self-Supported Network Tower (measurement [C to I] as per Design Appendix-3) with Foundation work	
8.	1 to 80 feet Self-Supported Network Tower (measurement [B to I] as per Design Appendix-3) with Foundation work	
9.	1 to 90 feet Self-Supported Network Tower (measurement [A to I] as per Design Appendix-3) with Foundation work	
10.	1 to 100 feet Self-Supported Network Tower (measurement [A to J] as per Design Appendix-3) with Foundation work	
11.	1 to 110 feet Self-Supported Network Tower (measurement [A to K] as per Design Appendix-3) with Foundation work	
12.	1 to 120 feet Self-Supported Network Tower (measurement [A to L] as per Design Appendix-3) with Foundation work	

- The Tower must be self-supported.
- The tower must be of MS hot dipped galvanized structure with Zinc coating.
- **The Tower should be set up as per design mentioned in Appendix-3.**
- The Tower must have Foundation with following characteristics
  - (Civil work - From Ground Floor (Height : 6 to 8 feet & square feet as required) & From Building terrace (Height : 2 to 4 feet & square feet as required) with use of steel)
  - The Tower must have Lightning arrester.
- The selected bidder must provide one year warranty for tower established after issue of completion certificate.

Note :The Selected firm has to carry out tower set up work at any places of Navsari main Campus & all the sub centers Surat, Waghai, Vyara, Paria, Bharuch, Dediyapada, Achhaliya, Tanachha, Mangrol, Hansot, Danti-Ubharat, Vanarasi, Gandevi remote stations subject to requirement arise and as per work order.

Supply, Installation and Work Conditions for "Establishing Towers for Wireless connectivity at NAU"	
1	NAU reserves right to issue work order as per requirements subject to grant availability.
2	Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work in due time.
3	The Selected bidder has to complete work as per the work order in 60 days after issuing purchase Order.

4	The quoted price for establishing tower must include all the taxes, cost, hidden charges like fitting, transportation and any other required charge for setting up towers at any locations of NAU mentioned in the scope work and work order.
5	The NAU will not pay any extra Amount for set up of towers at respective places mentioned in work order.
6	The selected bidder will be fully responsible for any damage to any NAU Property during set up of Towers and have to pay for damage if any event occurred at respective places mentioned in work order.
7	The selected bidder must take all care to avoid any injury to work man while working on the site. The selected bidder must adopt precautionary measures to save the work man from any mechanical or Electrical hazards. However, the NAU is not liable to make any compensation to any workman of the selected party in case of injury.
8	The selected bidder has to carry out installation work as per the existing infrastructure of NAU at NAU Locations.
9	It will be imperative on each party to fully acquaint him with the Navsari Agricultural University building conditions and factors which would have any effect on the performance of the work and / or the cost.
10	It is implied that the Bidders has inspected the site, including the surface strata, the soil, the surrounding, the nature and magnitude of work an ascertained the availability of power, water and accommodation and also obtained all necessary information directly affecting the work such as legal stipulation, possible delays and hindrance or interference in executing the work and has satisfied himself before making the offer. Unexpected difficulties or expenses will not be considered excuses for difficulties in performing the work.
11	The prospective Bidders are advised to make a detailed survey of site for which they are quoting and familiarize themselves with the soil and terrain, so that the rates quoted take all factors into consideration as per mentioned in Scope of Work.
12	Bidders who are confident of executing the work in time by employing the required resources, men and materials may only participate in this tender offer.
13	The quantities indicated in tender schedule shall not be considered as representing firm/final quantities. They are approximate Quantities.
14	If supplier will not complete installation within the time limit it will be considered as failure in delivering services which result disqualifying from this tender and company would be black listed.
15	If Supplier fails to execute work as per purchase order in specified time then it will lose security deposit and other necessary actions will be take place like selected bidder will be blacklisted by NAU and bidder has to pay back total tender amount with 10% penalty charges.
16	The Navsari Agricultural University reserve the right to **increase** the **quantity & amount** of the tender on the same terms & condition, rates & specifications.
17	The 50 % of advanced payment will be given and remaining 50% of payment will be given after completion of work and issue of completion certificate.
18	The NAU reserves right to extend or decrease contract period on same terms, conditions, rates and specifications with consent of selected bidder. (After completion of contract period)

Signature of Bidder

(With Stamp, Name & Designation)

Procurement Group-3 Supply of Networking Equipment with onsite installation, fixing and Configuration at NAU		
Item Specifications, Requirements and Scope of work and Conditions		
SR NO.	**Item with Specifications**	**Approx. Requirements**
1	28-Port Network Switch (Managed) **(Brand: D-Link / Cisco / HP)** Minimum Requirements • Interfaces: • 24 x 10/100/1000 Mbps ports • 4 x SFP ports • Port Standards: • IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)• IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)• IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)• IEEE 802.3az compliance • Auto-negotiation• IEEE 802.3x Flow Control • Duplex Mode: • Full/Half-duplex for 10/100 Mbps • Full-duplex for 1000 Mbps • Switching Capacity: • 56 Gbps • CPU Memory: • 128 MB DDR3 • Flash Memory: • 16 MB • Packet Buffer Memory: • 1 Mbps Per Device • 8. Warranty: Minimum 3-Year	**As Per Requirements**
2	16-Port Network Switch (Unmanaged Gigabit switch) **(Brand: D-Link / Cisco / HP)** Minimum Requirements • Interface Options: • 10BASE-T, 100BASE-TX & 1000BASE-T • Network Protocol and Standards: • IEEE 802.3 Ethernet, 802.3u Fast Ethernet, 802.3x Flow Control, 802.3ab Gigabit Ethernet, 802.1p QoS • Switching Capacity: • 32 Gbps • Packet Buffer Memory: • 340Kbytes Buffer Memory per Device • Warranty: Minimum 3-Year	
3	8-Port Network Switch (Unmanaged Gigabit switch) **(Brand: D-Link / Cisco / HP)** Minimum Requirements • 1. Interface Options: •10BASE-T, 100BASE-TX • 2. Network Protocol and Standards: •802.3az Energy Efficient Ethernet • 3. Switching Capacity: • 17 Gbps • 4. Warranty: Minimum 3-Year	
4	28-Port Network Switch (Layer 3 Stackable Managed Switches) **(Brand: D-Link / Cisco / HP)** Minimum Requirements • Interfaces: • 20 SFP ports• 4 Combo 10/100/1000BASE-T/SFP ports• 4 10 GbE SFP+ ports • Switching Capacity: • 128 Gbps • Packet Buffer Memory: • 4 Mbps Per Device • Port Support: Console Port, Management Port and USB Port • Features: VLAN, L2 & L3 Multicast, L3 Routing	

	• 6. Warranty: Minimum 5-Year	
5	28-Port Network Switch (Layer 3 Stackable Managed Switches) **(Brand: D-Link / Cisco / HP)** <u>Minimum Requirements</u> • Interfaces: • 20 10/100/1000BASE-T ports• 4 Combo 10/100/1000BASE-T/SFP ports• 4 10 GbE SFP+ ports • Switching Capacity: • 128 Gbps • Packet Buffer Memory: • 4 Mbps Per Device • Port Support: Console Port, Management Port and USB Port • Features: VLAN, L2 & L3 Multicast, L3 Routing • Warranty: Minimum 5-Year	
6	52-Port Network Switch (Layer 3 Stackable Managed Switches) **(Brand: D-Link / Cisco / HP)** <u>Minimum Requirements</u> • Interfaces: • 44 10/100/1000BASE-T ports• 4 Combo 10/100/1000BASE-T/SFP ports• 4 10 GbE SFP+ ports • Switching Capacity: • 176 Gbps • Packet Buffer Memory: • 4 Mbps Per Device • Port Support: Console Port, Management Port and USB Port • Features: VLAN, L2 & L3 Multicast, L3 Routing • Warranty: Minimum 5-Year	
7	2.4 Ghz Outdoor Wireless Access Point **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** <u>Minimum Requirements</u> • Wireless Speed: 300Mbps • Coverage Range: 5km+ for p2p Wireless transmission • Antenna Type: 12dBi or higher • Compatibility: 802.11b/g/n • Power Supply: 24V PoE Adapter • Management: Discovery or Remote Management application, HTTP/HTTPS Web-based management and SNMP management • Facility: AP / Client / Repeater / AP Router / AP Client Router (WISP), PTMP, P2P, Lightning Protection, Weather Proof and Centralized Management System Control Support • Warranty: Minimum 3-Year	
8	5.8 Ghz Outdoor Wireless Access Point **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** <u>Minimum Requirements</u> • Interface Options: • 10BASE-T, 100BASE-TX • Network Protocol and Standards: •802.3az Energy Efficient Ethernet • Switching Capacity: • 17 Gbps • Warranty: Minimum 3-Year	
9	Dual Band Outdoor Wireless Access Point (both 2.4 Ghz and 5.8 Ghz) **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** <u>Minimum Requirements</u> • High Power AC Dual Band 750Mbps Access Point • 3*5 dbi MIMO Antenna • WPA/WPA2 encryptions for defence against security threats	

	• Seamlessly compatible with 802.11b/g/n devices • Supports 24V/1A PoE • Support Multiple SSID • Support 802.1Q VLAN • Speed : 433Mbps compatible with 5.8GHz 300Mbps b/g/n for 2.4GHz • Warranty: Minimum 3-Year	
10	Long Range P TO P Device up to 50 KM **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** • Minimum Requirements • Throughout connectivity up to 50 Kms • Data Transfer Speed Min. 150 Mbps • SNMP supported • Physical layer 2X2 mimo ofdm • Failure time > minimum 25 Years • Temperature -30°C to +60°C (-22°F to +140°F) • Warranty: Minimum 3-Year	
11	Long Range P TO P Device up to 100 KM **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** Minimum Requirements • Minimum Requirements • Throughout connectivity up to 100 Kms • Data Transfer Speed Min. 150 Mbps • SNMP supported • Physical layer 2X2 mimo ofdm • Failure time > minimum 25 Years • Temperature -30°C to +60°C (-22°F to +140°F) • Warranty: Minimum 3-Year	
12	Long Range P TO P Device up to 200 KM **(Brand: TP-LINK / Ubiquiti / Ruckus/Cambium Networks/Air Pro)** Minimum Requirements • Throughout connectivity up to 200 Kms • Data Transfer Speed Min. 150 Mbps • SNMP supported • Physical layer 2X2 mimo ofdm • Failure time > minimum 25 Years • input voltage 48-59 V DC , 802.3at complaint • Warranty: Minimum 3-Year	
13	6 U wall mounting Network Rack with Standard Accessories **(Brand: Alpine / Valrack / D-Link)**	
14	9 U wall mounting Network Rack with Standard Accessories **(Brand: Alpine / Valrack / D-Link)**	
15	POE Adapter 24v Compatible with 2.4 Ghz wireless device and 5.8 Ghz wireless device	
16	Cat-6 UTP cable box (305 mtr) **(Brand: DigiLink / D-Link / Molex / Finolex)**	
17	Cat-6 STP cable box (305 mtr) **(Brand: DigiLink / D-Link / Molex / Finolex)**	
18	Providing and fixing of Capping & Casing 1 inch rate per mtr (ISO Certified)	

19	Providing and fixing of Capping & Casing 1.5 inch rate per mtr (ISO Certified)	
20	Providing and fixing of Capping & Casing 2 inch rate per mtr (ISO Certified)	
21	RJ45 Connector Box (100 nos.) **(Brand: DigiLink / D-Link / Molex)**	
22	Providing and fixing of Cat6 I/O Jack + Local Surface Mount Back box + Single Port Face plate **(Brand: DigiLink / D-Link / Molex)**	
23	Providing and fixing of 2 x Cat6 I/O Jack + Local Surface Mount Back box + Dual Port Face plate **(Brand: DigiLink / D-Link / Molex)**	
24	Cat6 Patch Cord - 1 mtr (Grey Colour) **(Brand: DigiLink / D-Link / Molex)**	
25	Cat6 Patch Cord - 3 mtr (Grey Colour) **(Brand: DigiLink / D-Link / Molex)**	
26	Cat6 Patch Cord - 5 mtr (Grey Colour) **(Brand: DigiLink / D-Link / Molex)**	
27	Cat6 Patch Cord - 10 mtr (Grey Colour) **(Brand: DigiLink / D-Link / Molex)**	
28	LC SFP Fiber Module • Single mode 1.25 gigabit Pair up to 20KM Range • Must be Compatible with inter connection of D-Link, HP, Cisco and Digisol manageble switches.	

