

# Preface

With the rapid development in wireless-network and portable computing and communication devices, mobile users are expected to have access to information from anywhere at anytime in the near future, in the form of ubiquitous computing, a term coined by the late Mark Weiser of Xerox, PARC. Indeed, the emerging mobile technology will probably bring us the next wave of information revolution and change our society as we move into the next millennium. Before this vision can be realized, a number of challenges have to be overcome. Traditionally, network-based information systems have been developed under wired assumptions about the connectivity and topology of the underlying networks. To eliminate these limitations from wireless and mobile environments, research efforts are needed in networks, architecture, software infrastructure, and application levels, in order to provide mobile data access over hybrid wireless and wired networks, which is the central theme of this conference.

These proceedings collect the technical papers selected for presentation at the First International Conference on Mobile Data Access (MDA'99), held in Hong Kong, following its return to China, on December 16–17, 1999. The conference is held in conjunction with the International Computer Science Conference, the International Conference on Real-time Computing Systems and Applications, and the Pacific Rim International Symposium on Dependable Computing, forming part of the International Computer Congress.

In response to the call for papers, the program committee received 39 submissions from North America, Europe, Asia, and Oceania. Each submitted paper underwent a rigorous review by three to four referees, with detailed referee reports. Finally, these proceedings represent a collection of 20 research papers, with contributions from ten different countries from four continents. The contributed papers address a broad spectrum on mobile data access issues, ranging from the lower level core research efforts on communication on wireless networks and location management, to the intermediate level research topics on data replication and transaction processing, and finally to the higher user level research applications on ubiquitous information services.

We are extremely excited to align a very strong program committee, with outstanding researchers in the areas of mobile computing and databases. We would like to extend our sincere gratitude to the program committee members, who performed a superb job in reviewing the submitted papers for contributions and technical merits towards mobile data access.

Last but not least, we would like to thank the sponsors, for their support of this conference, making it a success. Thanks go to the IEEE Hong Kong Computer Section, ACM Hong Kong Chapter, Sino Software Research Institute at Hong Kong University of Science and Technology, the IEEE Technical Committee on Personal Communications, and ACM SIGMOBILE.

# The First International Conference on Mobile Data Access (MDA'99) In Conjunction with the International Computer Congress 99 (ICC'99)

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