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# Ubiquitous Computing Systems

Second International Symposium, UCS 2004  
Tokyo, Japan, November 8-9, 2004  
Revised Selected Papers



Springer

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# Preface

This book is a collection of papers presented at UCS 2004, held on November 8–9 in Tokyo. UCS is a series of international symposia sponsored by the special interest group Ubiquitous Computing Systems of the Information Processing Society of Japan. The first UCS was held on November 17, 2003 in Kyoto. It was held as an invitation-based symposium. UCS 2004 was the second of the series, and the first submission-based conference.

UCS focuses on the emerging research area of ubiquitous computing systems. This emergence is an outcome of the rapid evolution in smart appliances and devices, as well as tremendous advances in wireless networks and mobile computing. In the last few years, various applications of information technology have been changing our everyday life rapidly and to a large extent. The best example is the use of mobile phones. By getting new sensing devices, cameras, their application field is no longer limited to communication but covers data communications including Internet access, and data and program up-/downloading, and so on.

The symposium offered the opportunity for in-depth exploration of the most recent research and development findings in the field of ubiquitous computing. The submitted papers presented at UCS 2004 suggest such a direction to future technologies, including mobile ad hoc networks, sensor networks and context-aware technologies.

Reflecting the growth of the research field, we received 50 submissions from 15 countries ranging all over the world, from which we accepted 20 papers resulting in a 40% acceptance ratio. Each paper was reviewed by at least three PC members and all review comments were examined carefully by PC co-chairs to finalize the decision. In this book, we have 18 normal papers, plus 2 papers from invited speakers.

We also carefully selected two invited talks. The first one was titled “The Pervasive Sensor” by Kristof Van Laerhoven, Lancaster University, UK. The second one was titled “From Everyday Things to Everyday Memories: Two Kinds of Interactions with Objects in A House” by Hisao Nojima, Seijo University, Japan. The first talk was on the basic-level technology of ubiquitous computing, and the second was on a possible application of ubiquitous computing technologies.

May 2005

Hideyuki Tokuda and Hitomi Murakami

Hideyuki Nakashima and Michiaki Yasumura

# Organization

UCS 2004 was organized by the Ubiquitous Computing System Group of the Information Processing Society of Japan (IPSJ) in cooperation with IPSJ-SIGHI, IPSJ-SIGMBL, the Human Interface Society, the URON group of IEICE, the Ubiquitous Networking Forum, and the Japan Society for Software Science and Technology.

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