Supply and Installation Work Conditions for "Networking Equipment with onsite installation, fixing and Configuration at NAU"	
1	The Supply and Installation work should be as per the Work Orders, Item specification and scope of work. The Selected bidder must have to supply items as per above mentioned specifications or higher.
2	NAU reserves right to issue work order as per requirements subject to grant availability.
3	Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work in due time.
4	The Navsari Agricultural University reserves the right to **increase** the **quantity & amount** of the tender on the same terms & condition, rates & specifications.
5	The Selected bidder has to complete work as per the work order in 10 days after issuing purchase Order.
6	The NAU reserves right to extend or decrease contract period on same terms, conditions, rates and specifications with consent of selected bidder. (After completion of contract period)
7	The selected bidder has to onsite supply, setup, configure above mentioned items at any places of Navsari main Campus & all the sub centers Surat, Waghai, Vyara, Paria, Bharuch, Dediyapada, Achhaliya, Tanachha, Mangrol, Hansot, Danti-Ubharat, Varanasi, Gandevi remote stations across south Gujarat subject to requirement arise and as per work order and scope of work.
8	The bidder is required to submit product catalog of above mentioned all items with model and specification in hard copy with Tender application.

Signature of Bidder
(With Stamp, Name & Designation)

Procurement Group-4 Supply, Fixing ,Install and Configuration of CCTV Camera at NAU

Item Specifications, Requirements and Scope of work and Conditions		
SR NO.	**Item with Specifications**	**Approx. Requirements**
1	**IP BULLET CAMERA 4MP** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Sensor : 1/3", 4.0 megapixel, progressive scan, CMOS • Lens : 4MM • WDR : 120dB • IR Range : Up to 30m (98ft) IR range • Defog : Digital Defog • Video Compression : Ultra 265, H.265, H.264, MJPEG • Frame Rate : Main Stream: 4MP (2592*1520), Max 20fps; 4MP (2560*1440), Max 25fps; 3MP (2048*1520), Max 30fps; Sub Stream: 2MP (1920*1080), Max 30fps; • Motion Detection : Up to 4 areas • HLC/BLC supported • 9:16 Corridor Mode Supported • Warranty: 2 year or Higher	**As Per Requirements**
2	**IP BULLET CAMERA 8MP** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Sensor : 1/2.5", 8.0 megapixel, progressive scan, CMOS • Lens : 4MM • WDR : 120dB • IR Range : Up to 30m (98ft) IR range • Defog : Digital Defog • Video Compression : Ultra 265, H.265, H.264, MJPEG • Frame Rate : Main Stream:8MP (3840*2160), Max 20fps; Sub Stream:1080P (1920*1080), Max 30fps; Third Stream:D1(720*576), Max30fps • Motion Detection : Up to 4 areas • HLC/BLC supported • 9:16 Corridor Mode Supported • Shutter : Auto/Manual, 1~1/100000s • Minimum Illumination : Colour: 0.05Lux (F2.0, AGC ON) 0Lux with IR on • Compatible Integration : ONVIF(Profile S, Profile T), API • Warranty: 2 year or Higher	
3	**IP BULLET CAMERA 4MP (Manual Verifocal)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Sensor : 1/3", 4.0 megapixel, progressive scan, CMOS • Lens : 2.8 ~ 12mm@F1.4 • WDR : 120dB • IR Range : Up to 30m (98ft) IR range • Defog : Digital Defog	

	• Video Compression : Ultra 265, H.265, H.264, MJPEG • Minimum Illumination : Colour: 0.005Lux (F1.4, AGC ON) 0Lux with IR on • Frame Rate : Main Stream: 4MP (2592*1520), Max 20fps; 4MP (2560*1440), Max 25fps; 3MP (2048*1520), Max 30fps; Sub Stream: 2MP (1920*1080), Max 30fps; Third Stream: D1 (720*576), Max 30fps • Motion Detection : Up to 4 areas • Audio Compression : G.711 • Warranty: 2 year or Higher	
4	**IP BULLET CAMERA 8MP (Motorized Verifocal)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Sensor : 1/2", 8.0 megapixel, progressive scan, CMOS • Lens : 2.8 ~ 12mm, AF automatic focusing and motorized zoom lens • WDR : 120dB • IR Range : Up to 50m (164ft) IR range • Defog : Digital Defog • Video Compression : Ultra 265, H.265, H.264, MJPEG • Minimum Illumination : Colour: 0.003Lux (F1.5, AGC ON) 0Lux with IR on • Frame Rate : Main Stream: 8MP (3840*2160), Max 20fps; 5MP (2592*1944), Max 30fps; 5MP (2944*1656), Max 30fps; 4MP (2560*1440), Max 30fps; 2MP (1920*1080), Max 30fps; Sub Stream: 2MP (1920*1080), Max 30fps; Third Stream: D1 (720*576), Max 30fps • Motion Detection : Up to 4 areas • Audio Compression : G.711 • Two-way audio : Supported • Sampling Rate : 8KHZ • Compatible Integration : ONVIF (Profile S, Profile G, Profile T), API • Warranty: 2 year or Higher	
5	**4K Ultra-HD Network IR PTZ Dome Camera (IP CAMERA)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Sensor : 1/1.8", progressive scan, 8megapixel, CMOS • Lens : 6.5~ 143 mm (16x optical zoom) , AF automatic focusing and motorized zoom lens • Shutter : Auto/Manual, shutter time: 1 ~ 1/100000 s • Minimum Illumination : Colour: 0.003 lux (F1.5,AGC ON) 0 lux with IR • Iris : Auto/Manual, F1.5 ~ F3.4 • Day/Night : IR-cut filter with auto switch (ICR) • Digital noise reduction : 2D/3D DNR • IR Range : UP to 200m (656ft) • Video Compression: Ultra 265,H.265, H.264, MJPEG • Frame Rate: Main Stream:8MP(3840 × 2160): Max.30fps, 2MP(1920×1080)@30fps ; Sub Stream:2MP(1920×1080) : Max. 25fps ; Third Stream: D1 (720×576): Max. 20fps	

	• Warranty: 2 year or Higher	
6	**Network Video Recorder 4K (4 Ch.)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Support Ultra 265/H.265/H.264 video formats • 4 Channel input • Third-party IP cameras supported with ONVIF conformance: Profile S, Profile G, Profile T • Support 1-ch HDMI, 1-ch VGA, HDMI at up to 4K(3840x2160) resolution • HDMI and VGA simultaneous output • Up to 8 Megapixels resolution recording • 1 SATA HDDs, up to 10TB for each HDD • ANR technology to enhance the storage reliability when the network is disconnected • Support cloud upgrade • Incoming bandwidth : 40Mbps • Outgoing bandwidth : 48Mbps • Network Interface : 1 RJ-45 10M/100M self-adaptive Ethernet Interface • USB Interface : Rear panel ： 1 x USB2.0, Front panel ： 1 x USB2.0 • HDMI/VGA Output : • HDMI: 4K (3840x2160) /30Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, • VGA : 1920x1080p /60Hz, 1920x1080p /50Hz, 1600x1200 /60Hz • Warranty: 2 year or Higher	
7	**Network Video Recorder 4K (8 Ch.)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Support Ultra 265/H.265/H.264 video formats • 8-channel input • Third-party IP cameras supported with ONVIF conformance: Profile S, Profile G, Profile T • Support 1-ch HDMI, 1-ch VGA, HDMI at up to 4K(3840x2160) resolution • HDMI and VGA simultaneous output • Up to 12 Megapixels resolution recording • 2 SATA HDDs, Up to 10TB for each disk • Various fisheye dewarping modes for live view and playback for both web interface and GUI • ANR technology to enhance the storage reliability when the network is disconnected • Support cloud upgrade • Incoming Bandwidth: 90Mbps • Outgoing Bandwidth: 180Mbps • HDMI/VGA Output : HDMI: 4K (3840x2160) /60Hz, 4K (3840x2160) /30Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, VGA: 1920x1080p /60Hz, 1920x1080p /50Hz, 1280x1024 /60Hz,	

	• Recording Resolution : 12MP/8MP/6MP/5MP/4MP/3MP/1080p/960p/720p/D1/2CIF/CIF • SATA: 2 SATA interfaces • Capacity : up to 8TB for each disk • Warranty: 2 year or Higher	
8	**Network Video Recorder 4K (16 Ch.)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Support Ultra 265/H.265/H.264 video formats • 16-channel input • Third-party IP cameras supported with ONVIF conformance: Profile S, Profile G, Profile T • Support 1-ch HDMI, 1-ch VGA, HDMI at up to 4K(3840x2160) resolution • HDMI and VGA simultaneous output • Up to 12 Megapixels resolution recording • 2 SATA HDDs, Up to 10TB for each disk • Various fisheye dewarping modes for live view and playback for both web interface and GUI • ANR technology to enhance the storage reliability when the network is disconnected • Support cloud upgrade • Incoming Bandwidth: 160Mbps • Outgoing Bandwidth: 320Mbps • HDMI/VGA Output : HDMI: 4K (3840x2160) /60Hz, 4K (3840x2160) /30Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, 1600x1200 /60Hz, 1280x1024 /60Hz, 1280x720 /60Hz, 1024x768 /60Hz VGA: 1920x1080p /60Hz, 1920x1080p /50Hz, 1280x1024 /60Hz, 1280x720 /60Hz, 1024x768 /60Hz • Recording Resolution : 12MP/8MP/6MP/5MP/4MP/3MP/1080p/960p/720p/D1/2CIF/CIF • SATA: 2 SATA interfaces • Capacity : up to 8TB for each disk • Warranty: 2 year or Higher	
9	**Network Video Recorder 4K (32 Ch.)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • 32 Channel input • Third-party IP cameras supported with ONVIF conformance: Profile S, Profile G,Profile T • Up to 12 Megapixels resolution recording • Support Ultra 265/H.265/H.264 video formats • 4 SATA HDDs, Up to 8 TB for each HDD • Various fisheye dewarping modes for live view and playback for both web interface and GUIs • ANR technology to enhance the storage reliability when the network is disconnected • Support cloud upgrade • Incoming Bandwidth : 320Mbps	

	• Outgoing Bandwidth : 320Mbps • HDMI/VGA Output : HDMI1/VGA: 1920x1080p /60Hz, 1920x1080p /50Hz, 1600x1200 /60Hz, 1280x1024 /60Hz, 1280x720 /60Hz, 1024x768 /60Hz HDMI2: 4K (3840x2160) /60Hz, 4K (3840x2160) /30Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, 1600x1200 /60Hz, 1280x1024 /60Hz, 1280x720 /60Hz, 1024x768 /60Hz • Recording Resolution : 12MP/8MP/6MP/5MP/4MP/3MP/1080p/960p/720p • SATA : 4 SATA interfaces • up to 8 TB for each HDD • Warranty: 2 year or Higher	
10	**Network Video Recorder 4K (64 Ch.)** **Brand : (Uniview / Hikvision /Honeywell /Bosch)** • Support Ultra H.265/H.265/H.264 video formats • 64-channel input • Third-party IP cameras supported with ONVIF conformance: Profile S, Profile G, Profile T • Support 2-ch HDMI, 1-ch VGA, 1-ch CVBS, HDMI2 at up to 4K(3840x2160) resolution • HDMI1/VGA and HDMI2 independent outputs provided • Up to 12 Megapixels resolution recording • Support RAID 0, 1, 5, 6, 10 • 8 SATA HDDs, Up to 8TB for each HDD (Support :esata Interface) • Various fisheye dewarping modes for live view and playback for both web interface and GUI • Support N+1 Hot spare • Support for 12V Power output • ANR technology to enhance the storage reliability when the network is disconnected • Support cloud upgrade • Support OSD function • Support PTZ control function • Support export system log • Support different user authorized level • Can install in rack cabinet 19” • Warranty: 2 year or Higher	
11	**Surveillance HDD 4TB Sata** **Brand : (Seagate / Western Digital)** • SATA 6Gb/s • Cache : 64MB • Warranty: 2 year or Higher	
12	**Surveillance HDD 8TB Sata** **Brand : (Seagate / Western Digital)** • SATA 6Gb/s • Cache : 256MB • Warranty: 2 year or Higher	
13	**POE Switch 4+1 (Giga Switch)**	

