

FDTC 2017: Final Program (PDF)

08:45 – 09:05 Registration and Early Morning Break

09:05 – 09:15 Opening remarks

Keynote Talk I

Chair(s): Program Chairs

09:15 – 10:00 Hardware security and trust: where we are and where we should go
Giorgio Di Natale (LIRMM)

Session 1 – System-Level Fault Attacks

Chair: Elif Bilge Kavun (Infineon)

10:00 – 10:25 Escalating privileges in Linux using voltage fault injection
Niek Timmers and Cristofaro Mune

10:25 – 10:50 Safety != security. On the resilience of ASIL-D certified microcontrollers against fault injection attacks
Ramiro Pareja, Nils Wiersma and Marc Witteman

10:50 – 11:10 Morning break

Session 2 – Fault Attacks on Primitives

Chair: Erich Wenger (Infineon)

11:10 – 11:35 Practical fault attack against the Ed25519 and EdDSA signature schemes
Sylvain Pelissier and Yolan Romailer

11:35 – 12:00 One plus one is more than two: a practical combination of power and fault analysis attacks on PRESENT and PRESENT-like block ciphers
Sikhar Patranabis, Jakub Breier, Debdeep Mukhopadhyay and Shivam Bhasin

12:00 – 12:25 A practical fault attack on ARX-like ciphers with a case study on ChaCha20
S.V. Dilip Kumar, Sikhar Patranabis, Jakub Breier, Debdeep Mukhopadhyay, Shivam Bhasin, Anupam Chattopadhyay and Anubhab Baksi

12:25 – 13:30 Lunch

Session 3 – Laser Fault Attacks

Chair: Michael Hutter (Cryptography Research)

13:30 – 13:55 Laser-induced fault injection on smartphone bypassing the secure boot
Aurélien Vasselle, Hugues Thiebauld, Adèle Morisset, Quentin Maouhoub and Sebastien Ermeneux

13:55 – 14:20

- 13:55 – 14:20 Exploiting bitflip detector for non-invasive probing and its application to ineffective fault analysis
Takeshi Sugawara, Natsu Shoji, Kazuo Sakiyama, Kohei Matsuda, Noriyuki Miura and Makoto Nagata

Session 4 – Design Tools

Chair: Shivam Bhasin (NTU)

- 14:20 – 14:45 CAMFAS: a compiler approach to mitigate fault attacks via enhanced SIMDization
Zhi Chen, Junjie Shen, Alexandru Nicolau, Alexander V. Veidenbaum, Rosario Cammarota and Nahid Farhady Ghalaty
- 14:45 – 15:10 AutoFault: towards automatic construction of algebraic fault attacks
Jan Burchard, Maël Gay, Ange Salome Messeng Ekossono, Jan Horacek, Bernd Becker, Tobias Schubert, Martin Kreuzer and Ilia Polian
- 15:10 – 15:30 Afternoon break

Panel

Moderator(s): Program Chairs

- 15:30 – 17:00 Controlled fault injection: wishful thinking, thoughtful engineering, or just luck?
Johann Heyszl (Fraunhofer AISEC), Marc Joye (NXP Semiconductors), Ilia Polian (University of Passau), Marc Witteman (Riscure), Ingrid Verbauwhede (KU Leuven)
- 17:00 – 17:10 Closing remarks and Farewell