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EarthCam allows real-time viewing for projects

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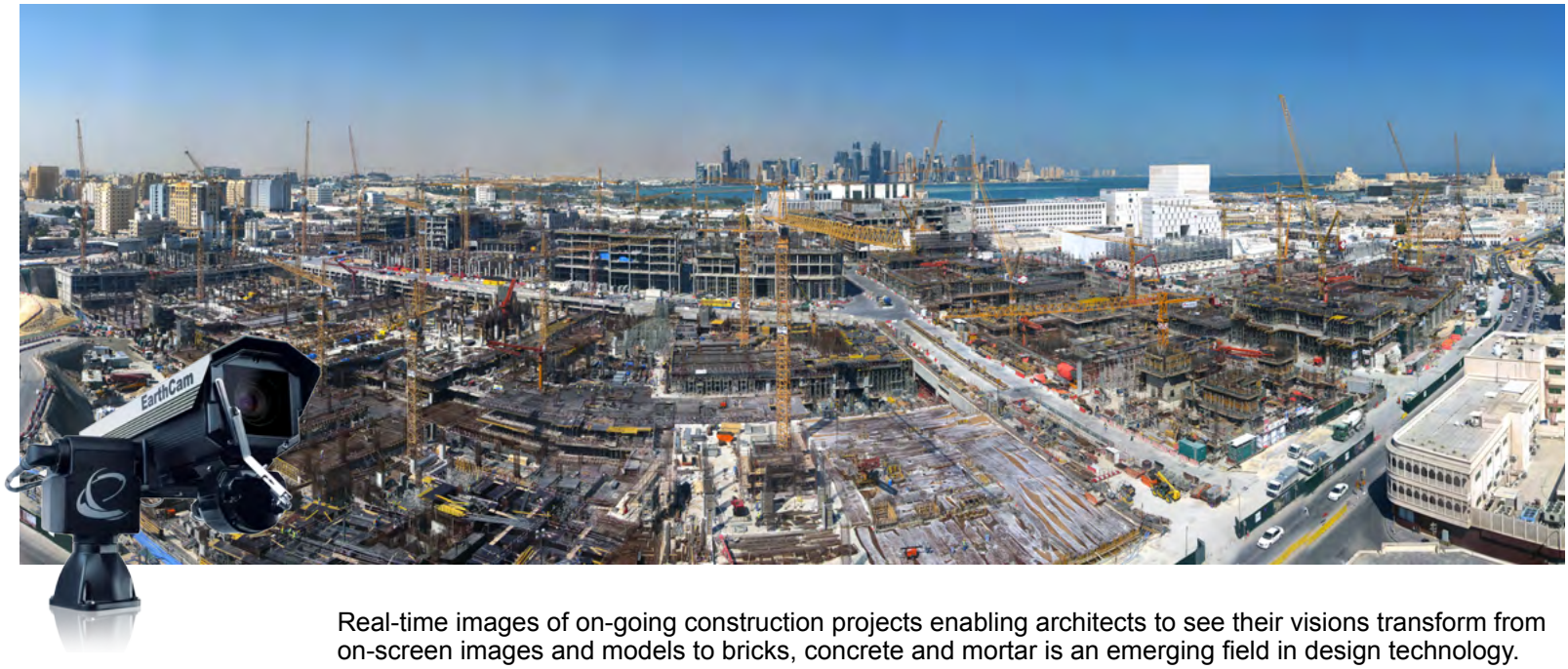

Real-time images of on-going construction projects enabling architects to see their visions transform from on-screen images and models to bricks, concrete and mortar is an emerging field in design technology.

A growing number of construction professionals across the Middle East are beginning to make use of high-definition on-site cameras – as the devices offer a huge benefit across the industry.

Firstly, users are able to monitor sites from remote locations, cutting down on travel costs and reducing carbon emissions.

Secondly, by accurately documenting the construction process from beginning to end, with panoramic photographs consisting of up to one billion pixels, the technology enables project leaders to avoid disputes over when particular tasks were started or finally completed.

Brian Cury, founder and CEO of EarthCam, is a pioneer in this area which allows users to view jobsite activity via live-streamed video links, or to capture megapixel photographs that can be used for documentation and marketing purposes.

He explained that construction camera technology enables users to monitor, document and promote their top projects.

“EarthCam originated from a combination of interlinking ideas,” said Cury. “My background is in television and film, so when I founded the company back in 1996, I did so because I was intrigued by the possibility of connecting cameras to the internet.

“In 1995, there were fewer than 500 cameras connected to the internet. Moreover, at the time, transmitting in this way required a satellite and tens of thousands of dollars. Even so, the broadcast potential of this emerging field fascinated me.” However, it wasn’t until the turn of the century that people really began to take this technology seriously, according to Cury.

He said: “Users realised that they could save time and money by viewing things remotely, but in real time. That was when this technology ceased to be a novelty and became a serious business tool. There were clear applications within a huge number of sectors, including construction, transport and tourism. A picture tells a thousand words, but more importantly, it doesn’t lie. It is what it is – it’s live.”

The company is currently broadcasting millions of images daily from its global network of cameras – but it has taken a while for the technology to be fully embraced by businesses, as Cury frankly admitted.

“If I thought that this would take as long as it has, I might not have done this,” he said.

“Originally, we were dealing with dial-up modems and receiving an image approximately every two minutes. However, I was convinced that the internet would become faster and more prevalent in society. In turn, I was confident that webcam technology would improve.

“Fast-forward to 2013 and the technology is barely recognisable. Our GigapixelCam can take 100 close-up, high-definition shots simultaneously, and crunch all of that data together to make a single, billion-pixel panoramic photograph.

What's more, it can do all of this in a matter of minutes." The images currently provided by high-definition megapixel cameras with 4G connectivity are a far cry from the grainy pictures that were transmitted in the mid 1990s – but there is potential for even more progress.

In the immediate future Cury is focused on creating more value for EarthCam customers. "I want to deliver these tools to a wider audience whilst in a professional and customer-oriented manner," he concluded.

"Our first priority will be to grow the business. As such, EarthCam will open a number of new offices to get closer to its clients. Secondly, we will continue to innovate within areas such as the robotic cameras that I mentioned earlier. Finally, we have a new, no-frills device called Work Zone Cam. This is a simple do-it-yourself system for those looking for a low-cost way to experiment with construction camera technology"

Construction of stadia for the upcoming Brazil FIFA World Cup is being monitored by aerial cameras mounted underneath rotor blades – another aspect of this emerging technology field.

Called Octocopters the machines are set to be increasingly used on large scale projects in order to keep a flying eye on work in progress. They are also important in accident prevention – as structural problems can be quickly identified and health and safety breaches spotted and rectified.

"There's so much more that can be done," said Cury who is exploring the use of drone-mounted cameras. "It sounds trite to say, but this is the tip of the iceberg.

"Construction camera technology really is in its infancy.

"We'll be able to generate higher quality images within shorter periods of time. I think that unmanned aerial vehicles could offer exciting applications within this arena.

"The ability to fly a camera over a project, document it, and transmit that data remotely could prove incredibly useful."