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GITAM creates elegant and optimal learning spaces

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WINNER**

TECH TO THE TOP

Gandhi Institute of Technology and Management [GITAM] aims to enter the ranks of the top global universities in the coming years.

Technology is expected to be a core component of GITAM's evolution in pursuit of this objective.

GITAM has embarked on an ambitious upgrade project encompassing 182 classrooms across three campuses in Bangalore [43], Hyderabad [55], and Vizag [84]. Sigma AVIT was selected as the system integrator to provide a turnkey solution for AV technology, with Q-SYS India providing design services. Sigma AVIT had a working relationship with GITAM having previously delivered technology solutions for GITAM's Hyderabad campus.

Gopala Krishna Gokeda, the chief technology officer at GITAM, talks about the investment in technology: "At GITAM, before the pandemic, we were using videoconferencing as a site-to-site tool primarily for the admissions process. But now we are at a juncture where it has become a critical part of pedagogy. Even as the students return to campus and full operations have resumed, we feel that the online component of teaching and learning has become

a part of our standard operating procedure. Call it hybrid mode or flexible learning, we are proceeding forward with a new mix of offline and online teaching at GITAM where technology is a key enabler."

"Hybrid" is a nebulous term that can mean different things to different organisations. Krishna Gokeda explains how GITAM conceptualised hybrid for its spaces: "Like any other university, we were thrown into the world of online teaching overnight. At first, we were just looking to ensure that we could continue to help our teachers teach and our students learn with the least amount of friction. And this meant that we were looking for something that was simple, easy to use, plug 'n play and caused the least amount of friction for users when adopted. Now that we are past the disruption, we can start looking at technology from the functional perspective. We have learned and grown a lot and so have our users, teachers, and students. Now, the challenge is about identifying the right technology to deliver the right outcome."

The requirements from GITAM were effectively communicated to the AV professionals. Santosh Kumar, sales and business development director from Q-SYS India, adds: "These 182 classrooms were chosen as the first to be

converted into modified, hybrid classrooms. They started as traditional classrooms, with walls, windows, doors, and desks, and hardly any technology. We therefore had the opportunity to start from the beginning. We looked at all aspects from cabling to acoustics, and worked to create solutions that would exist in these spaces not only in the immediate future, but for years to come as well."

Having a blank canvas meant that the AV professionals could build from the ground up. Giri Prasad, general manager for projects and services at Sigma AVIT, says: "GITAM wanted to have digitally connected classrooms across three campuses. The existing classrooms had to be upgraded and the technology had to be ingrained into the fabric of these spaces so that we could build a seamless experience that was easy to use and met GITAM's expectations. The fact that we could put in the structured cabling, switches and infrastructure allowed us to really make sure the core of the technology system was able to deliver the functionality required."

As with any move towards digital and hybrid learning, the choice of videoconferencing platform was a critical one. Krishna Gokeda from GITAM elaborates: "We started by trying out the different

With a strong vision and concrete focus on outcomes, the end user, Sigma AVIT and Q-SYS India detail how GITAM is upgrading and digitising its learning spaces.





Tech Spec

Audio

Q-SYS Core DSPs, amplifiers, speakers

Sennheiser microphones

Video

BenQ projectors

Cable cubbies

Q-SYS NV-32-HU,

PTZ cameras

USB switchers

GITAM was looking to squeeze as much value out of their investment in technology, and that is where remote monitoring and management was key.

Santosh Kumar, Q-SYS India

VC platforms available. From our tests and usage there was a clear contrast in the performance of the different VC platforms at that time. Zoom performed substantially better especially in terms of connectivity which was important to us. Our students and teachers come from all parts of India from the remote areas and the large suburbs where the quality of the internet connection varies. In my opinion, Zoom provided us the best experience and performance with a reliable connection in these low bandwidth situations.”

With Zoom in place, the AV professionals started to construct a technology solution that would deliver for GITAM. Kumar from Q-SYS India details: “The CTO from GITAM wanted an elegant system with the least number of components, and our design ended up being a simple ‘two box’ solution with all the end points being added to it.”

The system comprises Q-SYS NV-32 units and the Q-SYS Core DSPs serving as the ‘two boxes’. Q-SYS amplifiers, AD-S402T-BK speakers, Sennheiser microphones, Q-SYS PTZ cameras and BenQ projectors complete the technology system. Cable cubbies are used for laptop and network connectivity. Zoom resides on an all-in-one PC that is in the classroom, and a USB switcher is also employed. With this simple design, GITAM can leverage the capabilities of the Q-SYS ecosystem to create its desired outcome.

