CARDIS 2022 - Call For Papers

CARDIS has been the venue for security experts from industry and academia to exchange on security of smart cards and related applications since 1994. Smart cards play an increasingly important role in our day-to-day life through their use in banking cards, SIM cards, electronic passports, and IoT devices. It is thus naturally of utmost importance to understand their security features and to develop sound protocols and countermeasures while keeping reasonable performance. In this respect, CARDIS aims to gather security experts from industry, academia, and standardization bodies to make steps forward in the field of embedded security.

The 21st edition of CARDIS is organized by the Centre for Cyber Security and Privacy of the University of Birmingham, UK. CARDIS 2022 will be accompanied by a one-day Fall School event, with more details to be announced.

The program committee is seeking original papers on the design, development, deployment, evaluation, penetration testing and application of smart cards and secure embedded systems. Submissions across a broad range of the development phase are encouraged, from exploratory research and proof-of-concept studies to practical applications and deployment. Topics of interest include, but are not limited to:

Security and applications of:

- Smart cards: identification, access control, pay TV
- IoT devices: automotive, medical, mobile payment, mobile connected devices
- Trusted computing: mobile TPM, Trusted Execution Environments
- Embedded systems: operating systems, memory, virtual machines;
- Machine learning for embedded system applications

Tools:

- Automated analysis
- Formal verification and secure design
- Machine learning analysis

Cryptographic implementations of:

- Lightweight cryptographic algorithm
- Post-quantum cryptographic algorithms
- Random number generators, PUFs
- White-box cryptography

Attacks and countermeasures:

- Side-channel (timing, power, cache) attacks and countermeasures
- Fault and combined attacks and countermeasures
- Reverse engineering, (anti-)cloning, (anti-)tempering, (anti-)counterfeiting

Paper submission

Authors are invited to submit papers electronically in PDF format using the submission form available on https://easychair.org/conferences/?conf=cardis2022. Submissions must be original, unpublished, anonymous and not submitted to journals or other conferences with proceedings. Submissions must be written in English and should be at most 20 pages in total (including references and appendices). 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. Both submissions and accepted papers must follow the LNCS default author instructions accessible on the Springer webpage: https://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines.

UNIVERSITY OF BIRMINGHAM | CENTRE FOR CYBER SECURITY AND PRIVACY

Lecture Notes in Computer Science
LNCS LNAI LNBI

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Important Dates

- Submission deadline: **June 24, 2022**
- Notification of acceptance: **September 06, 2022**
- Pre-proceedings paper due: **September 26, 2022**
- Conference dates: **November 07-09, 2022**
- Final version due: **November 25, 2022**

All deadlines are 23:59:59 Anywhere on Earth (AoE).

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Organization

General Chair: David Oswald, University of Birmingham, UK
Program Chairs: Ileana Buhan, Radboud University, NL
Tobias Schneider, NXP Semiconductors, AT

Important notice

In view of the current coronavirus disease (COVID-19) situation, CARDIS 2022 will be either a virtual conference or a hybrid conference with a physical meeting.