

LCTES'99 Advanced Program



ACM SIGPLAN 1999 Workshop on Languages, Compilers, and Tools for Embedded Systems Atlanta, Georgia, May 5, 1999

(in conjunction with PLDI'99, as part of FCRC'99)

<http://www.cs.indiana.edu/~liu/lctes99/>

<http://www.cs.uni-sb.de/~LCTES99/>

Chairs: Y. Annie Liu (liu@cs.indiana.edu), Reinhard Wilhelm (wilhelm@cs.uni-sb.de)

7:00pm-8:00pm Breakfast

8:00am-10:00am Session I: Compiler Issues

Chair: Reinhard Wilhelm

- **Optimizing for Reduced Code Space using Genetic Algorithms** (30 minutes)
Keith D. Cooper, Philip J. Schielke, and Devika Subramanian (Rice University)
- **Effective Exploitation of a Zero Overhead Loop Buffer** (30 minutes)
Gang-Ryung Uh (Lucent Technologies), Yuhong Wang, David Whalley (Florida State University), Sanjay Jinturkar, Chris Burns, and Vincent Cao (Lucent Technologies)
- **Minimizing Cost of Local Variables Access for DSP-Processors** (20 minutes)
Erik Eckstein (Atair Software GmbH, Austria) and Andreas Krall (Technical University Wien, Austria)
- **Modulo Scheduling for the TMS320C6x VLIW DSP Architecture** (20 minutes)
Eric Stotzer (Texas Instruments) and Ernst Leiss (University of Houston)
- **Pipeline Behaviour Prediction for Superscalar Processors by Abstract Interpretation** (20 minutes)
Joern Schneider (University of the Saarland, Germany) and Christian Ferdinand (AbsInt GmbH, Germany)

10:00am-10:20am Coffee Break

10:20am-11:20am Session II: Garbage Collection

Chair: Seongsoo Hong

- **Live Memory Analysis for Garbage Collection in Embedded Systems** (30 minutes)
Patrik Persson (Lund University, Sweden)
- **Scheduling Garbage Collector for Embedded Real-Time Systems** (30 minutes)
Taehyoun Kim, Naehyuck Chang, Namyun Kim, and Heonshik Shin (Seoul National University, Korea)

12:30pm-1:20pm Lunch

13:30pm-14:30pm Invited Speaker: Dr. In Ryu (Samsung Electronics)

Chair: Annie Liu

- **Issues and Challenges in Developing Embedded Software for Information Appliances and Telecommunication Terminals**

14:30pm-15:30pm Session III: Databases and QoS

- **Table-Based QoS Control for Embedded Real-time Systems** (30 minutes)
Tomoyoshi Sugawara and Kosuke Tatsukawa (NEC Corporation, Japan)
- **A Secure Dynamic Copy Protocol in Real-Time Database Systems** (30 minutes)
Sungyoung Lee, Byung-Soo Jeong (Kyung-Hee University, Korea), and Hyon Woo Seung (Seoul Women's University, Korea)

15:30pm-16:00pm Coffee Break

16:00pm-17:00pm Session IV: Tools and Environments

Chair: Jack Davidson

- **Performance Re-Engineering of Embedded Real-Time Systems** (20 minutes)
Minsoo Ryu, Jungkeun Park, Kimoon Kim, Yangmin Seo, and Seongsoo Hong (Seoul National University, Korea)
- **A Software Synthesis Tool for Distributed Embedded System Design** (20 minutes)
D.-I. Kang, R. Gerber, L. Golubchik, J.K. Hollingsworth (University of Maryland), and M. Saksena (Concordia University)
- **Why SpecInt95 Should Not Be Used to Benchmark Embedded Systems Tools** (20 minutes)
Jakob Engblom (Uppsala University, Sweden)