

Indoor Positioning and User Analytics for a Smart City

Gary Chan

Professor, Department of Computer Science and Engineering, HKUST
Clear Water Bay, Kowloon

Keywords: *Indoor localization, Wi-Fi tracking, deployment experiments*

Abstract

Location-based service is an important component for a smart city. Central to such service is accurate positioning of users. While GPS has been widely and successfully used for outdoor services, deploying indoor positioning technologies is still at its infancy. At HKUST, we have been conducting advanced research and deployment trials on indoor positioning technologies. Such technologies can be divided into two parts, one on client-based active localization and the other one on sensor-based passive tracking. With the location-based data collected, one can then conduct user analytics to understand behaviors and offer timely and novel services.

We have been working with different industrial sectors to deploy indoor positioning and user analytics technologies. In this talk, I will share our technologies, experience and results in this regard. I will show how these technologies can enable a wide range of novel and attractive services for a smart city.