



Santa Clara University Implements VIMOC Smart Pedestrian Detection Solution

The oldest university in sunny Silicon Valley, SCU is an iconic and beloved place of learning and faith. The bedrock of the school rests upon innovation and world-betterment; it is a campus dedicated to progress. Although their sights are often set far and wide, the people of SCU are committed to creating a safe and supportive local environment and are always eager to innovatively improve their campus.

Unsurprisingly, pedestrian safety is of particular concern. Millie Kenney, Director of Parking and Transportation Services at SCU, had been concerned for years about a crosswalk in a central parking garage on campus. Millie explains that the placement of this crosswalk is especially problematic, due to the lighting contrast drivers experience entering the garage. Furthermore, she had noticed that pedestrians were often distracted and would enter the crosswalk with little caution.

“It’s a small price to pay for peace of mind and the safety of our pedestrians. We’ve done a great service to our campus.”



— Millie Kenney,
Director of Parking &
Transportation Services,
Santa Clara University

The small “Yield to Pedestrians” sign was not enough to sufficiently warn drivers of pedestrians’ presence, and although there had luckily never been an accident, the potential for one warranted significant action.

Millie knew she needed to preemptively address the collision risk posed by poor driver visibility and pedestrian distraction. She wanted an automated system, so that pedestrians did not have to take a conscious action in order for drivers to be warned of their presence. The system that she envisioned could not be found until she described it to VIMOC.

VIMOC's Solution

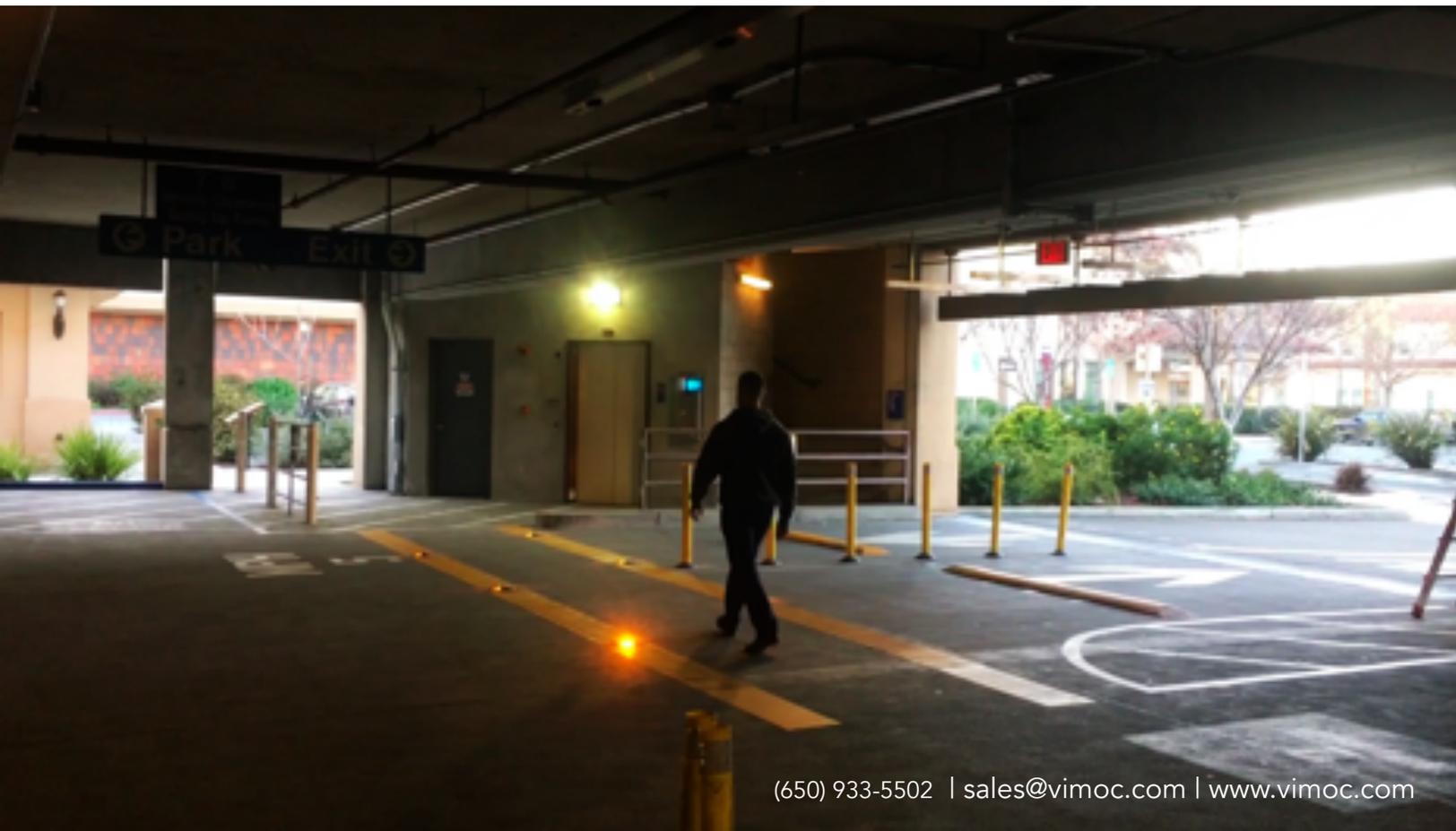
VIMOC's state-of-the-art vision based Artificial Intelligence (AI) system completely automates pedestrian detection and warning. Cameras attached to the ceiling of the garage detect pedestrians approaching the crosswalk and send information to VIMOC's Rosella™ Platform, which in turn communicates with the system that triggers flashing lights along the crosswalk. VIMOC's solution to pedestrian detection reduces the margin of human error and ensures the utmost safety for pedestrians and drivers alike. As Millie explains,

