CN&I – Campus network & internet

Faculty In-charge

Network Administrator

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VISION

We aspire to create a Campus Networking and Internet (CNI) system that acts as the cornerstone of our institute, driving us towards a future where the seamless integration of technology with education is paramount. Our goal is to build an inventive CNI infrastructure that enables students, faculty, and researchers to navigate, collaborate, and thrive in an interconnected global landscape. We aim to lead in technological progress, cultivating an atmosphere where connectivity serves as a catalyst for our organization.

MISSION

Our mission is to design, implement, and continuously enhance a robust Campus Networking and Internet (CNI) infrastructure tailored to the unique needs of our institute. We are dedicated to providing high-speed, reliable connectivity that supports the demands of modern education, research, and collaboration. Through proactive technology integration, cyber security measures, and strategic planning, our mission is to empower every member of our academic community with the tools and resources needed to excel in their pursuit of knowledge and to maintain privacy and to reduce the threat of crime protecting KITSW premises and safety of all the staff members, students and visitors, the video surveillance system shall be utilized. We aim to cultivate a technologically enriched environment that not only supports academic endeavors but also fuels a culture of innovation, preparing our students to be leaders in the ever-evolving field of engineering.

Objectives / Functions:

1. KITSW Institute has a campus network with Optical Fiber Cable (OFC) as the backbone supporting various services such as audio, video streaming, and telephone network with 1.5 Gbps one-to-one internet connections to all the systems.

2. Wireless coverage is also provided for all connected devices throughout the entire campus. The bandwidth has been increased to 1.5 Gbps. The entire college campus is covered by 280 Wi-Fi Access points from Vaishnavi and BSNL online services, enabling access to Internet and Intranet educational resources. The Wi-Fi facility has been extended to all the hostels connected through Wireless bridges with Fibreoptic cable. All access points are password protected. MAC filtering for device registration is applied for Wireless devices/Laptops. The college IP address is protected through Web filtering options.

3. Application filtering and Web policy have been implemented. The college has adapted the web policy and applied filtration for unhealthy and non-working websites. The websites are classified as Productive, Neutral, Unhealthy, and Non-working. Productive sites include domain KITSW allowed sites, banking websites, IRCTC, Radius, etc. Neutral websites include Educational Institutions, Electronics, Cultural Institutions, Education and Reference Material, Health, and Medicines, etc. Unhealthy websites comprise Pornography, Crime and Suicide, Militancy and Extremist, Phishing and Fraud, Weapons, etc. Non-Working websites consist of Blogs, Games, Finance, Entertainment, Astrology, etc.

KITS, WARNGAL INFORMATION TECHNOLOGY SECURITY CENTRE

4. Kakatiya Institute of Technology and Science, Warangal outlines the conditions for accessing the network and computing resources at KITSW. This encompasses all services and resources provided through KITSW, either via the Institute Information Technology Security Centre (IITSC) or through individual departments.
5. The policy statements are crafted in accordance with the guidelines of the Government of India and are subject to interpretation in light of the existing laws of the country.
6. The primary use of IT resources is for academic and research purposes. In the event of any conflict of interest, academic usage will be prioritized over non-academic requirements.
7. To uphold privacy and enhance security, protecting KITSW premises and ensuring the safety of all staff members, students, and visitors, the video surveillance system will be employed.
8. The policy regarding the replacement or provision of IT accessories such as computers, laptops, printers, routers, servers, and other network components will be provided by the Institute for all emergency purposes.

RESPONSIBILITIES OF CN&I

- Campus Wide Computer Systems Maintenance

- Campus Wide Licensed Software Maintenance

- Campus wide UPS Maintenance

- Campus wide Internet Bandwidth Distribution

- BSNl1 GBPS

- VOIS500 MBPS

- Campus wide Wi-Fi points installation and Maintenance

- Campus wide OFC & LAN laying & Installation

- Campus wide Systems & Printers Installation & Maintenance

- Campus wide Servers Installation and Maintenance

- Live Streaming for College Events, NBA and NAAC Committee

- Online Campus Placements Exams Conduction

- GOVT Online Exams Conduction (NTA JEE, GATE, TSEAMCET)

KITSW INTERNET BANDWIDTH FOR THE ACADEMIC YEARS.
(2023-24,2022-23, 2021-22, 2020-21, 2019-20, 2018-19)

S.NO	BANDWIDTH	YEAR	ILL-1	ILL-2
01	1 GBPS	2023-24		BSNL
	500 MBPS		VOIS	
02	500 MBPS	2022-23	VOIS	
	500 MBPS			BSNL
03	400 MBPS	2021-22	VOIS	
	100 MBPS			JIO
04	200 MBPS	2020-21	VOIS	-
05	Jul-2019 155 MBPS Aug -2019 500 MBPS	2019-20	VOIS	-
06	155 MBPS	2018-19	VOIS	-

- VOIS (VAISHNAVI ONLINE INTERNET SERVICES PVT,LTD)
- BSNL (BHARAT SANCHAR NIGAM LIMITED)
- JIO (JIO INTERNET LEASED LINE)

Mikrotik CCR1072-1G-8S+ Cloud Core Route

CCR1072, is powered by a Tilera 72 core CPU, each core is clocked at 1GHz, and to fully utilize this power, the CCR1072 is equipped with eight independently connected 10G SFP+ ports and single Ethernet port for management purposes.

