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Volume Editors

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Preface

Context-awareness is one of the drivers of the ubiquitous computing paradigm. Well-designed context modeling and context retrieval approaches are key prerequisites in any context-aware system. Location is one of the primary aspects of all major context models — together with time, identity and activity. From the technical side, sensing, fusing and distributing location and other context information is as important as providing context-awareness to applications and services in pervasive systems.

The material summarized in this volume was selected for the 1st International Workshop on Location- and Context-Awareness (LoCA 2005) held in cooperation with the 3rd International Conference on Pervasive Computing 2005. The workshop was organized by the Institute of Communications and Navigation of the German Aerospace Center (DLR) in Oberpfaffenhofen, and the Mobile and Distributed Systems Group of the University of Munich.

During the workshop, novel positioning algorithms and location sensing techniques were discussed, comprising not only enhancements of singular systems, like positioning in GSM or WLAN, but also hybrid technologies, such as the integration of global satellite systems with inertial positioning. Furthermore, improvements in sensor technology, as well as the integration and fusion of sensors, were addressed both on a theoretical and on an implementation level.

Personal and confidential data, such as location data of users, have profound implications for personal information privacy. Thus privacy protection, privacy-oriented location-aware systems, and how privacy affects the feasibility and usefulness of systems were also addressed in the workshop.

A total of 84 papers from 26 countries were submitted to LoCA 2005, from which 26 full and 7 short papers were selected for publication in the proceedings. The overall quality of the submissions was impressive, demonstrating the importance of this field. The Program Committee did an excellent job — all papers were reviewed by at least 3 referees, which left each member with up to 18 papers to be reviewed within a very tight schedule.

May 2005

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