Proceedings of the

Second Workshop on Compilers and Operating Systems for Low Power (COLP'01)

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Welcome to the Second Workshop on Compilers and Operating Systems for Low Power (COLP'01). Power consumption has increasingly become important in computer systems. The management of power consumption while simultaneously delivering acceptable levels of performance is becoming a critical task with the proliferation of systems in several application domains such as wireless communication and embedded signal processing. In addition, it is important to manage power consumption in high-performance general purpose microarchitectures. It has been forecast that without significant advances in low power design and software optimization, future systems will consume hundreds of watts of power. An integrated hardware and software approach appears to be necessary. Much attention has been paid to optimizing power at the circuit and gate levels. Recently, power optimizations at the architecture and software levels (i.e., compiler, operating system, and application) have begun to receive attention.

This workshop draws together researchers and practitioners concerned with compiler, hardware and operating system support for low power for a stimulating exchange of views. The program includes ten papers for 30-minute presentations, and five papers for 20-minute presentations. These 15 papers describe current research on compiler, operating system and hardware support for low power. The workshop promises to be interesting with a strong program. The workshop co-chairs would like to thank the Program Committee for their help in putting the workshop together. In addition to the Program Committee, we thank the following reviewers: Bharadwaj Amrutur, Agilent (bharadwaj_amrutur@agilent.com), Eui Young Chung, Stanford (eychung@azur.stanford.edu), Anoop Iyer, CMU (aiyer@andrew.cmu.edu), Miguel Miranda, IMEC (miranda@imec.be), Phillip Stanley-Marbell, CMU (pstanley@andrew.cmu.edu), Emil Talpes, CMU (etalpes@andrew.cmu.edu), Chun Wong, IMEC (chwong@imec.be), and Peng Yang, IMEC (yangp@imec.be).

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