2010 Shanghai World Expo Management System

Team 1-14

Key Concept

Our system enables tourists to book places for different pavilions at different times. This frees tourists from physically queuing and allows tourists to visit other pavilions before their scheduled time slot comes.

SSS

Sub-Systems

Expo Assistant System (EAS)

- Allows booking of pavilions on-the-fly
- Allows modification of booking plans on-the-fly
- Receives notifications
- Navigation inside the expo park
- Retrieves booking information on pavilions

EAS

Smart Station System (SSS)

- Scan ID cards at entrance and exit
- Display pavilion information

CCS

Central Control System (CCS)

- Display expo information on different pavilions
- Database for all EAS and SSS
- Include control panel which is able to send notifications on weather, emergency or missing member of a group

Description

Our system offers a technological solution to the problem of crowd management in Shanghai World Expo. By using a "virtual queue" inside the system, we free the tourists from the time-wasting, physical-demanding, boring process of queuing. By using a system adopting the concept of reservation, tourists can visit other pavilions before their time comes. We also offer a high level of flexibility for tourists to change their plans anywhere anytime by using wireless communication on the EAS device. We also take into account that if the "virtual queue" for the pavilion is not full, tourists can instantly go in without prior booking. This improves the utilization of not-so-popular pavilions. Our system determines the maximum number of tourists in a queue as well as maximum number of tourists inside the pavilion. This ensures that pavilions will not operate beyond its capacity. Lastly, our system also provides difference services of notifications, navigation, frequently asked questions and operates in real time.