What sets the GITAM installation apart is the fact that the hardware and software selected feed into

an overall drive to monitor and manage the technology systems in the classrooms. Krishna Gokeda from GITAM says: “I’m not a huge advocate of being reactive, I would rather be proactive, and this is the approach we wanted to take towards technology and especially towards its maintenance. I want to know that my devices are working in order and know about any failure before the users know about it. That is the approach I have always advocated for and that is the reason it became critical for us to have a centralised, remote monitoring operation which would allow our team to check the health of all the devices and check the content and how technology is being used. GITAM spans multiple cities and multiple provinces and our campuses are large. Even walking from building to building takes time. The old approach to maintenance and monitoring was not feasible at all.”

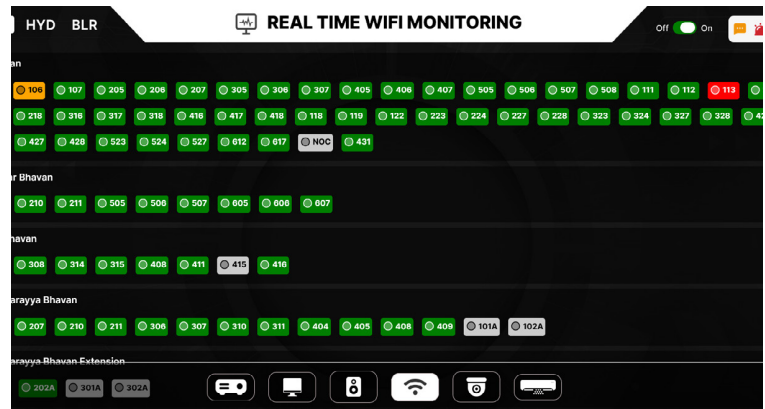
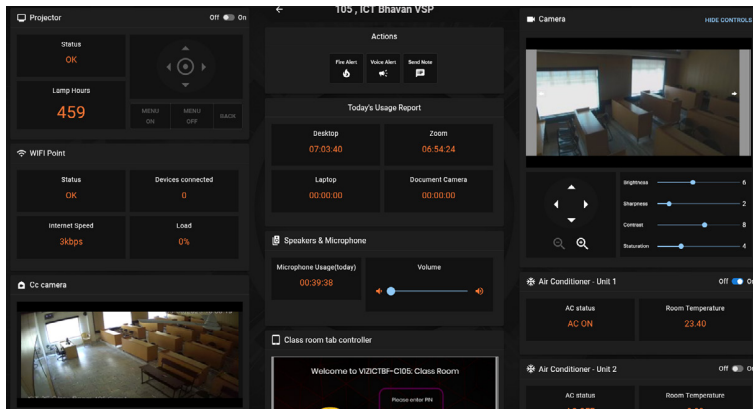
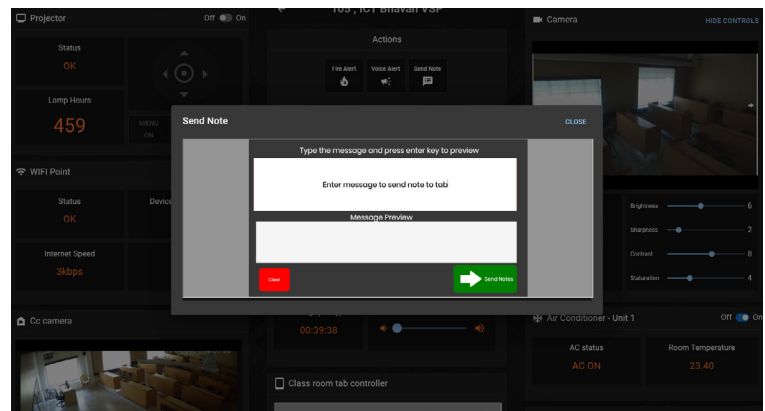
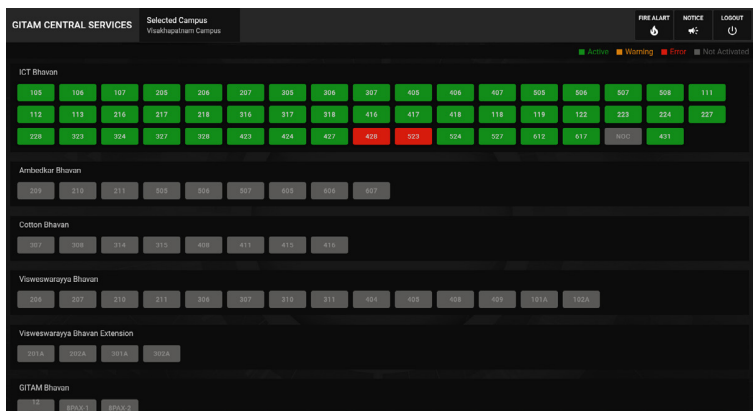
This aspect of management and monitoring was accounted for in the design phase as Kumar from Q-SYS India explains: “GITAM was looking to squeeze as much value out of their investment in technology, and that is where remote monitoring and management was key. They asked how the hardware could be controlled and tracked as they wanted information and data on usage and end-point health. These analytics could be provided through Q-SYS and were used to guide future decisions regarding upgrades and further investment.”

