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基金会

# Better mobility , Better life

——Prize for innovative urban mobility solutions

PAN Haixiao

Professor of Tongji University  
President of the IVM International Chair (China)

*Better mobility,  
Better life*

[Prize for  
innovative  
urban mobility  
solutions]

机动性,  
让生活更美好

[——城市交通出行创新实践竞赛]

# Car sharing organization and » operation

Responsible teacher :

# 1.Fight against traffic jam

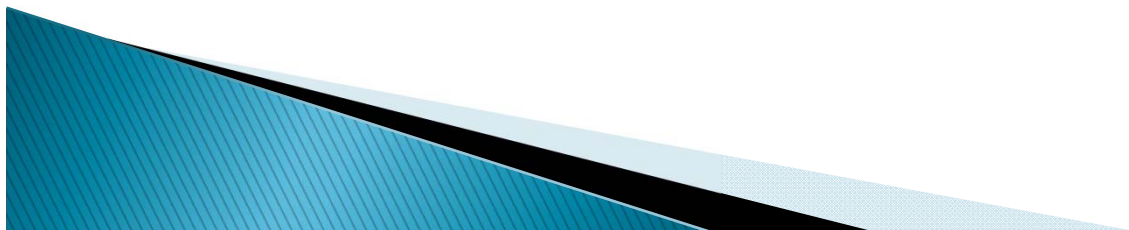
Director: Shao Zhouyu    Implementation Unit : Pickride

## Project Introduction

Nowadays, smart phones and mobile applications are extremely popular. Pickride solve the problem of carpooling for us. The free phone application is used to contribute to commuter carpooling. Users need to real-name registration and fill out phone number, then post the commuter routes as the identity of passenger or car owner. After information uploaded to the server automatically by GPS, the system will calculate whether their routes are consistent, then send message to their mobile phone. Finally, the user determine whether get a lift.

## Innovative

- 1.Pickride advocate public welfare carpooling, and owners don't get payment, instead it is a meal or a bottle of milk;
- 2.Security. Pickride set up a credit system. After a successful lift, drivers and passengers evaluate each other to provide reference for later.





# Bike rental system

Responsible teacher :

## **2.Precision Management + public participation—PBS innovative activated - Nanjing Hexi new city promotion mode**

**Director :Yuan Chengyuan**

**Implementation Unit :Nanjing Hexi new city public bicycle department**

### **Project Introduction**

Under the background of the urban traffic problem increasing, more and more domestic cities establish PBS (Public Bicycle System). However, many of the city encounter promotion bottlenecks and lousy tail phenomenon, and the citizens use the bicycle less and don't think highly of it. Lack of management is one of the important reasons caused many cities PBS lousy tail. So Hexi public bicycle department take the precision management strategy, including standard specification, department coordination and service upgrade.

At the same time, the development of the PBS is closely connected with public participation. Hexi PBS pay attention to public participation. Top-down government-leading and bottom-up combination of civil organizations and public participation promote the growth and development of PBS. Its main forms include communication network platform, NGO activities organization and reward mechanism.



## **2.Precision Management + public participation—PBS innovative activated - Nanjing hexi new city promotion mode**

**Director :Yuan Chengyuan**

**Implementation Unit : Nanjing Hexi new city public bicycle department**

**Mode advantage**

**1.Lack of government supervision VS Government early advance + later enterprise combination**

As a public service, government must bear the main regulatory responsibilities. And bicycle project should not completely rely on the market.

**2.Lack of planning as a whole VS Gradual promotion + scientific layout**

Construction of the scale and site layout is unreasonable in many PBS projects. Besides, the amounts of bicycle are not high enough. For these problem, we should consider what to do at the traffic planning level.

**3.Improper operation VS precision management + public participation**

Lack of real-time monitoring and scientific management system





### **3.Public car travel—Government official bicycle using & investigation in Nanjing Gulou district and promotion**

Director : Li Minzi   Implementation Unit : Nanjing Gulou district people's government

#### **Project Introduction**

Under the requirements of energy saving and emissions reduction, the official bike will become an effective way, and play an important role. Gulou district's first official bicycle system was born in 2008, gradually developed from 20 to 40 units, mainly meet civil servant's travel demands. The coverage of system is 20–30 minutes ride. For maintenance and management, it takes many measures, including giving numbers to bicycle, repairing by users, registering at the government gate, the meal card mortgage, car regularly updated.



# Barrier-free transportation

Responsible teacher :



