Advanced Technology Seminar 7

Data Engineering for Mobile and Wireless Access

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Abstract

Together with wireless communication technologies, portable computers and hand-held devices provide a pervasive base for mobile computing. Mobile computing involves mobility of users, hardware, software and data. In addition to advances in communications and hardware, mobile and wireless access requires innovative theories and paradigms in data management and new data engineering techniques in order to cope with the inherent limitations of the mobile environment while satisfying the users' new expectations and needs. This seminar aims at covering such data engineering aspects along two dimensions:

      (a) the wireless network perspective, and
      (b) the information processing perspective.

Thus, this seminar provides a good overview of current methods and practices in building mobile information systems, examine mobile and wireless infrastructures and discuss challenging research problems in all aspects of mobile information processing.

Panos K. Chrysanthis is an Associate Professor of Computer Science at the University of Pittsburgh. His current research focus is on mobile and pervasive data management. He has published in the most prestigious database journals and conferences, a book and book chapters on data consistency and transactions. He is an editor of the VLDB Journal, and was program chair of several workshops related to mobile computing. He is currently PC co-chair of Mobile Data Management, 2003. He has given multiple invited talks and tutorials on data management, including at COMAD 1994 and ICDE 2000.

Vijay Kumar is a Professor of Computer Science at the University of Missouri-Kansas City, Missouri. His research areas are Mobile computing, Data warehousing, Workflow, Web, and Computational biology. His publication record includes papers in many reputable journals and conferences. He has written three books on database systems. He has given a number of tutorials, invited talks on mobile systems, databases, and database recovery at various conferences. In 2002, he was the co-chair of the DEXA MDDS02 workshop and the NSF Workshop on Context-Aware Mobile Database Management.

Evaggelia Pitoura is an Assistant Professor at the University of Ioannina, Greece. Her main research interests are in the area of data management for ubiquitous computing. Her publications include several journal and conference articles and a recently published book on mobile computing. She received the best paper award in the IEEE ICDE 1999 for her work on mobile agents. She has served on a number of program committees, was program co-chair of the MobiDE-99, MobiDE-01 and DEXA MDDS02 workshops. She has offered a number of tutorials on mobile data management, including at ICDE 2000.

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