The papers presented in this book have been revised from the original submissions to the Fourth IEEE International Workshop on Microprocessor Test and Verification (MTV), held in Austin, Texas in 2003 and sponsored by IEEE Computer Society Test Technology Technical Council (TTTC).

The topic area, applications of verification, validation and test to complex electronic circuits at all levels, has blossomed considerably since the first workshop was held in 1999. The scope of the workshop has expanded beyond just microprocessors to include all types of complex integrated circuits and Systems-on-Chip (SOCs). This workshop was certainly the most successful one of the series so far, and we would like to thank all participants who contribute to this 2-full-day event.

Most design experts have recognized functional verification as a key challenge facing designers of complex SOCs and microprocessors. This is reflected in a record number of papers in this year’s MTV addressing issues related to functional verification, including test-cases generation, assertion-based verification, coverage, satisfiability, simulation, and debug. Functional verification and testbench generation is one synergic area that has been impacted significantly by both test and verification techniques. This area will continue to be a key focus of future MTV events.

This year, MTV received a record number of submissions. These papers cover a broad range of applications and analysis that we feel will be of great interest to the reader. To encourage industrial experts to openly discuss their current practice, we did not request written paper publication for every presentation. Hence, this proceeding includes only the selected papers contributed by the authors and presenters. We will continue to adopt this strategy in order to encourage industrial participants to share with their experience and results via the MTV forum. Interesting readers who want to learn more about the current industrial practice can consult the MTV web site for future event dates.

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