The unit comes equipped with installed RouterOS L6, 16GB of built in ECC RAM, touchscreen color LCD, two removable (hotplug) power supplies for redundancy, smart card slot, microUSB, regular size USB, microSD and 2x M.2 slots for additional storage.

Thanks to the unique 72 core processor and ports that are directly connected to the CPU, CCR1072 is capable of over 120 million packets per second throughput.
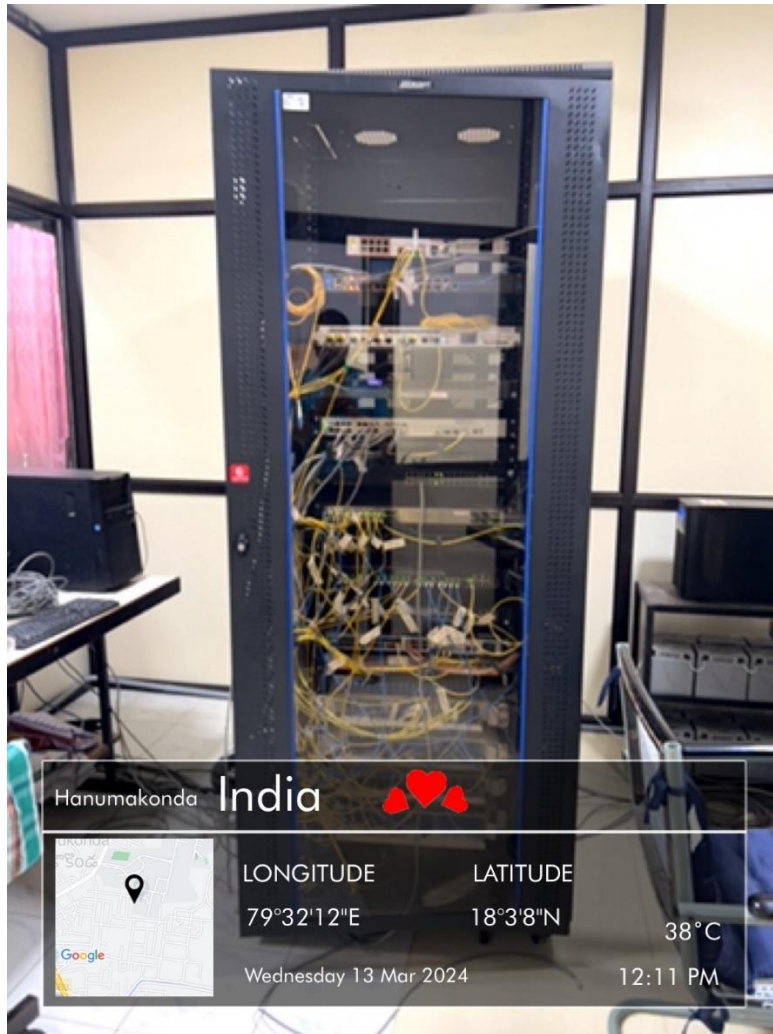

DELL PowerEdge R230 Rack Server

Get organized and become more productive

- Consolidate data from multiple laptops or desktops onto a single server with up to 4 x internal 3.5" cabled or hot-plug HDD.
- Ensure fast response times with the latest quad core Intel® Xeon® E3-1200 v6 product family, as well as flexible dual core processor options including Intel Pentium®, Intel Core i3®, or Intel Celeron®.
- Adapt to changing workload conditions with a virtualization-ready server supporting Citrix® XenServer®, Microsoft® Windows Server® with Hyper-V®, VMware® vSphere® ESXi®, and Red Hat® Enterprise Virtualization.

Accelerate application performance

- Drive greater memory performance and expand capacity up to 64GB through time with 4 x DIMM slots and enhanced DDR4 memory, offering 50% faster clock speed than previous-generation DDR3 which is 12.5% faster than the initial 2133 MT/s implementation of DDR4.
- Boost data throughput with 2 x PCIe Gen 3.0 slots driving 2x data throughput compared to Generation 2.0.
- Drive 2x IOPS performance with the PowerEdge PERC9 RAID Controller compared to the previous-generation PowerEdge R220 equipped with PERC8.

I/c CN&I