Challenges for test and design for test

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ABSTRACT

If test is mentioned normally there are several remarks that have been repeated for the last 20 years. ICs are too fast, patterns are too big, testing is too slow, the test development too costly. Although, the advance of the technology has improved test in general, these statements seems to prevail and sound still valid. One reason is that on every improvement of test strategies there is also improvement of technology and design strategy that keeps the gap open. On the other hand ATE equipment inevitably is build with one generation older technology that keeps the challenge of speed noise and complexity alive.

In this presentation the following few challenges for test will be further discussed. How is evolving the gap between test methods tools and equipment on one side and technology, design methodology and design tools on the other? How is evolving the cost of production test equipment and as consequence the cost of test? Is there change in the cost of test development? What about high quality and reliability application testing? And last but not least what about research in the test domain during economic crisis.

Anton Chichkov graduated in 1990 in VLSI design at the Technical University of Sofia, Bulgaria. He has worked as ASIC designer in automatic test equipment (ATE) development team. In 1998 he received the Ph.D. in Electronics and Computer Science from the Technical University of Lisbon Thesis was in the field of Hardware Software co-design methods and corresponding development tools. He has worked as test engineering and test methodology manager in Alcatel Microelectronics, AMI Semiconductor and ON Semiconductor. He has earned several publications in high speed ASIC’s design, ASIC emulation techniques, HW/SW co-design, industrial test methods and test development automation. Holds patent on automatic test program generation methods and tools.