Welcome to VTS 2005, the twenty-third in a series of annual symposia that focus on innovation in the field of testing of integrated circuits and systems.

The core of VTS 2005, the three day technical program, responds to the many trends and challenges in the semiconductor design and manufacturing industries with papers covering the following topics among many others: Defect-oriented test methodologies address the need to provide test solutions for improved yield. Test data compression methodologies for test and diagnosis address the ever-increasing ATE costs. Reliability solutions are explored to address decreasing hardware reliability in new technologies. Memory testing and built-in self-test methodologies address the increasing importance of memory testing and repair in nanometer technologies. Testing of special structures includes MEMS and FPGAs.

In addition to the three-day technical program, VTS 2005 features a keynote address and an invited keynote, special sessions, and the Innovative Practices track. This track highlights cutting-edge challenges faced by test practitioners, and innovative solutions employed to address them. Full-day tutorials and workshops are also held in conjunction with VTS 2005. The three tutorials are offered by the TTTC Tutorials & Education Group through the Test Technology Education Program (TTEP). The tutorials provide opportunities for design and test professionals to update their knowledge-base in test, and earn official IEEE TTTC accreditation. Three day-long TTTC workshops will be held in conjunction with VTS 2005.

In addition, VTS 2005 will host a number of standardization Working Groups and IEEE Fringe Meetings. The VTS 2005 program thus addresses a wide range of interests, including basic and continuing education for test professionals, the latest research developments, new directions and hot topics in test, and expert perspectives on current issues.

After five years of the Test Resource Partitioning (TRP) Workshop, we are delighted to welcome the TRP community into VTS. The TRP committee has decided that the area has reached a level of maturity where it is appropriate to merge the workshop with VTS this year. We would like to thank the TRP committee for helping to enhance the VTS program with an Innovative Practices session, a panel session, as well as technical papers in the areas traditionally covered by the TRP workshop.

The social program at VTS provides an opportunity for informal technical discussions among participants. Palm Springs, California, provides a very attractive backdrop for all VTS 2005 activities.

VTS is the result of the work of many dedicated volunteers: the reviewers, the best paper award judges, the Program Committee, the Organizing Committee, and the Steering Committee. We wholeheartedly thank them all. We also wish to thank all the authors who submitted their work to VTS 2005, and the program participants for their contribution at the symposium. Finally, we thank the IEEE Computer Society Test Technology Technical Council for their continued sponsorship and support.

We hope that you will find VTS 2005 enlightening, thought-provoking, rewarding, and enjoyable.

Sujit Dey, General Chair
Irith Pomeranz, Program Chair