

SIGARCH FY'06 Annual Report
July 2005- June 2006
Submitted by: Norm Jouppi, SIGARCH Chair

Overview

The primary mission of SIGARCH continues to be the forum where researchers and practitioners of computer architecture can exchange ideas. SIGARCH sponsors or cosponsors the premier conferences in the field as well as a number of workshops. It publishes a quarterly newsletter and the proceedings of several conferences. It is financially strong with a fund balance of over one million dollars. The SIGARCH bylaws are available online at http://www.acm.org/sigs/bylaws/arch_bylaws.html

Officers and Directors

The most recent SIGARCH election was held in the spring of 2003. Norm Jouppi of HP currently serves as SIGARCH Chair, with Margaret Martonosi of Princeton as Vice Chair and Matt Farrens of UC Davis as Secretary/Treasurer. SIGARCH has a four member Board of Directors, which currently consist of Alan Berenbaum, Joel Emer, Bill Dally, and Mark Hill. Alan Berenbaum also serves as Past Chair. In addition to these elected positions, Doug DeGroot serves as the Editor of the SIGARCH newsletter Computer Architecture News, and Doug Burger serves as Information Director, providing SIGARCH information online. The current slate of officers and directors has unanimously agreed to accept the optional 2-year term extension, as approved by the ACM SIG Governing Board Executive Committee. This means the term of the current officers and directors will expire in June 2007.

Awards

The Eckert-Mauchly Award, cosponsored by the IEEE Computer Society, is the most prestigious award in computer architecture. SIGARCH endows its half of the award, which is presented annually at the Awards Banquet of ISCA. James H. Pomerene received the award in 2006, "For pioneering innovations in computer architecture, including early concepts in cache, reliable memories, pipelining and branch prediction, for the design of the IAS computer and for the design of the Harvest supercomputer."

SIGARCH endows the Maurice Wilkes Award, an award established to recognize computer architects early in their careers, named after one of the pioneers of computer architecture who began making significant contributions early in his career. The award is selected by a vote of the Executive Committee and Board of SIGARCH, from a list of nominees supplied by a three person nominating committee. The 2006 award went to Doug Burger of UT Austin, "For contributions to spatially distributed processor and memory system architecture."

SIGARCH also cosponsors, along with the IEEE-CS TCCA, the Influential ISCA Paper Award which is presented annually at the ISCA conference. This award recognizes the paper, presented at the ISCA conference 15 years previously, which has had the most impact on computer architecture. The fourth Influential ISCA Paper Award was presented to Pohua P. Chang, Scott A. Mahlke, William Y. Chen, Nancy J. Warter, and Wen-mei W. Hwu for their paper "IMPACT: an architectural framework for multiple-instruction-issue processors" which appeared in the proceedings of the 18th ISCA (1991).

All three awards, the Eckert-Mauchly Award, the Maurice Wilkes Award, and the Influential ISCA Paper Award were presented at ISCA 2006 in Boston, Massachusetts.

Conferences

SIGARCH is a 50% cosponsor of ISCA, the International Symposium on Computer Architecture, which is the premier conference in the field of computer architecture. The 33rd annual ISCA (ISCA 2006) was held in Boston, Massachusetts. David Kaeli was General Chair and Mateo Valero was Program Chair. ISCA 2007 is going to be part of ACM FCRC 2007 in San Diego, California, with Dean Tullsen of UCSD serving as General Chair and Brad Calder of UCSD as Program Chair. ISCA 2008 will be held in Beijing, China, with Kai Li and Jesse Fang serving as General Co-Chairs, and Wen-Mei Hwu serving as Program Chair.

The SC'XY Conference is jointly sponsored by SIGARCH and the IEEE Computer Society. Formerly known as the Supercomputing Conference, the conference has successfully evolved away from its focus on supercomputers and is now the High Performance Networking and Computing Conference. In addition to its technical success, SC'XY is large enough that it must be scheduled many years in advance. SC 2006 will be held in Tampa.