SCU community members are busy, with many distractions. "People are not looking up any more," she says. "People will rarely stop to push the button before crossing, even if there is one."

The only safe solution must be an automated one, the kind that VIMOC excels at. Millie reports that "VIMOC had the exact solution that I was looking for." She laughs and goes on, "it's like they're in my brain." She says that she was "especially impressed by the detail that could be picked up by VIMOC's system."

Results

VIMOC's deep learning solution to pedestrian detection provides unprecedented accuracy. Without exception, pedestrians nearing the intersection are tracked, and the crosswalk lights are illuminated. Ensuring that drivers are warned of an approaching pedestrian regardless of whether or not the pedestrian is distracted is crucial. Students often cross the



intersection buried in their phones, but VIMOC's automated system reduces the risk posed by distracted pedestrians. Aside from the obvious benefits of pedestrian safety, driver ease and increased customer satisfaction, this superior pedestrian detection system ensures reduced risk of litigation as well as reduced insurance premiums.

The results of VIMOC's solution have taken a weight off of Millie's chest. "It's been a tremendous peace of mind," she says. "It's always been of great concern to me, and now it's something that I don't have to worry about."

Future Solutions with VIMOC

Millie has many plans for future collaboration with VIMOC. She is looking for other opportunities to implement VIMOC's pedestrian safety solution around campus, and also wants to expand the pedestrian detection zone beyond just the crosswalk. "People don't want to stay in the crosswalk," she explains, "so we're trying to broaden the scope of the system so that it will engage if pedestrians walk in any part of the intersection box." She notes that, "we need to change the system to adapt to what people are actually doing, and VIMOC is always open to responding to that."

VIMOC's smart parking solution is currently in the process of being installed in one of SCU's main garages. Previously, they had an occupancy system that just took bulk numbers, which did not take into consideration parking spaces that were reserved for specific vehicles, such as law enforcement or emergency vehicles, ADA spaces and EV slots. Spaces listed as open on the sign were often not available to the general public, misleading many drivers.

"Multiple companies that we'd gone to couldn't address this problem," says Millie. "VIMOC's system, on the other hand, takes inventory of what kind of spaces are being occupied rather than just the number of vehicles that enter the garage."

SCU is also hoping to implement License Plate Recognition (LPR) technology, primarily for parking enforcement purposes. This will allow for virtual permitting and information directed to enforcement, allowing officers to work smarter and conduct more accurate and more efficient enforcement.