



Parking solution for congested urban areas

Motor vehicles ensure our mobility day in and day out. When used on a mass scale, they provide transportation not only for people but for all types of goods. This has made the automotive industry one of the world's most important industrial branches. In addition to vast employment rates, macro economic data offers even further indicators of the extraordinary significance of this branch.

Mass production and the efforts of many manufacturers to stimulate automobile sales leads to substantial drops in prices. The result is a growing number of cars in relation to the number of residents, primarily in larger cities. While the number of vehicles continues to rise, the available urban space remains nearly unchanged. Strained parking situations are the result, effecting both the flow of traffic (vehicles in motion) as well as the management of parking space (vehicles at rest).

Taranis Invest Ltd., based in Prague, are experts in automated parking systems and a wide range of services in the area of telematics - such as gathering, processing and evaluating traffic data - with the vast technological know-how needed for effectively handling increased traffic levels. State-of-the-art electro-mechanical parking systems manufactured by the Czech company ensure efficient use of the limited space allocated for parked vehicles in cities, thereby offering relief for the overall parking situation. Already acclaimed in the Czech Republic, their high-tech solutions are now making a name for themselves internationally as well.

Automated parking saves space

One main benefit of automated parking systems is that they can be designed flexibly to meet different spatial conditions and demands. The parking systems can be parallel, in-line, vertical, horizontal, underground, aboveground or a combination of these designs.

The basis principle of these modern parking systems involves moving palettes with cars that weigh up to 4,000 kg. The cars are moved on a palette from a collection point to a free storage bay and brought back upon request. The system is easily operated via chip card or pager. The driver opens a gate with their card, drives onto a palette, turns the engine off and secures the car against movement. He or she then instructs the system to park the car by putting the card to the reader again. The car is then automatically brought to a deck within the parking system. Because the systems move only the cars, without using the engine or the driver, the facility does not require ramps or aisles, ventilation, lighting,



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Managing Director
Taranis Invest

driver escape routes, etc, thereby providing a true energy-saving solution. The space at the facility can be used to the maximum.

The entire parking system is controlled by one industrial PC. Electrical motors and servo drives ensure precision movement of the palettes.



ACOPOS inverter servo inverters ensure smooth operation in the automated parking garage.

Sensors supply continuous operational data about the system status, which is used for control and monitoring.

Highly functional and intelligent parking systems

In addition to exceptional reliability and operational safety, customers also expect efficiency from the parking systems. Meeting these demands as best as possible requires high-performance control technology that ensures the shortest response times and highly precise motion control. When B&R swiftly and successfully implemented a pilot project automating a parking system for 96 cars with an optimally customized control solution, Taranis was quickly convinced of the technological expertise that the automation manufacturers were able to offer.

The X20 System substantially surpassed the previous control system by being considerably faster, more efficient and more flexible. During this initial cooperation, Taranis carefully evaluated the programming tool Automation Studio. Through the integration of controller, drive, communication and visualization in one development environment, the company was able to profit from significant savings in regard to programming and faster development times. "B&R enabled us to implement optimized design solutions that were simply not possible with our combination of previous suppliers," states Taranis Executive Head, Karel Gloser.

After the positive results of the pilot project, the X20 System was again used in the development of a parking system in Bratislava. "Lower investment costs and efficient operation of the entire system increases the competitiveness of our automated

parking systems internationally. The use of high-performance B&R drive technology has made our solutions even more reliable. We are now in a position to offer state-of-the-art parking systems that help relieve the typically critical parking situation found in most large cities," concludes Karel Gloser. ■

Taranis Invest:



Founded: 2004

Employees: 10

Total revenue: 3 m Euros (2009)

Headquarters: Prague (CZ)

Products and services: Development and manufacture of automated parking systems and services in the area of telematics

www.taranisinvest.com