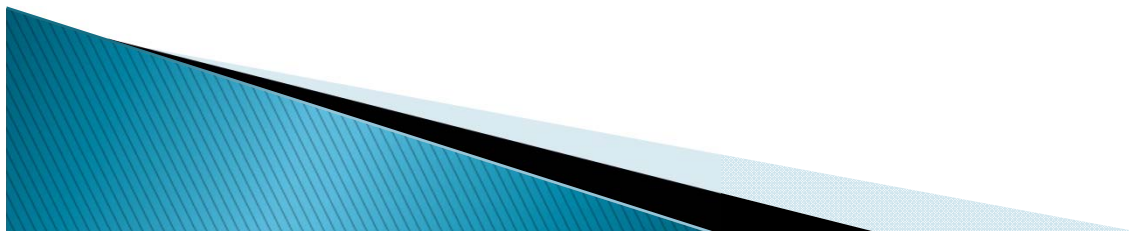


## **4.Construction of humanized public transport —Shenzhen barrier-free bus station renewal**

**Director : Sun Chao   Implementation Unit: Shenzhen transportation committee**

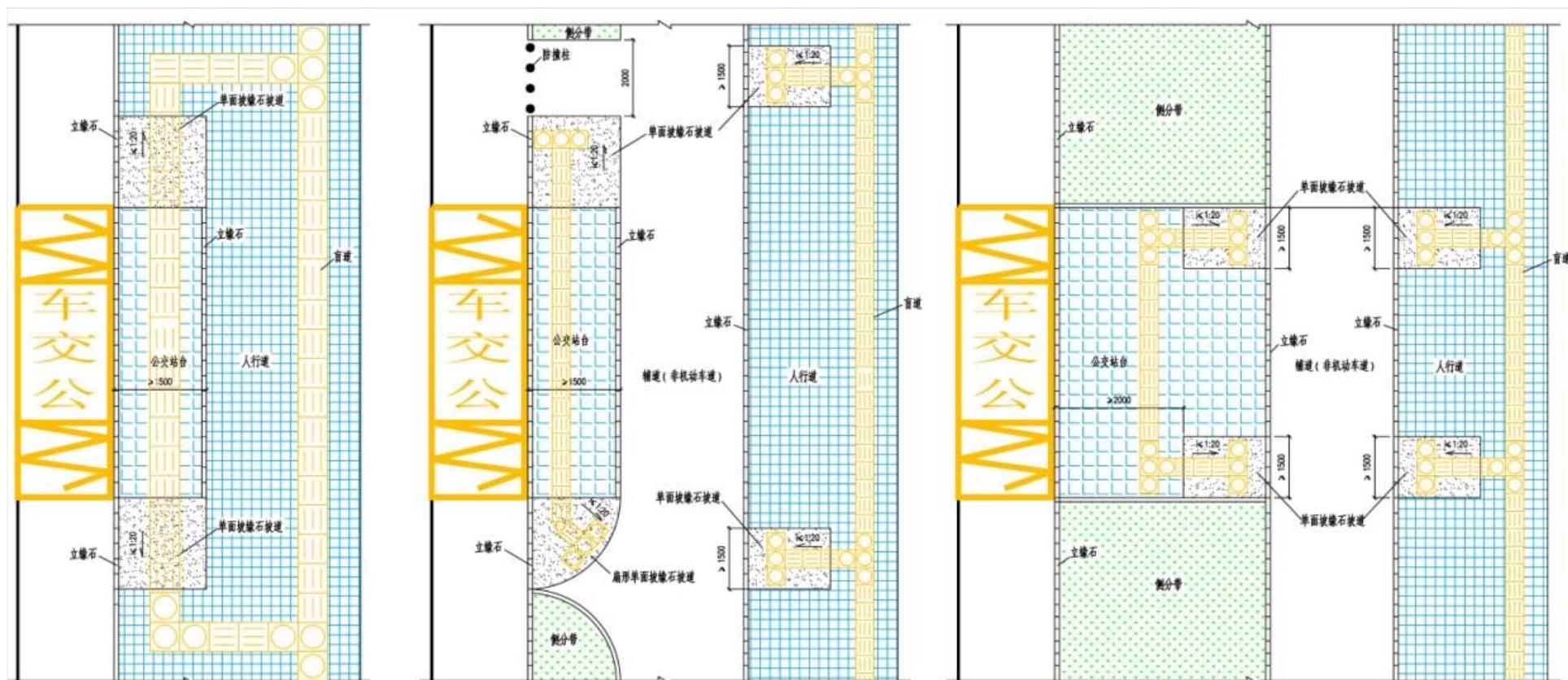
### **Project Introduction:**

Currently, public transport don't supply special services for people with disabilities and the vulnerable groups. For example, bus stop of conventional public transport is lacking of a link to sidewalk for the blind. Taking Shenzhen as an example, we need to improve the city's bus station barrier-free design, improve the disabled people mobility, in order to realize the equal public transportation services, accessibility and humanization. The key elements of the design include go-ahead blind sidewalk, waiting area blind sidewalk, curb ramps, barrier-free vehicles and so on.



# 4.Construction of humanized public transport —Shenzhen barrier-free bus station renewal

Director : Sun Chao Implementation Unit: Shenzhen transportation committee



沿人行道设置的公交停靠站 (站台高于人行道)

沿侧分带设置的公交停靠站 (侧分带较窄时)

沿侧分带设置的公交停靠站 (侧分带较宽时)

注: 本图给出了两种缘石坡道形式, 设计时可根据实际情况进行选择。



# Public transportation operation management

Responsible teacher :

## 5.Bus DIY

### ——Edge community set up combined bus in xi 'an

Director : Ma Jun

Implementation Unit: west air garden village, Qianliu village

#### Project Introduction:

The city edge area develop residential property aggressively, and village become to community, which attract a large number of low-income people. Their basic life still rely on the farmer's market. These places are lack of large public service facilities and jobs. So a large number of people have strong demand of going into town.

Facing the travel problem, Xihang community and Qianliu community combined to set up bus by themselves. It has fixed lines and departure frequency, forming “bus DIY” mode. With the support of the government, the shuttle bus pick up the community residents and supply chartered services to earn some money.





## 5. Bus DIY

### ——Edge community set up combined bus in xi'an

Director : Ma Jun

Implementation Unit: west air garden village, Qianliu village

#### Innovative

1. Service various groups;
2. Route flexibility according to demand;
3. Departure time is flexible;
4. The management model is sustainable.

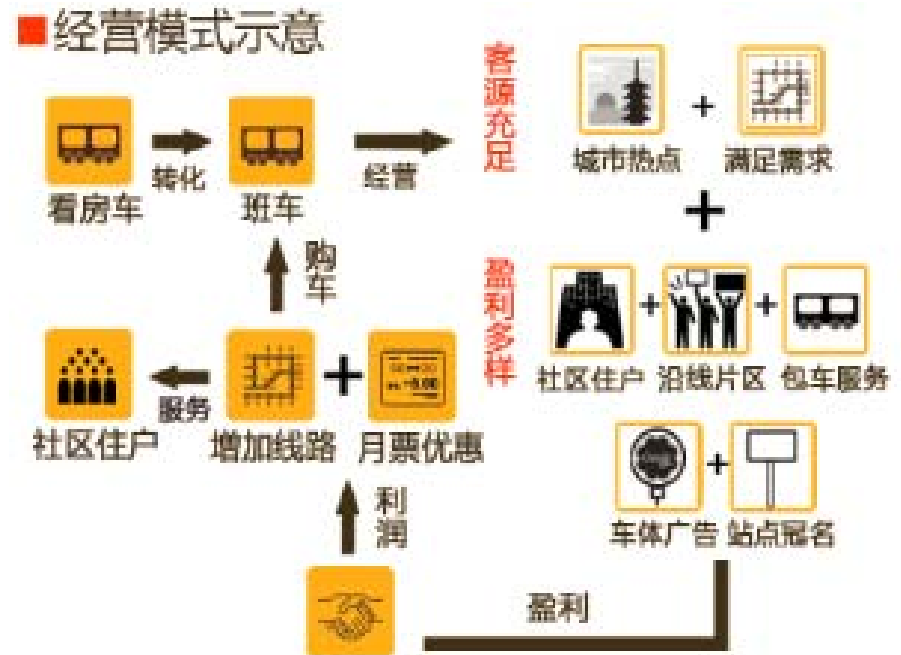


## 5. Bus DIY

## ——Edge community set up combined bus in xi 'an

**Director : Ma Jun**

## Implementation Unit: west air garden village, Qianliu village





## **6.Non-stop bus between urban and rural in Nanjing** **——Based on the investigation of the river-crossing** **direct bus k1 and optimization**

**Director : Wang Wei**

**Implementation Unit: Nanjing Jiangnan bus passenger transport co., LTD**

### **Project Introduction**

Longpao town is 20 km away from south of the city. As the construction of Yangtze river bridge and high-grade highway along the river, the town become one of the portals of Jiangbei district. But at present, the local residents still have not a good accessibility to city center. For the purposes of meeting their demands, Nanjing Jiangnan bus company opened up a bus line in March 2013.