	Brand : (Cisco / D-Link / hikvision) • Port number : 4 × Gigabit PoE ports, 1 × Gigabit RJ45 port • Port type : RJ45 port, full duplex, MDI/MDI-X adaptive • Standard : IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, IEEE 802.3z • Packet forwarding rate: 7.44 Mpps • Ports for long-distance transmission: 250m • Switching capacity: 10 Gbps • MAC address table: 2 K • Warranty: 2 year or Higher	
14	**POE Switch 8+2 (Giga Switch)** **Brand : (Cisco / D-Link / hikvision)** • 1x10/100 Mbps Hi-PoE port, 7x10/100 Mbps poe Ports, and 2x 10/100/1000 Mbps RJ45 ports • Port type : RJ45 Port, full duplex, MDI/MDI-X Adaptive • Forwarding mode : Store-and-forward switching • Port for long distance transmission : ports 1 to 8 • Mac Address table : 16K • Switching Capacity : 5.6 Gbps • Packet forwarding rate : 4.166 Mbps • Internal cache : 4Mbits • Warranty: 2 year or Higher	
15	**POE Switch 16+2 (Giga Switch)** **Brand : (Cisco / D-Link / hikvision)** • Port number : 16x gigabit poe ports,1x gigabit RJ45 port, 1xgigabit sfp fiber optical port, • Port type : RJ45 Port, full duplex, MDI/MDI-X Adaptive • Forwarding mode : Store-and-forward switching • Port for long distance transmission : ports 1 to 8 • Mac Address table : 8K • Switching Capacity : 36 Gbps • PoE port : ports 1 to 16 • Packet forwarding rate : 26 Mbps • Internal cache : 4.1Mbits • Warranty: 2 year or Higher	
16	**POE Switch 24+2 (Giga Switch)** **Brand : (Cisco / D-Link / hikvision)** • Port number : 24 x gigabit poe ports,1x gigabit RJ45 port, 1xgigabit sfp fiber optical port, • Port type : RJ45 Port, full duplex, MDI/MDI-X Adaptive • Forwarding mode : Store-and-forward switching • Port for long distance transmission : ports 1 to 8 • Mac Address table : 8K • Switching Capacity : 52 Gbps • PoE port : ports 1 to 24 • Packet forwarding rate : 36 Mbps • Internal cache : 4.1Mbits • Warranty: 2 year or Higher	
17	**Outdoor Camera Customized Stand:**	

	2 inch galvanized pipe of Total 12 feet (2 feet underground and 10 feet aboveground use), 1 feet length x 1 feet width x 2 feet depth RCC work for base support for galvanized pipe.	
Supply, Installation and Working Conditions for " Supply, Fixing ,Install and Configuration of CCTV Camera at NAU"		
1	The Supply and Installation work should be as per the Work Orders, Item specification and scope of work. The Selected bidder must have to supply items as per above mentioned specifications or higher.	
2	NAU reserves right to issue work order as per requirements subject to grant availability.	
3	Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work in due time.	
4	The Navsari Agricultural University reserves the right to **increase** the **quantity & amount** of the tender on the same terms & condition, rates & specifications.	
5	The Selected bidder has to complete work as per the work order in 15 days after issuing purchase Order.	
6	The selected bidder has to carry out installation, fitting work and configuration at Navsari Campus as per directions of IT Department.	
7	The cable and rope wire for Installation, fitting work during installation work will be supplied by IT Department NAU.	
8	The selected bidder required to configure CCTV Camera as per requirements of NAU.	
9	The selected bidder requires to reset up, reinstallation and reconfiguration as per required during warranty period.	
10	The payment will be only after given after issue of completion certificate.	
11	NAU will not pay for extra charges for additional accessories and required activities for set up work as per work order.	
12	The Selected Bidder is required to troubleshoot onsite CCTV Camera systems within 24 Hours, if any problem arises during the contract/service period. If any equipment replacement needs to be done it should be completed within 7 days after informing IT Department.	
13	The Selected bidder requires to carry out routine visit of each and every month during contract/service period.	
14	The NAU reserves right to extend or decrease contract period on same terms, conditions, rates and specifications with consent of selected bidder. (After completion of contract period)	

Signature of Bidder

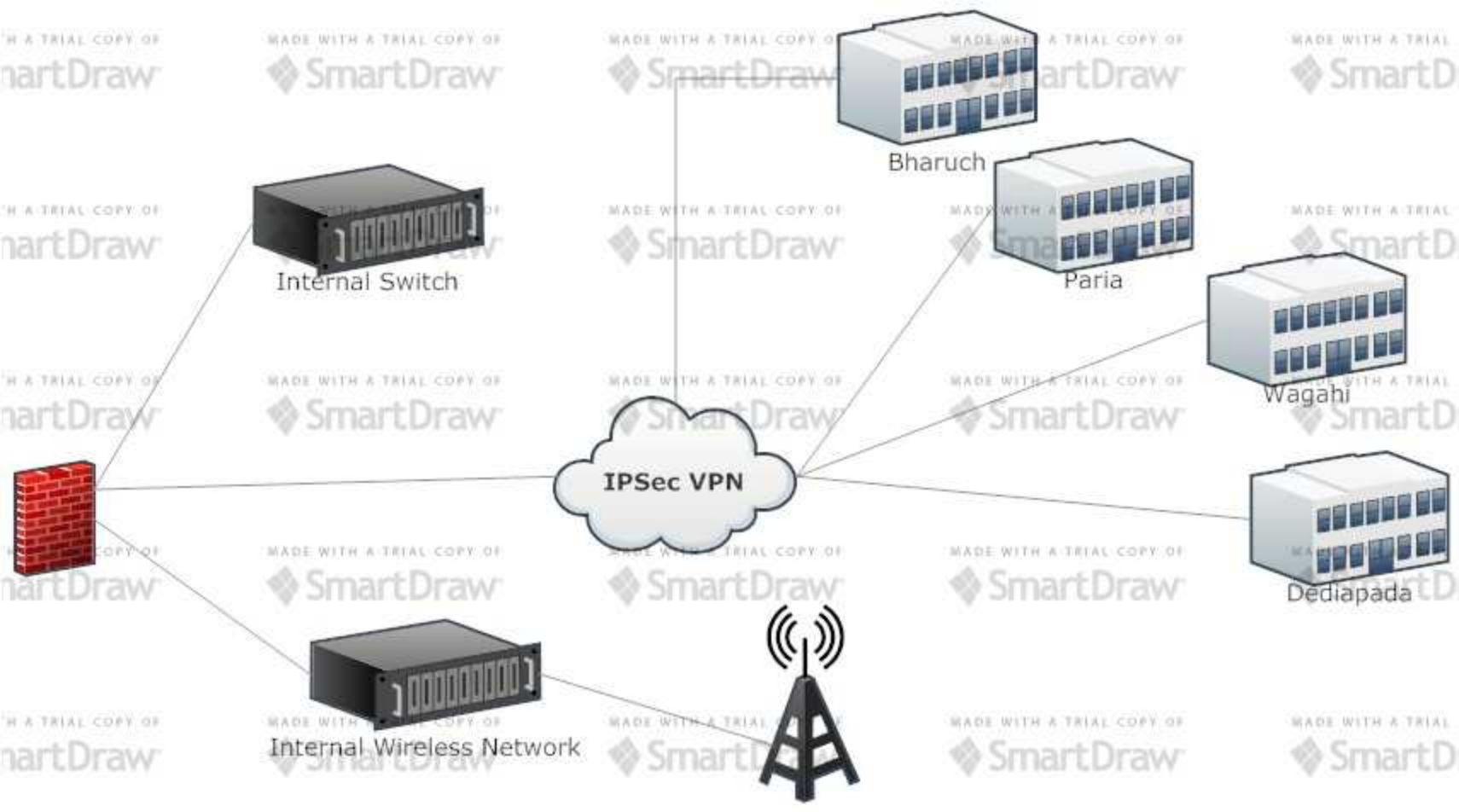
(With Stamp, Name & Designation)

Procurement Group-5 Supply, Fixing, Install and Buyback of old UPS Battery

Item Specifications, Requirements and Scope of work and Conditions		
SR NO.	**Item with Specifications**	**Approx. Requirements**
1	**New Purchase Item** **10KVA UPS Acid Lead Rechargeable Batteries (Brand: Exide / APC / Amaron / Rocket)** • Capacity: 65Ah • Nominal Voltage: 12V • Battery Type: Acid Lead Rechargeable Batteries • Output Type: Dual • Current: 220 A • Warranty: 2 year or Highers Note: This Battery must be compatible with our existing **APC SRC10Kuxi**.	**64**
2	Buyback Item **10KVA UPS Acid Lead Rechargeable Batteries (Brand: Exide)** • 12V 65AH Power safe Plus SMF Battery EP65-12 • All batteries are in working condition.	64
		64
Scope of work and Conditions of Work for "Supply, Fixing, Install and Buyback of old UPS Battery"		
1	The Supply and Installation work should be as per the Work Orders, Item specification and scope of work.	
2	NAU reserves right to issue work order as per requirements subject to grant availability.	
3	Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work in due time.	
4	The Navsari Agricultural University reserves the right to **increase** the **quantity & amount** of the tender on the same terms & condition, rates & specifications.	
5	The Selected bidder has to complete work as per the work order in 7 days after issuing purchase Order.	
6	The selected bidder has to carry out onsite supply, Installation and Fitting with required accessories with existing UPS system with above mentioned items onsite at NAU Campus.	
7	NAU will not pay any extra cost for Transportation, Pick up of Old buy backed battery to selected bidder.	
8	The payment will be only after given after issue of completion certificate.	

