



infrastructure



Campbell
S C I E N T I F I C ®

Geotechnical Monitoring Platforms

Trusted Data for Better Decisions
Accuracy, Reliability, Support



Eliminate the Uncertainty

Accurate Data. Reliable Instrumentation. Trusted Support.

Since 1974, Campbell Scientific has been a preferred supplier of instrumentation used in geotechnical monitoring. As a manufacturer of measurement platforms that are used in the most rugged environments on Earth, where accuracy and reliability are critical, Campbell Scientific has become well known for data accuracy, equipment reliability, and unparalleled support and expertise. This is exactly what you need to remove the uncertainty from every project and provide your clients with the insights they depend on.

New opportunities in geotechnical projects will continue to grow. As a service provider within this industry, your expertise is needed now more than ever. Monitoring critical parameters through the entire life of every project is key to having full knowledge of what is happening and reducing the uncertainty in the decisions you and your clients must make.

Solutions

Like a three-legged stool, our complete solution is based on three equally solid legs: data you can rely on, instrumentation that lasts, and support you can trust.



Accurate Data

Reliable data is absolutely necessary for making good decisions. And when it comes to making good decisions, no data is better than bad data. Data is reliable when you receive consistent results that are within the published specifications of accuracy and precision. Reliability also includes receiving all of your data all of the time.

Reliable Instrumentation

Most data-collection experts expect instrumentation to last reliably through each project. At Campbell Scientific, our data loggers are designed to last for decades. We have manufactured more than 200,000 monitoring systems since 1974. Currently, our CR6 has a mean time between failure (MTBF) of 557 years! This means if you purchase a CR6 today, your probability of no failure during the warranty period (three years) is 99.41%. Over the lifetime of the CR6, Campbell Scientific has shipped approximately 18,400 units and only experienced 109 warranty returns.

Trusted Support

One of the most iconic attributes that sets Campbell Scientific apart from other manufacturers is our incredible support. Our support team comprises not only experts in instrumentation, but experts in geotechnical applications.

Our Business Is You

Our team of engineers and industry experts design and manufacture complete automated measurement platforms for engineering firms, geotechnical consultants, and systems integrators who work in a range of geotechnical applications. The unique flexibility of our design allows the platform to be used in a multitude of applications, each as unique as the projects you work on, and each a reflection of the relationship you have with your clients.

We recognize that the last thing you need to worry about is the accuracy of your data, the reliability of the instrumentation, or the complexity of platform design. Our ability to seamlessly integrate with your IoT and cloud solutions allows you to have an easy-to-implement platform that will outlast the duration of the project, whether it is for a short-term construction site or for long-term safety and operations.

Dams

Dam monitoring generally presents a multifaceted array of parameters to be measured. Campbell Scientific has worked with service providers globally to design and implement successful monitoring platforms at hundreds of dams. These projects include all sizes of dams, from large hydropower to small irrigation.

Mining

Monitoring critical parameters associated with mines provides data to protect the lives of those working at the mine and for those in the surrounding communities for decades after. These critical parameters will vary depending on the specific needs of each mine, but can typically include geotechnical, water level, water quality, slope stability, weather, air quality, environmental compliance, dam and tailings, ventilation, and equipment performance.

Our Innovative Technology

Campbell Scientific blends innovative technology with ease-of-use platforms for long-term measurement solutions.

At Campbell Scientific, our comprehensive technological solutions in instrumentation and software help leading engineering firms and instrumentation specialists achieve greater success in their projects. Our platforms have a wide range of features that were created with an aim to help you feel confident about the long-term success of your data needs.

To empower our users to do better, we are continually building upon our technology. Stay in touch so we know how to help you and to learn more about upgrades and other changes. You may be interested to learn a bit more about our patented VSPECT® technology and how it significantly improves data accuracy from vibrating-wire sensors.

Dam Monitoring

Itaipu Dam | Brazil/Paraguay

In 2016, the Itaipu dam, found on the border between Brazil and Paraguay, set the world record for electrical generation. This dam was instrumented with a Campbell Scientific automated measurement platform in 1996 and has operated with zero hardware failures since then. That is over 25 years of continuous operation. An upgrade project began in 2021 to replace the existing equipment with our current CR6 data-acquisition system. This upgrade will incorporate the measurement improvements of VSPECT.

Mining

Cavern Collapse Alarm | USA

RESPEC, a water-resources consulting and services firm, was previously contracted to operate and maintain an early-warning alarm system over a brine cavern beneath the former I&W facility in New Mexico, USA.

The system operates on a continuous basis using a Campbell Scientific automated measurement platform. Data is streamed in real time to an off-site, web-accessible server. Alarm thresholds are set on tilt, wellhead pressure, and water level in the shallow aquifer. Alarms are sent by text message and email and are configured in a multi-level fashion.

OVER
25
YEARS OF
CONTINUOUS
OPERATION





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As a trusted provider of measurement solutions since 1974, Campbell Scientific has delivered the information that helps mitigate severe weather casualties; aids scientists in gathering data to assist in the understanding of climate change and other human-made environmental impacts; and supports countless organizations, institutions, and national agencies in providing more efficient services to their people. Our instrumentation hardware is known to be the best in the business. Our software services provide an unrivaled level of insight. Our project delivery expertise combines both to deliver a unique end-to-end solution capable of changing the world.



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