Deep techniques


Building new infrastructure and renewing old always starts with the foundations. In this review of the sector IC looks at the latest techniques and equipment being used to deliver ever-more challenging projects around the world. (…)

Monitoring
Keeping track of foundation construction over the Internet

Whatever foundations solution is chosen, a common theme is the need to check the strength of the support provided, resulting in a fast-moving market for monitoring devices and services.

Instalert, supplier of vibration monitors for the mining, construction and geotechnical markets, has just launched its latest vibration monitoring solution. Instalert offers web-based vibration monitoring and automates the process of transferring vibration data directly from an Instalert vibration monitor to a secure, password-protected web site.

The company’s existing Instalert Auto Call Home already allows Instalert monitors to send vibration data to a PC immediately after it is recorded. The new Instalert reporting system, however, takes this process one step further — automatically forwarding the data to the secure Instalert database. Once there, authorised users — inspectors, project engineers, contractors, etc. — can log in and view vibration data from their project through the user’s own customised Instalert website page.

"Now, more than ever, users are being pressured by their clients to report vibration data more quickly. It is even becoming a determining factor when awarding monitoring contracts," explained Ron Mask, Instalert sales manager. "The ability to meet a project’s reporting timeline can be problematic and costly using traditional attended monitoring methods. Instalert is a natural solution to these requirements, providing Instalert users with access to their vibration data, anywhere, anytime — within minutes of it being recorded — and at a lower overall cost than with previous methods."

Meanwhile, the latest version of CAPWAP software from Pile Dynamics allows for enhanced analysis of the data obtained during dynamic load tests of deep foundations to determine foundation bearing capacity, resistance distribution and other relevant information as well as simulating a static load test, and the company has now made the software an integral part of all PDA (Pile Driving Analyzer) systems.

New features have been incorporated specifically for the needs of dynamic load tests on craned shafts and CFA as well as the addition of new options for the analysis of pipe piles. The latest version also actively engages users in the analysis to help them reach correct results in a short time.

The company has also announced the introduction of a new model of PDA, the PAX. The PAX is sufficiently small to be portable, is battery-operated, and weighs only 5kg. Its display doubles up as its control panel and keyboard, and has a remote data transmission capability with the incorporation of broadband internet technology.