Signature of Bidder

(With Stamp, Name & Designation)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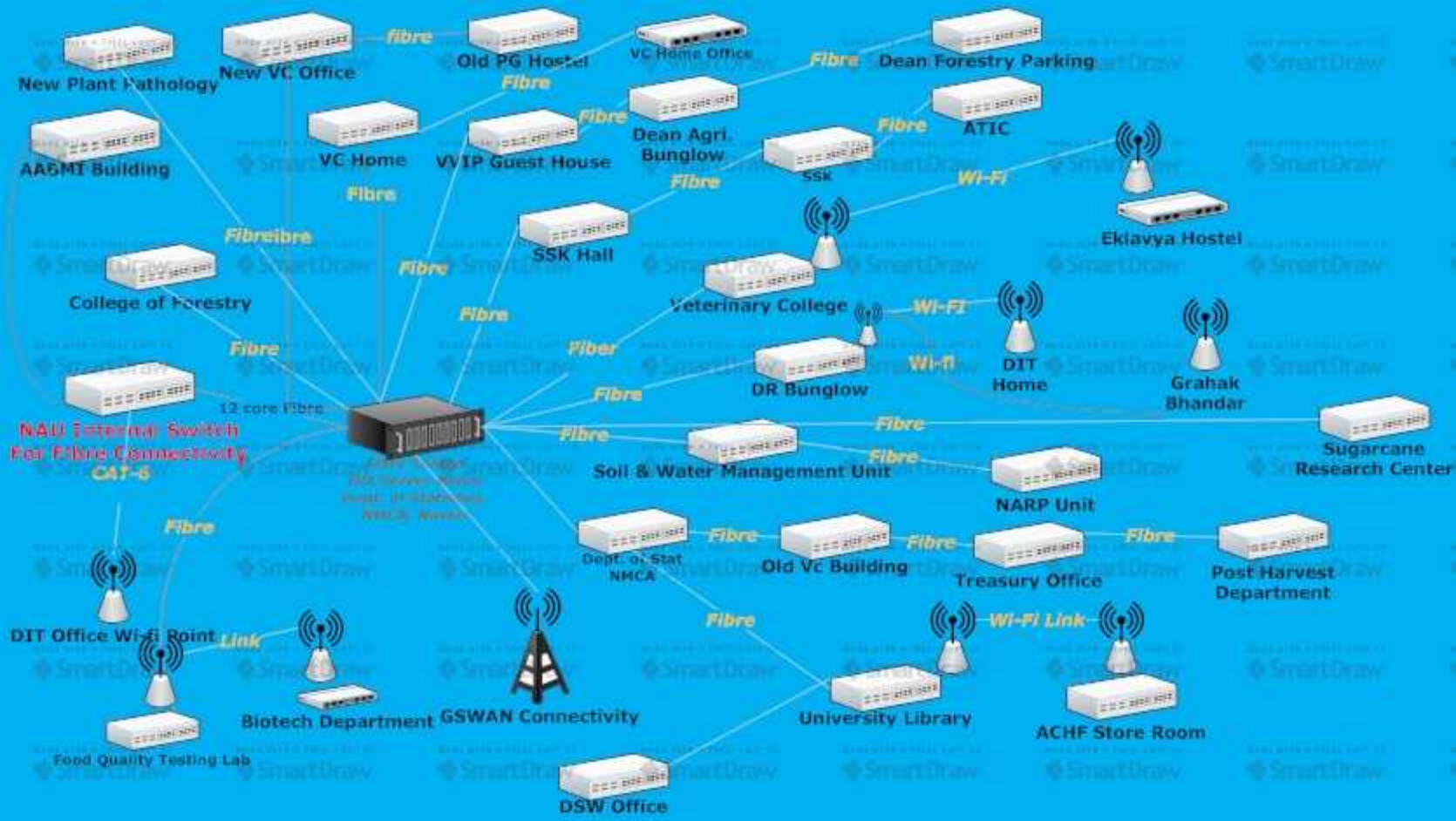
Paria
Wagahi
IPSec VPN
Dediapada
Internal Wireless Network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Fibre
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VC Home Office
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ATIC
AA&MI Building
VC Home
VVIP Guest House
Fibre
Dean Agri. Bunglow
Fibre
SSK
Wi-Fi
Eklavya Hostel
Fibre
Fibre
Fibre
SSK Hall
College of Forestry
Fibre
Fibre
Veterinary College
Wi-Fi
DIT Home
Grahak Bhandar
Fiber
Wi-fi
DR Bunglow
Fibre
12 core Fibre
NAU Internal Switch For Fibre Connectivity CAT-6
Fibre
Fibre
Soil & Water Management Unit
Fibre
Fibre
Sugarcane Research Center
NARP Unit
Fibre
Dept. of Stat NMCA
Fibre
Old Vc Building
Fibre
Treasury Office
Fibre
Post Harvest Department
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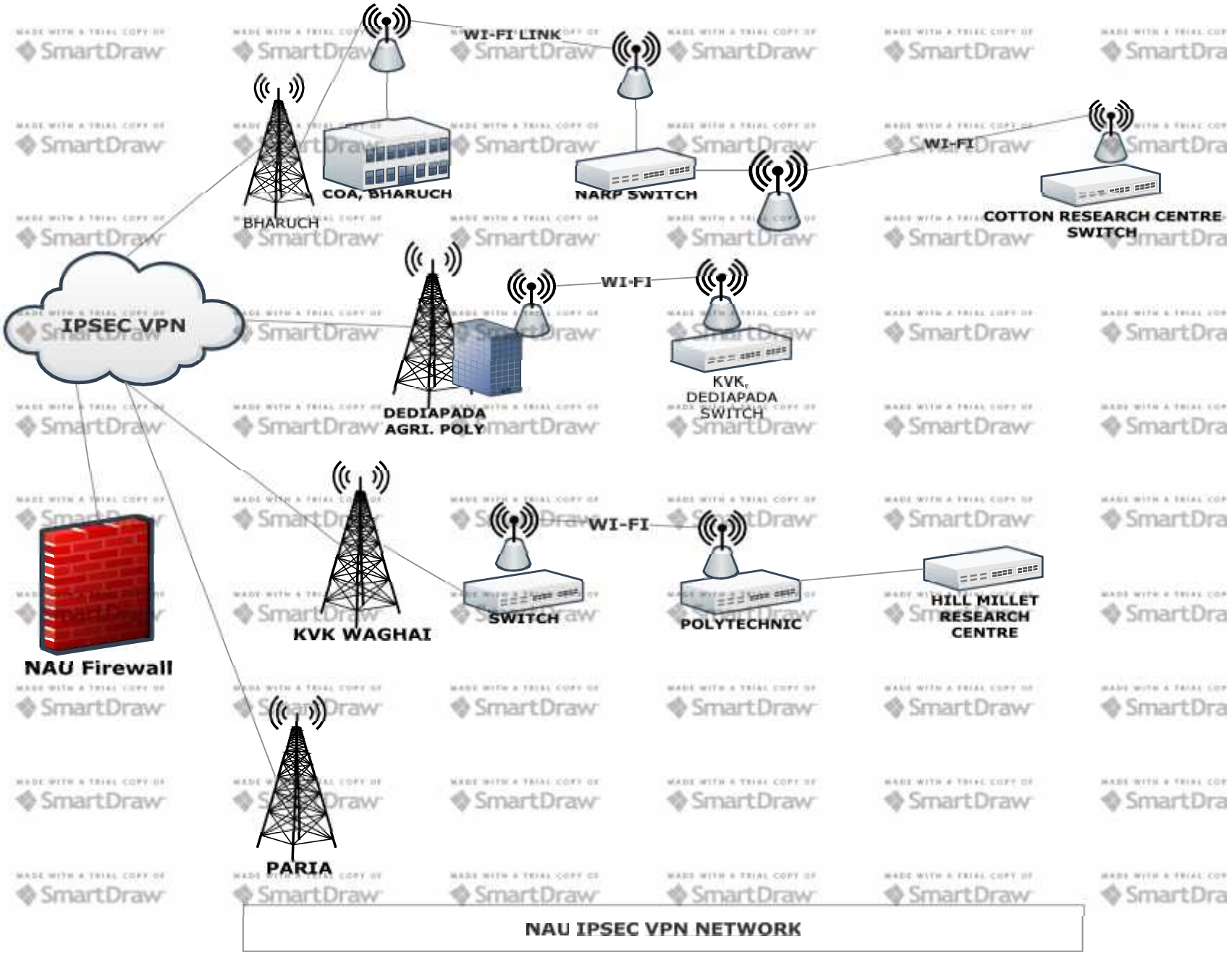
Fibre
Wi-Fi Link
University Library
ACHF Store Room
Food Quality Testing Lab
DSW Office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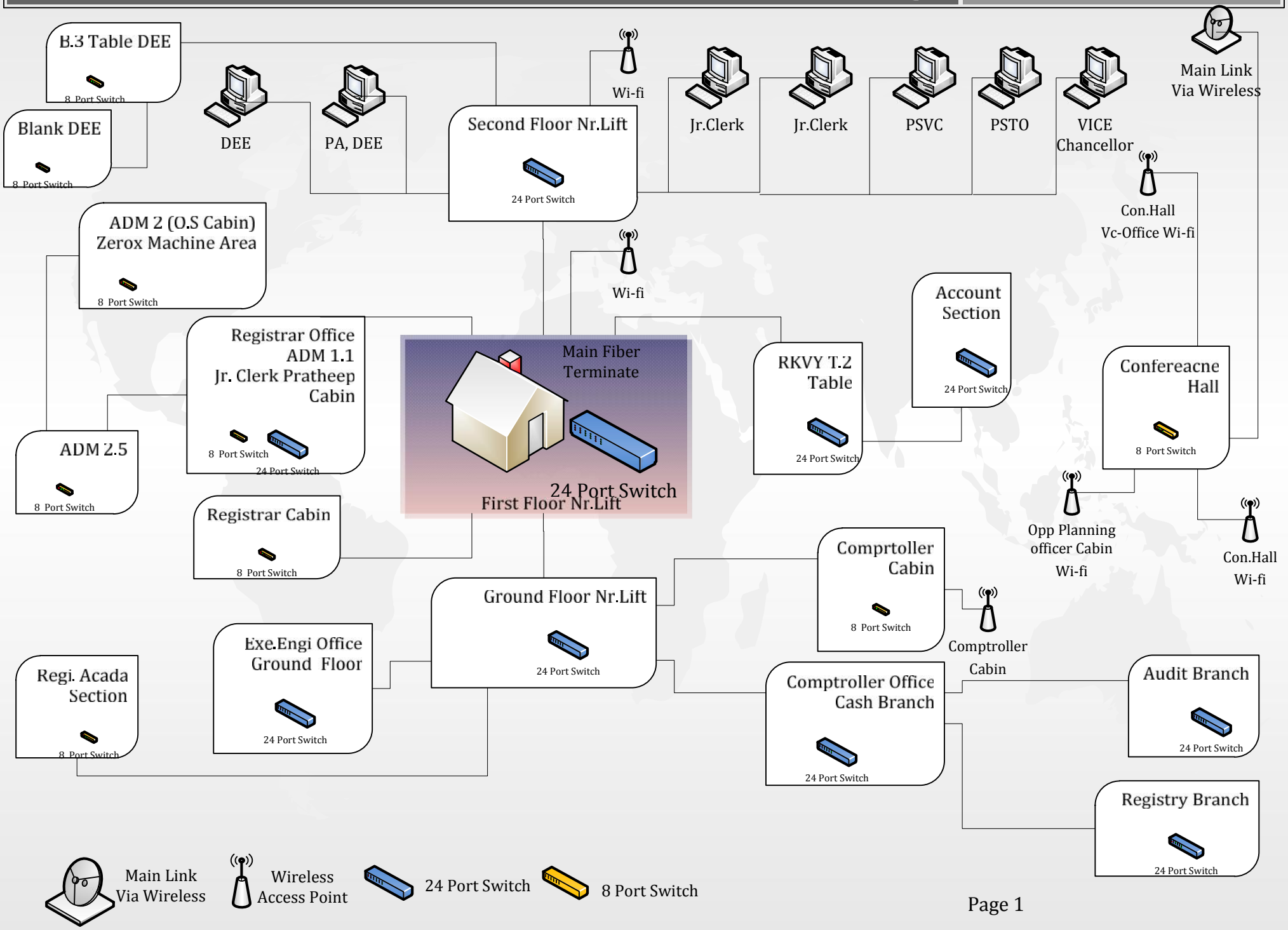
BHARUCH
COA, BHARUCH
NARP SWITCH
WI-FI
COTTON RESEARCH CENTRE SWITCH
IPSEC VPN
WI-FI
DEDIAPADA AGRI. POLY
KVK, DEDIAPADA SWITCH
NAU Firewall
KVK WAGHAI
WI-FI
SWITCH
POLYTECHNIC
HILL MILLET RESEARCH CENTRE
PARIA
NAU IPSEC VPN NETWORK

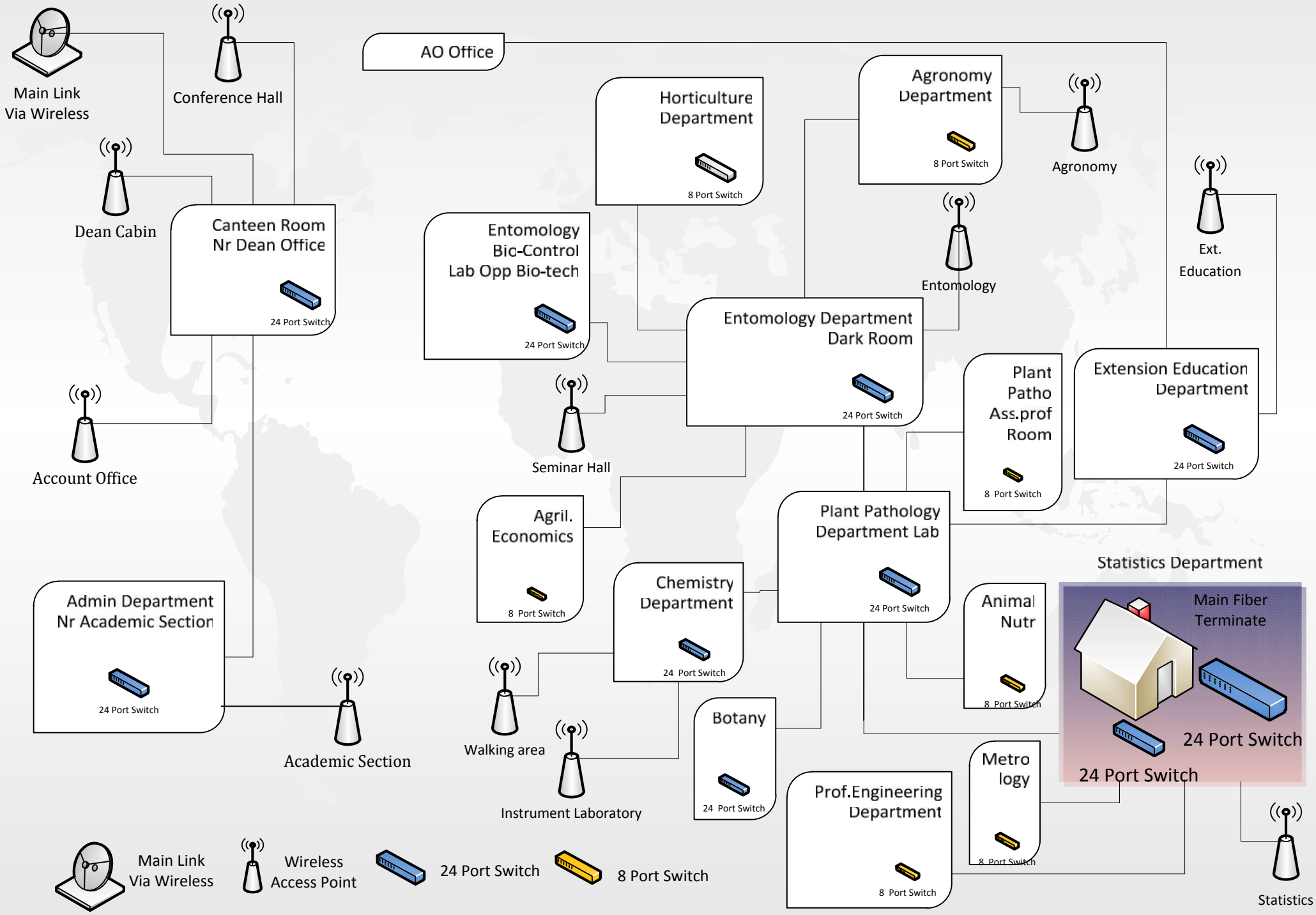
Local Area Network in New Vice-Chancellor Building

