The Linguistics of Design and Test

Hardware description languages are crucial to the design and test of hardware. They allow incremental development of designs, store design data, communicate those data between various design activities, and, most importantly, allow computers to perform design tasks. Past developments in HDLs have been fragmented among various research and user organizations. For the first time, a coordinated effort of considerable magnitude has been put together to develop the VHSIC Hardware Description Language (VHDL) and the results, we believe, should be made widely available. With this motivation, we bring this special issue to our readers.

A review of VHDL by the design and test community is particularly important at this time in view of the IEEE's current standardization effort through its Design Automation Standards Subcommittee. We could not have found a better guest editor than Ron Waxman, who is actively involved in VHDL development, as well as in HDL standardization. I thank Ron for taking this responsibility and have the greatest admiration for his work on this issue.

Many of our readers are familiar with the activities of the Test Technology Technical Committee of the IEEE Computer Society. They recently proposed merging their newsletter with the D&T. We agreed and our readers can now look for the Test Technology Newsletter material in D&T under various departments (Scene, Conferences, New Products, Research, Standards and Book Reviews.) Fortunately, we have Marc Harrison, the former newsletter editor, joining us to take care of this matter. We welcome Marc to our Editorial Board.

We also welcome Hideo Fujiwara of Meiji University who, starting with this issue, joins our Editorial Board to strengthen our Far East staff.

Gordon Padwick, who has very ably edited D&T Scene, has transferred that responsibility to Marc Harrison. As you perhaps know, Gordon is program vice-chairman for the 1986 International Test Conference. In spite of his busy schedule, he has kindly agreed to stay with us for special assignments, so he will remain a member-at-large of the board.

Finally, three of our editors, Art Fitch, John Hennessy, and Hillel Ofek, are leaving us after completing their two-year terms. We thank them for their contributions to the magazine. In particular, we will long remember our premiere issue, February 1984, to which all three contributed greatly, and which was guest edited by Hillel Ofek.

I think I have said enough. So now read about VHDL and then get ready for Workstations, in the next issue.

Vishwani D. Agrawal
Editor-in-Chief