SRC's role in semiconductor industry transition

The transition now occurring in the semiconductor industry points out the need for US companies to rethink their attitudes in order to remain competitive, according to Larry W. Sumney, president of Semiconductor Research Corporation.

In a recent issue of the SRC Newsletter, Sumney cited the ever-increasing rate of change in information technology and the merging of the four-tier structure of materials, components, equipment, and systems into a one- or two-tier continuum among the evidence that the current industry structure may be radically different following the next industry downturn.

Noting that US firms have traditionally declined to share data that they considered proprietary, Sumney indicated that such sharing in other nations has allowed foreign companies to advance rapidly, threatening US leadership in the industry.

High domestic labor costs, lack of funding for university programs, and limited funds for R&D have also contributed to the problem.

“Something has to change in the United States if we are to continue leadership in ICs, with all of the implications of this leadership, as the world moves toward an information-based economy,” he wrote.

That change is SRC’s goal— one the organization hopes to achieve, in part, through expanding its role as a cooperative research mechanism. University participation is providing an increasing flow of information that is being passed along to the more than 60 companies affiliated with the SRC. Such research provides both well-trained graduates and a variety of short-term products.

Results from SRC research are immediately available to members and in time become generally available, according to Sumney. If other information can be shared as well, the SRC could act as a catalyst, also providing both the repository and distribution system.

Another possible role is knowledge enhancement: enabling the more efficient use of existing information, he noted. This goal could be accomplished by establishing both general and specific databases even more powerful than those now maintained by the organization. Such an undertaking, he warned, would challenge system architects working on the organization and retrieval strategy.

The SRC could also provide member forums for technology assessment or for discussion of issues facing the industry, Sumney wrote. The organization has already organized a technology assessment meeting that examined the status of three current technical areas. In a separate project, mutual interests in manufacturing tools are being discussed in order to identify recommendations to members concerning actions designed to benefit both them and the US industry.

Such new roles, the president noted, are complementary to those already being played by existing organizations serving the semiconductor industry.

“As the semiconductor industry develops toward the $100 billion markets of the future, there is little doubt that substantial changes will be occurring,” Sumney wrote. “The SRC expects to mature in its activities and to be a major contributor to the industry and to the maintenance of a strong competitive position for its members in this industry. Our inexorable conviction is that the continued success of this industry is key to the success of the United States as we move into the information age.”

Honeywell opens Microtechnology Center

Honeywell has opened a new Microtechnology Center that will specialize in using VHSCIC-level technology to design products for large-scale logic systems. The Center, an operation of Honeywell’s Solid State Electronics Division, initially will employ about 40 people. Robert M. Sullivan has been named director.

The new facility is located in Phoenix, Arizona, to take advantage of the broad systems knowledge and skills developed in the parent firm’s Phoenix-based Large Systems Division, according to a spokesperson.

Services offered by the Microelectronics Center will include systems and logic design, DA development, and multichip packaging as well as application and test capabilities.

These services will be available to other Honeywell divisions and to the external market through the corporation’s Digital Product Center in Colorado Springs, Colorado. The Digital Product Center was established two years ago to provide high-performance semicustom and radiation-hardened digital ICs to the merchant market.

Erratum

Figure 17 of Manuel d’Abreu’s tutorial, “Gate-Level Simulation,” appeared incorrectly in the December, 1985 issue of Design and Test. The corrected figure appears below.

![Figure 17. Timing diagrams.](image-url)