

INTRODUCING SPECTO TECHNOLOGY

Headquartered in Linden, New Jersey, Specto Technology was founded in 2013 by Dr. Hai-Tien Yu, who serves as the current President of the organisation, and Edmund Kirby, General Manager. The name of the company comes from the Latin word 'to see' or 'to watch', which is fitting, as the company's core offering enables project owners to collect and view environmental data reliably and in real time. The ownership team leading Specto Technology has a combined 50 years of experience in providing powerful hardware and tailored software solutions for geotechnical, structural and environmental monitoring to clients globally, with a focus on delivering wireless solutions. Significantly, all key staff members in support and sales roles have experience working in the field, installing geotech or environmental sensors. According to Edmund, who studied geological engineering in Australia before working on installations, this is essential to understanding the pain points of customers and it positions the Specto team to better advise clients on systems and solutions that work for them. A big part of this is choosing hardware and software partners that expertly and reliably address those issues and facilitate ease of data acquisition. As a self-described neutral, value-added reseller in the US for 20 worldwide companies, Specto Technology has positioned itself as the single source to deliver complete wireless monitoring solutions. While construction is the core industry served, the organisation is also involved in the mining industry and the environmental remediation industry, the latter of which is a key driver for air quality monitoring.

"We believe that by sourcing the world's most advanced technology, we can solve any monitoring problem to make your life easier."

EDMUND KIRBY,
Specto Technology General Manager



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HOW HAS THE INDUSTRY CHANGED OVER THE PAST DECADE AND A HALF?

According to Specto Technology General Manager Edmund Kirby, the biggest change is around communication and the ways in which data is collected from sensors. The use of emerging technologies in this sector has effectively democratized who can undertake the monitoring work. By making it easier and more cost efficient to carry out the monitoring under established processes and systems, smaller companies have an opportunity to take on new work and effectively grow their businesses. Whereas previously, access to internal knowledge and experience, and the cost of acquiring the same, acted as a barrier of entry for this sector. This is a positive move for users and project clients as it allows for a greater number of sensors for less money. This increases the volume of data, which improves the contract for all parties.

WORKING WITH SONITUS SYSTEMS' TEAM AND TECHNOLOGY

Specto Technology became a key part of the Sonitus Systems global distributor network in 2019. As a distributor, Specto Technology is well-positioned between manufacturers and installers, acting as a vital, expert link between both, never competing with either. The Specto team selects the very best technologies - hardware and software - from around the world and puts them together into bespoke, turnkey solutions for their clients. By doing so, Specto Technology can stay neutral or brand agnostic, ensuring that project owners get unbiased recommendations and the best overall solution for their individual projects.



The increasing need for noise monitoring is being driven by the community. People have a growing intolerance of noise and a growing awareness of the negative health effects of excessive noise. Good contractors now anticipate that and understand the value of implementing monitoring, in order to protect the community and to show compliance with local regulations and/or guidelines. Also, customer demand is increasingly pointing towards wireless sound monitoring solutions. According to Edmund Kirby, when it comes to wireless "it's an easy thing to propose the Sonitus" as other brands in the marketplace simply do not solve the problem of automated monitoring.

"It's nice to be able to offer something that you know works really well in certain situations. So, you can be really confident and about promising what it's going to deliver."

EDMUND KIRBY,

Specto Technology General Manager

In terms of diversity across the United States and across industries, the Specto Technology team has recently deployed the Sonitus Systems solution to mines in South Dakota, which required a fully-automated solution, and to a city in North Carolina that will be using Sonitus Systems as part of a smart city integration.

"Sonitus fits a very distinct application when remote, unattended monitoring is required - in this application, it is clearly the best solution. The hardware has performed very well so far. The power consumption and reliability have been great."

EDMUND KIRBY,

Specto Technology General Manager



WHAT DO YOU SEE AS THE NEXT LIKELY WAVE OF INNOVATION FOR THIS INDUSTRY?

Specto Technology is constantly researching and testing the most advanced wireless technologies on the market to bring clients a world of solutions for their projects. Vibration monitoring, primarily on construction projects, has been the core area of focus for the business. Through this, the Specto team has built up expertise in solving connectivity problems and making monitoring units that are very reliable into a very reliable wireless system. This experience in the wireless data acquisition side of monitoring allowed Specto to parlay that into different sensors and different systems. By adding noise and air quality monitoring to the existing vibration monitoring, the company has helped customers to grow their scope of work, allowing their customers to submit for three portions of the project instead of one or two.

According to Edmund and his team, the next wave of sector innovation is likely to see multiple systems on one platform.

"The communication is pretty good and the software is getting better. Whoever can bring wireless systems into one network is going to have a huge advantage, whether through partnerships of companies or someone manually bringing it all together. That is what we are trying to do at Specto, bringing all this together so we can serve projects requiring noise monitoring, dust, vibration or any combination of these. I think that's going to be the next big thing."

EDMUND KIRBY,

Specto Technology General Manager

Another area identified for innovation is power supply. Many systems supplied by Specto Technology run on solar power as AC mains power is not always available, and operating solely on solar power brings its own set of challenges for example, they need to be expertly angled, there may be issues with trees above them or buildings in front of them. However, these are issues that can be avoided or addressed through experience and knowledge. The Specto team invests time and effort into solving power-supply problems with solar, including moving to lithium battery supplies with custom cabling, solar panels and/or charge controllers, in order to ensure peak performance.

"The Sonitus system is easily the best solution for remote sound level monitoring, in which everything is becoming more wireless. As a specialist in wireless technology, partnering with Sonitus was a perfect fit and allowed us to bring a new solution to the US market"

EDMUND KIRBY,

Specto Technology General Manager

