2017 IEEE North Atlantic Test Workshop (NATW 2017)

Providence, Rhode Island, USA 8-10 May 2017



IEEE Catalog Number: CFP17NAT-POD ISBN: 978-1-5090-5903-4

Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP17NAT-POD

 ISBN (Print-On-Demand):
 978-1-5090-5903-4

 ISBN (Online):
 978-1-5090-5902-7

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



TABLE OF CONTENTS

Case Study of Bandwidth Management in SoC Testing	
Y. Huang	
Peer Pressure on Identity: On Requirements for Disambiguating PUFs in Noisy Environment	
P. Ramesh, V. Patil, S. Kundu	
Manufacturer Turned Attacker: Dangers of Stealthy Trojans Via Threshold Voltage Manipulation	11
V. Patil, A. Vijayakumar, S. Kundu	
Mitigating Simple Power Analysis Attacks on LSIB Key Logic	17
S. Gupta, J. Dworak, D. Engels, A. Crouch	
An Enhanced Approach to Reduce Test Application Time Through Limited Shift Operations in Scan	
Chains	23
K. Poulos, J. Kuchi, T. Haniotakis	
Detecting a Trojan Die in 3D Stacked Integrated Circuits	27
S. Ālhelaly, J. Dworak, T. Manikas, P. Gui, K. Nepal, A. Crouch	
Author Index	