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Laurence T. Yang  
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Zhen Liu  
Minyi Guo  
Franz J. Rammig (Eds.)

# Embedded and Ubiquitous Computing – EUC 2005

International Conference EUC 2005  
Nagasaki, Japan, December 2005  
Proceedings



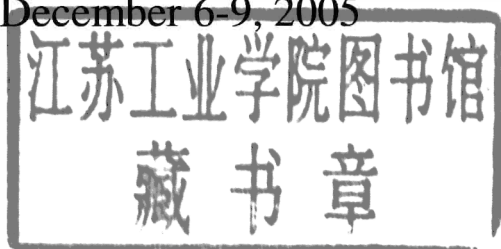
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International Conference EUC 2005  
Nagasaki, Japan, December 6-9, 2005  
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# Preface

Welcome to the proceedings of the 2005 IFIP International Conference on Embedded and Ubiquitous Computing (EUC 2005), which was held in Nagasaki, Japan, December 6–9, 2005.

Embedded and ubiquitous computing is emerging rapidly as an exciting new paradigm to provide computing and communication services all the time, everywhere. Its systems are now pervading every aspect of life to the point that they are hidden inside various appliances or can be worn unobtrusively as part of clothing and jewelry. This emergence is a natural outcome of research and technological advances in embedded systems, pervasive computing and communications, wireless networks, mobile computing, distributed computing and agent technologies, etc. Its tremendous impact on academics, industry, government, and daily life can be compared to that of electric motors over the past century, in fact it but promises to revolutionize life much more profoundly than elevators, electric motors or even personal computers.

The EUC 2005 conference provided a forum for engineers and scientists in academia, industry, and government to address profound issues including technical challenges, safety, and social, legal, political, and economic issues, and to present and discuss their ideas, results, work in progress, and experience on all aspects of embedded and ubiquitous computing.

There was a very large number of paper submissions (376), not only from Europe, but also from Asia and the Pacific, and North and South America. All submissions were reviewed by at least three Program or Technical Committee members or external reviewers. It was extremely difficult to select the presentations for the conference because there were so many excellent and interesting submissions. In order to allocate as many papers as possible and keep the high quality of the conference, we finally decided to accept 114 papers for oral presentations. We believe that all of these papers and topics not only provided novel ideas, new results, work in progress, and state-of-the-art techniques in this field, but also stimulated future research activities in the area of embedded and ubiquitous computing.

The exciting program for this conference was the result of the hard and excellent work of many others, such as Program Vice-chairs, external reviewers, Program and Technical Committee members, all working under a very tight schedule. We were also grateful to the members of the Organizing Committee for supporting us in handling many organizational tasks, and to the keynote speakers for accepting to come to the conference with enthusiasm. Last but not least, we hope you enjoy the conference proceedings.

October 2005

Laurence T. Yang, Mokoto Amamiya  
Zhen Liu, Minyi Guo and Franz J. Rammig  
EUC 2005 Program and General Chairs

# Organization

EUC 2005 was organized and sponsored by the Nagasaki Institute of Applied Science (NiAS), Japan and International Federation for Information Processing (IFIP). It was held in cooperation with the IEEE Computer Society, IEICE Information and System Society, *Lecture Notes in Computer Science* (LNCS) of Springer, and The Telecommunications Advancement Foundation (TAF).

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