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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Keynote -- Location Awareness: Potential Benefits and Risks -- Context Information Management and Distribution -- Context Modelling and Management in Ambient-Aware Pervasive Environments -- A Context Architecture for Service-Centric Systems -- Towards Realizing Global Scalability in Context-Aware Systems -- Positioning Sensor Systems I -- Towards LuxTrace: Using Solar Cells to Measure Distance Indoors -- Three Step Bluetooth Positioning -- MoteTrack: A Robust, Decentralized Approach to RF-Based Location Tracking -- Positioning

Sensor Systems II -- Correcting GPS Readings from a Tracked Mobile Sensor -- Web-Enhanced GPS -- The COMPASS Location System -- The xPOI Concept -- Positioning Sensor Systems III -- The GETA Sandals: A Footprint Location Tracking System -- Improving the Accuracy of Ultrasound-Based Localisation Systems -- Position Estimation of Wireless Access Point Using Directional Antennas -- From Location to Context -- Exploiting Multiple Radii to Learn Significant Locations -- Modeling Cardinal Directional Relations Between Fuzzy Regions Based on Alpha-Morphology -- Commonsense Spatial Reasoning for Context-Aware Pervasive Systems -- Contextually Aware Information Delivery in Pervasive Computing Environments -- Bayesian Networks -- Classifying the Mobility of Users and the Popularity of Access Points -- Prediction of Indoor Movements Using Bayesian Networks -- Geo Referenced Dynamic Bayesian Networks for User Positioning on Mobile Systems -- Issues and Requirements for Bayesian Approaches in Context Aware Systems -- Context Inference -- Context-Aware Collaborative Filtering System: Predicting the User's Preference in the Ubiquitous Computing Environment -- Mobile Context Inference Using Low-Cost Sensors -- Where am I: Recognizing On-body Positions of Wearable Sensors -- Privacy -- Context Obfuscation for Privacy via Ontological Descriptions -- Share the Secret: Enabling Location Privacy in Ubiquitous Environments -- Filtering Location-Based Information Using Visibility -- Location- and Context-Aware Applications -- Introducing Context-Aware Features into Everyday Mobile Applications -- Predicting Location-Dependent QoS for Wireless Networks -- Location-Based Services for Scientists in NRENs -- Hybrid Positioning and User Studies -- Towards Smart Surroundings: Enabling Techniques and Technologies for Localization -- Proximation: Location-Awareness Though Sensed Proximity and GSM Estimation.

Sommario/riassunto

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.
