

Products & Practice

Zenmuse Z30

DJI's Zenmuse Z30 is an integrated aerial camera for unmanned aerial vehicles (UAV). Its optical zoom (up to 30×) and digital zoom (up to 6×) allow it to focus on extremely precise details as it collects visual data from as far as 100 m (328 ft). With the camera's "Point of Interest" tracking feature, the aircraft can circle an object at a constant distance, keeping the object in the center of the camera frame. Zenmuse Z30 is designed to seamlessly integrate with DJI's Matrice Series of UAV airframes.

—DJI Enterprise Solutions, www.dji.com



optoNCDT Series Laser Sensors

Laser sensors from the Micro-Epsilon optoNCDT (optical non-contact displacement transducer) series measure displacement, dimension, distance, and position. The optoNCDT 1320 is a laser triangulation sensor with compact size for displacement, distance, and position measurements. This sensor can be integrated into restricted installation space, and is suitable for applications where high accelerations occur. It offers high accuracy and adjustable measurement rates up to 2 kHz. The optoNCDT1420 Smart laser triangulation displacement sensor offers a unique combination of speed, size, performance, and application versatility for displacement, distance, and position measurements. It achieves a high measurement accuracy and measuring rates of up to 4 kHz.

—MICRO-EPSILON, www.micro-epsilon.com

DroneDeploy

DroneDeploy is a software platform that transforms aerial imagery into actionable data. The software ensures flight safety with preflight checks of the unmanned aerial vehicle (UAV). DroneDeploy's compliance tools automatically define flight paths and boundaries. Captured images can be used to generate accurate contour maps, while repeated mapping flights can be used to monitor change over time. DroneDeploy measures distance, area, and volumes instantly, and it can be used to create point clouds compatible with building information modeling (BIM) software. DroneDeploy Pro, Business, or Premier customers can export and share mapping data in selected formats.

—DroneDeploy, www.DroneDeploy.com



LineTrac XT



Geophysical Survey Systems, Inc.'s LineTrac™ XT is an accessory to the StructureScan Mini XT ground-penetrating radar system. The combined units help to locate specific power sources in concrete, including AC power and induced RF energy present in conduits. LineTrac XT has a rugged, IP-65 rated enclosure. It easily integrates with the StructureScan Mini XT GPR system and seamlessly fuses its data with the GPR data. The accessory uses a 50/60 Hz electromagnetic sensor to detect extremely low-amplitude AC signals associated with difficult-to-locate conduits. It can operate in temperatures ranging from 20 to 40°C (14 to 122°F). The StructureScan Mini XT now comes equipped with the LineTrac XT software package. Users simply insert the LineTrac XT into the front accessory port, select the LineTrac XT module, and choose between 50 or 60 Hz.

—Geophysical Survey Systems, Inc., www.geophysical.com

Products & Practice

MCI-309 Corrosion Inhibitor

Cortec® Corporation's MCI®-309 is a vapor phase corrosion inhibitor powder for corrosion protection of ferrous metals in recessed areas, interior cavities, and voids. MCI-309 vaporizes and adsorbs on metal surfaces, reaching all exposed areas, and creates a monomolecular inhibiting layer that enables up to 24 months of continuous protection. As a mixed inhibitor, it also provides protection to both the cathodic and anodic sites of metal. MCI-309 doesn't affect physical properties of concrete or grout (won't affect setting time and strengths) and it's safe for high-tensile-strength steel (won't cause hydrogen embrittlement). MCI-309 requires little or no surface preparation before application and, once applied, surfaces don't have to be cleaned prior to concrete or grout placement. MCI-309 has been applied to post-tensioning cables on numerous projects, including the recently completed St. Croix Crossing, an extradosed bridge connecting Oak Park Heights, MN, and St. Joseph, WI.

