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Call for Papers

11th International Workshop on Constructive Side-Channel Analysis and Secure Design

COSADE 2020

Lugano, Switzerland, 1. - 3. April 2020

http://cosade.org

Side-channel analysis (SCA) and implementation attacks have become an important field of research and real threat. In order to enhance the resistance of cryptographic and security critical implementations within the design phase, constructive attacks and analyzing techniques may serve as a quality metric to optimize the design and development process. Since 2010, COSADE provides an international platform for researchers, academics, and industry participants to present their work and their current research topics.

The program committee is seeking original papers on all aspects of the sidechannel analysis and other implementation attacks as well as secures design. Submission presenting practical attacks, test platforms, and open benchmarks are particularly encouraged. Submission topics include, but are not limited to:

• Implementation attacks and exploitations:

Side-channel analysis, fault-injection attacks, probing and read-out, hardware Trojans, cloning and counterfeiting, side-channel or fault-injection based reverse engineering

• Secure implementation:

Cryptographic blocks (including post-quantum and lightweight ciphers), random number generators, physical unclonable functions, leakage-resilient cryptography, fault-injection tolerant design, and tamper-detection

• Implementation attack-resilient architectures and schemes:

Trusted environment (Secure boot, execution, storage, isolation, virtualization, firmware update), protections against micro-architectural side-channels and covert channels, cache attacks, software-enabled implementation attacks, white-box cryptography

• Secure design and evaluation:

Security and leakage models, formal analysis of secure implementations, design automation and tools, evaluation tooling, domain-specific security analysis of e.g., IoT, medical, automotive, industrial-control systems, mobile, security analysis based on artificial intelligence

• Practical attacks, test platforms and open benchmarks:

Practical implementation of physical attacks, practical demonstrators of Trojan insertion, test platforms for evaluation of physical attacks, open benchmarks for hardware Trojans, physical attacks and countermeasures.

Authors are invited to submit papers (PDF format) electronically by the submission link: https://www.easychair.org/conferences/?conf=cosade20

Submitted papers must be original, unpublished, anonymous and not submitted to journals or other conferences/workshops that have proceedings. Submissions must be written in English, strictly follow Springer LNCS format (with default margins, font size, etc.) and should be at most 20 pages, excluding references. Papers not meeting these guidelines risk rejection without consideration. All submissions will be blind-refereed. Submission implies the willingness of at least one of the authors to register and present the paper. The proceedings will be published in the Springer Lecture Notes in Computer Science (LNCS) series. Accepted papers must follow the LNCS author instructions at: http://www.springer.de/comp/lncs/authors.html

Important Dates

Submission of papers: 7th December 2019

Notification of acceptance: 30th January 2020

Final version of papers: 15th February 2020

Workshop date: 1rd - 3th April 2020