

TEKZITEL PTY LTD SMART PARKING SOLUTION





More than 1 BILLION cars by 2020!

> 30% of traffic congestion are caused by motorists frantically looking for spaces to park their vehicles. Paid, time-limited parking is no longer an adequate solution. Motorists circling round

The car culture in the last century has **spread over the**

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Reserved parking for authorities, disabled and ambulance have been misused by motorists in Australia, statistics in 2018 have identified more than **15,000 cases**. Motorists circling round in search of a space add to the existing traffic which in turn increases CO2 emissions and congestion.



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UBIQUITOUS CAR CULTURE

entire globe, shaping not only the economy but between the supply of parking and demand from users is making city centres difficult to access.

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GLOBAL PHENOMENA







Money spent by a motorist per year searching for parking in terms of time and fuel by Country

UK

£733

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GERMANY €896



In 2016, the U.S. has observed more than 1.9 Billion tons of **CO₂** Emissions emitted by Motorists. Reports have indicated that **Carbon** Emissions will increase between 1.8% to 3.7% in 2019.

Australian Motorists will spend on average 3,100 hours of their lifetime searching for parking. A survey completed in Sydney and Melbourne have seen Motorists spend as much as 22 minutes frantically looking for parking during peak hour at a busy shopping centre.

Despite a hefty fine and demerit points deducted off Australian licences, there are more than 15,000 cases of reserved/restricted parking being misused.

As cities become more congested, the direct and indirect costs of parking are becoming an increasing headache for Motorists and policy makers who often have conflicting goals.

Drivers want cheap, plentiful parking spots, while many large city Governments want to discourage vehicle traffic, reduce congestion and cut air pollution.

The **TEKZIPARK NODE** is the first step in battling this trend, the builtin Wireless capability encompassed within the Smart Parking Sensor will enable both Private and Commercial Businesses to reduce CO₂ Emissions, the time spent searching for parking and also give back the critically needed reserved/restricted parking spots to the motorists who need it most.



Can Technology

SOLUTION

HOW IT WORKS

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TECHNOLOGY

Smart Parking is one of the most adopted and fastest growing Smart City Solutions across the world, when used, improves visibility for drivers and parking enforcement officers. More so, it allows organizations to become – agile, intelligent, and adaptive.

Smart Parking involves the use of sensors, real-time data and applications that allow users to monitor available and unavailable parking spots, thereby automating and decreasing time spent manually searching for the optimal parking floor, spot and even lot.

Sensors embedded in the ground, determine whether the parking spaces are occupied or available. This data is routed wirelessly to a gateway, and relayed to a central cloud-based smart parking platform, to create a real time parking map. Drivers can use this map on their mobile phones to find parking faster and easier. Parking control officers use the map to go directly to the parking violations. This improves their citation enforcement effectiveness.



Mobile Application: Identifying Parking availability on a map





Street Map: Detecting Parking violations



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SMART PARKING ADVANTAGES

Cleaner Environment and Less Frustration

The more you drive, the more will be the emissions from your car, and the more polluted the environment will become. Smart parking solutions can reduce emissions by up to **30%**. slots is not only a waste of time and fuel – it can be acutely stressful too.

More Fuel Savings

When parking slots are found quickly, extra driving is not required – and hence, less fuel/gas gets used up by cars. Experts from the field of IoT have estimated that this fuel-savings are likely to reach **0.22 million gallons** by 2030, and a massive **0.3 million gallons** by 2050.

Real-Time Data and Trend Insight

Over time, a Smart Parking Solution can produce data that uncovers correlations and trends of users and lots. These trends can prove to be invaluable to lot owners as to how to make adjustments and improvements to drivers.



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Optimal Usage of Parking Spaces

In a normal parking regime, it is impossible to ensure that the parking facilities available are being efficiently utilized. Due to lack of information, some slots might remain empty – but drivers might not know about them. With the real-time information from parking sensors, that problem goes out of the window.

Greater Revenue and Pay as you use

The real-time management and intelligent decisionmaking capabilities help in generating more revenue. The parking meters and billing providers collaborate to notify the users about the total parking fees they have to pay. An individual will never be charged for more than what they owe.

Parking Slots Found Quickly

Researches have revealed that additional driving required for searching parking areas can be reduced by **21%** – when a properly functioning Smart Parking System is in operation. The time required to find a vacant spot for parking drops by a whopping **43%**.



REAL-TIME DATA, TREND INSIGHTS AND ENFORCEMENT OPTIMISATION

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By cross-referencing occupancy information with payment data and reserved spots (e.g. ambulance, disabled, authorised) in real time, the areas and time periods in which violations are more frequent can be identified. The enforcement officer can then work more efficiently, in-turn increasing the payment compliance rate in the area concerned.



UNOCCUPIED SPACE AVAILABILITY INFORMATION PROVIDED TO USERS

Real-time display of unoccupied spaces on town information boards is very useful for motorists looking for somewhere to park. It reduces the time looking for a space and optimise their journey. The system is in common use for off-street parking and is becoming a possibility for on-street parking. Via dynamic signs or directly on motorists' smartphones.



DYNAMIC PRICING

Strong

The cost of parking can be used to adjust the demand according to the supply. When the occupancy rate is known, the parking price may be adjusted accordingly. Several pilots have been carried out, particularly in San-Francisco. Results showed improvement in the use of spaces with the average price remaining unchanged or lowered throughout the city.







INCREASED SERVICE, BRAND IMAGE AND DECREASED MANAGEMENT COSTS

A seamless experience can really skyrocket a corporate or commercial entities brand image to the user. Whether the destination is a retail store, an airport or a corporate business office, visitors will surely be impressed with the cutting edge technology and convenience factors.

A decrease in management cost as there will be more automation and less manual activity, saves on labor cost and resource exhaustion.



NEW REVENUE STREAMS AND INTEGRATED PAYMENTS [POS]

Many new revenue streams are possible with smart parking technology. For example, lot owners can enable tiered payment options dependent on parking space location. Also, reward programs can be integrated into existing models to encourage repeat users.

Returning users can replace daily, manual cash payments with account invoicing and application payments from their phone. This could also enable customer loyalty programs and valuable user feedback.



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ONIMUER

The implementation of a smart parking solution would surely be a great investment for any city government or company. Our current parking inefficiencies are evident by the few use cases and benefits identified.

As the global population continues to grow and urbanize, it is vital to implement a well-planned and convenience-driven parking solution that can be utilized globally.

WHAT TO LOOK FOR IN A PARKING SENSOR?



See next slide to understand how TEKZPARK technology meets these requirements.

TEKZIPARK TECHNOLOGY

THANK YOU!

