

The robotic parking experience

The USA is yet to reap the tangible benefits from utilising automated garages, abundant in Japan and South Korea.

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The most frequently asked questions of robotic parking are how does it work and why are there not more automated parking garages in the USA?

In times of space exploration and the Internet, one might be forgiven for thinking that automated garages would be more abundant in cities, particularly as they bring many benefits. They are cost-effective, are totally safe, have the convenience of a premium valet service and are environmentally friendly. A traffic engineer calculated a daily saving of over three million gallons of fuel alone taking into consideration all existing garages in the USA. In addition, as an urban and transportation planning tool, automated parking systems maximise space utilisation and help reduce congestion.

Supporting evidence

The MORPC Transportation Biennial Report of 1996 shows that 50 per cent of a typical downtown space is occupied by garages. An automated substitution would free up to 25 per cent of downtown space. And according to chief economist Don H Pickrell from the Volpe Institute, Cambridge, US DOT, 'Research in diverse urban settings estimates that as many as half of all motorists on the street are simply cruising in search of vacant ... spaces.' In a recent radio survey conducted in Cincinnati, asking what would encour-

age people to shop downtown, 74 per cent of respondents answered hassle-free parking. There is just no reason not to employ automated parking.

In Japan and South Korea, automated parking is fully operational. Millions of robotic parking spaces are utilised daily in Japan. One company built 60,000 automated parking spaces there in the last year alone. In the city of Seoul, South Korea, there are more automated parking facilities than conventional garages to park vehicles.

Looking for answers

So why is automated parking not so advanced in the USA? Is it because land has been more plentiful and less expensive there than in Japan and Asia? Maybe there is a fear of automation in the parking industry in the USA. Whatever the reason, now is the time for more countries to employ automated parking. Land is becoming scarcer and more expensive in congested areas. The number of cars on the road is increasing annually. American citizens want convenience and safety, and automated parking provides it. In addition, robotic parking provides an inherent database for any kind of traffic navigation application in relation to parking.

The beauty is that technology has advanced to the point that allows for a high level of reliability. There is no

question that anything mechanical or electronic can develop a fault or breakdown. Repairs cost valuable time and money. The key to minimizing delays and inconvenience is to have a second or even a third system as a back-up to guarantee continuous performance.

In the case of automated parking multiple of robots in one garage will help to ensure 100 per cent performance. Redundancy in itself is good but there is a higher level yet. In addition to the simple redundancy of one unit, which is necessary, there is 'true redundancy' — the redundancy of a number of units. And it's true redundancy that modern automated parking offers today.

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