

Data Management in Location-Dependent Information Services

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Location-dependent information services (LDISs) answer queries in accordance with the locations the queries are associated with (e.g., the locations from which the queries are issued). The emergence of LDISs is resulted from the convergence of high-speed wireless networks, personal portable devices, and locating techniques. LDISs have a variety of promising applications, such as local information access (e.g., traffic reports, news, and navigation maps) and nearest neighbor queries (e.g., finding the nearest restaurant), and are expected to become an integral part of our daily life.

This seminar will provide background and an overview of research on location-dependent information access in mobile and pervasive environments. In particular, it will discuss the following topic areas:

1. Positioning technologies;
2. Moving objects tracking;
3. Location-dependent query processing;
4. Location-dependent cache management;
5. System integration;
6. Privacy and security.

Speakers

Wang-Chien Lee is an associate professor of computer science and engineering at Penn State University. His primary research interests lie in the areas of mobile and pervasive computing, data management, sensor networks, and peer-to-peer computing.

Baihua Zheng is an assistant professor in the School of Information System, Singapore Management University. Her research interests include data management for mobile/pervasive computing environments, and spatial database.

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