### **A profile of river-crossing direct line k1**

- Operating company: Nanjing Jiangnan bus company;
- Operating time: 6 to 18 PM ,7 to 19 PM ;
- Service frequency: interval of 15 min at ordinary times, 10min at peak time
- One-way ticket price: \$4, credit card ticket price of 3.2 yuan;
- Number of passengers: 51 per car;
- Delivery vehicles: 16 cars



# **6.non-stop bus between urban and rural in Nanjing**

## **——Based on the investigation of the river-crossing direct bus k1 and optimization**

**Director : Wang Wei**

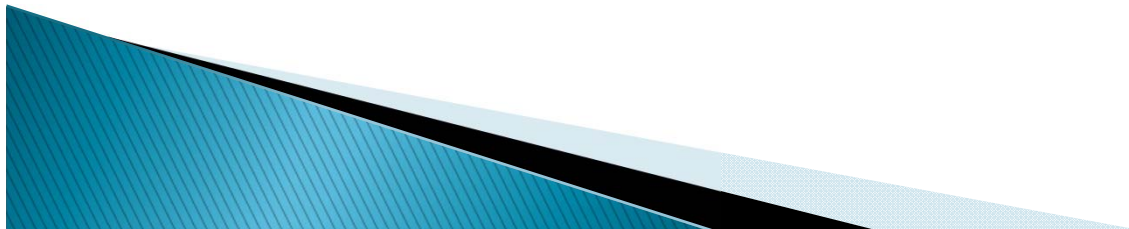
**Implementation Unit: Nanjing Jiangnan bus passenger transport co., LTD**

### **Innovative**

1. Connect the Longpao town and Xianlin center, strengthen the link between urban and rural areas;
2. Special bus, meet the demand of special groups;
3. Do not allow passengers to stand, at the same time to improve the comfort.

### **Promoting significance**

1. The connection between urban and rural areas;
2. Convenience and safety;
3. Green travel;
4. Multimodal combined transport



## **7.Activate grassroots——Nanjing subway "cell body" grass-roots management innovation model**

Director: Hua Hongqian

Implementation Unit: Nanjing Jiangnan bus passenger transport co., LTD

### **Project Introduction**

Nanjing subway has more than 3000 employees at the grassroots level, will reach 9 lines in 2014, including 12000 grass-roots staff. At the same time, the passenger demand for subway service level and efficiency are also on the rise.

From the perspective of subway management and travel conditions, subway company, enterprise organization and university began to explore and practice "cell body shift" management mode at the grass-roots level in August 2010, which may improve the service level and work efficiency.

Cell body is an ecology concept, have active contact with the inside and outside environment, and can regulate automatically. According to the "bottom-up" approach organizations at the grass-roots level, cell body shift mode set up star evaluation system to promote their love of work, optimize method and service.



## **7. Activate grassroots——Nanjing subway "cell body" grass-roots management innovation model**

Director: Hua Hongqian

Implementation Unit: Nanjing Jiangnan bus passenger transport co., LTD

### **Innovative**

Applying the concept of "cell body" in biology into the basic management of the subway, enhance the flexibility and initiative of employees, assure the operation safety, improve the operation efficiency and service quality.

### **Promotion**

1. Continue to optimize the modern management mode, let people participant in the management of urban public transportation;
2. From two aspects of soft and hard, continue to strengthen team building;
3. Spread to other cities.



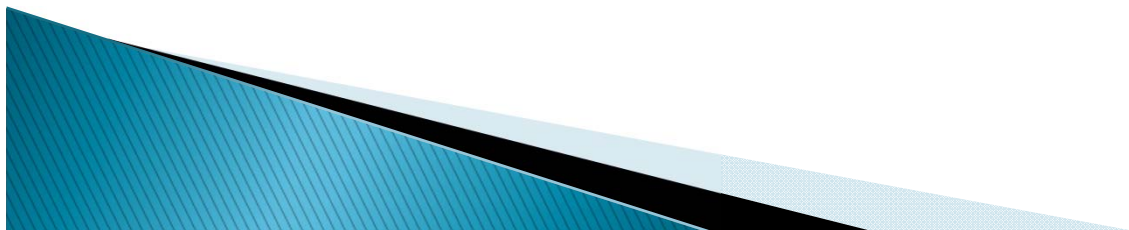
# **8.Wuhan Real-time bus travel service system Based on the mobile client**

Director :Huang Zhengdong

Implementation Unit :Oriental digital (wuhan) co., LTD

## **Project Introduction**

Wuhan is the largest city in central China serving as the national transport hub, with a large population over 10 million, and only to vigorously develop public transportation can meet the travel demand. As data showed: Wuhan has a resident population of 10 , having more than 9000 buses, more than 300 bus lines, 1million cars, 700 thousands electric vehicles, and 5 million people of the permanent population travel by bus, 500 thousand people travel by subway, so giving priority to public travel service is inevitable. Wuhan positioning for “Wisdom city”, including intellectualization of urban social management, informationization of urban economy, convenient of residents live, and promote the development of public travel service system is an important part of the “Wisdom City” in Wuhan. Wuhan municipal government has made great efforts in this respect, and Wuhan’s city bus data is held by Wuhan public transport group to make information management convenient.



## **8.Wuhan Real-time bus travel service system Based on the mobile client**

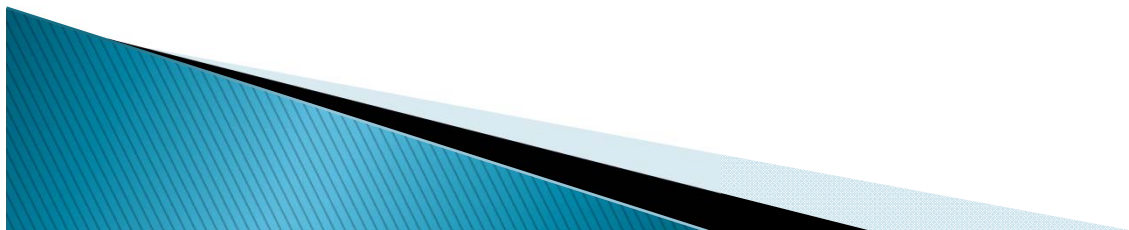
Director :Huang Zhengdong

Implementation Unit :Oriental digital (wuhan) co., LTD

### **Project Introduction**

Wuhan positioning for "wisdom city", including urban social management intellectualization, urban economy informationization, residents live convenient aspects of content, promote the development of bus service system is an important part of the "wisdom city" in Wuhan, Wuhan municipal government has made great efforts in this respect, and city bus data was held by Wuhan public transport group a, convenient and unified information management.

In this circumstance a "smart bus" app of real-time bus travel service was introduced by Wuhan public transport group, aimed for half public welfare software invested by government, and its influence rising and praised by majority of Wuhan citizens. The app started operations from February 2013, till May 2014, 1.5 it has million downloads and was started 400,000 times a day.





# **8.Wuhan Real-time bus travel service system Based on the mobile client**

Director :Huang Zhengdong

Implementation Unit :Oriental digital (wuhan) co., LTD

## **Detailed features**

1. Get a bus real-time location.
2. Multiple line vehicles to query.
3. The surrounding bus-stop location.
4. Transfer.
5. Automatic refresh/manually refresh.
6. call a taxi by Didi.
7. News announcements.
8. Setup the official weibo, Wechat, and QQ group.