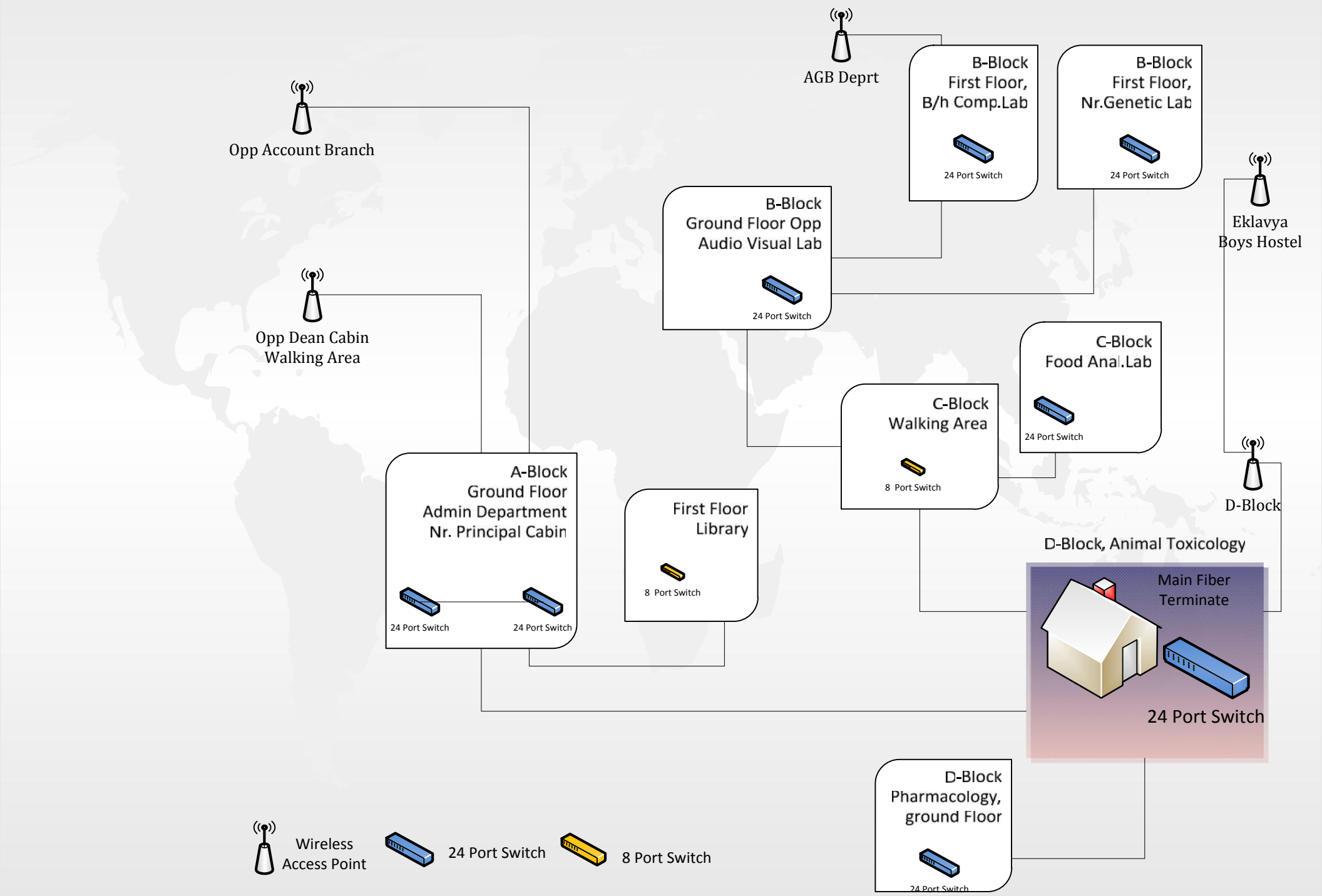
IT Department NAU Navsari

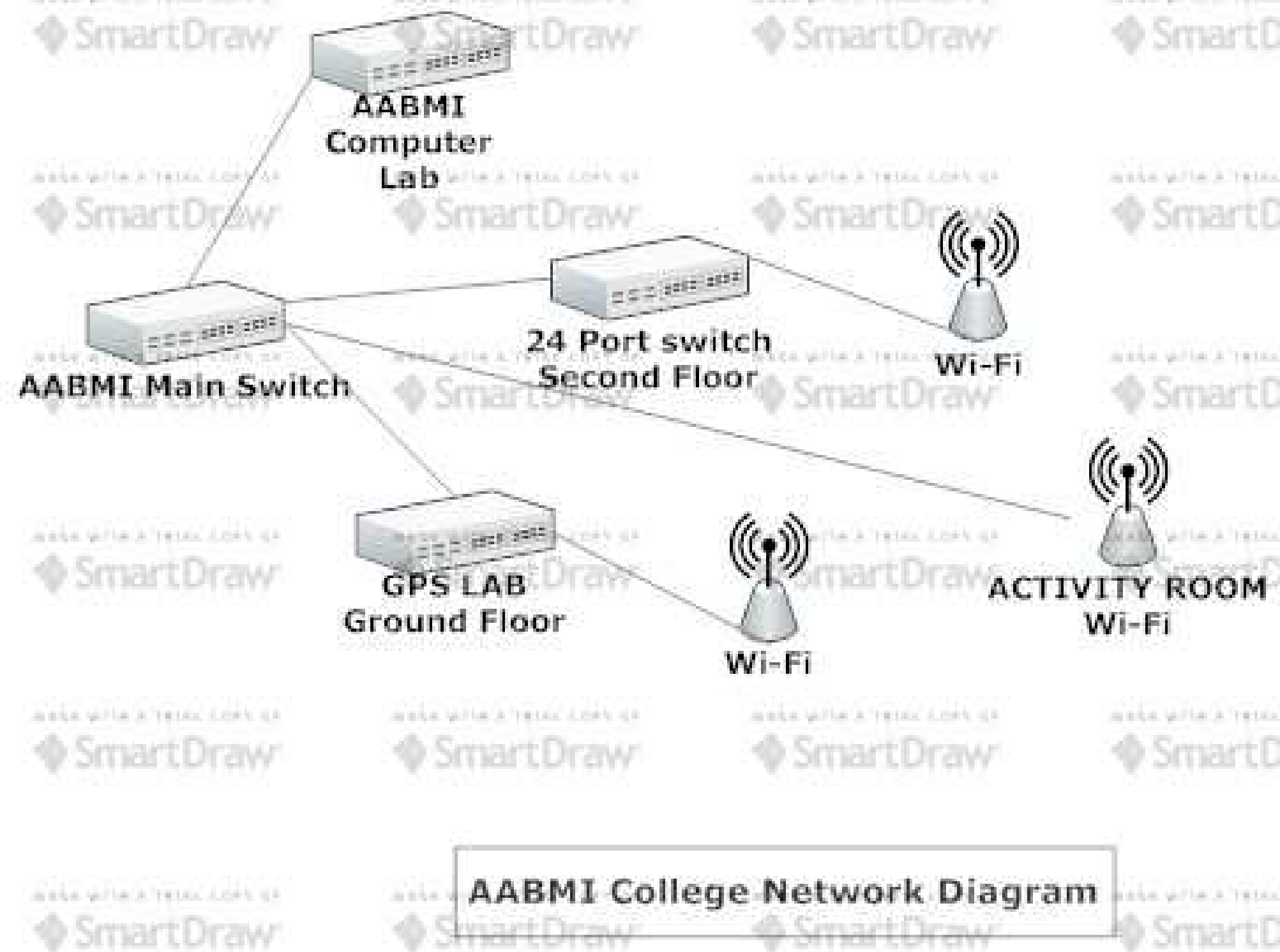


Structure of Local Area Network In N.M. College of Agriculture, NAU, Navsari

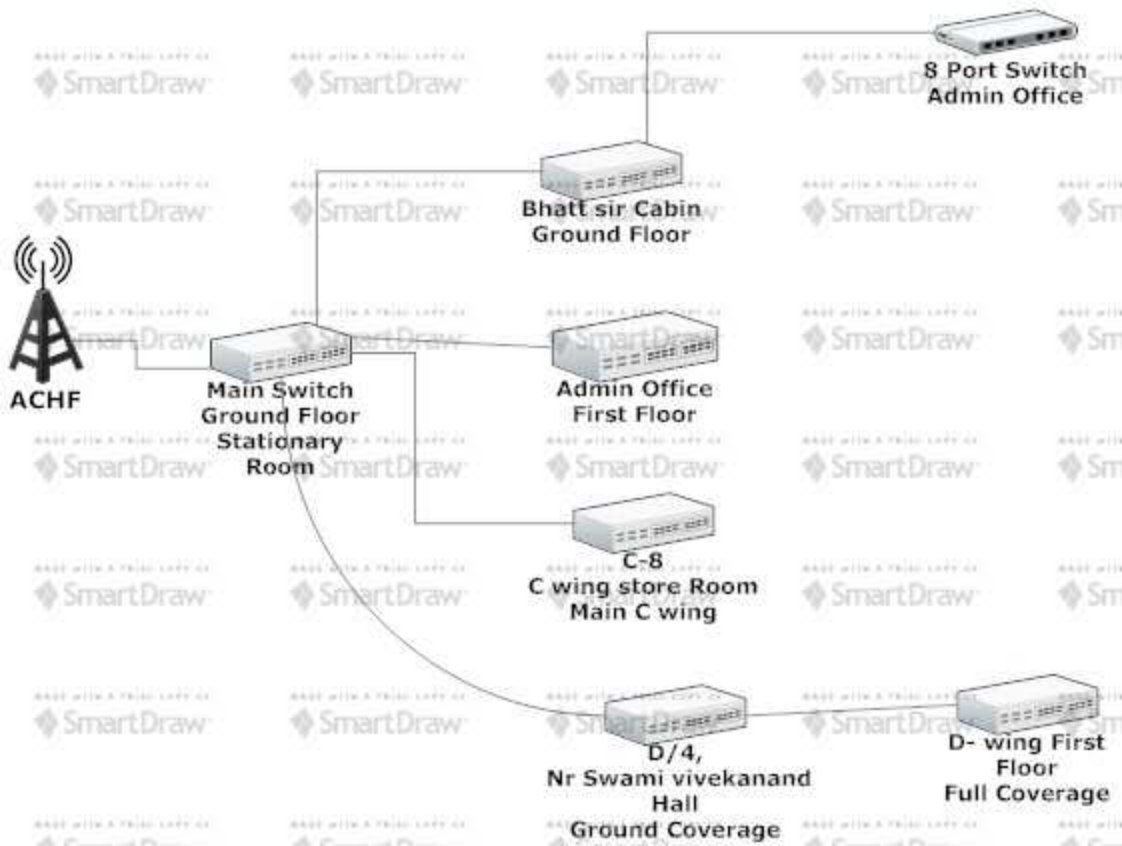
IT Department NAU Navsari

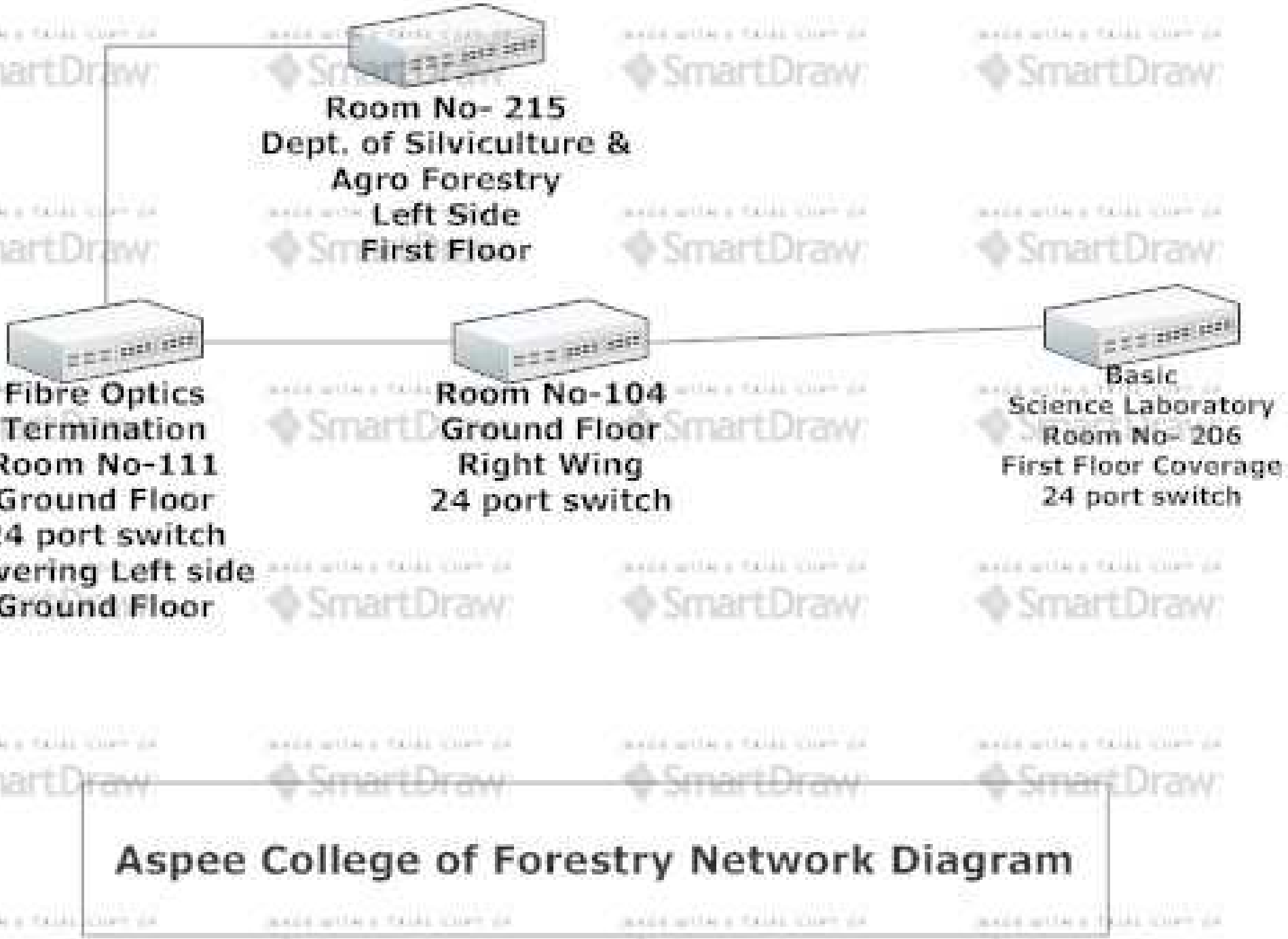


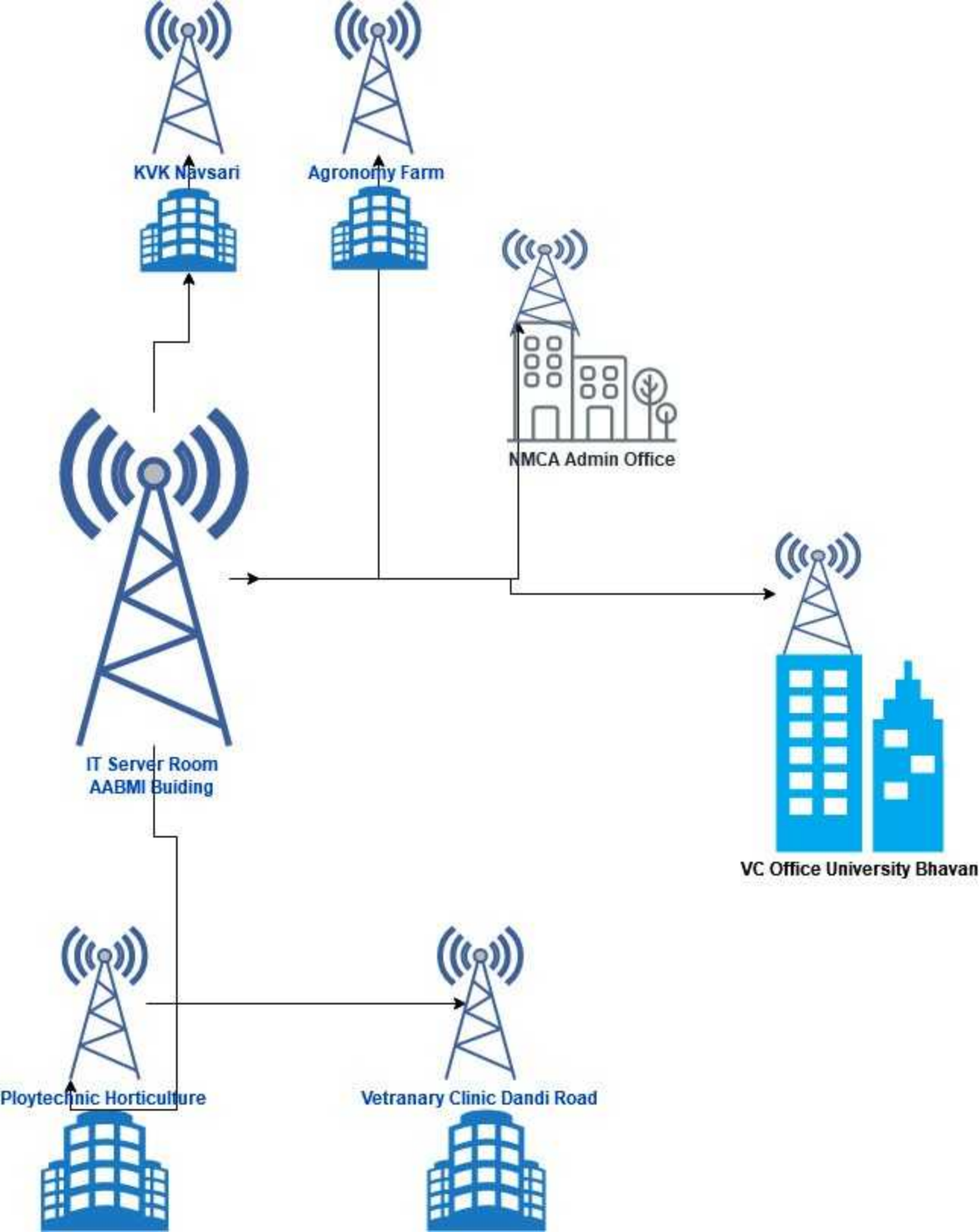

AGB Deprt
B-Block
First Floor,
B/h Comp.Lab
24 Port Switch
B-Block
First Floor,
Nr.Genetic Lab
24 Port Switch
Opp Account Branch
B-Block
Ground Floor Opp
Audio Visual Lab
24 Port Switch
Eklavya
Boys Hostel
Opp Dean Cabin
Walking Area
C-Block
Food Anal.Lab
24 Port Switch
C-Block
Walking Area
8 Port Switch
A-Block
Ground Floor
Admin Department
Nr. Principal Cabin
24 Port Switch
24 Port Switch
First Floor
Library
8 Port Switch
D-Block
