MESSAGE FROM THE TECHNICAL PROGRAM CO-CHAIRS

Welcome to the *Second IEEE Workshop on Software Technologies for Future Embedded & Ubiquitous Systems (SEUS 2005)*, held in conjunction with *ISORC 2005*, in Seattle, WA. The fields of both embedded computing and ubiquitous systems have seen considerable growth over the past few years. Given the advances in these fields, and also those in the areas of distributed computing, sensor networks, middleware, etc., the area of ubiquitous embedded computing is now being envisioned as the way of the future. The systems and technologies that will arise in support of ubiquitous embedded computing will undoubtedly need to arise a variety of issues, including dependability, real-time, human-computer interaction, autonomy, resource constraints, etc. All of these requirements pose a challenge to the research community. The purpose of *SEUS 2005* is to bring together researchers and practitioners with an interest in advancing the state-of-the-art and the state-of-practice in this emerging field, with the hope of fostering new ideas, collaborations and technologies.

We are grateful to the members of the Technical Program Committee and the external expert reviewers, for reviewing the papers, for helping us to assemble such an outstanding program, and for their efforts in making *SEUS 2005* a memorable technical event. We extend our deep appreciation to the *ISORC 2005* Co-Chairs, Scott Moody, Franz Rammig, and Tatsuo Nakajima, for their support of SEUS 2005 and for their invaluable assistance in making this Workshop a success under the aegis of *ISORC*. We are also indebted to Kane Kim, for his endless supply of enthusiasm, support and advice, and for his fearless leadership in fostering a spirit of collaboration and creativity in SEUS 2005.

The program for *SEUS 2005* consists of 14 research papers of very high quality, including both academic and industrial contributors, with the participation reflecting the international community that has grown around the field of ubiquitous computing. Finally, we would like to thank our authors for submitting publications of such high quality, and for sharing the results of their research work so freely with the rest of this community. It is our hope that the results of this Workshop indeed truly serve as the foundations for software technologies for future embedded and ubiquitous systems.

Priya Narasimhan, Carnegie Mellon University, USA
Stefano Russo, University of Napoli, Italy
Hee-Yong Youn, Sungkyunkwan University, South Korea
Daeyoung Kim, Information and Communication University, South Korea

Embedded Real-Time Issues

01. A Fault-tolerant Scheduling Scheme for Hybrid Tasks in Distributed Real-time Systems
Young Sik Hong and H. W. Goo
Dongguk University, Seoul, South Korea

02. Measurement-Based Worst-Case Execution Time Analysis
Ingomar Wenzel, Raimund Kirner, Bernhard Rieder, Peter Puschner
Vienna University of Technology, Austria

03. Static Composition of Service-Based Real-Time Applications
Iria Estévez-Ayres, Marisol García-Valls, Pablo Basanta
Universidad Carlos III de Madrid, Spain

04. A Case Study on Partial Evaluation in Embedded Software Design
Michael Jung, Ralf Laue and Sorin Alexander Huss
Technische Universität Darmstadt, Germany

Practical, Industrial Perspectives

05. Managing the Aladdin Home Networking System: An Experience Report
Yi-Min Wang
Microsoft Research, USA

06. Quality Attributes in Wireless Sensor Networks
Sharmila Ravula, Brad Petrus, Ji Eun Kim and Christoph Stoermer
Robert Bosch Corporation, USA

Smart Spaces

07. SLAP: a Location-aware Software Infrastructure for Smart Spaces
Hongliang Gu, Yuanchun Shi, Guangyou Xu
Tsinghua University, Beijing, China

08. Resource Management Based on Personal Service Aggregations in Smart Spaces
Peifeng Xiang, YuanChun Shi
Tsinghua University, Beijing, China

Service, Application and Device Integration and Implementation

09. Implementation of New Services to Support Ubiquitous Computing for Town Life
Tack-Don Han, Cheolho Cheong, Hyung-Min Yoon, Jong-Young Kim, Seong-Hun Jeong, Young-Seung Ryu6, Bum-Seok Kang, Hyun-Kyung Kim, Seok-Won Lee, Vason P. Srini, Joo-Hyeon Lee, Young-Woo Sohn, Yoon Su Baek, Sang-Yong Lee, WooShik Kang, SeongWoon Kim
Yonsei University, ColorZip Media Inc., and Samsung Advanced Institute of Technology, Seoul, Korea

10. A Strategy for Application-Transparent Integration of Nomadic Computing Domains
Dominico Cotroneo, Cristiano di Flora, Massimo Ficco and Stefano Russo
Universita' degli Studi di Napoli Federico II, Italy
Laboratorio Nazionale per l'Informatica e la Telematica Multimediali, CINI-ITEM, Italy

11. Hyrax - Hyperlink-based Application Framework for Smart Devices
Yukikazu Nakamoto
University of Hyogo, Japan

12. An Input Event Framework for Multi-Modal and Multi-Device environments
Nobuyuki Kobayashi, Eiji Tokunaga, Hiroaki Kimura, Yasufumi Hirakawa, Masaaki Ayabe, Tatsuo Nakajima
Waseda University, Japan

Mission-Critical Computing Issues

13. CARDAMOM: Next Generation Mission and Safety Critical Enterprise Middleware
Angelo Corsaro
Alenia Marconi Systems, Italy

14. Development of Distributed Programming Developing Tool-Kit based on Object Group Model
Su-Chong Joo
Wonkwang University, South Korea