## **8.Wuhan Real-time bus travel service system Based on the mobile client**

Director :Huang Zhengdong

Implementation Unit :Oriental digital (wuhan) co., LTD

### **Contribution to the city**

1 . Intelligent transportation app takes the general public as the core and the most common public transport as the salient point. Since the development of the app, its user downloads soared has fully proved the public recognition of this app, and intelligent transportation will be spread to every bus owners in the future.

2 . Intelligent transportation system is conducive to the promotion of the residents to have full grasp of the travel time, and make them more inclined to travel by bus than taxi, thus promoting the development of public transport, promote "green travel.



## **8.Wuhan Real-time bus travel service system Based on the mobile client**

Director :Huang Zhengdong

Implementation Unit :Oriental digital (wuhan) co., LTD

### **Contribution to the city**

3 . This model ,with local governments to provide data, enterprises operate, ordinary people involved in the management , has a wide range of reference, easy to promote and once it develop maturity can be extended to the whole country. Next step extends to the surrounding small cities under the premise of improving metropolitan public transportation information platform .

4 . Improve the entire public transport information system, building a data service platform to serve the public, government participate in the improvement of urban traffic effectively at a lower costing attitude, is an important development direction of urban planning. Click on a small piece of the screen, so that everything of bus travel under control, go smoothly all the way.



# 9.Jinan bus-stop” set motor into non motorization” and seamless transition “BRT” Mode

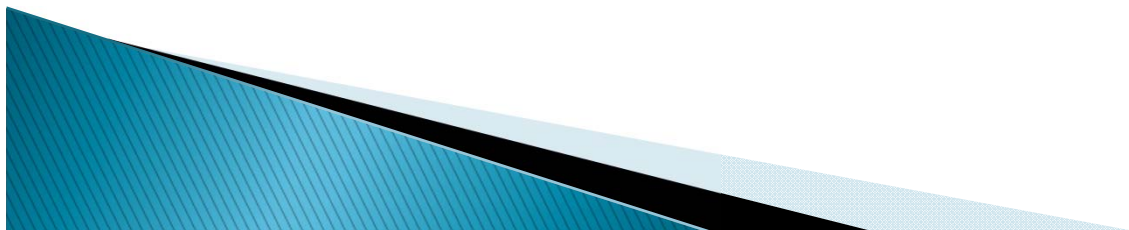
Director :Mou Zhenhua

Implementation Unit :Jinan Licheng Traffic Police Brigade

## Project Introduction

Jinan’s public traffic is based on BRT and the bus system, common bus service has smaller service radius, but in actual operation, there are still somewhere cannot be served, time cost of traveler on vehicle accounted for a higher proportion, and this made some travelers or even abandon the bus service and turn to private cars.

Using bicycle parking shuttle for bus station to form the B+R model, the service can make bus station service radius expanded from 300–500m to 800–1200m, in the marginal zone and even can reach 1500m, so the "last one kilometer traffic problems" can be solved. But the problem of bus station adjacent to the non motor vehicle park become the main factor of affecting the non motor vehicle access.



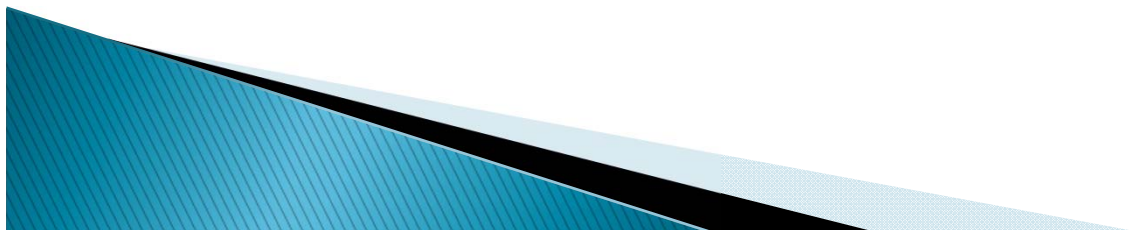
# 9.Jinan bus-stop” set motor into non motorization” and seamless transition “BRT” Mode

Director :Mou Zenhua

Implementation Unit :Jinan Licheng Traffic Police Brigade

## Project Introduction

To solve the above problems, to achieve the highest efficiency on the limited road space, Jinan, Shandong traffic police in the vicinity of TransUnion commodity markets, zoos and other bus lines where traffic concentrated canceled more than a dozen sites set up in the auxiliary lanes, sidewalks or green belt road vehicle parking spaces in the auxiliary road, sidewalks or green belt, and make it a free bicycle parking site near the bus station. This method by removing vehicle parking spaces set B+R parking mode, with small investment, short construction period, quick advantage, not only reduce the non interference, but also can enhance the bus and bicycle transit, are the effective measures to increase parking facilities of motor and to increase public traffic attraction.



## 9.Jinan bus-stop” set motor into non motorization” and seamless transition “BRT” Mode

Director :Mou Zhenhua

Implementation Unit :Jinan Licheng Traffic Police Brigade

### Operation effect

Up to the survey, it takes "B + R" user from the home site to the stations 10 minutes with a minimum of 3 minutes, the average time was 5.8 minutes, from which we can calculate the average radius of the site service is 960–1160m, compared to 300–500m the bus station service radius theory, expanding the service area 3–5 times. From a user satisfaction survey found that 90 percent of users feel satisfied with the current B + R facility.





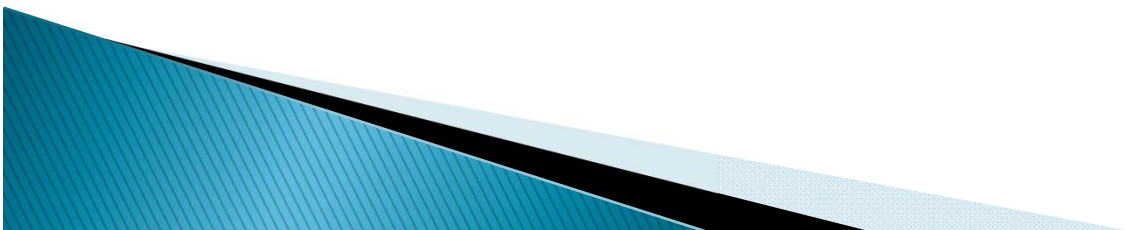
## **9.Jinan bus-stop” set motor into non motorization” and seamless transition “BRT” Mode**

Director :Mou Zhenhua

Implementation Unit :Jinan Licheng Traffic Police Brigade

### **Suggestions to sustainable development of the project**

- 1 . To make the full investigation to bus stops sites and interchanges traffic demand and avoid blind construction of a waste of resources;
2. To enhance security measures around B + R parking sites, the gradual introduction of supervised mode on the flow, transfers and more sites, and to install parking monitoring equipment, so that the public can rest assured that park, to ensure smooth travel.



