

# Mobile Distributed Information Systems

## Minitrack Chairs:

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In today's mobile society, access to relevant information and to context-specific services "anytime, anywhere" is becoming increasingly important. Mobile users are often particularly interested in information *about* and services *in* their immediate vicinity, thus Mobile Distributed Information Systems must address location-dependent distribution *of* and access *to* services and information from mobile devices. The user's topological and geographical location becomes relevant for the semantics of communication, and such communication has to remain seamless even in foreign environments, with little or no need for manual reconfiguration. Frequently, in addition to his location, the user's current situation determines his information and service requirements. With mobile devices becoming more and more powerful, mobile users themselves may offer information and services to peers in an ad-hoc manner. Consequently, the long-established distinction between clients and servers is blurred, which calls for an extension of the architecture paradigm towards peer and/or alternating roles. This HICSS Minitrack addresses such issues and is intended to serve as a forum for the exchange of ideas in this fast-moving field.

Out of thirty-five submissions addressing a wide range of aspects related to Mobile Distributed Information Systems, fifteen excellent papers have been selected for presentation in the five sessions of this Minitrack.

### Session I:

#### Service Discovery and Provisioning, Programming

Franck Rousseau, Justinian Oprescu, Laurentiu-Sorin Paun and Andrzej Duda: *Omnisphere: a Personal Communication Environment*

Fredrik Espinoza and Ola Hamfors: *ServiceDesigner: a Tool to Help End-Users Become Individual Service Providers*

Satyajit Acharya, Hrushiksha Mohanty and R. K. Shyamasundar: *MOBICHARTS: A Notation to Specify Mobile Computing Applications*

### Session II:

#### Location and Context Awareness, Ubiquitous Computing I

Kenton O'Hara and Mark Perry: *User Centred Opportunities for Supporting Consumer Behaviour Through Handheld and Ubiquitous Computing*

Paul Couderc and Michel Banatre: *Ambient computing applications: an experience with the SPREAD approach*  
Thomas Hofer, Wieland Schwinger, Mario Pichler, Gerhard Leonhartsberger, Josef Altmann and Werner Retschitzegger: *Context-Awareness on Mobile Devices - The Hydrogen Approach*

### Session III:

#### Location and Context Awareness, Ubiquitous Computing II

W.-T. Balke, W. Kießling and C. Unbehend: *A Situation-aware Mobile Traffic Information System*

Kåre Synnes, James Nord and Peter Parnes: *Location Privacy in the Alipes Platform*

Gerald Bieber and Rüdiger Ide: *Xyberscout: A Platform For The Efficient Construction Of Mobile Location Aware Information Systems*

### Session IV:

#### Mobile Databases and Data Management

Rajeswari Malladi and Karen C. Davis: *Applying Multiple Query Optimization in Mobile Databases*

Alexandros Karypidis and Spyros Lalis: *Harnessing the potential of mobile personal data repositories*

Pasi Tyrväinen: *Estimating Applicability of New Mobile Content Formats to Organizational Use*

### Session V:

#### Routing, Scheduling and Network Planning

Yang Wang and Thomas Kunz: *A Dynamic Assignment Problem in a Mobile System with Limited Bandwidth*

Thomas D. Dyer and Rajendra V. Boppana: *On Routing Web and Multimedia Traffic in Mobile Ad Hoc Networks*

Roger M. Whitaker and Steve Hurley: *Evolution of Planning for Wireless Communication Systems*

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