WHERE ENHANCED USER EXPERIENCE MEETS ACADEMIC EXCELLENCE.

CASE STUDY

Performance of Quantum Networks at St. Joseph's College of Engineering, OMR, Chennai.

INTRODUCTION

St. Joseph's College of Engineering (SJCE), Chennai, is a premier institution with over 11,000 students. Known for its academic excellence and robust infrastructure, the college offers 11 undergraduate and 7 postgraduate programs. Ranked consistently among the top 10 institutions and accredited with an A+ grade by NAAC, it is celebrated for research excellence and contributions to innovation. With several awards, research centers, and recognition as a Scientific and Industrial Research Organisation (SIRO) by DSIR, the college has solidified its reputation as a leader in education and research.

CHALLENGES

Despite its academic prowess, SJCE faced significant issues with its Wi-Fi infrastructure, impacting students and faculty. Key challenges included:

Slow Speeds

The wired network relying on CAT 6 cables in certain areas could not keep up with the growing number of users, leading to slow internet speeds and unreliable connectivity.

Inadequate Coverage

Certain areas such as labs, libraries, AI labs, and the girls' hostel lacked reliable Wi-Fi access.

User Experience

Slow internet hindered access to online resources such as research papers, e-books, and large file sharing, negatively affecting research and learning.

OUR SOLUTION

Quantum Networks provided innovative solutions to overcome these challenges and enhance the overall Wi-Fi experience. Our approach included:

Site Survey

A comprehensive survey of the existing infrastructure to identify problem areas.

Proposal and Feasibility

Quantum proposed a solution tailored to the institution's needs, balancing cost, and technical feasibility.

Deployment of Advanced Equipment

High-performance Wi-Fi access points and controllers were installed throughout the campus, improving coverage and network performance.

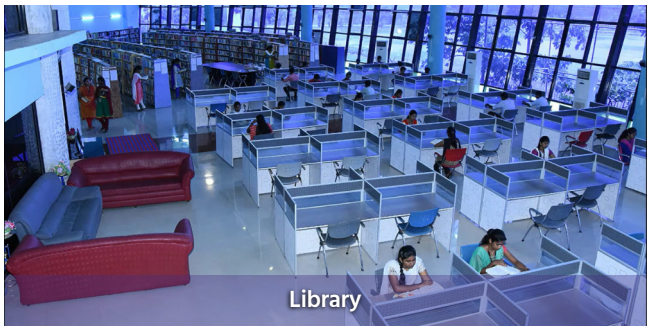
Network Optimization

Quantum optimized the existing network, reducing congestion and improving efficiency.

Cloud-based Monitoring

A cloud-based system was deployed for remote monitoring, ensuring security and performance management.


Tech Auditorium


Library


Administrative Section

OUTCOME

The interventions resulted in significant improvements:

Enhanced Coverage

Wi-Fi access was significantly improved across the campus and hostel facilities, ensuring uninterrupted, high-speed internet access for both students and staff.

Improved User Experience

With high-speed connectivity, users could access online resources, participate in virtual learning, and share large files without delays or interruptions.

Security Management

Advanced encryption, access control, network monitoring, and regular updates were implemented to secure the Wi-Fi network and safeguard user data.

CONCLUSION

Quantum Networks' solutions addressed the connectivity issues at St. Joseph's College of Engineering, providing reliable, high-speed internet access across the campus and hostels. With over 600 access points and switches deployed, the improvements have significantly enhanced the overall user experience. The collaboration between SJCE and Quantum Networks has ensured that students and faculty now enjoy seamless connectivity, empowering research, learning, and innovation.

All images are for representation purposes only and sourced from the official website of SJCE: https://stjosephs.ac.in/index.html

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