From the EIC

Welcome to *D&T*

Welcome to the first issue of *D&T* in 2002, our nineteenth year in your service. As microelectronics advances unfold into ever-increasing capabilities and subsequent processes, so do the design and test technology challenges. *D&T* has assumed an important role in helping the profession find state-of-the-art solutions and engineering best practices to meet these challenges. We will continue to bring you timely, technically solid contributions—from hot topics to advances in engineering practices—with a clear eye toward serving our community's evolving needs. Our magazine fills this role with special care. Besides being peer reviewed, each article is edited by a professional staff trained to ensure succinctness and readability to a broad audience. Without a dedicated editorial board, a highly trained editorial staff, and your active support in providing quality and timely articles, we could not succeed.

For the past four years, I've had the distinct honor of working with Yervant Zorian, our outgoing EIC, in shaping *D&T* into an indispensable resource for today's microelectronics professionals. I'm happy to report that Yervant will stay on as Editor-in-Chief Emeritus. During these years, *D&T* has developed relationships with key organizations such as TTTC, DATC, and CANDE, and with organizing committees for major events such as ITC, DAC, and DATE. Our special issues have educated readers on the major technical themes covered by these organizations and events. In that light, Yervant will lead the newly launched D&T Alliance Program. DTAP will build, monitor, and manage the magazine's relationship with important industry events and communities represented by existing and upcoming societies within the IEEE and the ACM. This effort recognizes the diverse societies and groups that house microelectronics professionals, particularly those in the design and design automation communities.

In addition, Tony Ambler and Bill Mann will join the *D&T* advisory board to continue to help guide the magazine in its initiatives and services, and Magdy Abadir, Dimitris Gizopoulos, Fabrizio Lombardi, Alex Orailoglu, Paolo Prinetto, and Anand Raghunathan will join the editorial board. Finally, I thank four area editors for their contributions to *D&T*: Abhijit Chatterjee, Luc Claesen, Benoit Nadeau-Dostie, and Janusz Rajski, who have completed their terms of service on the editorial board.

This issue concludes the theme of application-specific SoC multiprocessors, which began in the Sept.-Oct. 2001 issue, with two more articles: One addresses multiprocessor system design for video applications; the other, test strategies for an on-chip multiprocessor architecture. This issue also includes an article on test economics, from the special ITC issue, which introduces new models to evaluate the impact of multiple DFT tradeoffs. In addition, there are three nontheme articles. The first tackles the problem of diagnosis in random logic blocks using scan-based built-in self-test, and provides a novel solution using deterministic partitioning. The second concerns fault modeling. The third addresses the challenging problem of testing high-speed serial interfaces. Finally, this issue includes a comprehensive perspective article by Philippe Magarshack on design quality, based on his keynote speech at the 2001 International Symposium on Quality Electronic Design. I thank all the authors and associate editors who contributed to this issue. I hope you enjoy it.

Rajesh Gupta
Editor in Chief
IEEE Design & Test of Computers

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