D-Block, Animal Toxicology
Main Fiber
Terminate
24 Port Switch
D-Block
Pharmacology,
ground Floor
24 Port Switch
Wireless
Access Point
24 Port Switch
8 Port Switch

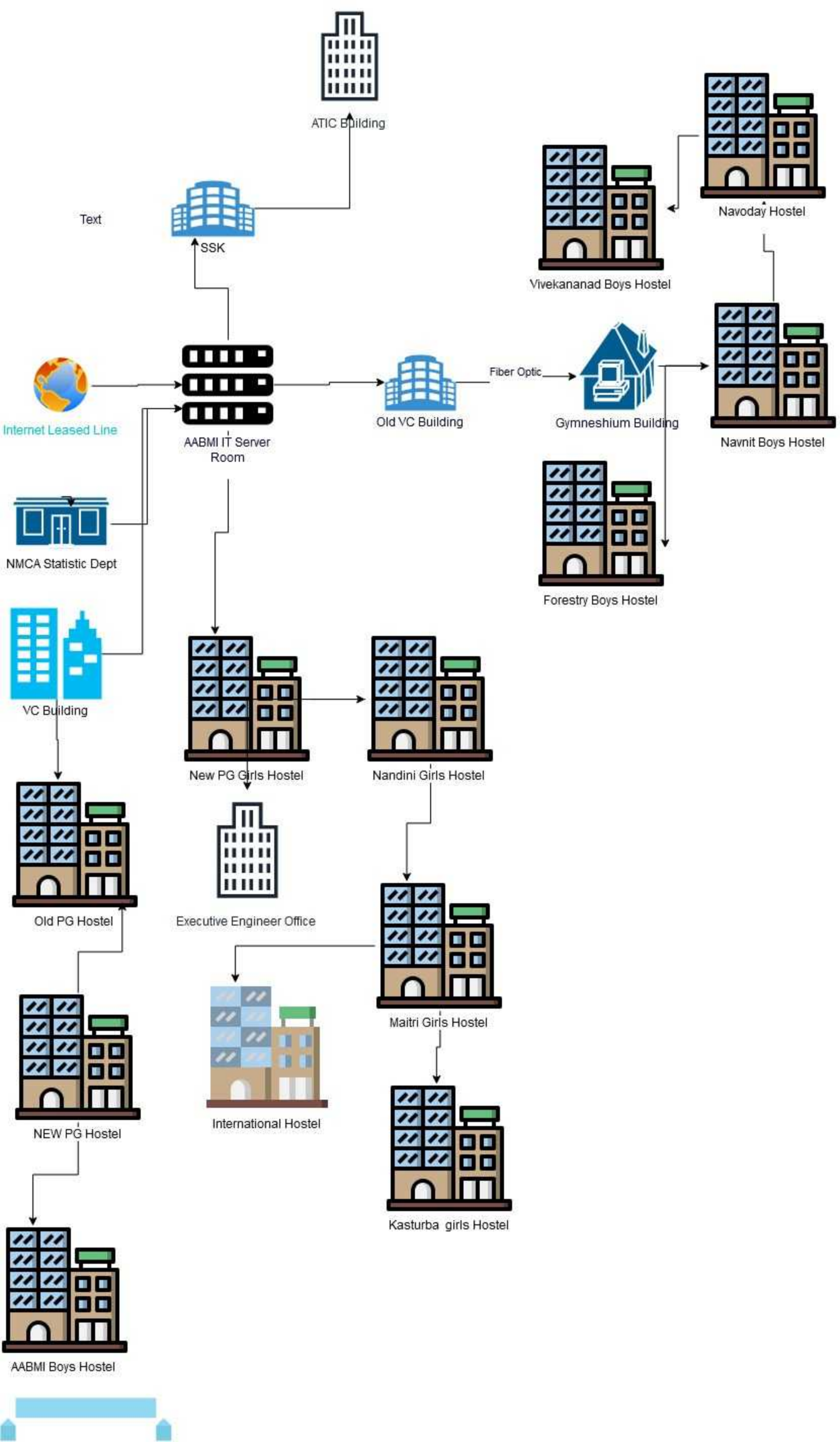

AABMI
Computer
Lab
AABMI Main Switch
24 Port switch
Second Floor
Wi-Fi
GPS LAB
Ground Floor
Wi-Fi
ACTIVITY ROOM
Wi-Fi
AABMI College Network Diagram

ASPEE college of Horticulture Network Diagram

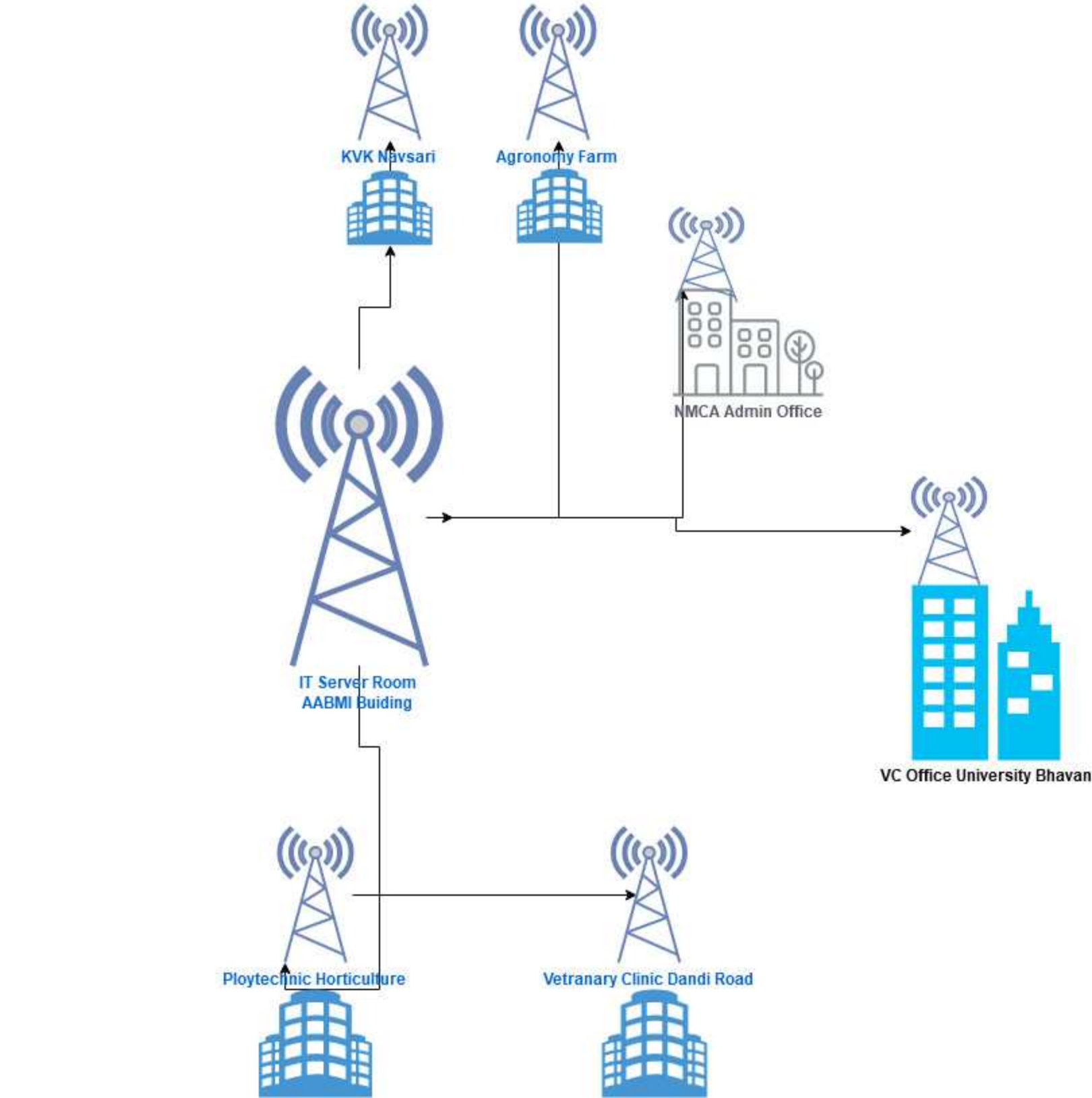



Room No- 215
Dept. of Silviculture &
Agro Forestry
Left Side
First Floor
Fibre Optics
Termination
Room No-111
Ground Floor
24 port switch
covering Left side
Ground Floor
Room No-104
Ground Floor
Right Wing
24 port switch
Basic
Science Laboratory
Room No- 206
First Floor Coverage
24 port switch
Aspee College of Forestry Network Diagram