—Cortec Corporation, www.cortec.com



Axiom 1155

Somero Matson Group's Axiom 1155 measures floor profiles and deflection. Built on the Android operating system, the Axiom 1155 apps can be used with a Bluetooth-enabled Android phone or tablet. The ASTM E1155 Layout App provides the user with a suggested layout pattern for gathering measurements in accordance with ASTM E1155/E1155M-14. Axiom Measurement App is the user interface for the Axiom 1155 when obtaining ASTM E1155 floor profiles (F_f/F_L) and joint stability measurements. The Deflection Meter App allows the user to measure and record joint stability and deflection as discussed in Section 6.2 of ACI 360R-10. The app offers both manual and automatic modes for measuring static and dynamic changes to a joint, as well as the ability to add joint-specific pictures and notes. Reports from field measurements are prepared using an Excel-based Desk Report Generator. All ASTM E1155-related apps, the Deflection Meter App, training videos, and report generators are also available in Spanish.

—Somero Matson Group LLC, www.axiom1155.com



Ultrasonic Wind Meter

Vaavud's ultrasonic wind meter provides continuous measurement of wind speed (up to 25 m/s [55 mph]) and wind direction. Even though it is also equipped with a thermometer, compass, gyroscope, and accelerometer, the wind meter is compact and can be mounted anywhere. It is fully autonomous, powered by a solar panel and onboard battery, and can wirelessly connect to Bluetooth-enabled phones or tablets.

—Vaavud ApS, <https://vaavud.com/ultrasonic>



EXO3 Multiparameter Sonde

EXO3 is a purpose-built sonde for monitoring major water quality parameters, including pH, conductivity, temperature, turbidity, and dissolved oxygen. It is equipped with high-accuracy sensors with onboard memory, and it allows for wireless communications and seamless integration into marine, estuarine, freshwater, and groundwater monitoring systems. EXO3 models come with no depth sensor or 10, 100, or 250 m (33, 328, or 820 ft) depth sensors.

—YSI Inc., www.ysi.com

Web Notes

ASTM International Upgrades Online Learning Management System

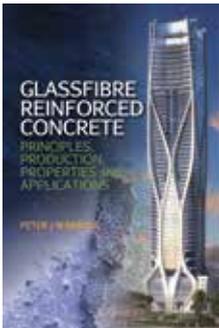
In July 2017, ASTM International debuted a new learning management system (LMS) designed to enhance user experience and functionality. The LMS features an expanded search tool, 24/7 access to ASTM International training content, accessibility to training modules from any device, enhanced reporting capabilities, and customized curricula. From the homepage, users can find new training modules, access completed training, browse catalogues, and print certificates. In addition, courses can be downloaded and completed offline.

—ASTM International, www.astm.org/TRAIN

Book Notes

Glassfibre Reinforced Concrete: Principles, Production, Properties and Applications

by Peter J.M. Bartos



Glassfibre Reinforced Concrete: Principles, Production, Properties and Applications provides guidance on properties of glass fiber-reinforced concrete (GFRC), its specification, testing, and the latest methods for efficient production. Detailed information is provided about the unique aspects of the internal structure and fracture mechanisms of GFRC and how the latest advances in nanotechnology are leading toward a fuller understanding of the rational design of GFRC and the potential for further improvement of properties beyond those used in contemporary construction practice. The book is aimed at professionals in construction, from architects, designers, civil engineers, and end-users, to existing and new GFRC manufacturers and developers. It can also be used as a reference for students in these disciplines.

—Whittles Publishing, www.whittlespublishing.com

Price: £50; 224 pp.; ISBN 978-184995-326-9

Products & Service Literature & Videos

Introduction to Mechanized Bridge Construction

“Introduction to Mechanized Bridge Construction” is a 44-page eManual extracted from *Bridge Construction Equipment*, by Marco Rosignoli (2013, ICE Publishing, London, UK). The eManual explores overhead and underslung form travelers for balanced cantilever casting of segmental decks, cable-supported arches, and cable-stayed bridges. It also covers telescopic movable scaffolding systems for balanced cantilever casting of macro-segments, self-launching gantries and lifting frames for balanced cantilever erection of precast segmental bridges, self-launching gantries for span-by-span macro-segmental construction, and span carriers with underbridge and span launchers fed by tire trolleys for full-span precasting of high-speed railway bridges. This eManual is one of 16 publications developed under the eManuals Project program.

—Marco Rosignoli, www.marcorosignoli.com