# 10.Easy think easy go——Discussion of “smart city” based on Changantong data platform

Director :Zhang Siqi

Implementation Unit :Xi'an City Card Co., Ltd.

## Project Introduction

Traditional urban transformation and updating are based on research or information which is often lags. Xi'an rely on its existing city card "Chang'an Tong" as an information collection terminals, all kinds of information about the city by public transport feedback from the "self-feedback mechanism" to the relevant departments without intervention, analysis and processing to the information, continuous optimization of urban public transport system for the public to provide the most convenient public transportation, optimize road slow system, and then to guide the public to select green transportation, and the ultimate aim is adjusting the traffic travel structure.

Currently, Chang'an Tong has covered 800 bike rental, 110 assured breakfast, bus lines 250, 900 parking spots, two subway lines, 120 convenience stores, 400 taxis, five scenic spots, to achieve a multi-system integration, optimize the structure of urban travel fundamentally solve the basic livelihood issues.



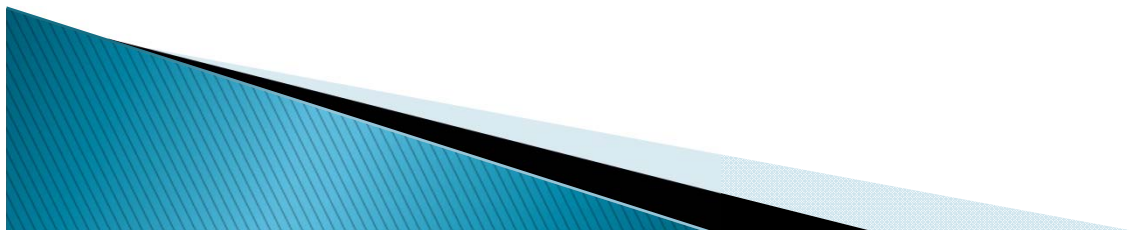
# 11.Live and travel among street stalls—Xi' an Huifang tricycle + convenient car model research

Director :Wang Ke

Implementation Unit :Xi'an Lianhu District Tourism Bureau

## Project Introduction

Located at the edge of the Bell Tower in Huifang Xi'an, in the background of tourism development and urban construction, but being restricted to its historic district, the internal traffic pressure is severe, but the interior residents and tourists demand in the transportation increased urgent. In support of the government, Huifang residents considered their own need and the needs of tourists, launched a convenient service vehicles. Years of development of tricycle transport modes and the mode simultaneously continue to develop, the two complement each other and jointly improve the transportation system of Huifang, contributed to tourism, combined with the continued prosperity of the historic district of residence.



# 11.Live and travel among street stalls—Xi' an Huifang tricycle + convenient car model research

Director :Wang Ke

Implementation Unit :Xi'an Lianhu District Tourism Bureau

## Innovative

- 1, give a solution to a common bus impassable area residents travel;
- 2, to achieve internal and external short-haul traffic seamlessly;
- 3, green travel, low-carbon life;
- 4, increasing the income of local residents;
- 5, retains visit the construction and development of historical memory;
- 6, can be extended in the street has a small-scale historical events.

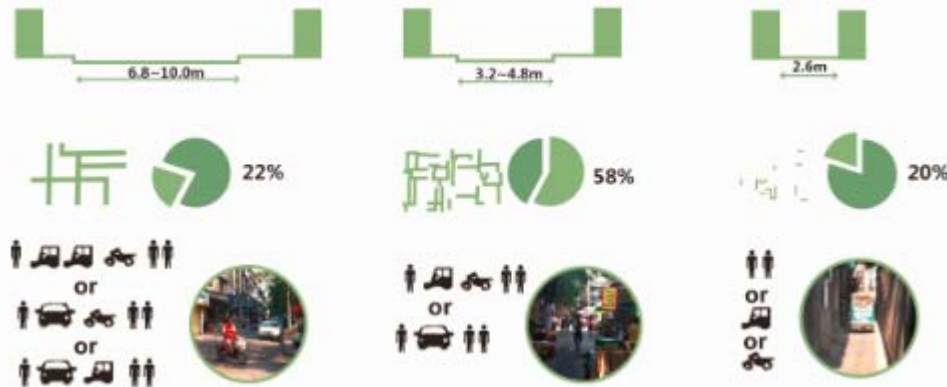


# 11.Live and travel among street stalls—Xi' an Huifang tricycle + convenient car model research

Director :Wang Ke

Implementation Unit :Xi'an Lianhu District Tourism Bureau

道路尺度



发车间隔时间 (min)	80-100
首末班时间	10
运营时间	7:30-21:30

	电瓶车
额定载客 (人)	6-8
外形尺寸 (mm)	3970*1500*1805
额定载重 (kg)	640
最高车速 (km/h)	30
最小转弯半径 (m)	4.8
最大爬坡度 (满载)	20%
充电时间 (h)	8-10



充满行驶里程 (km)	140
刹车距离	25km/h 小于 4m
营业时间	7:00-21:00

	载客三轮
额定载客 (人)	2-4
外形尺寸 (mm)	2650*1100*1850
额定载重 (kg)	350
最高车速 (km/h)	50
最小转弯半径 (m)	2.6
最大爬坡度 (满载)	18%
充电时间 (h)	10-12

# **12.NO distance, no waiting—zero transfer at Transportation hubang Ruikun,implementation**

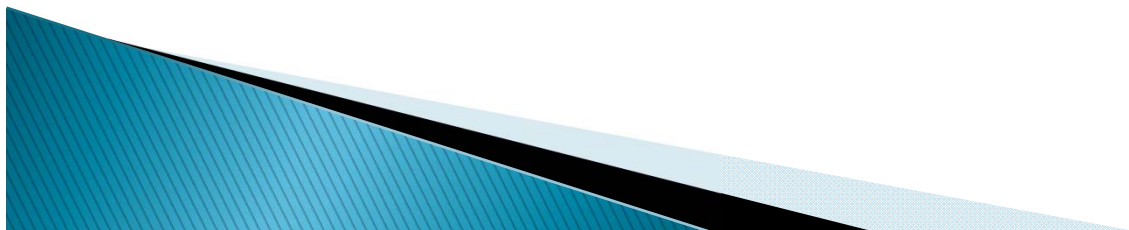
Director :Wang Ruikun

Implementation Unit :Xi'an Transportation Management Office

## **Project Introduction**

Today's Xi'an, people choose more and more ways to travel, how to coordinate organize various modes of transportation, transfer seamlessly between the various modes of transportation is undoubtedly worthy of our consideration and attention.

Xi'an Textile City transportation hub locate one kilometer west of the East Third Ring Road Banpo overpass, less than one kilometer east of the Xilan high speed road west, three kilometers north to the Xilin high speed road. Vehicles are easily accessed to fast road network, so as to reduce the pressure long-distance road vehicles brought to the city traffic.





