

Wen-meï W. Hwu

Biosketch:

Wen-meï W. Hwu is a Professor and holds the Sanders-AMD Endowed Chair in the Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign. His research interests are in the area of architecture, microarchitecture, compilation, and algorithms for parallel computing. He is the chief scientist of Parallel Computing Institute and director of the IMPACT research group (www.impact.crhc.illinois.edu). In the MICRO community, he served as the general and program chair for MICRO-25 in 1992, served as the inaugural program chair of CGO-1, served on the MICRO and CGO steering committees for many years, and has been recognized with two inaugural MICRO Test-of-Time Paper Awards. For his contributions in research and teaching, he received the ACM SIGARCH Maurice Wilkes Award, the ACM Grace Murray Hopper Award, the IEEE Computer Society Charles Babbage Award, the ISCA Influential Paper Award, the IEEE Computer Society B. R. Rau Award and the Distinguished Alumni Award in Computer Science of the University of California, Berkeley. He is a fellow of IEEE and ACM. He directs the IBM-Illinois Center for Cognitive Computing Systems Research, UIUC CUDA/GPU Center of Excellence and serves as one of the principal investigators of the NSF Blue Waters Petascale supercomputer. Dr. Hwu received his Ph.D. degree in Computer Science from the University of California, Berkeley.

Position Statement:

I am running for Chair of TCuARCH because I have been part of the microarchitecture community for 32 years, appreciate greatly all the good that TCuARCH has done during that period, but recognize there is still much work to be done, and would like to lead it.

TCuARCH, together with SIGMICRO, has been at the forefront of launching and improving conferences for decades. Since its inception in 1967, MICRO has evolved from a workshop on microprogramming to a major international conference where microarchitecture and compiler researchers attended each other's sessions before hardware-software co-design became a buzzword. In 2003, TCuARCH helped launch CGO, a unique forum dedicated to researchers working on compile-time and run-time code generation and optimizations that are close to the hardware. More recently, MICRO led the broader computer architecture community in several ways: providing program committee discussion summaries to paper authors, the lightning session, and the revision process. Many of these have been or are being adopted by ISCA, ASPLOS, and HPCA.

Over the years, TCuARCH has refrained from over-burdening MICRO with rules and helped MICRO organizers to experiment with various new directions. In 1992, the MICRO steering committee appointed me, then a newly tenured associate professor, to chair the organization committee and the program committee. Many senior people in the community worked with me to officially transition MICRO into a full-scale conference with broader inclusion of the instruction-level parallelism researchers. The philosophy of innovation and empowerment has paid off. MICRO has been consistently growing. In 2017, MICRO had a record number of submissions and the highest attendance ever.

If I am elected TCuARCH chair, I will focus my efforts on three key issues.

- I will work with the MICRO Steering Committee and Organizing Committees to develop new mechanisms, employ appropriate technology, and try out new ideas to make the review process even more transparent and more fair, improve the accountability of the reviewers, recognize good reviewers, and through this, try to ensure that the conference is accepting the best papers to improve the field.
- I will further improve the diversity of the community by providing TCuARCH support for people from many different intellectual, geographical, gender, and social backgrounds and people with different constraints. For example, I will work to provide better accommodation for participants with disabilities, enable child care during meetings, run workshops that help first-time attendees get familiarized with the review process, and help students to explore various career opportunities.
- I will increase the global reach of TCuARCH by making it more inclusive and representative of the broad microarchitecture community. I will encourage contributions from many countries of the world, renew and diversify the TCuARCH/MICRO management with contributors that care about the conferences such that the community becomes stronger while preserving its innovative spirit.

Some have proposed to disband TCuARCH and merge MICRO/CGO into the TCCA portfolio. I have served as general chair and program chair of both ISCA and MICRO. After carefully considering their proposal, I have concluded that disbanding TCuARCH and putting both ISCA and MICRO in the hands of the same organizations will weaken our community by eliminating an important venue of innovation. Furthermore, starting this year, individual IEEE Technical Committees will have their own financial reserves. Disbanding TCuARCH will necessarily reduce the level of such funds available to our community and make the broader community weaker, not stronger.

As a long-time member of the MICRO/TCuARCH community who has published 30 papers in MICRO over the years and cares deeply about the future of our community, I would like to have the opportunity to work with all of you to bring our community to the next level. I strongly believe that we grow stronger by preserving and growing the innovative spirit of our community as we address the opportunities and challenges we are facing. I ask for your support.