SIGARCH is a 50% cosponsor of the Conference on Architectural Support for Programming Languages and Operating Systems, commonly known as ASPLOS, along with SIGPLAN and SIGOPS. The conference has been held biannually since 1982, alternating its location between San Jose and Boston. The next ASPLOS, to be held in San Jose in 2006, will have John Shen of Intel as General Chair and Margaret Martonosi of Princeton University as the Program Chair. Starting in 2007 the conference will be held annually in different locations. ASPLOS 2007 will be held in Seattle, with Susan Eggers serving as General Chair and Jim Larus serving as Program Chair.

SIGARCH sponsors the International Conference on Supercomputing (ICS). ICS 2006 took place in Cairns, Australia in June. Greg Egan and Yoichi Muraoka were the General Co-Chairs and Stamatis Vassiliadis was the Program Chair.

The eighteenth Symposium on Parallel Algorithms and Architectures (SPAA 2006), jointly sponsored by SIGARCH and SIGACT, was held in Cambridge, Massachusetts in July. Phil Gibbons was General Chair and Uzi Vishkin was Program Chair.

SIGARCH is one-third cosponsor of the Conference on Parallel Architectures and Compiler Techniques (PACT), along with the IEEE Computer Society and IFIP, and annually held in the fall. PACT 2006 will take place in Seattle in September. Erik Altman is the General Chair, and Kevin Skadron and Ben Zorn are Program Co-Chairs.

SIGARCH also co-sponsors the Symposium on Architectures for Networking and Communications Systems (ANCS). The second ANCS, ANCS 2006, will be held in San Jose, California in October. Laxmi Bhuyan is General Chair and Michel Dubois and Will Eatherton are Program Co-Chairs. ACM SIGCOMM and the IEEE are also co-sponsoring this conference.

In addition to the above conferences, SIGARCH has taken a small sponsorship position, or in-cooperation status, with several other conferences. For the last several years SIGARCH has been a minor sponsor of the International Conference on High Performance Computing (HiPC), held annually in December and alternating between Bangalore and Hyderabad, India. SIGARCH also has a small sponsorship position in CCGrid, a conference on grid computing held annually in Japan. SIGARCH is also taking a small sponsorship position with SenSys, a conference on Sensor Systems. In addition, SIGARCH has also been in in-cooperation status with MASCOTS, IPDPS, FMGALS, and LCTES.

Travel Grants

SIGARCH annually gives travel grants to students who attend ISCA or ASPLOS. The grants are restricted to student members of SIGARCH, following several votes of the SIGARCH membership. The precise amount of the grants depends on the number of students who apply,

but we have made an attempt to give at least a little to every student coauthor who applied. SIGARCH has also funded significant education programs at SC'05 and SC'06.

Publications

CAN (Computer Architecture News), SIGARCH's newsletter, is published 4 times a year. In addition, the ISCA Proceedings form a special fifth issue, and the ASPLOS Proceedings is likewise distributed as a special issue. The newsletter consists of technical contributions, reports of panels, Internet nuggets (the most interesting or controversial articles from the comp.arch newsgroup), book reviews, and call for papers. There are occasional single topic special issues. Proceedings of SC, SPAA and ICS are available through the Member Plus program.

Finances

SIGARCH enjoys a very healthy fund balance, currently over one million dollars. SIGARCH actually loses money on each member, but makes money from conference surpluses. The SC conference often has a large surplus due to its exhibition component. SIGARCH and the SC Steering Committee have agreed that future profits from SC'XY will be in large part returned to the SC community, in the form of a series of large project-oriented grants (to be matched by the other sponsor of SC'XY, the IEEE Computer Society). In 2005 the grants provided funds for mentoring and education programs for the community.

Membership

SIGARCH membership has been essentially flat over the past several years. However SIGARCH's membership retention rate is among the highest rates of the long-established SIGs.

Summary

SIGARCH remains a financially healthy institution with an enthusiastic membership. The interest of its members can be gauged by the health of all of its major conferences in the past year. The challenges remain as they have in previous years: how to retain the members we do have, and to encourage others to join, as well as how to use our fund balance most effectively.

