CODES and Co-Design: A Look Back and a Look Forward

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A Look Back

Embedded computing systems have, of course, been around since the 1970’s and the introduction of the microprocessor. These earliest embedded systems required hand-crafting because resources were so tight. However, even in the 1980’s, high-performance processors were available for embedded applications. These high-performance processors were powerful enough to ignite interest in more automated design methods.

The first CODES was held in 1993 in Estes Park, Colorado. As the program chair, my most important job was to convince people to come to the workshop. I spent a great deal of time talking to different people in various research communities about the workshop and co-design. Although I don’t remember the exact attendance numbers, the first workshop was very well attended and we had many lively discussions. Let the record show that one of the major topics of discussion was benchmarks. Everyone agreed that we needed realistic benchmarks. Unfortunately, we are still trying to solve that problem.

The workshop grew quickly, with the second one being held in Boston. CODES then merged with the CASHE workshop, which had been held in Europe, to form the CODES/CASHE workshop, held after EuroDAC in Grenoble.

A Look Forward

Today, embedded computing is seen as a central topic in computer engineering and computer systems research. The field of people who label themselves as working in co-design or embedded computing has grown enormously. While CODES started out as a relatively small community, that community is now part of a much larger embedded systems community. While the growing recognition of the importance of co-design validates the field, it also means that the workshop must adapt to this new, larger world of embedded computing.