

Preface

The purpose of this book is to provide a practical approach to managing security in FPGA designs for researchers and practitioners in the electronic design automation (EDA) and FPGA communities, including corporations, industrial and government research labs, and academics. This book combines theoretical underpinnings with a practical design approach and worked examples for combating real world threats. To address the spectrum of lifecycle and operational threats against FPGA systems, a holistic view of FPGA security is presented, from formal top level specification to low level policy enforcement mechanisms, which integrates recent advances in the fields of computer security theory, languages, compilers, and hardware. The net effect is a diverse set of static and runtime techniques that, working in cooperation, facilitate the composition of robust, dependable, and trustworthy systems using commodity components.

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