

Most Innovative Parking Systems Provider 2023 - USA

The Robotic Parking System is a fully integrated automated parking facility capable of receiving, parking, and retrieving passenger vehicles automatically. All operations are performed by independent machines directed by computer programmes with no human intervention. Here, we discuss the innovative technology created by Robotic Parking Systems Inc. and the many premium advantages it offers.

Right or wrong, parking and its availability, or lack thereof, is a defining factor for commercial real estate. In fact, a commercial area can fail or succeed based on the parking it provides. The solution is not just more parking spaces, but rather a safer and more efficient use of space for parking.

In 1994, Robotic Parking Systems created its new patented automated parking technology that offers more efficient, safe and effective parking. The term "robotic parking" was coined by the company and used to refer to both the business and its products.

The Robotic Parking Systems automation technology compresses up to three times the amount of parking spaces into the same volume as a conventional concrete ramp carpark. This efficient use of space results in greater development capacity, creating space for other uses such as revenue generation or additional amenities.

Robotic Parking Systems was the first to build and utilise simultaneously operating robots for parking in all three dimensions. With three axis independent motions, the system can deliver the speed and reliability that is required for large parking facilities of hundreds to thousands of spaces. The company built the first automated parking garages in the US and Middle East.

Adding substantial parking facilities to developments in inner-city districts is important, but it can be a challenge to ensure the building fits in with its surroundings. Robotic Parking Systems can accommodate any type of façade, meaning massive, ugly, concrete garages can become a thing of the past. Machinery and equipment are installed inside the supporting structure and never interfere with the outward aesthetics. This gives architects a free hand in designing the external appearance of the facility to fit harmoniously into its environment. Entry and exit terminals can also be integrated into the façade to meet both visual as well as functional criteria.

Any piece of machinery made by man is bound to fail. For example, cars, appliances, and computers are all prone to malfunction. The only way to successfully overcome this inherent possibility is the strict application of true redundancy throughout the entire system. This does not mean simply installing two motors on a single machine; it means ensuring the redundancy of all components as well as providing a backup machine.

By ensuring there are multiple elements controlling the same process, Robotic Parking Systems provides true redundancy. All major components have at least one backup system and, in some cases, as many as four. This means that users of the system can count on a

high level of reliability and uninterrupted operations. No single failure will ever result in the Robotic Parking System being inoperable. The company is the only manufacturer that offers this level of redundant protection, making it extremely unique.

Robotic Parking Systems' technology has been evaluated and audited by several independent technology experts. For example, Zuhke reported the "system is very solidly designed with lots of redundancy," and its "service plan is based on threshold values for each component."

Following the Covid-19 pandemic, there is an increased emphasis on environment, health and safety in commercial projects. A benefit of automated parking is the premium valet experience that offers contactless parking to cater to current needs. When the driver and passengers have left the entry area, the driver initiates the parking process with a touchless near field communication (NFC) card, FOB, or an app on a smartphone. Instead of passing the keys to a valet, drivers simply use an app and keep their keys.

Furthermore, enclosed parking garages can pose a risk with carbon monoxide (CO) and other harmful toxic emissions. Since no cars run inside the parking facilities, Robotic Parking Systems estimates that, annually, in a 1,000-space garage, it can eliminate 275,422 lbs of carbon dioxide, 15,463 lbs of carbon monoxide, and more.

According to the US Department of Justice, between 2004 and 2008 there were over 400,000 reported violent victimisations every year in parking lots and garages. DOJ statistics also document that, in 2004, there was an average of over 223,000 reported sexual assaults across all parking lots, public areas, and garages. A study by Liability Consultants, Inc. of more than 1,000 premises liability U.S. lawsuits between 1992 and 2001 concluded that "parking garages rank second when it comes to violent crimes."

These tragic incidents can be tackled by using automated robotic parking facilities instead of concrete ramp garages and parking lots. Individuals are never inside the garage, only in a well-lit lobby or terminal, where there are multiple security cameras. The company feels that the system meets the principles of "inherently safer design," and Crime Prevention through Environmental Design (CPTED). This greatly increases parking safety for both individuals and their cars. It virtually eliminates crimes in parking facilities, which greatly benefits the community.

With crimes less likely to occur onsite, potential lawsuits are significantly reduced. This is a major financial benefit to anyone



who has a Robotic Parking System on their premises rather than a concrete ramp parking garage. Furthermore, with many safety and security features, insurance costs associated with the facility are significantly reduced. Another financial advantage of robotic parking over a traditional garage is that the machinery, electronics, and other equipment are eligible for accelerated depreciation.

Robotic Parking Systems' automated machinery is able to accommodate new vehicles currently being introduced by car manufacturers, which is not the case for many other automated parking systems. The company's increased pallet size accommodates wide sedans and large SUVs. This includes vehicles such as Escalade, Yukon X, Chevy Tahoe, Nissan Patrol, Bentley, Ferrari, Lamborghini, Land Rover, Range Rover, Land Cruiser, Chevy Suburban, Navigator, Maserati, Aston Martin, Porsche, Alfa Romeo, Ford Excursion, and Nissan Armada.

Impressively, the Robotic Parking System has twice been awarded the Guinness World Record for the Largest Automated Parking Facility. The company is currently building a project that it expects will earn the title for the third time. Additionally, the company's CEO has played a key role in developing NFPA 88A fire safety codes for automated parking as well as codes to guide automated parking safety in the UAE and Kuwait.

In the modern day, there are many factors for commercial real estate properties to consider in relation to parking. For example, can the property handle electric vehicle charging? Is it ready for autonomous driving? Robotic Parking Systems Inc. has integrated emerging transportation technologies using the C.A.S.E strategy

defined by Mercedes-Benz, which stands for Connectivity, Autonomous, Sharing and Services, and Electrification.

Firstly, with a fully automated parking system and Emerson GE Cimplicity® software, the company is fully connected and can share as much or as little as needed by design.

Secondly, Robotic Parking Systems has partnered with BOSCH to facilitate the parking of autonomous cars in all its garages.

Additionally, car sharing, fleets, and other services can be accommodated in all of the company's robotic parking facilities.

Lastly, the company's optional Robotic Parking EV Charging Station® is available for Level 2 charging at all of its parking facilities. Developers can choose to add as few or as many charging stations to their project. Once charged, cars are automatically moved from the charging station into a non-charging slot to make room for other vehicles. This means fewer stations are needed to charge more cars.

All of these features combined offer major advantages for commercial real estate developers, from environmental benefits to increased ROI, safety for drivers, and preparation for future technology. For this reason, Robotic Parking Systems Inc. has won Most Innovative Parking Systems Provider, USA, in the Business Excellence Awards 2023. The company continues to innovate and create parking facilities that meet the highest quality standards.

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