

CIO Outlook

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Top 10 Construction Technology Solution Providers – 2019

U p until very recently, the construction landscape has largely devoid of any technological change. However, now the industry is slowly transitioning toward increasingly digital ways of doing things. Technologies like drones, augmented reality, building information modeling (BIM), AI, 3D printing, robotics, and more are shaping up the construction sector as we know it. They are helping improve efficiencies, reduce costs, and further progress health and safety levels, among other things.

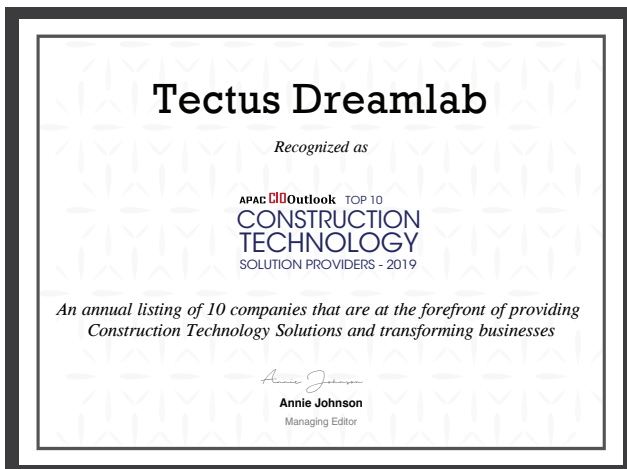
Drones, for one, are replacing traditional land-surveying methods. By hugely reducing the time and labor involved in producing accurate land surveys, drones capture the necessary information in a lot less time. Augmented reality, on the other hand, is being used to build information that can be shared in real-time, leading to better overall outcomes.

That being said, one of the major changes for the construction industry within recent years has been the

implementation of BIM. BIM is replacing traditional blueprints with fully detailed, intelligent, and interactive 3D models.

Technology is bringing the construction industry speeding into the 21st Century, which seems to be a critically important step in ensuring that the sector escapes being left behind. With a comprehensive view of the numerous construction technologies' wide applications, this edition of APAC CIO Outlook brings you a list of companies that showcase extensive business knowledge and exhibit competence in delivering innovative solutions that meet the needs of the customers. A distinguished panel comprising of eminent CEOs, CIOs, VCs, and analysts, along with APAC CIO Outlook's editorial board have assessed several construction technology solution providers and shortlisted the ones that are distinctively prominent in the field.

We present to you APAC CIO Outlook's "Top 10 Construction Technology Solution Providers – 2019."



Company:

Tectus Dreamlab

Key Person:

Marcel Poser
Co-Founder

Description:

Transforms and advances industry with cutting-edge technology, software and platforms - creating new performance levels by applying future technology to traditional processes and industries today

Website:

tectusdreamlab.com

Tectus Dreamlab

Inspection Workflow Reimagined for a Digital World

Buildings, infrastructure and other assets represent a massive economic value – all of which is at risk due to inappropriate inspection methods and wrong decisions. “In a worst case scenario, this can have catastrophic consequences,” says Marcel Poser, Co-founder of Singapore-based Tectus Dreamlab. “Over recent years, there have been many reports globally about the failure of infrastructure inspection and maintenance strategies. We have all seen how lack of proper inspection and maintenance can lead, sadly, to devastating disasters and massive economic and social impacts. Our vision is to radically change this scenario.”

Tectus Dreamlab is an innovation lab for software solutions and is based in Singapore’s buzzing Fusionopolis high tech cluster. The company belongs to the Swiss family-owned multinational Tectus Group which has a 75-year long heritage of construction and non-destructive testing. “All of this know-how now flows into our work with software and sensor technologies to promote a better understanding of the structures that we depend upon, so that their continued performance can be ensured,” he explains.

“While we acknowledge breakthroughs in smart phone, AI, drone and AR/VR technology, the inspection industry has remained largely paper-based and has not transformed to embrace the digital age. Paper-based workflows do not offer any level of transparency and certainly do not promote adequate sharing and analysis of data among stakeholders, in fact much valuable data is simply lost. This is all about to change,” announces Poser.

“Our goal is to drive the transition from paper-based reactive to digitally-enabled predictive maintenance. With IoT technologies – the so-called 4th Industrial Revolution – we have access to many new ways of working,” continues Poser. “At Tectus Dreamlab work is underway to harness and incorporate latest technologies – like Augmented Reality, Virtual Reality, Artificial Intelligence, sensing and Big Data – into our portfolio. For example, our Screening Eagle platform is set to revolutionize asset inspection and management.”

Poser views his company’s approach to diagnosing infrastructure flaws as being similar to that of a patient visiting a physician. “Depending on the health of the patient, the doctor suggests suitable remedies, medication,



Marcel Poser,
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scans or other forms of diagnosis. At Tectus Dreamlab, we have essentially put together a suite of technologies that enables structural engineers to look inside structures and identify flaws, weaknesses or wear and tear, in addition to software that automates or digitizes inspection workflows,” he adds.

Screening Eagle—Tectus Dreamlab’s flagship product—is an inspection and asset management program. It enables infrastructure managers to obtain a 360-degree

view of their structural assets - using 2D or 3D, along with Augmented for Virtual Reality - on a multitude of devices. “It lets you see through things, just like Superman does. It uses Augmented Reality to allow you literally to look inside concrete and this radically changes the way data is interpreted on site,” elaborates Poser.

Users can visualize navigating inside a virtual representation of the structural asset to plan, shape and maintain it, tagging defects and defining actions. The platform integrates smart devices, VR, AR, Big Data, IoT and predictive analysis to form a neural network platform for asset evaluation. Poser continues: “By deploying relevant solutions and workflow software to monitor the structural integrity of structures, Tectus Dreamlab will transform not only our understanding of our infrastructure but also the speed with which we can take informed decisions to protect or ensure its longevity.”

Poser concludes: “We not only need to have a 360-degree view around us, but we also need to change the position from where we look at things to anticipate what might be coming. At Tectus Dreamlab, we believe the best way to anticipate what might be coming – in other words, to predict the future – is to be part of creating that very future.” ACO