# **1 2.NO distance, no waiting—zero transfer at Transportation hubang Ruikun,implementation**

Director :Wang Ruikun

Implementation Unit :Xi'an Transportation Management Office

## **Project Introduction**

Textile City Transit Terminal include transfers among railway passengers, between railway passengers and bus passengers, among bus passengers, between railway passengers and taxi passengers and between railway passengers and long-distance bus passengers. Hub can quickly bring people together and then evacuated to various destinations through different modes of transportation, providing the public with no distance, no waiting, multiplied choices of transfer environment.

Textile city transport hub functions as an integrated development complex, to meet the traffic conversion function, it also has commercial, office and many other features that brings nearby land with more commercial development opportunities.



# 13. Bus of two cities

## ——Xi'an University City mini-bus survey

Director :Ding Yue  
Implementation Unit :Xi'an Chang'an bus company

### Project Introduction

In recent years, due to the accelerating process of urbanization, the shortage of urban infrastructure reduced the convenience of the residents living in these expanding areas. University City in the southern suburbs of Xi'an, Chang'an District Government cooperate with bus company, to meet the needs of travel of different groups in university city, launched a mini-bus lines and combined with subway construction. This action not only solved the University City residents daily travel needs, but also enhance the contact between the suburbs and the city, reflecting the social justice and human care.



# **13.Bus of two cities**

## **——Xi'an University City mini-bus survey**

Director :Ding Yue

Implementation Unit :Xi'an Chang'an bus company

### **Features and Advantages**

- 1, the trips are more reasonable time;
- 2, seamless, convenient travel;
- 3, low-carbon environment, green travel;
- 4, long run-time care of a professional crowd;
- 5, University City into the city, attention to the special groups.



# Road reconstruction and traffic organization

Responsible teacher :



# 14.Tang Yan Road One-Way Traffic Organization

Director : Zhou Jinou, Ding Peiyan   Implementation Unit : Xi'an High-tech  
Zone Planning and Construction Bureau

## Project introduction

Tang Yan Road is a radiology road located on the north-south axis of High-tech District, there is a large business district Lotus in the northern section of the road, and a famous School of Xi'an named High-tech high school in the southern section of the road . Before the implementation of one-way traffic, there are two lanes in front of the Lotus and High-tech high school, because of large in and out traffic, temporary parking and other reasons, peak hours' congestion situation is serious.

One-way traffic plan optimizes the signal timing, provides the pedestrian, non-motor vehicle traffic with longer time to cross the road, it improves the speed of crossing the street and reduces time it consumes. It makes pedestrians, non-motorized travel more smoothly safer under the isolation of rights of way and traffic islands.

Feng-Hui South Road added exclusive bus lane, which reduced the interaction between buses and other modes of transportation in Tang Yan road, improved right of public transportation , makes bus travel more attractive.



# 14.Tang Yan Road One-Way Traffic Organization

Director : Zhou Jinou, Ding Peiyan   Implementation Unit : Xi'an High-tech  
Zone Planning and Construction Bureau

## Implementation Effect

After the one-line program implementation , the efficiency and the effect is significant. After becoming a single line corridor, Tang Yan Road – south Fenghui Road got the advantages as the traffic aorta of high-tech zones, improved the environment of surrounding area . The improvement of the overall traffic conditions provided economic strength for the high-tech zone .The rogram proves successful experience of using a single-line traffic organization to solve traffic problems.





# **15. Loop of Lake Tai Hu: ' multi-function road innovative design**

**Director : BLUESKY studio of Southeast University   Implementation  
Unit : JIANGSUZHONGSHEENGINEERINGCONSULTANCYGROUP**

## **Project introduction**

Loop of Lake Tai Hu is on the north side of the lake with total length of 100 kilometer, which has been assumed originally as an ordinary road with transportation use. The road was carefully designed and managed to applying to international bicycle race track during large-scale games, providing an opportunity for developing the sports economy. With the help of the design of the flexible variable lane, the road rights are divided rationally and the tidal transport is relieved. By coordinately developing existing travelling and natural resource, and establishing the brand iamge, the road is integrated with the view around Taihu, yielding a great multi-benefit to landscape, ecology, environment and health.

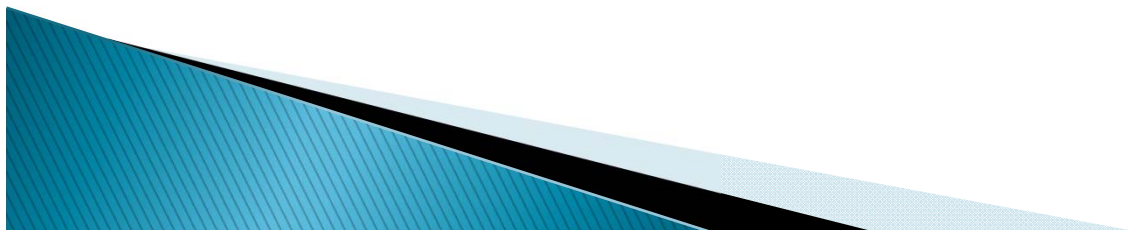


# 15. Loop of Lake Tai Hu: ' multi-function ' road innovative design

Director : BLUESKY studio of Southeast University   Implementation  
Unit : JIANGSUZHONGSHEENGINEERINGCONSULTANCYGROUP

## Innovation

- 1、 Rational application and flexible control to achieve multi-function
- 2、 Adjust to local conditions to furthest protect nature
- 3、 Dynamically adapt to the needs of the future



# **16. Water transport-Shenzhen eastern coastal region distinctive tourism and public transport travel services**

Director : Sun Chao

Implementation Unit : Shenzhen Transportation Committee

## **Project introduction**

It has become a new traffic mode with the development of distinctive water tourism and help to reduce traffic pressure in Shenzhen eastern coastal area. Take the eastern coastal area of Shenzhen for example, water traffic network system has been planned and constructed, and distinctive water tourism and bus travel services are built. That makes water traffic become a postcard which driving urban tourism industry and relieve the pressure from road traffic in rush hours and serve as the connection of business travel between Hongkong, Huizhou and other places. Currently the first water passenger route has been opened in Shenzhen eastern coastal region. Two daily flights running between Yantian Gold Coast Pier and Nanao Shuangyong Pier, attract many tourists who want to experience water tourism. Relevant governmental departments are willing to build a number of piers and routes for the formation of the eastern water transport network as soon as possible. In short, Water traffic is a new attempt and model in Shenzhen coastal area where there are abundant water tourism resources and where serious tourism traffic problems need to solved.