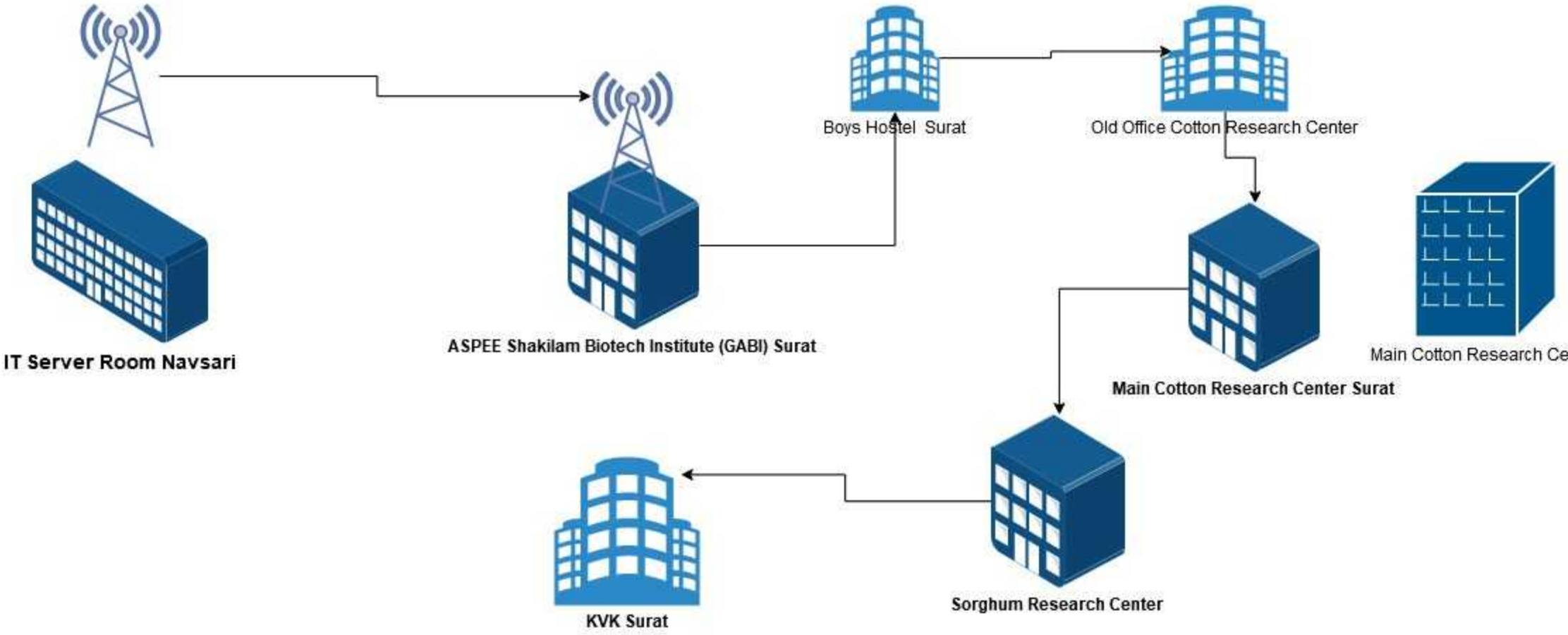

KVK Navsari
Agronomy Farm
NMCA Admin Office
IT Server Room
AABMI Buiding
VC Office University Bhavan
Ploytechnic Horticulture
Vetranary Clinic Dandi Road


ATIC Building
Text
SSK
Navoday Hostel
Vivekananad Boys Hostel
Internet Leased Line
AABMI IT Server Room
Old VC Building
Fiber Optic
Gymneshium Building
Navnit Boys Hostel
NMCA Statistic Dept
Forestry Boys Hostel
VC Building
New PG Girls Hostel
Nandini Girls Hostel
Old PG Hostel
Executive Engineer Office
Maitri Girls Hostel
International Hostel
NEW PG Hostel
Kasturba girls Hostel
AABMI Boys Hostel

P2P Wireless Connectivity at NAU Navsari Campus 2019



Surat Remote Center Connectivity



Text

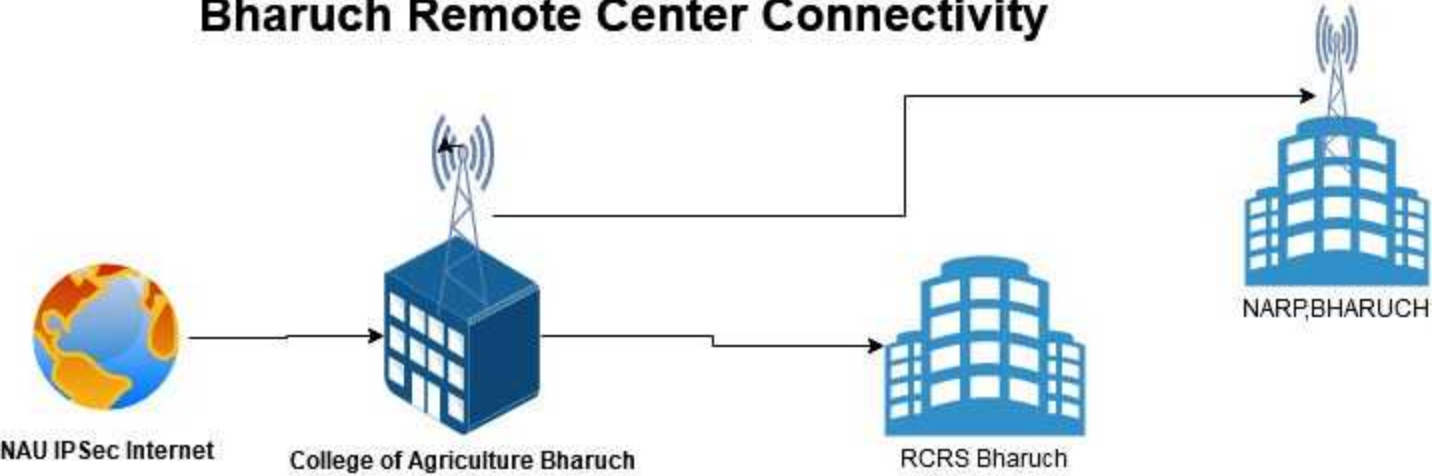
Note: The **Wireless** link is proposed and tobe established in near future

Text

Text

Text

Bharuch Remote Center Connectivity



Appendix-2

Here,

1. Switch means 24 port manageable/unmanaged switch
2. wifi device means 2.4 GHz wireless device short range
3. Radio means 2.4 GHz wireless device short range or 5.8 GHz wireless Device long range

NAU, Navsari campus network through Fiber Optic Cable Connectivity

1. AABMI (1 switch) (1 wifi device) to AABMI Ground Floor Switch(1 switch) (2 wifi device)
    a. AABMI to AABMI First Floor (1 switch) (2 wifi device)
    b. AABMI to AABMI Second Floor (1 switch) (2 wifi device)
2. AABMI to VC Office First Floor(1 switch))(1 wifi device) to PG Boys Hostel (1 wifi device)
    a. AABMI to VC Office First Floor to VC Office Ground Floor (1 switch) to Comptroller Office (1 switch) (2 wifi devices)
    b. AABMI to VC Office First Floor to VC Office Ground Floor to Academic Registrar Office (1 switch) (1 wifi device)
    c. AABMI to VC Office First Floor to Registrar Office (1 switch) (2 wifi device)
    d. AABMI to VC Office First Floor to DR Office (1 switch)
    e. AABMI to VC Office First Floor to VC Office Second Floor (1 switch and 3 ports of it)
3. AABMI (1 switch) to AABMI DIT Office (1 wifi device)
4. AABMI to VC Home (1 switch) (2 wifi device)
5. AABMI to Statistics (1 switch) to Plant Pathology (1 switch) To Entomology (1 switch) (3 wifi device)
    a. AABMI to Statistics to Plant Pathology to Chemistry (2 wifi device)
    b. AABMI to Statistics to Plant Pathology to Extension Education (1 switch) (2 wifi device)
    c. AABMI to Statistics to Plant Pathology to Botany (1 switch)
    d. Statistics to Old VC office (1 switch) (1 wifi device) to Treasury Office (1 switch)
        i. Statistics to Old VC office to Post-Harvest Technology (1 switch) (1 wifi device)
    e. Statistics to Library (1 switch) (radio) to ASPEE College of Horticulture (radio) (3 switch) (3 wifi device)
6. AABMI to Forestry College(3 switch) (3 wifi device)
7. AABMI to Vet College (1 switch) (1 wifi device)
    a. AABMI to Vet College to A-Block Prin. Cabin (1 switch) (2 wifi)
    b. AABMI to Vet College to C-Block walking area (1 switch) to B-Block Ground Floor (1 switch) to B-Block First floor B/H computer lab(1 switch) (1 wifi device)
        i. AABMI to Vet College to C-Block walking area (1 switch) to B-Block Ground Floor to B-Block First floor Nr. Generic Lab(1 switch)
    c. AABMI to Vet College to C-Block walking area to C-Block (1 switch)
    d. AABMI to Vet College to D-Block (1 switch)(radio) to Vet Eklavya Hostel (radio)(1 wifi device)
8. AABMI to Guest House (1 switch) (2 wifi device) to NMCA Bunglow (1 wifi device) to DR Bunglow (1 wifi device) to Vet Bunglow (1 wifi device) (1 radio) to Comptroller Home (1 radio) (1 wifi device)
    a. AABMI to Guest House to NMCA Bunglow to DR Bunglow to Vet Bunglow to PG Girsl Hostel (1 wifi device)(1 radio) to International Hostel (1 radio) (3 wifi device)
        i. AABMI to Guest House to NMCA Bunglow to DR Bunglow to Vet Bunglow to PG Girsl Hostel to Gargi Girls Hostel(1 wifi device)
        ii. AABMI to Guest House to NMCA Bunglow to DR Bunglow to Vet Bunglow to PG Girsl Hostel(radio) to Maitri Girls Hostel (radio) (1 wifi device)
9. AABMI to Soil & Water (1 switch) (2 wifi device) to NARP (2 wifi device)

10. AABMI to Statistics Department NMCA (Fiber Optic Connectivity)

11. University Library to Aspee College of Horticulture (Fiber Optic Connectivity)

12. Old PG Boys Hostel (2 nos. 24 Port Switch 16 Wireless access points)) to New PG Boys Hostel (3 nos. 24 Port Switch, 03Wireless access points) (Fiber Optic Connectivity)

13. New PG Boys Hostel to AABMI Hostel (2 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

14. Navnit Boys Hostel (03 nos. 24 Port Switch, 5 wireless access points) to Navoday Boys Hostel (03 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

15. Navoday Boys Hostel to Vivekanand Boys Hostel (03 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

16. Navnit Boys Hostel to Forestry boys Hostel (03 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

17. ATIC Building (2 nos. 24 port Switch, 05 wireless access point) to Musuem (2 nos. 24 port Switch, 05 wireless access point) (Fiber Optic Connectivity)

18. New PG Girls Hostel to Ansuya Girls hostel (3 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

19 Ansuya Girls hostel (3 nos. 24 Port Switch, 6 wireless access points) to Gargi girls Hostel (3 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

20. New PG Girls Hostel to Nandini Girls hostel (24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

21. Nandini Girls hostel to Executive Engineer Office (2 Nos. 24 Port Switch, 3 wireless access points) (Fiber Optic Connectivity)