He continues: “Fire alarm and safety were to be incorporated into the management system

because GITAM wanted a single system to encompass every piece of technology deployed at their campuses. They also wanted to digitise systems that are traditionally manual, such as paging, messaging, and communicating via circulars. At GITAM this messaging in the past was delivered manually by people physically going to the location, and there was the desire for these systems to become automated.”

Amar Allwarsamy, technical support and services senior manager from Q-SYS, sheds light on how the monitoring and management system was implemented: “GITAM wanted extensive control and detailed analytics, so when it came to bringing all the technology under the Q-SYS control platform, we worked diligently to integrate and program the system. Having multiple components posed a variety of challenges. For analytics, we really had to refine the logic. When is a room really operational? How can the control system detect whether a PC is being used or is just idling? And the final piece was to design a GUI that presented all this information and logic in an intuitive way for the GITAM team to use on a day-to-day basis.”

Krishna Gokeda from GITAM discusses the how the deployed solutions are performing in the classrooms: “We can remotely control classrooms and we can remotely see what is happening in the classrooms by checking the PTZ camera view. We can turn the projectors on and off and we can



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Gopala Krishna Gokeda, GITAM

check the lamp life and how it has been used. The best part is that we can see how much Zoom is being used in the classroom. Our idea was to make sure that when a digital classroom is given to a professor, the technology is helping them teach and is being fully used.”

For Sigma AVIT, the project is one that has helped the integrator grow and evolve. Giri Prasad from Sigma AVIT details: “This was a wonderful learning experience. GITAM wanted a complete turnkey solution and Sigma AVIT is thankful that they trusted us to deliver. Having the oversight and ability to implement all the components of this project allowed us to hit all the marks. The scope and scale of the work was large. There were multiple locations where works had to be carried out and we had three separate teams that were working round the clock on this project and these included technicians, engineers, IT experts and more. Meeting the stringent timeline, because the classrooms had to be ready to welcome students when term started, was a challenge. It was a team effort, with Q-SYS helping us with product delivery and ensuring that the systems had been tested and programmed as much as possible before they were deployed to the site.”

With more than 600 classrooms across India, the digital

transformation at GITAM has only just begin. Krishna Gokeda from GITAM talks about the road ahead: “The ease of use we have achieved has made the rollout of technology worth it. And our users have also become very familiarised with consumer tech platforms such as WhatsApp and Zoom as connectivity across India has come leaps and bounds. Our approach is that if our users are comfortable using technology in a personal capacity then they should be able to use the technology that we provide at GITAM’s facilities. It is our job to bring our technology systems to a point where our users feel comfortable using them. We went from zero to hundred after Covid-19, but the adoption has been great. It’s not all smooth sailing but the training curve is minimal.”

He continues: “We are looking for more sophisticated digitisation of every classroom, every auditorium and all our facilities to make technology more ubiquitous and to make our campuses more closely connected. We categorise the current batch of digital classrooms as L1 [level 1] and Sigma AVIT and Q-SYS have laid the framework for plug ‘n play functionality and upgradeable software that can expand the functionality of these spaces. Down the road, we have plans to add cameras and

end points to take these spaces to L2 [level 2] and L3 [level 3].”

Giri Prasad shares some of the ideas Sigma AVIT has for future upgrades: “GITAM’s drive to have oversight over their technology systems with remote monitoring and management is very forward thinking. In our opinion, the natural evolution for this would be establishing a command centre or NOC from where the technology systems could be controlled. We are discussing how feasible this is as more classrooms become hybrid and digital.”

Raymond Vijoy Soans, director of sales and marketing at Sigma AVIT, concludes: “For us at Sigma AVIT, it was a great privilege to work on this unique technology driven project that was conceptualised by the team at GITAM and bringing it to reality was indeed a great experience, especially working alongside their competent team and other stakeholders on this project. I believe our work has delivered a completely dynamic and interactive teaching and learning experience for both the professors and the students. This AV integration and interlinking set-up provided in the classrooms are a cut above other institutions and this is just the tip of the iceberg for GITAM.”