# 16. Water transport-Shenzhen eastern coastal region distinctive tourism and public transport travel services

Director : Sun Chao

Implementation Unit : Shenzhen Transportation Committee




# 17.Road pavement cross section setting arrangement based on universal design

Director : Sun Chao

Implementation Unit : Shenzhen Transportation Committee

## Project introduction

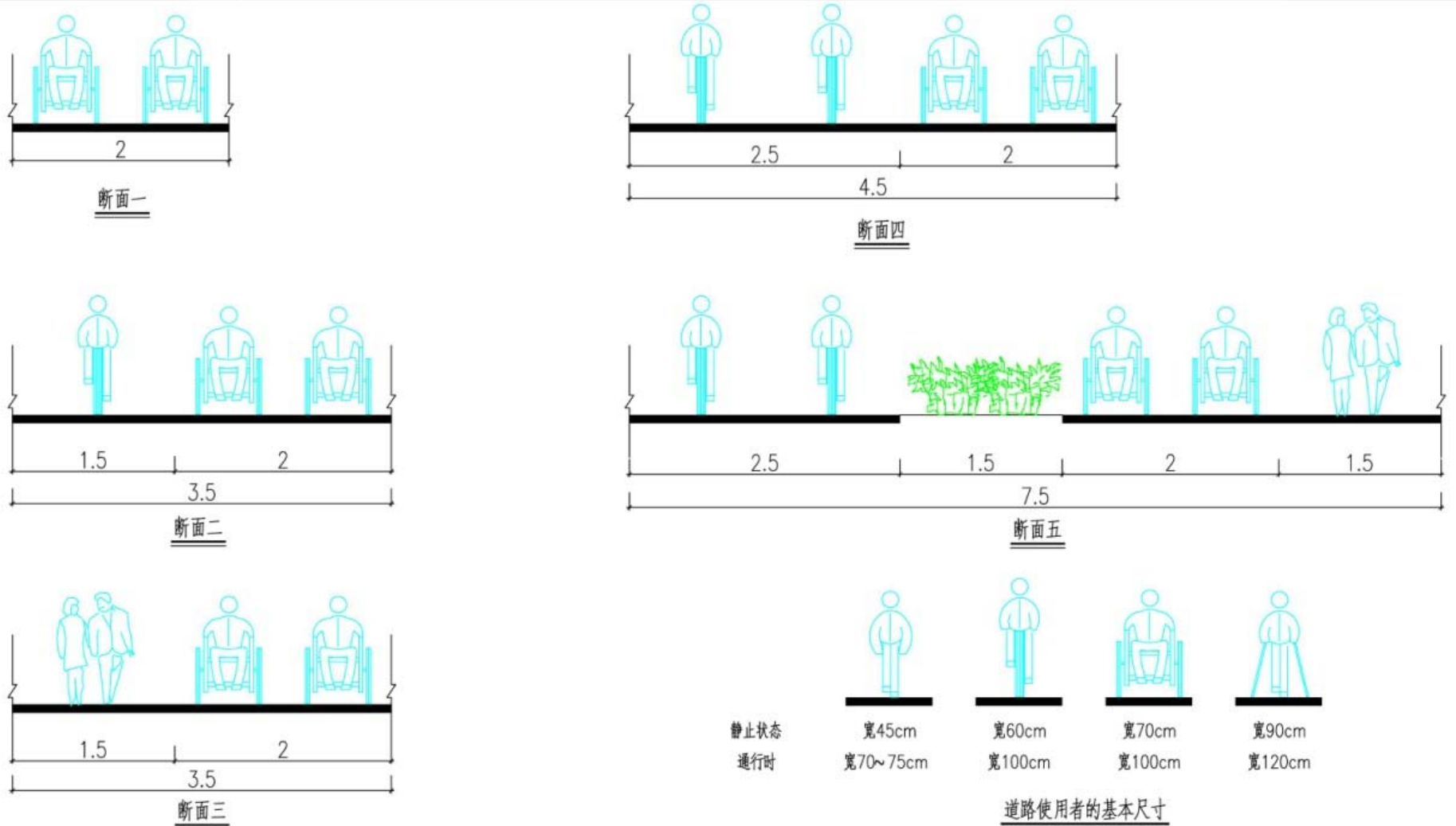
The concept of universal design advocate " design for the people of all ability levels ", which take into account the additional beneficiary groups. Taking Shenzhen's actual reality into consideration, several common and typical road pavement cross-section of Shenzhen have been built from the perspective of universal design for all kinds of people travel on the scale and it acts as a model for Shenzhen and other cities. The reason to take the wheelchair scales as the design basis, this is that the size of a wheelchair for most of those groups are able to meet (referred to the book of "barrier-free built environment," written by Li Zhimin). The proposed urban road pavement cross section arrangements based on universal design have been embodied in the "Shenzhen Urban Planning Standards and Guidelines (2014 edition)" and the actual road construction. On the whole, with increasingly attention on people's livelihood and well-being, as well as humane society, universal design concept of sustainable development should be applied to urban transport planning and building in order to improve the efficiency of transportation system, and to achieve the perfect transport function.



# 17.Road pavement cross section setting arrangement based on universal design

Director : Sun Chao

Implementation Unit : Shenzhen Transportation Committee





# Vehicle parking

Responsible teacher :



# 18.Holiday parking to college ——Xi 'an university parking holiday opening policy research

Director : Han Huidong   Implementation Unit : Xi'an Traffic Management  
Bureau

## Project introduction

China has entered the car era. As holiday expressway toll free policy, people more choice drive line, the parking problem is becoming more and more serious.

Xi'an as a famous historical and cultural city, attracting more tourists, therefore carries more traffic. In real life, the high vacancy rate of parking space during the holiday, the surrounding tourist attractions in colleges and universities a shortage of parking space. , therefore, that the government of xi 'an, xi 'an 29 universities join university holiday open parking policies.



# 18.Holiday parking to college ——Xi 'an university parking holiday opening policy research

Director : Han Huidong   Implementation Unit : Xi'an Traffic Management Bureau

## Features and Benefits

University holiday parking lot open-door policy has a strong practical. Xi 'an has many colleges and universities throughout the city, and most universities has advantageous location and strong cultural atmosphere. Campus parking space open, can greatly alleviate the pressure of the city's parking.

University holiday parking lot open-door policy with strong operability. University vacation spot vacancy phenomenon is obvious, provide the vacant parking Spaces to foreign cars, not only provides tourists with a parking space, also alleviate the pressure of tourist attractions parking.

University holiday parking lot open-door policy with strong potential replication. Xi "an university resources communion, if the xi" an university parking Spaces are open, would bring huge parking resources city.

Holiday in colleges and universities open-door policy with a strong social sharing parking lot. Parking resources is part of the city resources of colleges and universities, colleges and universities open parking space is a reflection of a social resource sharing, that this policy will greatly improve the utilization rate of parking resources.



# **19.Benefits for the Private or the Quartet : Research on the Oil-Subsidy Measure of Taxi Carried Out by Deji Plaza in Nanjing**

Director : Li Dan   Implementation Unit : Deji Plaza Co., Ltd.

## **Project introduction**

It has become a common phenomenon that taking a taxi at downtown is quite difficult, especially in the rush hour. Xinjiekou, the center of Nanjing, is confronted with the problem as well. In January 2013, to ease the lack of taxis and increase popularity, Deji Plaza carried out a measure that taxi-drivers who take passengers from the public taxi stop in front of the plaza can be given oil subsidies, expecting this method can be propitious to increase taxi supply at Xinjiekou.