22. Maitry Girls Hostel (2 nos. 24 Port Switch, 5 wireless access points) to International Hostel (24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

23. Maitry Girls Hostel to Kasturba Girls Hostel (3 nos. 24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

24. Kasturba Girls Hostel to Minaxi Girls Hostel (24 Port Switch, 5 wireless access points) (Fiber Optic Connectivity)

25. Pulse Research Center Navsari (Old VC building) (24 Port Switch) to Gymnasia Hall Navsari (24 Port Switch, 1 wireless access points) (Fiber Optic Connectivity)

26. Gymnasia Hall Navsari to Navnit Boys Hostel (Fiber Optic Connectivity)

27. Nandini Girls Hostel to Matri Girls Hostel (Fiber Optic Connectivity)

10. AABMI to Food Quality Testing (1 switch) to Sugar Cane (1 switch) to Bio (1 switch)
    i. A A B M I to Food Quality Testing(radio) to Bio Technology (radio)(1 switch)(1 wifi device)
11. AABMI to DR Bunglow (radio) to DIT Home (radio) (1 wifi device) to PO Home (1 wifi device)
12. AABMI to SSK (1 switch) to ATIC (1 switch)

NAU, Navsari campus network through Radio Connectivity

1. AABMI (radio) to VC office (radio) (4 wifi device)
2. AABMI (radio) to NMCA Canteen room(radio) (1switch) (2 wifi) to NMCA Admin Dept. (1 switch) (1 wifi device)
3. AABMI (radio) to KVK Navsari (radio) (1 switch) (1 wifi device)
4. AABMI (radio) to Horticulture Polytechnic Dandi road (radio) (1 switch) (2 wifi device)
5. AABMI (radio) to Veterinary Clinic Dandi Road (radio) (1 switch) (2 wifi device)
6. AABMI (radio) to Vice Chancellor Old Bunglow (radio) (1 wifi device)
7. AABMI to Dean ACHF Bunglow (radio) (1 wifi device)
8. AABMI (radio) to AABMI Boys Hostel (radio) (1 wifi device)

Out Station Network established through wireless point-to-point connectivity

1. AABMI(radio) to Bardoli(radio) (1 switch) (1 wifi device) (radio) to Vyara Polytechnic(radio)(1switch)(1 wifi device)(radio) to Vyar Rice Research(radio)(1 switch)(1 wifi device)
    a. AABMI to Bardoli to Vyara Polytechnic(radio) to Vyara KVK (radio) (2 wifi devices)
2. AABMI (radio) to Surat Cotton Research Station(radio) (1 switch) (1 wifi device) (radio) to Surat GABI (radio) (1 switch) (1 wifi)
    a. AABMI to Surat Cotton Research Station (radio) to Surat KVK (radio) (1 switch) (1 wifi device) to Sorghum Research Unit(1 switch) (1 wifi device)
3. **AABMI (radio) to Gandevi (radio) (1 wifi device)**

4**. AABMI to ASPEE Shakilam Biotech Institute Surat (P2P Link)**

- ASPEE Shakilam Biotech Institute Surat to Hostel Surat (Fiber Optic Connectivity)
- Hostel Surat to Old Office Cotton Research Center Surat (Fiber Optic Connectivity)
- Old Office Cotton Research Center Surat to Main Cotton Research Center Surat (Fiber Optic)
- Main Cotton Research Center Surat to Sorghum Research Center
- Sorghum Reserch Center Surat to KVK Surat.

Out Station Network established through IPSec VPN Network

1. Bharuch Agri College(1 router)(1 switch) (1 wifi device)(radio) to Bharuch NARP (radio)(1 switch)(1 wifi device)(radio) to Bharuch Cotton Research Station(radio)(1 switch)(1 wifi device)
    - Agriculture College Bharuch to Regional Cotton Research Center Bharuch (Fiber Optic Connectivity)

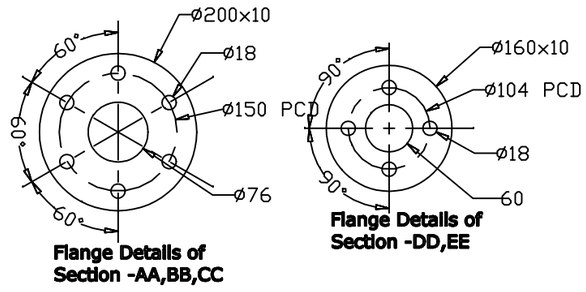
2. Waghai Agri College(1 router)(1 switch)(1 wifi device)(radio) to Waghai KVK(radio)(1 switch)(1 wifi device)(radio) to Waghai Poly Banking(radio)(1 switch)(1 wifi device) to Waghai Hill Millet Research (1 wifi device)
    - Agri. Polytechnic Waghai to Agriculture College Waghai (Fiber Optic Connectivity)
    - Agriculture College Waghai to Hill millet Research Centre Waghai (Fiber Optic Connectivity)
    - Agriculture College Waghai to KVK Waghai (Fiber Optic Connectivity)

3. Dediyapada Poly Agri second floor (1 router)(1 switch)(2 wifi device)(radio) to Dediyapada KVK (radio)(1 switch)(1 wifi device)

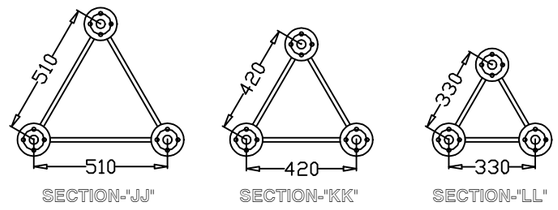
a. Dediyapada Poly Agri second floor to Dediyapada Poly Agri first floor(1 switch) to Dediyapada Poly Agri ground floor(1 switch)(1 wifi device)
b. Dediyapada Poly Agri second floor to Dediyapada Poly Agri second floor Computer Lab(1 switch)

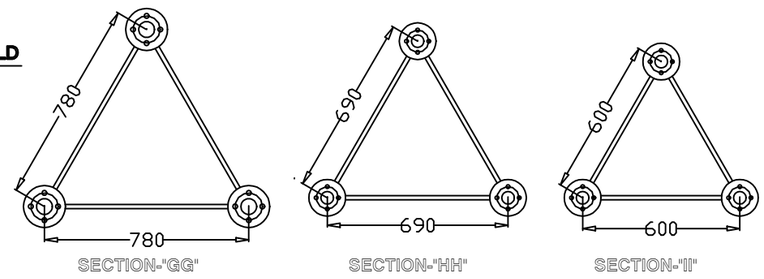
4. Paria Polytechnic (1 router)(1 switch)(1 wifi device) to Paria Agriculture Experiment Station(1 switch)

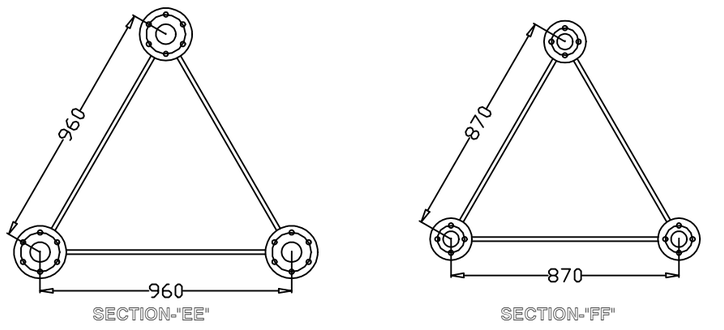
FLANGE DETAILS

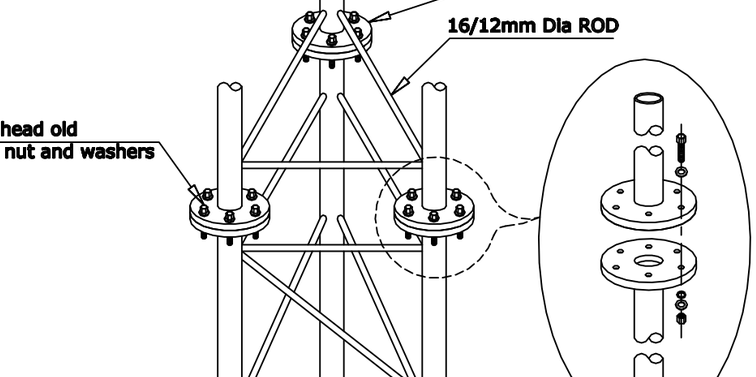


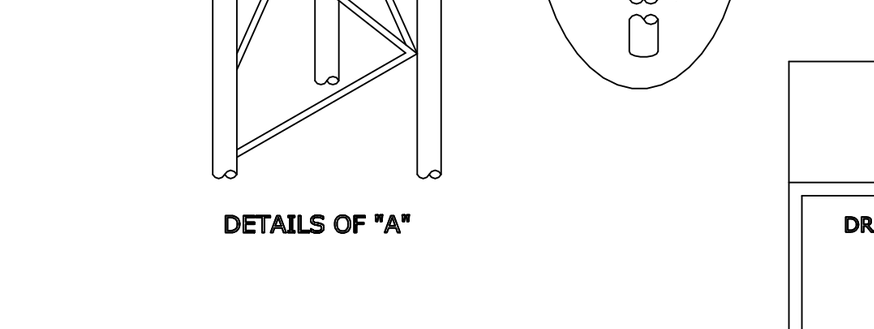
SECTION DETAILS











DETAILS OF PIPE & ROD

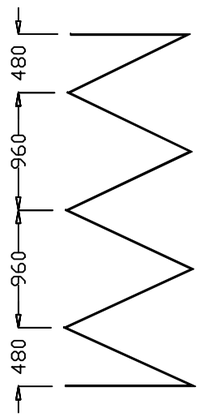
Sec No	PIPE OD	ROD DIA	STEP ROD
1.	100 OD	16 MM DIA	16 MM DIA
2.	75.96 OD	16 MM DIA	16 MM DIA
3.	75.96 OD	16 MM DIA	16 MM DIA
4.	75.96 OD	16 MM DIA	16 MM DIA
5.	60.25 OD	16 MM DIA	16 MM DIA
6.	60.25 OD	16 MM DIA	16 MM DIA
7.	48.35 OD	12 MM DIA	12 MM DIA
8.	48.35 OD	12 MM DIA	12 MM DIA
9.	42.45 OD	12 MM DIA	12 MM DIA
10.	42.45 OD	12 MM DIA	12 MM DIA
11.	33.75 OD	12 MM DIA	12 MM DIA
12.	33.75 OD	12 MM DIA	12 MM DIA

NOTE:-

1. ALL DIMENSIONS ARE IN "mm" UNLESS NOTED OTHERWISE.
2. ALL UNSPECIFID HOLE ARE 17.5mm DIA FOR 16mm DIA BOLTS CONFIRMING PROPERTY CLASS 5.6 FOR ALL MEMBERS OF TUBULAR HYBRID MAST.
3. ALL FABRICATED MEMBERS ARE TO BE HOT DIP GALVANIZED AS PER IS: 4759-1968, IS: 1161-1998, AND IS:4736.
4. ALL NUTS & BOLTS ARE TO BE HOT DIPP GALVANIZED AS PER IS: 1367-1987.
5. ALL FABRICATION SHALL CONFIRM TO IS: 808-1989.
6. LOADING OF MAST 25 Kgs AT DIFFERENT HEIGHS AND DIFFERENT LOCATIONS.
7. FIELD CONNECTIONS SHALL BE BOLTED WITH LOCK WASHERS, NO FIELD WELDING SHALL BE ALLOWED.
8. MAST SHALL NOT BE INSTALLED WITHIN FALLIG DISTANCE OF ELECTICAL OR TELEPHONE LINES.
9. MAST DESIGN ASSUMES THAT AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED BY OTHERS OVER THE LIFE OF THE STUCTURE IN ACCORDANCE WITH INDIAN STANDARDS.
10. FOUNDATION SHALL BE DESIGNED FOR THE CONDITIONS EXISTING AT THE SITE.
11. ALL THE SECTIONS USED SHOULD BE OF STRUCTURAL GRADE AND THE SAME SHALL BE FOLLOWED FOR EXECUTION.
12. ALL WELDS ARE 6mm FILLET U.N.O
13. TOLERANCE FOR FABRICATION OF STEEL STRUCTURES IS: 7215.
14. ALL TUBES SHALL CONFIRM TO GRADE YST240 MPS AS PER IS: 806-1968

TRUNCATIONS:-

a. 27M (Bottom 3M truncation from 30M tower)
b. 24M (Bottom 3M truncation from 27M tower)
c. 21M (Bottom 3M truncation from 24M tower)
d. 18M (Bottom 3M truncation from 21M tower)
e. 15M (Bottom 3M truncation from 18M tower)



DETAILS OF "B"

DETAILS OF "A"

DRAWING TITLE

36M SELF SUPPORTING TOWER