



The City Councils of Penang launches Malaysia's first IoT-enabled Smart Parking Systems for more than 36,000 parking spaces

The Challenge

Penang 2030 is a vision of the Penang State Government to improve environmental, financial, and social aspects of urban life with smart city initiatives. As a Penang 2030 initiative, the City Councils of Penang (MBPP & MBSP) needed a Smart Parking solution to improve parking space availability and utilisation for the community, reduce traffic congestion and CO2 emissions, and streamline parking payments for citizens.

The Solution

MBPP & MBSP worked with HeiTech Padu Berhad on a Smart Parking System for Penang's outdoor parking bays. An IoT-enabled surface mounted sensor in each parking bay, connected to the 0G Network, shares data to a dashboard confirming when a bay is occupied. The dashboard is visible to citizens via a mobile app and shows parking availability and processes payments.

The Results

Benefits of the Penang's Smart Parking System include:

- **50 percent reduction** in the time needed for users to find parking
- **30 percent reduction** in CO2 emissions
- More than **35 percent increase** in parking fee revenues
- **Insights to usage trends** to help MBPP & MBSP plan future parking projects
- **Parking Occupancy Analysis** based on trend data
- User-friendly, Cashless Payment for COVID-safe parking.

IoT Network Operator



Xperanti IoT is Malaysia's first and largest dedicated nationwide IoT network, providing Industrial IoT solutions through exclusive access to Sigfox's global 0G Network technology. www.xperanti.com

Parking Operator



HeiTech Padu Berhad is a global ICT systems and technology service provider for government agencies and the commercial sector. www.heitech.com.my

Customers



City Council of Penang Island (MBPP) & City Council of Seberang Perai (MBSP) Local City Council in Penang
www.mbpp.gov.my
www.mbsp.gov.my