## **Innovation**

- 1 .Non-government business group involved in solving the problem of urban taxi supply;
- 2 . Using the principles of economics price to adjustment downtown taxi supply, providing new ideas and directions to solve the difficult problem .



## **20. Personalized Taxi Across Cities -- Intercity Taxi In Wuhan City Circle**

Director : Yang Chen   Implementation Unit : Hubei road passenger (Group) Co., Ltd.

### **Project introduction**

As construction of Wuhan "1+8" city circle has been advancing steadily , the increasing contacts between cities are following with increasing traffic demands . Current intercity bus can't meet all people's needs because of its inflexible route and timing and low comfort which leads to serious black of market . Therefore , Wuhan is trying to offer intercity taxi service to people with special needs . Comparing to traditional intercity bus , the intercity taxi offers more flexible , fast and secure service which strengthen contact in urban circle , especially for the people who need better service . Anywhere in "1 + 8" city circle, as long as a telephone booking , you can rent a car to provide point-to point passenger services.

The project formal operations at December 28, 2013 in Wuhan "1 + 8" city circle, conduct transfers between Wuhan and Huangshi , Xiaogan, Xianning, Xiantao, Tianmen, Qianjiang and other surrounding eight cities.

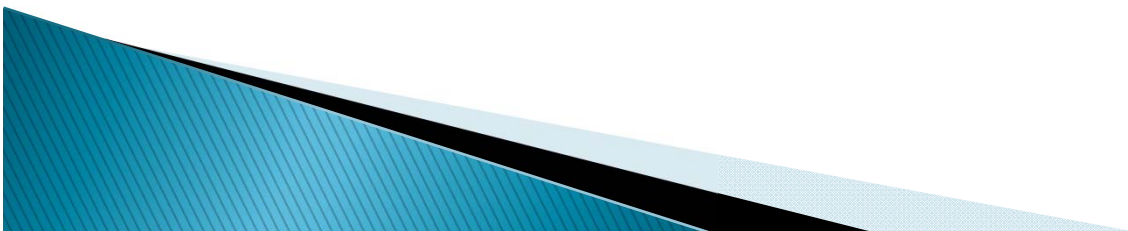


## **20. Personalized Taxi Across Cities -- Intercity Taxi In Wuhan City Circle**

Director : Yang Chen   Implementation Unit : Hubei road passenger (Group)  
Co., Ltd.

### **Characteristics and the role of the project**

- 1 . Different from the general urban taxi, belongs to the category of long-distance passenger;
- 2 . Breakthrough the defects of Coach, more convenient and comfortable;
- 3 . Break the "black" market disruption and ensure the safety of passengers traveling;
- 4 . Diversification options to meet passenger's demands, create a personalized travel customization.





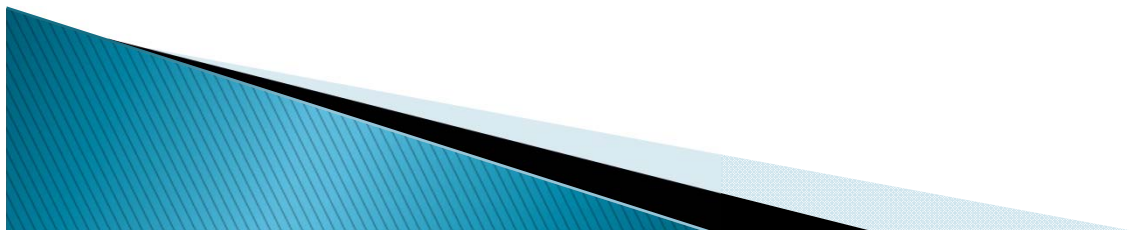
## 21.The Introduction of Community Autonomy System for Old Residential Parking Improvement

Director : Shenzhen Urban Planning and Land Development Research Centre

Implementation Unit : Shenzhen Urban Planning and Land  
Resources Committee directly under the first authority

### Project introduction

North Huaifu village, located in the center area of Shenzhen, is one of the many old residential communities with parking difficulties. It is constructed in 1987 and the construction area is nearly 19 hectare. There are 2089 households and more than 1000 cars. By contrast, there are only 371 legal parking seats. It is obvious that the gap between parking demand and supply is huge. The situation will get worse with the growth of cars.



# 21.The Introduction of Community Autonomy System for Old Residential Parking Improvement

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## Parking improvement plan

**Measure 1: increase parking supply by exploiting all feasibility of internal space**

It is the most effective and economic way for old residential community by using the internal space to increase parking seats. Through field investigation, we proposed to set up 600 parking seats with vacant lot and building empty space.



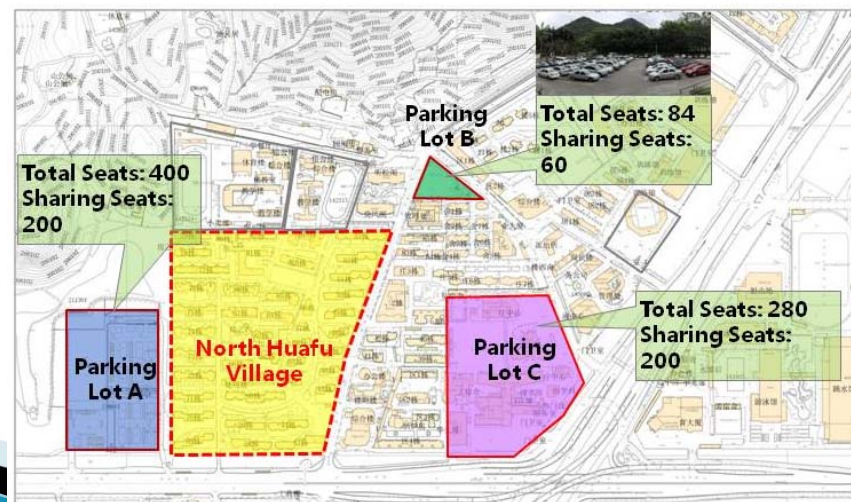
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## Parking improvement plan

### Measure 2: share parking resource with other buildings

The residential interior space is limited and it is unfair to meet the demand of car travel by ignoring the travel of pedestrians and cyclists. We found that the utilization rate of some surrounding parking lots at night is very low. So, a staggering rush hour plan is proposed to meet the remaining demand. Considering factors such as walking distance and parking peak hour, there are three parking lots suitable for North Huafu village, as is shown in the following figure.



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### **Parking improvement plan**

#### **Measure 3: implement community parking autonomy system**

Through aforementioned measures, the gap is gradually narrowed. The next step is to set the community parking rules in order to ensure the parking environment without damaged again, which is to implement community parking autonomy system. First, it is important to clarify the fact that community parking space belongs to all the owners. Second, agreements about parking rules should be reached with all the owners and property management agency, so as to guarantee parking environment, avoid illegal parking and other disorder issues.

