THE TTTC AWARDS PROGRAM sponsored a technical forum on “Meeting Time to Volume Challenges,” 10 to 11 November 2005, in conjunction with the International Test Conference. The forum was organized in honor of Sudhakar M. Reddy of the University of Iowa, who over the course of his illustrious career made seminal contributions to the field of testing.

The forum featured several luminaries from industry and academia as speakers, with more than 80 participants attending. The presentations featured the history of development in semiconductor testing as well as visions for future research. The talks were insightful and provocative, blending references to Reddy’s past contributions with exhortations to researchers on where their focus should be.

The semiconductor industry has followed Moore’s law faithfully over the past four decades but is showing pangs of maturity. Extreme process variation, circuit and design marginality problems, manufacturing issues, problems with managing ultra-large designs, difficulty in modeling power, and thermal problems have designers boxed in.

Mel Breuer called for resilient designs to manage and coexist with errors. Ravi lyer showed that the problems with system errors do not stem from hardware alone and talked about the importance of recovery mechanisms for building robust systems. Tom Williams, fellow and director of R&D at Synopsys, and Janusz Rajski, chief scientist at Mentor Graphics, recounted the history of development in the test area and listed the future CAD challenges that lie ahead. Peter Harrod of ARM; C.P. Ravikumar of Texas Instruments, India; and Rajesh Galivanche of Intel discussed the challenges that their respective companies face. Yasuo Sato of Starc made an excellent presentation giving an overview of DFT research in Japan. James Smith of the University of Wisconsin-Madison provided a mini-overview of virtual machines and how they are being used. The speakers provided valuable insight with their international views—especially Ravikumar on technology developments in India, and Sato on technology developments in Japan.

The forum featured a banquet hosted by Charles R. Kime of the University of Wisconsin-Madison. Speakers included Janak Patel, John Hayes, Dong S. Ha, Takahashi Nanya, Kozo Kinoshita, Jon Kuhl, Sandeep Gupta, Hank Walker, Miron Abramovici, Wu-Tung Cheng, Subhasish Mitra, Badru Agarwal, and Rajesh Galivanche. They humorously recalled their associations with the honoree and paid their tributes to him. Reddy’s family members also graced the event.


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